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CONTENTS

| | |
|---|-----|
| IMPLICATIONS OF COVID-19 CRISIS ON SUPPLY CHAIN MANAGEMENT Lidija PULEVSKA IVANOVSKA, SASHO JOSIMOVSKI, MARIJA NESTOROVSKA | 3 |
| RESIDENTIAL HEATING WITH WOOD AND WOOD PELLETS: LIFE CYCLE COST ANALYSIS AND AIR QUALITY IMPACTS Sandra SPIROVA, Aneta VASILJEVIC-SHIKALESKA | 15 |
| ENTREPRENEURSHIP AND BRAIN DRAIN MUTUAL EFFECT IN THE CASE OF THE REPUBLIC OF N. MACEDONIA Hristina SERFIMOVSKA, Marija APOSTOLOVA NIKOLOVSKA | 25 |
| SUSTAINABILITY OF INTEGRATED FINANCIAL REGULATION AND SUPERVISION IN THE EUROPEAN UNION Sulejman AHMEDI | 43 |
| DISTANCE LEARNING IN AN ELECTRONIC ENVIRONMENT DURING THE COVID-19 PANDEMIC Nikolina MAREVA, Ratka TOSHEVA | 55 |
| DIGITAL ENTREPRENEURSHIP THROUGH SOCIAL MEDIA FOR START-UP BUSINESSES IN THE REPUBLIC OF NORTH MACEDONIA Tea JOSIMOVSKA, Ana JOSIMOVSKA, Fani MATESKA PEROSKA, Martin KISELICKI.... | 64 |
| WINE SECTOR ANALYZED THROUGH PESTLE ANALYSIS AS A PART OF THE STRATEGIC MANAGEMENT David SALTAMARSKI | 75 |
| STRENGTHEN THE RULE OF LAW BY CHANGING THE INSTITUTIONAL FRAMEWORK FOR COMBATING CORRUPTION Gjorgji SLAMKOV | 87 |
| GENDER POLICY IN INSURANCE COMPANIES IN THE REPUBLIC OF NORTH MACEDONIA Sulejman AHMEDI | 105 |
| THE CHARACTERISTICS OF PUBLIC SPACE AND URBAN STREETS AND THEIR IMPACT ON PERCEPTION AND FEELINGS OF THE PARTICIPANTS Sasho BLAZEVSKI, Ivona MILEVA, Marjan BOJADZIEV | 122 |

IMPLICATIONS OF COVID-19 CRISIS ON SUPPLY CHAIN MANAGEMENT

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ABSTRACT

Pandemics cause chaotic situations in supply chains around the world, which can lead to survival challenges. The current Covid-19 pandemic is an unforeseen humanitarian crisis that is seriously affecting the global dynamics of all businesses. Also, in the past, the emergence of various epidemics caused great weaknesses for businesses.

Due to such phenomena, the introduction of strategies for prevention against organizational disorders should be established to create clear signposts and vigilant conceptualization. In this regard, there is a need to explore supply chain management and operations strategies to overcome the challenges posed by Covid-19-like situations.

This research is done in order to understand the strategies created to measure the sustainability of supply chains in companies, the impact of the pandemic crisis on the business environment, in terms of effective allocation of resources, supply and demand disruptions and optimization of the transportation network, i.e. the overall operation of all links in a single supply chain.

KEYWORDS: Pandemic, strategy, supply chain, pandemic crisis

JEL CLASSIFICATION: M10, M11

1. INTRODUCTION

Risks of supply and demand uncertainty are associated with accidental uncertainty and the usual situation. Such risks are also known as recurrent or operational risks. Supply chain managers significantly improve global chain management and mitigate recurring supply chain risks through improved planning and execution (Chopra and Sodhi, 2014). Research on supply chain risk focuses primarily on operational risks that jeopardize investment in supply chain reserves and costs (Sodhi et al., 2012). Risks are considered to be low frequency events, but with a strong impact on the supply chain that affect the structural design, change it and significantly affect performance (Dolgui and Battaia, 2018).

The COVID-19 pandemic is changing the business environment of many organizations around the world and highlighting the importance of being able to respond, adapt and set up crisis management mechanisms. According to Wyman (2020) research on the impact of the pandemic on supply chain management, their disruption and anticipation of changes that may occur and bring uncertainty to the working atmosphere of enterprises, supply chain disruptions that are sudden in the beginning, as well as those that are currently emerging as a result of COVID-19, pose a series of challenges for companies. Current events reveal weaknesses in global supply and many companies are struggling with a range of supply problems. Dealing with a supply chain crisis requires immediate response and understanding of supply chain exposure, as well as securing supply. It is also crucial that the organization has the skills and abilities to respond effectively, in terms of having trained response teams and being able to help systems and resources address issues outside the organization. Real mitigation will mean strengthening the ability of teams to make and implement decisions and take swift action guided by strong and systematic plans. The pandemic scenario that the world is currently facing contributes to highlighting some of the fundamental characteristics of international supply chains and the professionals who work in them. First, the network economy, with its high degree of division of productive activities globally, is a source of vulnerability for the world economy. Most large, international corporations know exactly where their products are located and usually think that they should not be exceeded, given that there is a normal fluctuation of demand and supply that does not take into account unforeseen situations. Second, supply chain managers are proving their adaptability to challenging conditions.

Logistics are proving to be a crucial factor for the global production system even during the shock of the crisis. In Italy, France and Spain, they quickly adapt their functions, such as execution, planning and support, to work from home, following the recommendations of European governments. Transport and storage services are provided across European countries, even if operations become slower and more difficult to maintain. Delays and cancellations of delivery cause problems for 66% of German and at least 28% of Italian companies (Bouzeid, 2020). Although there is a surge in demand at the beginning of the crisis, the largest road trade associations believe that there is a short decline of 25% to 30% in the activity, compared to the usual levels, due to falling demand and difficulties in international transport, coming from the rise of border controls and health checks, creating queues of tens of kilometers (Ivanov, 2020).

METHODOLOGY

Data for the purposes of the research in the paper is obtained from the used literature, as well as from the primary research. For this purpose, several scientific research methods have been used. Within the paper, the two basic methods, inductive and deductive, are also used in formulating conclusions and recommendations. The comparative method was used in the analysis of the answers from the conducted questionnaire. In part of the paper, an empirical analysis of the questionnaires was performed, ie the primary data obtained from the survey questionnaire, using quantitative and statistical analysis, ie using the quantitative method and methods of statistical analysis, such as descriptive statistics, statistical grouping. of data and graphical display of data. Furthermore, basic analytical methods are used, such as the method of analysis (analysis of all selected materials from domestic and foreign literature), the method of specialization (creating own views based on the read literature), the method of deduction (from general findings to specific and individual findings, in relation to labor needs) and the synthesis method. In order to fulfill the basic goal and the set secondary goals, as well as the full scope of the research subject, a combination of several basic quantitative and qualitative methods for data collection and processing is used in the preparation of the paper. The survey questionnaires were conducted in the period January - April 2021. The respondents are managers and/or

owners of private small and medium enterprises in several cities in the Republic of Northern Macedonia.

LITERATURE REVIEW

The goal of Supply Chain Management (SCM) is to seamlessly integrate information and material flow into the supply chain as an effective competitive weapon. According to Mentzer et al. (2016), "Supply Chains are a set of three or more entities (organizations or individuals) that are directly involved in the up and down flows of products, services, finance and / or information from source to customer." Supply Chain Management covers the active management of such activities and relationships in order to gain a sustainable competitive advantage and maximize customer value by optimizing the supply chain in the most effective and efficient way. To be successful, organizations are required to carefully manage their operations by planning, scheduling, and controlling supply chain activities (Bozarth and Handfield, 2016). The supply chain management literature focuses on three modes of action / operation, which are of great importance for the success and future of supply chains in order to prevent supply chain disruptions and ensure risk mitigation. Supply chain disruptions can be caused by a variety of events that are beyond the firm's control, such as natural disasters (e.g., the COVID-19 pandemic) and firm events that are under the firm's control, such as a lack of contingencies. situations or poor management. Risk can be seen as an "expected outcome of an uncertain event". Important dimensions of risk in the global supply chain are the probability and impact of losses, speed and frequency (Manuj and Mentzer, 2008). Two of the common external risks associated with supply chain disruptions are supply and demand uncertainty. Uncertainty in the supply of the end part / supplier refers to the "risk of interruptions in the flow of components needed for their internal operations". The quality of the purchased goods is as important as the reliability of the estimated delivery time, as well as the dependence of the goods on unforeseen defects or price increases (Childhouse, 2003). The risk of significant and invaluable fluctuations in demand for goods is called demand uncertainty, which organizations face on the customer side (Bozarth and Handfield, 2016). As a consequence of greater uncertainty in supply and demand, market globalization and shorter product and technology life cycles occur.

Supply chain risks are multifaceted and can be classified into operational (recurring) and destructive (specific) risks (Tang, 2006). Operational risks deal with day-to-day disruptions in supply chain operations, such as fluctuations in duration and demand, and destructive risks, in turn, relate to events with a strong impact (Ivanov et al., 2017). Examples of destructive risks are natural disasters, such as earthquakes and tsunamis (for example, the 2011 tsunami in Japan and the huge impact on the world supply chain), man-made disasters (for example, the 2016 BASF plant explosion in Germany). and as a result of shortages of raw materials in global supply chains), further, legal disputes or strikes.

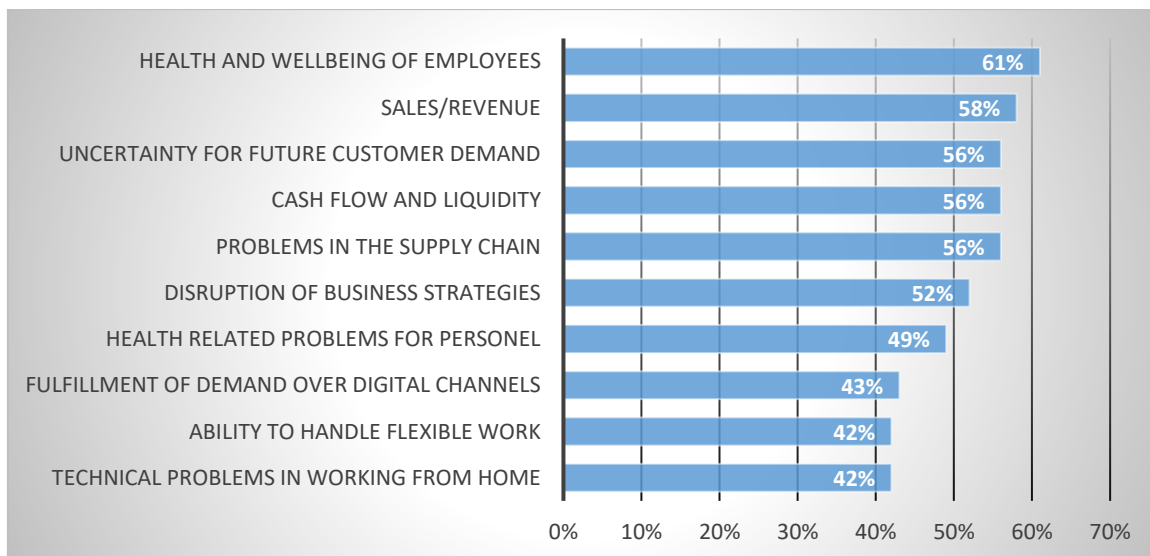
The Bullwhip effect looks at weekly / daily demand and fluctuations as the primary drivers of supply chain changes that can be eliminated in the short term. In recent years, the research community has begun to investigate serious supply chain disruptions that may be caused by, for example, natural disasters, political conflicts, terrorism, maritime piracy, economic crises, the destruction of information systems, or the failure of transportation. infrastructure (Queiroz Maiel et al., 2020). We treat these severe natural and man-made disasters as a ripple effect in the supply chain where changes occur at the structural level and recovery can take a long time, with a significant impact on production performance, such as annual revenue (Dolgui et al., 2019). In this setting, supply chain disruption management can be considered a key capability that helps to create effective supply chain protection and implement appropriate supply chain disruption recovery and performance improvement activities (McKenzie, 2020).

Risks in the time of pandemic and their components

The COVID-19 pandemic is one of the special cases that poses a huge risk to supply chains. This type of risk is presented in a very specific way because it causes long-term disorders. Epidemic control and related logistics operations of a single supply chain are categorized and mapped according to chain operations and management (Fernie and Sparks, 2004). Retail, with attractive discounts and proven product authenticity, has been an important channel for the industry all these years as 20-30% of consumers buy outside their home country (Achille and Zipser, 2020). However, this work focuses on visibility and sustainability during ripple effects caused by disasters or specific disturbances. All countries in the Western Balkans act to encourage companies to retain jobs, ie create new ones, in addition to health care

measures, tax breaks, guarantee schemes, subsidized credit lines and social assistance measures (Waters and Rinsler, 2014) . According to the World Bank Group (2020), in the long run, the Western Balkan countries also need to increase investment in skills and expand access to skills development. Therefore, early detection of disturbances and rapid remedial action may enable industries to reduce the impact of current and future shocks. For example, it is advisable to build transparent systems to strengthen logistics capacity, optimize operations, and improve access to the right customer to reduce the effects of the bullwhip effect (Cuturi, 2015). Numerous studies have focused their attention on tracking these challenges, as an opportunity to measure the percentage of organizations facing serious challenges in their supply chains and the way they rank, among other problems currently facing businesses (Janev, 2020). McKinsey research (Figure 1) shows that when compared to financial needs, supply chain problems appear on the 5th scale of the business at risk, ie companies are "very" or "extremely" worried.

Figure 1. Percentage of companies who are very or extremely worried for each question



Source: <https://www.mckinsey.com/business-functions/risk-and-resilience/our-insights/covid-19-implications-for-business>

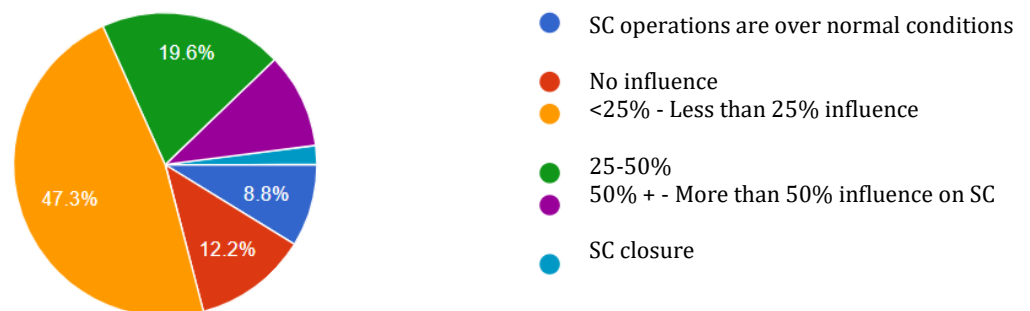
It can be seen that the pandemic strikes a significant blow to businesses, as a result of which companies face specific problems in the supply chain and are forced to react extremely quickly. The table below shows that a number of impacts are being felt - the

biggest of which is the impact of travel restrictions on the flow of goods, especially internationally. At the same time, there are a number of practical challenges, most notably a delivery problem, as they become more complex and fragmented, but also due to strong pressure on limited transport and logistics options.

RESEARCH AND DISCUSSION

The results of the research were obtained as a result of the survey questionnaire conducted from January to April 2021. The research was conducted in several consecutive phases, as follows: first the information was collected through a survey questionnaire, they were analyzed and grouped, then they were computer processed and presented in tabular and graphical form, and a statistical framework was created in order to draw conclusions. The main findings of the survey are presented below, based on 148 complete answers. The analysis begins with descriptive data on the business entity that responds to the survey. Then, the impact of the COVID-19 pandemic on the companies and their supply chains is examined in detail, and it ends with the innovative solutions taken by these companies for support and with recommendations and measures for the directions that would be most beneficial for the companies.

Figure 2. Influence of the COVID-19 pandemic on the supply chain

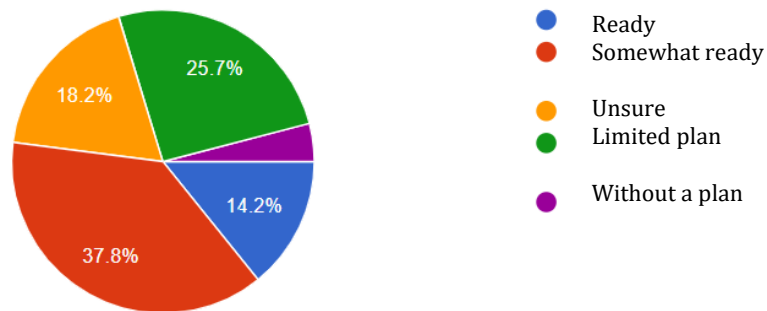


Source: Own research

The results presented in Figure 2 show that 47.3% of the surveyed managers and owners of companies estimate the degree of endangerment of their supply chains at <25% - less than 25%. 19.6% of the respondents think that the degree of threat is 25-50%, 18 of the respondents think that there is no threat, 13 of them, ie 8.8% answer

that the supply chain operations exceed the normal capacity, and only three of the respondents, ie 2% of them think that they are facing disconnection of the supply chain, ie closure of the company.

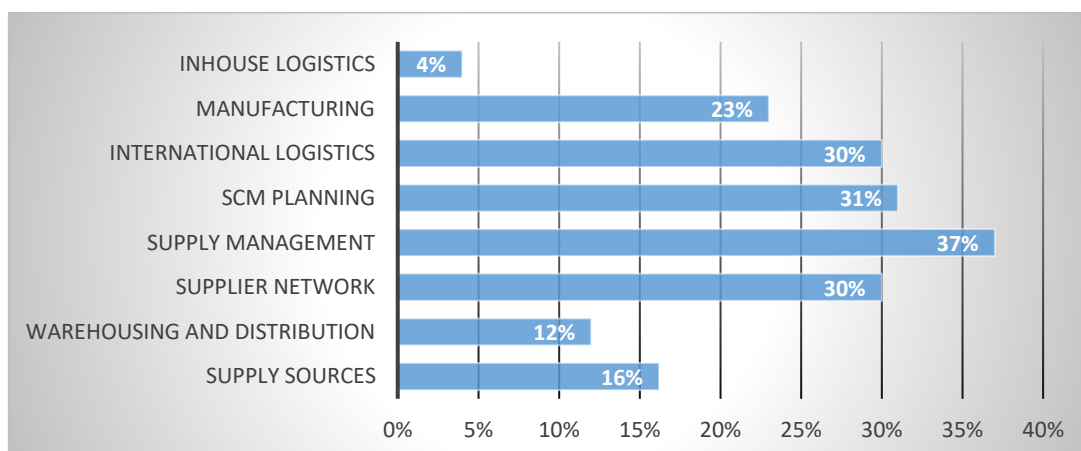
Figure 3. Level of readiness for the COVID-19 pandemic on an organizational level



Source: Own research

From the data in Figure 3, it can be seen that, regarding the question of how they would assess the readiness of their organization before the crisis, 37.8% of the owners think that they have done some planning and are somewhat prepared, 25.7% of them claim that they have a limited plan for crisis response and are somewhat unprepared, 18.2% are unsure of their organizational readiness, 14.2% answer that they are ready and the lowest percentage, 4.1% or only 6 of the respondents think that are without a plan and are not ready to respond to the crisis at all.

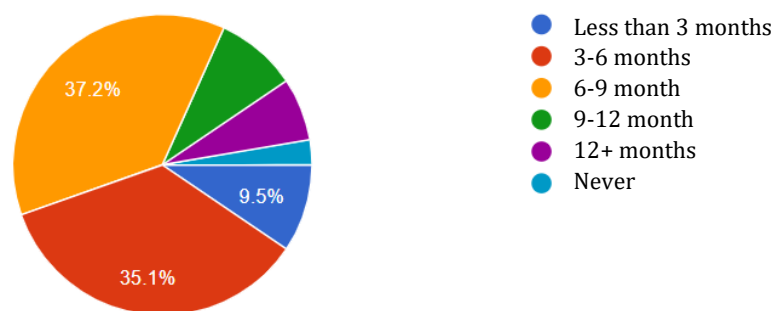
Figure 4. Areas of SC most affected by the pandemic



Source: Own research

The companies surveyed were asked to list the main challenges facing their supply chains before the crisis began., presented in Figure 4. The main focus is on the individual links contained in their company's supply chain. The biggest problem reported by about 40% of companies is the damage to the reserve management part. It is followed by supply chain planning (31%), supplier network and international logistics with the same degree of crisis exposure (30.4%). Manufacturing, including sourcing and procurement, warehousing and distribution, and domestic logistics - are the other major challenges facing companies and their chains that affect their functional and uninterrupted operation. From the answers obtained to this question, it can be clearly seen that the efficiency of their entire supply chain of goods and raw materials and distribution to final consumers is significantly reduced.

Figure 5. Timeframe to overcome COVID-19 SCM challenges



Source: Own research

According to the answers in Figure 5 to the question about how long do they think it takes for the supply chain to recover from the shock caused by the pandemic, a larger number, ie 37.2% of respondents answer that it takes 6-9 months to heal their chain. for supply from the impact caused by the pandemic, further, about 35% of them think that they need 3-6 months to recover and continue working on their chains, 9.5% think that they need less than 3 months to return to normally, 8.8% of the respondents, ie 13 of them answer that they need 9-12 months, 6.8% think that they need more than 12 months, and the remaining 2.7%, ie four of the owners think that they will never recover from the shocks caused by the pandemic or that it would take them a long time to recover from the damage to the supply chain and to adapt to change.

From the above it can be clearly seen that timely analysis and a plan for the functioning of a company are needed to anticipate the damage caused by this crisis on their chains and their businesses in general so that they can be properly identified and resolved. They believe that with a realistic plan they would easily adapt to the changes and would focus on new or existing suppliers, and thus would not interrupt their work. Most of them face the crisis and direct their production and work in a good direction, therefore, they believe that 9 months are enough to heal and deal with the crisis, and only a small number of them believe that they will not recover from the shocks caused by the crisis.

CONCLUSION

Disruptions in business operations and global supply chains caused by disasters are forcing analysts and researchers to focus on survival as the most worrying topic in this post-coronavirus and business crisis. The importance of the plan and the analysis in every company are significantly increased in today's modern operation. Therefore, the first goal is to explain and understand the functioning of supply chains in each company, the meaning of supply chains, the links from which the chain is created and the way they are connected and function with each other, supply chain problems versus financial and health challenges, as well as special attention to the most vulnerable parts of the supply chain and the risks that arise in them.

In order to create a realistic picture of the condition of the chains, it is necessary from the beginning to the end to properly realize all the links that make up the chain and the supply process, as well as to give a special review and analysis of the details that make it up. With timely recognition of the problems and taking appropriate measures and actions, the current processes in the work organization will not be stopped and negative external influences will not be felt, but the functioning of the processes will continue to proceed smoothly with a positive response to change. After the research of small and medium enterprises in our country, it is concluded that some of the enterprises are ready to respond to any kind of external influence with a prepared plan and timely analysis, but there are also enterprises that are not fully prepared and this type. crisis, for them it is a complete loss and danger of closing the company. It is very important to understand that control systems increase mutual commitment and coordinated action towards the desired results, stimulate

communication, emphasize the definition of goals, reduce uncertainty and lead to higher performance. We also conclude that an effective supply chain is incredibly important, which increases the effectiveness of solutions to locate supply chain problems.

REFERENCES

- Achille, A. & Zipser, D. (2020). „A Perspective for the Luxury-Goods Industry during—and after—Coronavirus“, available at: <https://www.mckinsey.com/industries/retail/our-insights/a-perspective-for-the-luxury-goods-industry-during-and-after-coronavirus#>
- Bouzeid, M. (2020). „The powerful role of supply chains in navigating a pandemic“, available at: <https://www.ericsson.com/en/blog/2020/4/powerful-role-of-supply-chains-in-navigating-a-pandemic>,
- Bozarth, C. B. & Handfield, R. B. (2016). *Introduction to Operations and Supply Chain Management, 4th Edition*. North Carolina State University.
- Childhouse, P. T. (2003). Simplified material flow holds the key to supply chain integration. *OMEGA*, 31, 17–27.
- Chopra, S. (2003). Designing the Distribution Network in a Supply Chain. *Transportation Research*, 39, 123–140.
- Cuturi, M. P. (2015). „BPM explained to Small and Medium Enterprises“, available at: <https://www.bpmleader.com/2015/06/04/bpm-explained-small-medium-enterprises/>
- Dolgui, A., Ivanov D., Sokolov B.. (2019). „Ripple Effect in the Supply Chain: Basic Definitions“, working paper. Berlin School of Economics and Law, Department of Business and Economics.
- Dolgui, A. & Battaia O. (2018). A taxonomy of line balancing problems and their solutions. *International Journal of Production Economics*, 142(2), 259–277.
- Fernie, J. & Sparks, L. (eds.). (2004). *Logistics and Retail Management*, (2nd edn.). Kogan Page, London.
- Ivanov, D. (2020). Coronavirus (COVID-19/SARS-CoV-2) and supply chain resilience: a research note. *International Journal of Integrated Supply Management*, 13(1), 90–100.
- Ivanov, D., Dolgui, A., Sokolov, B. (2020). Ripple Effect in the Supply Chain: Definitions, Frameworks and Future Research Perspectives, working paper. Berlin School of Economics and Law, Department of Business and Economics.
- Ivanov, D. (2020). Predicting the impacts of epidemic outbreaks on global supply chains: a simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case. *Transportation Research Part E: Logistics and Transportation Review*, 136, 101922.
- Ivanov, D., Dolgui, A. & Sokolov, B. (2019). The impact of digital technology and Industry 4.0 on the ripple effect and supply chain risk analytics. *International Journal of Production Research*, 57(3), 829–846.
- Janev, A., „Изолација и на бизнисот поради коронавирусот“, available at: <https://prizma.mk/izolatsija-i-na-biznisot-poradi-koronavirusot/>
- Manuj, I. & Mentzer, J. T. (2016). „*International Journal of Physical Distribution & Logistics Management*“, 115–123.
- McKenzie, B. (2020). „Covid-19: Implications for Business“, пристапено јули 2020. <https://www.mckinsey.com/business-functions/risk-and-resilience/our-insights/covid-19-implications-for-business>.
- McKenzie, B. (2020). „Beyond COVID-19: Supply Chain Resilience Holds Key to Recovery“, working paper. University Business School, University of Leeds, Leeds.

- Queiroz, M. M., Ivanov, D., Dolgui, A. & Fosso, W. S. (2020). Impacts of epidemic outbreaks on supply chains: mapping a research agenda amid the COVID-19 pandemic through a structured literature review. *Annals of Operations Research*, 78-90.
- Sodhi, M. S., Son, B. G. & Tang, C. S. (2012). Researchers' Perspectives on Supply Chain Risk Management. *Production and Operations Management*, 21(1), 1-13.
- Waters, D. & Rinsler, S. (2014). *Global Logistics: New Directions in Supply Chain Management*. Kogan Page.
- Wyman, O. (2020); „Managing supply chain disruption“, available at: <https://www.oliverwyman.com/content/dam/oliver-wyman/v2/publications/2020/March/managing-extreme-supply-chain-disruption.pdf>,

RESIDENTIAL HEATING WITH WOOD AND WOOD PELLETS: LIFE CYCLE COST ANALYSIS AND AIR QUALITY IMPACTS

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ABSTRACT

In the recent years air pollution is a huge global problem. It seriously affects the human health and consequently the economies of countries. The residential heating with firewood is one of the major sources of ambient air pollution particularly when the wood-fired appliances are poorly optimized which results in considerable emission of harmful products obtained from the incomplete wood combustion. Wood pellets, due to their composition and the usage of modern stoves with optimized and controlled combustion, score better with respect to air pollution.

The aim of this work is to evaluate the residential heating with firewood and wood pellets by performing a cost-benefit analysis for both.

A household that utilized both types of heating was used as a case study. The cost analysis was carried out by calculating the life cycle costs in the usage phase of the firewood and wood pellets. A cost projection for a future period of ten years was also done. For the needs of the benefit analysis an estimation of air pollutant emissions when firewood or wood pellets is combusted, was performed.

The results show that for a period of 10 years, in the case of wood pellets, the life cycle costs would increase about 40% compared to the life cycle costs for firewood. From an environmental point of view, wood pellets show much better results. Namely, the emission of harmful PM10 particles and carbon monoxide is reduced much more than twice.

Summarizing, heating with pellet fuel is more expensive, but the benefits achieved are significantly greater in terms of noticeably reduced air pollution, less harmful health consequences, and respectively more savings in the health system and the overall economic system as well.

KEYWORDS: Air pollution, firewood, wood pellets, cost-benefit analysis, life cycle costs.

JEL CLASSIFICATION: Q51, Q53, Q57

INTRODUCTION

In the last few decades, the planet Earth is facing with a noticeable climate changes. The climate changes are generally caused by the increased concentrations of carbon dioxide in the atmosphere from the usage of fossil fuels, which in turn causes a greenhouse effect and global warming. As a consequence, sea levels are rising, the ice on the poles and glaciers is melting, sudden temperature differences and weather disasters (storms, floods, earthquakes, fires) happen. All these changes lead to large-scale environmental problems, such as the greenhouse gas emissions, acid rains, extinction of some animal species etc.

There are numerous measures for mitigating the climate changes, most of them including energy efficiency in all aspects of life, use and/or increase of the share of renewable energy sources in the energy mix, optimization of waste management procedures and reduction of emissions from waste treatment, use of public transport and bicycles, introduction of transport taxes, reduction of greenhouse gas emissions in agriculture, forest protection, etc.

According to the World Bank report on Macedonia's green growth (World Bank Group, 2014), R. of North Macedonia has the most polluted air in Europe and was ranked on the fifth place with respect to the number of deaths per year caused by polluted air i.e. by the presence of PM10 particles in the air. At the same time, thousands of lost working days were recorded, which resulted in an economic cost of 253 million euro per year or 3.2% of the Gross Domestic Product (GDP) in the Republic of North Macedonia. Globally, according to the Global Burden of Disease (GBD) study (Institute for Health Metrics and evaluation, 2020), the air pollution, indoors and outdoors, in addition to the harmful effects on human health, also affects crop yields and the environment, with effects on biodiversity and ecosystems. These impacts have significant economic consequences, which might affect the economic growth as well as welfare.

One of the major air pollutants in R. of North Macedonia, especially in the larger cities, is the burning of firewood as a mode for heating of many households. Having in mind that the city of Skopje is the most polluted city in the country, but also one of the most polluted cities in Europe, especially during winter, the aim of this paper is to study the air pollution in the city of Skopje caused by the two modes of residential

heating, firewood and wood pellets. The evaluation of the economic and environmental implications of both types of heating should contribute towards choosing less polluting sources for residential heating and thus mitigating the climate changes on a long term.

RESEARCH METHODOLOGY

A household that utilized both types of heating was used as a case study. The cost analysis was performed by calculating the life cycle costs in the usage phase of both, the firewood and wood pellets. A cost projection for a future period of ten years was also done. For the needs of the benefit analysis, based on data from several relevant databases, an estimation of air pollutant emissions when firewood or wood pellets is combusted, was done.

LITERATURE REVIEW

The environmental impact of heating systems (individual home heating systems, larger institutional heating systems and small and medium central heating systems) that use firewood, natural gas, heating oil or propane, along with the respective life cycle analysis were investigated by Jim Bowyer (Bowyer, 2012). For some of the investigated systems a complete life cycle analysis was made, whereas for some of them the life cycle analysis referred only to the extraction of energy resources, transport, combustion and removal (if any) of ash and other combustion residues. Conclusions on combustion emissions and air quality, energy efficiency, life cycle costs as well as general environmental impacts have been drawn.

In the paper of Buchholz and collaborators (Buchholz et al., 2017) the greenhouse gas emission starting from the phase of production till the end use of the biomass pellets was studied. Product life cycle analysis was used as a tool to calculate the greenhouse gas emission during the process of collection, processing and usage of wood pellets for residential heating versus the same process when other heating fuels are used. The results showed that pellets consisting of 50% sawmill residues and 50% pulpwood generate approximately the same heat as that of fossil fuels.

In 2015, Kjellson and Svensson (Kjellson & Svensson, 2015) conducted a survey of low-income households in South Africa which use paraffin¹ stoves for cooking and

¹A fossil fuel, relatively cheap

in the recent years some of them have started to use wood pellets instead the paraffin. The focus of the study was to assess the environmental, economic and sociological aspects of using fossil versus renewable fuels. The environmental and economic aspects, appearing during the utilization phase of the respective fuel, were assessed through life cycle assessment (LCA) and life cycle cost analysis (LCCA), respectively. The results have showed that majority of the households are ready to change the current fossil fuel with another fuel for cooking if the four important criteria (safety, non-harmful health consequences fuel availability and quality) are met. The economic analysis has shown that during the utilization phase the wood pellets are more economical than the paraffin system over a period of 16 years. It has been concluded that wood pellets can be used as cooking fuel instead of paraffin, and that it is likely to improve the standard of living of low-income households.

The Report for evaluation of the greenhouse gasses emission from biofuel and fossil fuels in North-western Canada (SRC, 2011), has shown that use of biofuels is rapidly expanding due to the increase of oil prices and the introduction of climate change policies. The research prior to this report has shown that using biomass as a fuel reduces greenhouse gas emissions and has a number of other environmental and socio-economic benefits, especially when wood biomass residues are used as raw materials in the energy efficient conversion technologies, such as burning the wood biomass residues or using them in combination with other fuels to generate heat and electricity. Three scenarios, use of firewood for residential heating, use of pellets for residential heating and use of for residential heating, were analyzed. It was shown that the wood chips produced from local sources showed the lowest greenhouse gas emissions during the entire life cycle. Imported wood pellets and local firewood when burned in traditional stoves showed the highest greenhouse gas emissions after heating, after oil. Based on the life cycle analysis the utilization of locally produced wood chips and pellets is recommended as one of the strategies to reduce fossil greenhouse gas emissions.

The environmental impact and the evaluation of costs for producing wood pellets were assessed also by Pergola (Pergola et al, 2017). Two types of pellets were analyzed by doing life cycle assessment (LCA) and analysis of the life cycle cost (LCC) for both systems. The results showed that by-products of wood processing can be an effective

solution to reduce both, the production costs and environmental impact when wood pellets are concerned.

An analysis done at the University of Michigan (Knudson, 2018) compared the life cycle costs of three different heating technologies: wood pellets, propane gas and heating oil. Two buildings with different area and under two scenarios (subsidized and unsubsidized wood pellet heating units) were investigated. It was shown that in all cases the wood pellet heating units are less expensive than propane and heating oil. The utilization of propane is 26.2% more expensive than the subsidized wood pellets and 35.7% more expensive than the subsidized wood pellet heating unit. Oil heating is 12.2% more expensive than the unsubsidized wood pellet heating units and 20.7% more expensive than the subsidized wood pellet heating unit. Wood pellet boilers also have the advantage of having a longer life span than oil and propane units. The authors have also emphasized that despite the observed costs savings wood pellets are not widely used for central heating.

ECONOMIC ANALYSIS OF THE RESIDENTIAL HEATING WITH WOOD VS. WOOD PELLETS

The goal of the economic analysis was to determine the life cycle costs during the utilization phase of both, residential heating with firewood and residential heating with wood pellets and to evaluate which one is economically more beneficial. The obtained results should assist in assessing if the transition from firewood to wood pellets is financially affordable for the households. The other life cycle stages (design, development, natural resource extraction and the manufacturing of the stoves) are not evaluated.

Life cycle costs (LCC)

The two alternatives of residential heating, with firewood and with wood pellets, differ in the type of stoves and amount of fuel needed during the utilization phase. LCC for both cases can be presented as a sum of the investment costs, C_I , operational costs, C_O , replacement costs, C_{Repl} , and residual costs, C_{Res} . as given with expression (1)

$$LCC = C_I + C_O + C_{Repl} - C_{Res} \quad (1)$$

The investment costs are the one-time costs related to the purchase of the stove whereas all costs related to the utilization phase of the stove are operational costs. The replacement costs refer to costs related to the replacement of the whole stove, or parts of it, during the utilization period. The residual value is the net worth of the stove at the end of duration time. Generally, both types of stoves, for wood pellet and firewood stove don't have any residual costs during their lifetimes.

The costs described above can be also divided into initial costs, recurring costs and non-recurring costs. The difference between recurring and non-recurring costs is that the first ones occur frequently during the lifetime, while the non-recurring cost is a one-time cost. The division in initial, recurring and non-recurring cost types is needed because in some cases a parameter, e.g. replacement costs, can include both recurring and non-recurring costs.

The future costs (calculated as present values) of the initial, non-recurring and recurring costs are determined using the expressions (2), (3) and (4).

Initial costs:
$$C_{PV} = C_T \tag{2}$$

Non-recurring costs:
$$C_{PV} = C_T \frac{(1+e)^t}{(1+d)^t} \tag{3}$$

Recurring costs (annually fixed):
$$C_{PV} = C_T \frac{(1+d)^t - 1}{d(1+d)^t} \tag{4}$$

where C_{PV} is the present value of the future cost, C_T refers to the current value of cost, d is discounting rate, e refers to escalation rate and t is period of time (in years).

The initial, non-recurring and recurring costs for both types of heating, considered in this paper, are given in Table 1.

Table 1. Residential heating costs in the usage phase of the fuel

| Cost* | C_i (MKD) | | C_o (MKD) | | C_{repl} (MKD) | |
|------------------|-------------------------------------|-------------------------------------|---|---|---|---|
| | Firewood | Wood pellets | Firewood | Wood pellets | Firewood | Wood pellets |
| Initial | Purchase of stove $C_T = 18.000$ | Purchase of stove $C_T = 46.000$ | | | | |
| Recurring | | | Purchase of firewood (annually) $C_T = 29.325$ | Purchase of pellets (annually) $C_T = 36.509$ Single tariff electricity for starting the stove $C_T = 4.381$ | Maintenance (annually) $C_T = 1.000$ | Maintenance (annually) $C_T = 2.000$ |

Source: Sandra Spirova, 2020. Analiza na troshocite i pridobivkrite na merkite za namaluvanje na zagaduvanjeto na vazduhot so poseben osvrt kon nachinite na zagrevanje na domakinstvata. Master thesis. Integrated Business Institute. Skopje

The present values of the initial and recurring costs for both types of heating are calculated according to expressions 2, 3 and 4, for a period of 10 years, discount rate of 1,8% (SKIBOR, 2020) and zero escalation rate (Fuller & Petersen, 1996). The obtained results are presented in Table 2.

It can be observed that the LCC are higher by about 48% when wood pellets are used compared to the costs when firewood is used.

Table 2. Costs in the user phase of the firewood and wood pellets

| | Firewood | Wood pellets |
|-------------|----------|--------------|
| C_i (MKD) | 18.000 | 46.000 |
| C_o (MKD) | 275.287 | 389.325 |
| LCC (MKD) | 293.288 | 435.326 |

Source: Authors calculation

ENVIRONMENTAL ANALYSIS OF THE RESIDENTIAL HEATING WITH WOOD VS. WOOD PELLETS

The emission of harmful gaseous components and solid particles from burning wood and wood-based products is monitored by following the emission factor, expressed as amount of pollutant emitted during the combustion of a unit mass of fuel, (mg m^{-3}).

Table 3 shows the concentrations of CO, NO_x, C_xH_y and PM₁₀ particles during the combustion of firewood and wood pellets.

Table 3. Average concentration of harmful gaseous and solid particles emission from combustion of firewood and wood pellets

| | Stove efficiency (%) | CO (mg m^{-3}) | NO _x (mg m^{-3}) | C _x H _y (mg m^{-3}) | PM10 (mg m^{-3}) |
|--------------|----------------------|---------------------------|--|--|-----------------------------|
| Firewood | 88 | 1423 | 362 | 35,7 | 93,2 |
| Wood pellets | 95 | 980 | 374 | 45,5 | 29,7 |

Source: Schmidl, C. et al., Particulate and gaseous emissions from manually and automatically fired small scale combustion systems, Atmospheric Environment, 45 (2011) 7443-7454

It can be noticed that the total emission of carbon monoxide (CO) and solid PM₁₀ particles in the ambient air is 45% and 213%, respectively, higher when 1 m³ of

firewood is burned compared to the emission of these components wood pellets are used. A similar result is obtained from the latest data of Balkan Energy Group (BEG) according to which for each received kWh of energy the total emission of PM10 and PM2.5 particles when burning firewood is 152% more than their emission when pellets are used (BEG, n.d.).

When it comes to the emission of nitrogen oxides and hydrocarbons, the difference in the emission factor for both types of residential heating is insignificant (2-4%).

DISCUSSION OF THE RESULTS

The results obtained from the economic analysis show that if the way of residential heating is changed from stoves with firewood to stoves with wood pellets, for a period of 10 years it would cause increase in the LCC by 48% (Table 2).

On the other hand, by burning 1 m³ of firewood the emission of harmful PM10 particles in the air is 213% higher compared to the emission of PM10 from wood pellets. With respect to the emission of CO, it is 45% higher when firewood is used for residential heating. Considering the fact that on average a household uses 7 to 10 m³ of firewood during the heating season, and that in the Skopje region about 33% of the total number of households use firewood (according to the State Statistical Office the consumption of firewood in Skopje is the largest in the country and amounts to 190,000.00 m³ out of a totally 230,000.00-280.00.00 m³), the results indicate that the change of the heating mode of households from firewood to heating with wood pellets, although is more expensive in the long run, the increase in costs is many times less than the air pollution caused by firewood heating.

The overall benefit arising from the change of the heating mode primarily refers to a reduction of the health consequences and premature mortality, which on the other hand leads to savings in the health system and total savings from 34,000,000 € to almost 161,900,000.00 € per year if the concentration of solid PM10 and PM2.5 particles in the air would decrease to 1 µg / m³ and 15 µg / m³, respectively (WHO & OECD, 2015).

CONCLUSION

Air pollution, in addition to the caused negative climate changes, also causes deterioration in human health, which in turn significantly affects the economies of countries, through the emergence of direct and indirect costs.

Firewood burning is one of the major air pollutants and the largest source of finely suspended solid particles with harmful effects on human health. Given that the city of Skopje is on the top of the list of most polluted cities in Europe, especially in winter, the purpose of this research was to analyse the cost-effectiveness of environmental measures taken in the city to reduce air pollution, with a focus on the ways of residential heating, as one of the major reasons for the large air pollution in the city.

The results showed that the environmental effect (*significantly decreased air pollution*) is much more expressed than the economic one (*moderate increase of the costs*) if wood pellets are used instead of firewood for residential heating.

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REFERENCES

- Bowyer J. (2012). Life Cycle Impacts of Heating with Wood in Scenarios Ranging from Home and Institutional Heating to Community Scale District Heating Systems. Project Dovetail Partners Inc.
- Buchholz, t., Gunn, J. S., Saah, D. S. (2017). Greenhouse gas emissions of local wood pellet heat from northeastern US forests. *Energy* 141, 483-491.
- Institute for Health Metrics and evaluation. (n.d.). The Global Burden of Disease study, available at: <http://www.healthdata.org/infographic/global-burden-air-pollution>
- Fuller, S., Petersen, S.. (1996). Life-cycle Costing Manual for the Federal Energy Management Program. NIST Handbook 135 ed. Washington: US Government Printing Office.
- Kjellson, A., Svensson, J. (2015). *A Comparative Study of Social, Environmental and Economic Aspects of Paraffin and Wood Pellets Used for Cooking in Low Income Households in South Africa*, Degree Project in Environmental Strategies. Royal Institute of Technology, Stockholm, Sweden, 2015
- Knudson, W. (2018). A Lifecycle Cost Analysis of Wood Pellet, Propane, and Heating Oil, Product Center Food-Ag-Bio, Michigan University.
- Kovacs Mentés-Helga, D., Poliska Nagy-Csaba, G. (2019). Investigation of air pollutants from residential heating. *Materials Science and Engineering*, vol. 44, no. 2, 2019, pp. 44-66.

- Ozgen, S., Caserini, S., Morreale C. (2014). Emission factors from small scale appliances burning wood and pellets. *Atmospheric environment*. doi: 10.1016/j.atmosenv.2014.05.032
- Pergola, Maria, et al. (2017). An environmental and economic analysis of the wood-pellet chain: two case studies in Southern Italy. *The International Journal of Life Cycle Assessment*. Springer.
- Spirova, S. (2020). Analiza na troshocite i pridobivkite na merkite za namaluvanje na zagaduvanjeto na vozduhot so poseben osvrt kon nachinite na zagrevanje na domakinstvata. Master thesis. Integrated Business Institute. Skopje
- Schmidl, C. et al. (2011). Particulate and gaseous emissions from manually and automatically fired small scale combustion systems. *Atmospheric Environment*, 45, 7443-7454
- SKIBOR accessed at September, 2020 at:
http://nbrm.mk/miegjubankarska_kamatna_stapka_na_pazar_na_diepoziti_skibor_skopje_interbank_offered_rate_nsp
- SRC. (2011). Greenhouse Gas Emissions Assessment, The Substitution of Fossil Fuels with Woody Biomass in the Northwest Territories, Report, SRC Publication No. 13069-1C11
- WHO Regional Office for Europe, OECD (2015). Economic cost of the health impact of air pollution in Europe: Clean air, health and wealth. Copenhagen: WHO Regional Office for Europe.
- World Bank Group. (2014). FYR Macedonia Green Growth Country Assessment. Washington, DC. © World Bank. Available at:
<https://openknowledge.worldbank.org/handle/10986/19308> License: CC BY 3.0 IGO
- <https://beg-snabduvanje.com.mk/kalkulator/>
- https://ec.europa.eu/environment/air/cleaner_air/

ENTREPRENEURSHIP AND BRAIN DRAIN MUTUAL EFFECT IN THE CASE OF THE REPUBLIC OF N. MACEDONIA

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ABSTRACT

The purpose of this research is to gain knowledge about the relation of the entrepreneurship and its impact on phenomenon of the brain drain in order to help government policy makers to successfully deal with this problem. The importance of the issue of brain drain for N. Macedonia is shown by other data from the relevant statistical reports presented in the paper. This paper studies the “brain drain” phenomenon through the prism of the influential factors such as employment immediately after graduation, party employment, the disproportion of staff with the demand on the labor market, discrimination on various grounds in employment, unstable jobs and a salary that does not correspond to the competencies of the employee, the low level of protection and guarantee of workers' rights, especially when it comes to young people, further education and retraining, deep politicization etc. These factors were part of the research conducted in Republic of N. Macedonia among persons over 18 years of age.

KEYWORDS: brain drain, entrepreneurship, intellectual capital

JEL CLASSIFICATION: L26; I25

INTRODUCTION

Brain Drain is one of the prevalent migration issues in the South East Europe region (SEE). Even though the SEE region has traditionally experienced significant emigration movements, the latest trends in the region are undoubtedly worrying. In 2020, the World Economic Forum released the Global Competitiveness report, indicating that four Balkan countries are among countries with the biggest brain-drain

in the world. Young people are the most represented group among emigrants, paving even more challenges for the future development of these countries. Unemployment, low wages, corruption and lack of opportunities have been driving an increasing number of young people from the Balkans to Western Europe, the US and Gulf countries. Youth unemployment rates in the region are among the highest in the world. Youth unemployment in the Western Balkans continued its downward trend, but despite declining the situation of the young in the labor market remains alarming. Study on Youth Employment in the Western Balkan show that the highest youth unemployment rates are found in Kosovo*, North Macedonia and Bosnia and Herzegovina, and (now) Montenegro, each being in excess of 30% in 2020 despite declining in recent years; in Kosovo* the youth unemployment rate peaked at 55.4% in 2018, while the lowest youth unemployment rate was 24.3% in Montenegro in 2019 (Ramhorst,2021). The study notes that for example, in Serbia the youth unemployment rate is about 2.8 times that of the overall unemployment rate, while in Kosovo* it is 1.4 times (Ramhorst,2021). At the same time it is pointed that the unemployment rate gap is around 2.3, similar to the EU-27 (Ramhorst,2021).

1. BRAIN DRAIN AS A GLOBAL ISSUE - capacity of countries to retain talented people

Bosnia and Herzegovina (BiH), Croatia, N. Macedonia, and Serbia are among the top-ranked countries with the biggest brain-drain in the world, according to the Global Competitiveness Report released by the World Economic Forum. On the scale of 1 to 7 (1= all talented people leaving the country; 7= all talented people staying in the country), BiH scored 1.76, followed by Croatia (1.88), N. Macedonia (2.13) and Serbia (2.31). The Global Talent Competitiveness Index (GTCI) is an annual benchmarking report that looks at the patterns of Skilled Worker Migration and determines which countries are succeeding the most in the global competition for talent. The GTCI's 2019 report was published in January 2020. The paper shows the rankings for 2019 and 2018 (Table 1 and Table 2).

Table 1 - Global Talent Competitiveness Index for countries from Europe

| Country from Europe | Rank 2019/125 | Rank 2018/119 |
|---------------------|---------------|---------------|
| Germany | 14 | 19 |
| Sweden | 7 | 5 |
| United Kingdom | 9 | 8 |
| Denmark | 5 | 7 |
| Finland | 6 | 6 |
| France | 21 | 21 |
| Norway | 4 | 4 |
| Luxembourg | 10 | 10 |
| Austria | 18 | 18 |
| Belgium | 17 | 16 |

Source: INSEAD, (2020). The Global Talent Competitiveness Index 2020: Global Talent in the Age of Artificial Intelligence, Fontainebleau, France., INSEAD, (2019). The Global Talent Competitiveness Index 2019: Global Talent in the Age of Artificial Intelligence, Fontainebleau, France.

Table 2 - Global Talent Competitiveness Index for SEE region

| SEE region | Rank 2019/125 | Rank 2018/119 |
|------------------------|----------------|---------------|
| Slovenia | 29 | 28 |
| Bulgaria | 54 | 47 |
| Greece | 44 | 42 |
| Croatia | 55 | 48 |
| Serbia | 68 | 69 |
| Montenegro | 51 | 58 |
| Albania | 75 | 78 |
| N. Macedonia | / ¹ | 59 |
| Bosnia and Herzegovina | 86 | 89 |

Source: INSEAD, (2020). The Global Talent Competitiveness Index 2020: Global Talent in the Age of Artificial Intelligence, Fontainebleau, France., INSEAD, (2019). The Global Talent Competitiveness Index 2019: Global Talent in the Age of Artificial Intelligence, Fontainebleau, France.

The Global Competitiveness Index is an indicator for the capacity of each country to retain talent. Results in 2019 show that most of the SEE countries are facing a high youth unemployment that drives emigration from the SEE region. The ranking shows that in particularly young and talented people from SEE are deserting their home countries, seeking professional development and recognition of their talent. Covering 141 economies, the Global Competitiveness Index for 2019 measures national competitiveness - defined as the set of institutions, policies and factors that

¹ For lower positions in the GTCI ranking, one should take into account the two countries (the Plurinational State of Bolivia and the Former Yugoslav Republic of Macedonia) that have dropped out of the GTCI this year because of a lack of available data as well as the eight countries that are new additions to the index.

determine the level of productivity. The paper presents the rankings from the Global Competitiveness Index for the last four years (Table 3 and Table 4).

Table 3 - Country rating by capacity rating talent in SEE region (ranking from Global Competitiveness Index)

| SEE region | Rank 2019/141 | Rank 2018/140 | Rank 2017/137 | Rank 2016/138 |
|------------------------|---------------|---------------|----------------|---------------|
| Slovenia | 35 | 35 | 48 | 56 |
| Bulgaria | 49 | 51 | 49 | 50 |
| Greece | 59 | 57 | 87 | 86 |
| Croatia | 63 | 68 | 74 | 74 |
| Serbia | 72 | 65 | 78 | 90 |
| Montenegro | 73 | 71 | 77 | 82 |
| Albania | 81 | 76 | 75 | 80 |
| N. Macedonia | 82 | 84 | / ² | 68 |
| Bosnia and Herzegovina | 92 | 91 | 103 | 107 |

Source: Global Competitiveness Index

Table 4 Country rating by capacity rating talent in country from Europe

| Country from Europe | Rank 2019/141 | Rank 2018/140 | Rank 2017/137 | Rank 2016/138 |
|---------------------|---------------|---------------|---------------|---------------|
| Germany | 7 | 3 | 5 | 5 |
| Sweden | 8 | 9 | 7 | 6 |
| UK | 9 | 8 | 8 | 7 |
| Denmark | 10 | 10 | 12 | 12 |
| Finland | 11 | 11 | 10 | 10 |
| France | 15 | 17 | 22 | 21 |
| Norway | 17 | 16 | 11 | 11 |
| Luxembourg | 18 | 19 | 19 | 20 |
| Austria | 21 | 22 | 18 | 19 |
| Belgium | 22 | 21 | 20 | 17 |
| Spain | 23 | 26 | 34 | 32 |

Source: Global Competitiveness Index

Highly trained and qualified people are emigrating from N. Macedonia. According to the Global Competitiveness Report of the World Economic Forum, N. Macedonia is among the countries with the biggest brain drain. According to Balkan Barometer 2019, the overall hierarchy of the region's problems remains unchanged for the fourth year running: 1) Unemployment, 2) Economic Situation, 3) Corruption, 4) Crime, 5) Brain-Drain/Emigration (Balkan Barometer, 2019). It is not just unemployment and

²Klaus, Schwab. (2017). *The Global Competitiveness Report 2017–2018*. World Economic Forum: Geneva. accessed on 1 december 2020. <http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf>. Countries excluded because of insufficient data this year are Barbados, Bolivia, Côte d'Ivoire, Gabon, and FYR Macedonia.

economic hardships that drive the youth to depart - political and cultural factors play an important role as well.

2. BRAIN DRAIN IN THE SEE REGION – CURRENT SITUATION

The emigration rates of high-skilled workers are high, especially in some of the lower-income countries in the Balkans and Eastern Europe. Among people with higher education, 55 percent in Bosnia and Herzegovina; more than 40 percent in Armenia and Latvia; and almost 40 percent in Albania, N. Macedonia, and Romania have emigrated. Various factors drive brain drain from these countries. In addition to higher wages, they include opportunities for professional advancement and training, better future for family members (such as educational opportunities for children), and better living and working conditions (World Bank, 2019).

The three key problems plaguing the region continue to be unemployment (60%), the overall economic situation (47%) and corruption (26%). Unemployment is listed as a primary concern by a majority of respondents across four of the six economies. Serbia and the Republic of N. Macedonia are the two exceptions where the general economic situation creates the most anxiety within the population surveyed (50% and 55%, respectively). Respondents in Kosovo* tend to highlight unemployment to an extent far above the regional average, with some 74% flagging this issue as the most problematic. At the same time, Serbia and the Republic of N. Macedonia note the fewest concerns in this regard, out of the six surveyed economies (49% and 51%). Concerns over the economy and employment are the two top ranked issues across all six economies although corruption comes in at a very close third in Kosovo* (37% versus 38% for the overall economic situation). Corruption is also the third most commonly cited problem across the SEE region with crime and brain drain as the other two problems flagged more frequently (17% and 13%, respectively). Serbia and the Republic of N. Macedonia note an increasing level of anxiety with regards to brain drain (21% and 16%). This can, at least in part, be attributed to relatively low salaries across the two economies, driving qualified labour to seek opportunities elsewhere. Bosnia and Herzegovina and the Republic of N. Macedonia are home to most respondents who prioritize political disputes as the source of greatest concern, with 11% and 12%, respectively (Balkan Barometer, 2019).

According to State Statistical Office in report Active Population in the Republic of N. Macedonia Results from the Labour Force Survey, III quarter 2020 the unemployment rate for young from 15-24 is 34.8 % (State Statistical Office, 2020).

3. KEY FACTORS FOR THE PHENOMENON OF BRAIN DRAIN

This paper deals with the phenomenon of "brain-drain" as well as the impact of various influencing factors on the deepening of this phenomenon. The aim of this research is to obtain knowledge about the presence of these factors on brain drain by analyzing their effects according to the views of the research sample.

There is a general classification of the factors that cause brain drain to: so-called push and pull factors. Push factors can be identified as political instability, unemployment and uncompetitive remuneration. Pull factor are identified as higher standards of living and working, family reunions and better prospects for children (Meyer, 20004). We can talk about financial factors (salary, employment etc.), but also non-financial factors that include comfort of living, characteristics of the city, climate, natural resources, and other social opportunities (Shane, 2005).

When we talk about the factors that influence the occurrence of migration, in addition to those that encourage this phenomenon (increase in earnings, easier employment, etc.) we should also take into account those factors that significantly influence the decision to emigrate and can largely prevent it. In this sense, we can talk about uncertainty as a factor. The decision to move to another country is followed by the decision to choose a future location. The farther the destination is, the greater the uncertainty, because with the distance many questions remain unanswered and for many things about the future location there is a lack of information. Those who move under uncertainty are likely to return again. This is because a good part of the expectations they had were with a certain amount of risk to be met, such as lower wages than expected, labour market conditions, business relationships, family, friends and so on (Shane, 2005).

Relocation costs are similar to uncertainty. The so-called relocation costs include everything a particular location offers from economic opportunities to quality of life. Of course, this includes the connections that person has in the environment: business network, friends and all those relations that take a long time to build. So, the

greater the connection of a certain person with the environment, the higher the cost of moving, because in a new location life has to start from scratch. In other words, the future earnings of the new location should be greater than the future earnings of the current location and additionally cover the relocation costs. When all these aspects are covered and financially sustainable then the migration decision can be positive (Shane, 2005).

To deal with this phenomenon, the simplest way is the public policies created by the states. They can greatly affect the prevention of brain drain in many ways, for example policies aimed at improving economic development, reducing unemployment, improving earnings, opening opportunities for self-employment, improving the quality of life by enriching the range of opportunities offered to citizens, etc. In which direction these policies will be directed depends on what are the main reasons that cause this phenomenon. It is a very common practice for public policy to focus on students as a separate population by providing scholarships, grants and opening up opportunities for further education. In fact, governments around the world are trying to keep this group of citizens longer in a particular area / region. Practice shows that the longer you stay in one place, the more life events (marriage, children, own business, etc.) follow, the individuals connect more deeply with the environment and thus increase the cost of moving. This makes the decision to leave the place more difficult (Shane, 2005).

3.1 CAN ENTREPRENEURSHIP PREVENT BRAIN DRAIN?

Entrepreneurship is known to be the biggest driver of self-employment and generally reduces unemployment. We have seen that a good part of the reasons for brain drain are the financial factors on which entrepreneurship as a phenomenon can have an impact. That's why we can link entrepreneurship to brain drain. For example, wages/earnings on the one hand are one of the most commonly identified reasons for migration, and on the other hand is a characteristic and motivation of entrepreneurs. Many entrepreneurs start their own business in order to maximize earnings by introducing innovations (Petkovska, 2008). When we talk about wages as a migration factor, it should be noted that people migrate to places where greater potential for its maximization is. It should be noted that when we talk about the salary, as a financial factor, it does not only refers to the monthly income but it should also cover the cost of living, because they will affect the real salary. Apart of the financial factor (amount of

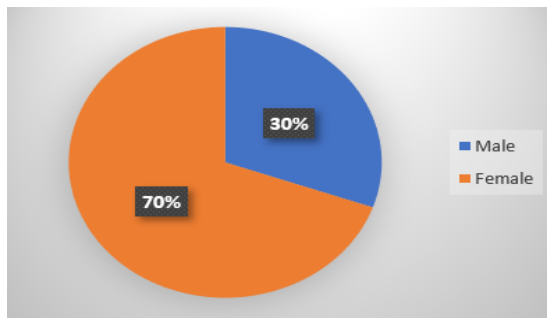
salary), the decision for migration also takes into account the availability of jobs. Thus, it can be considered that the continuous improvement of the entrepreneurial climate in the society, in the long run can lead to a decrease in the brain drain and retention of educated and talented people in the country (Petkovska, 2008). Apart from the fact that the possibility of self-employment has a positive effect on the prevention of brain drain, when considering entrepreneurship in this context, other aspects typical for entrepreneurship should be taken into account. For example, it should be known that entrepreneurs are active in the regions where they have significant social connections. Business relations and contacts with people are very important for every business, and they are built and are more pronounced in the places where we stay longer and create certain experience. In this sense, knowing the potential investors for entrepreneurs is crucial, but to have such information they need to know the region (Petkovska, 2008). All these aspects can influence the decision to emigrate by increasing the cost of migration.

Apart from the financial factors, entrepreneurship also has its share in the creation of non-financial factors that affect migration. Thus, depending of the type of the business and services offered, entrepreneurship contributes to increasing of the diversity of social, cultural life, its comfort and opportunities for personal development.

4. RESEARCH METHODS AND RESULTS

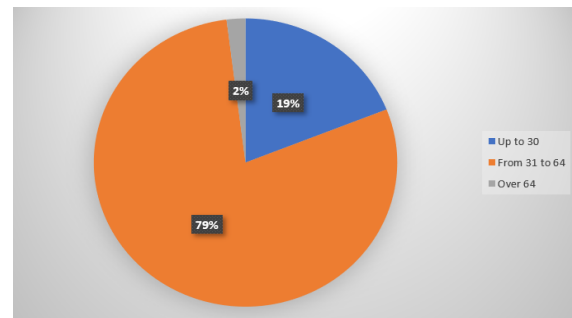
Quantitative research was done by conducting a survey questionnaire through the electronic service for collecting and analyzing research data - Google Forms. The graphical representation is presented through the MS Excel program. The research included 224 respondents, of which 70% were women and 30% men. Most of the respondents are able-bodied population that is directly affected by the reasons for emigration. Most of them are also people aged 31-64 years (79%), and 19% young people up to 30 years. Only 2% were retirees who are indirectly affected by this phenomenon.

Graph 1 – Gender of the respondents



Source: Own research

Graph 2 – Age of the respondents

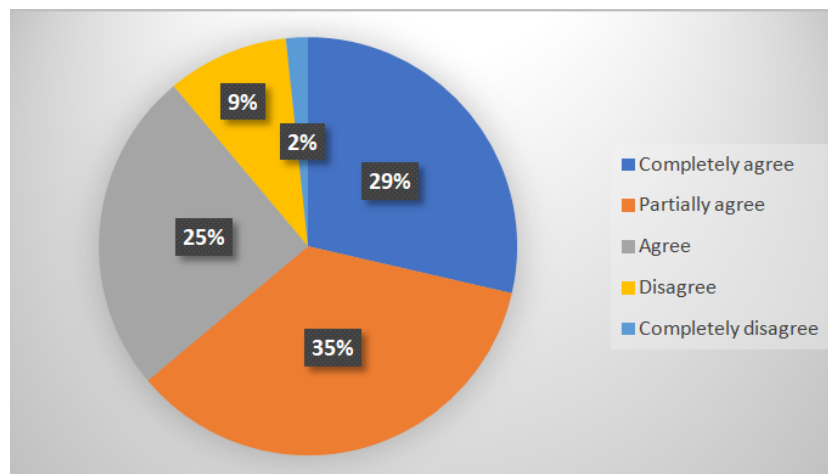


Source: Own research

Respondents had the opportunity to either choose one of the offered answers (Completely agree, partially agree, Agree, Disagree and completely disagree), or rank them by importance from 1 to 5 (1 highest impact – 5 lowest impact).

The research consisted of the following statements, which the respondents had to assess:

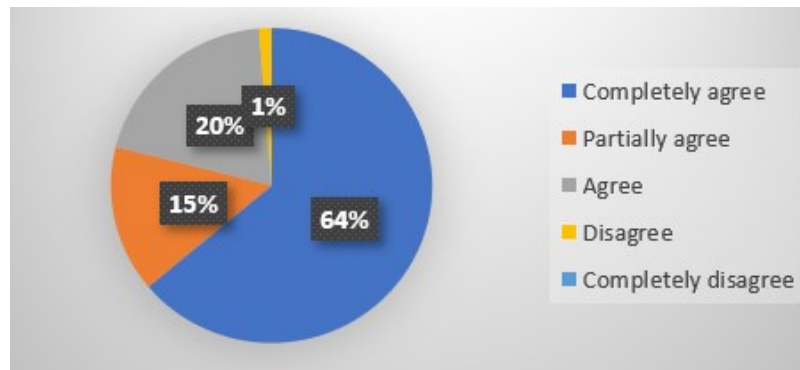
Graph 3 - Employment immediately after graduation affects the phenomenon of brain drain



Source: Own research

The claim *Employment immediately after graduation affects the phenomenon of brain drain* was recognized as correct by the respondents, but there was different thinking about the extent to which it is an important cause of brain drain. Thus, the highest percentage of respondents (35%) answered that they partially agree with this statement, 29% fully agree, and 25% agree that employment immediately after graduation affects the phenomenon of brain drain.

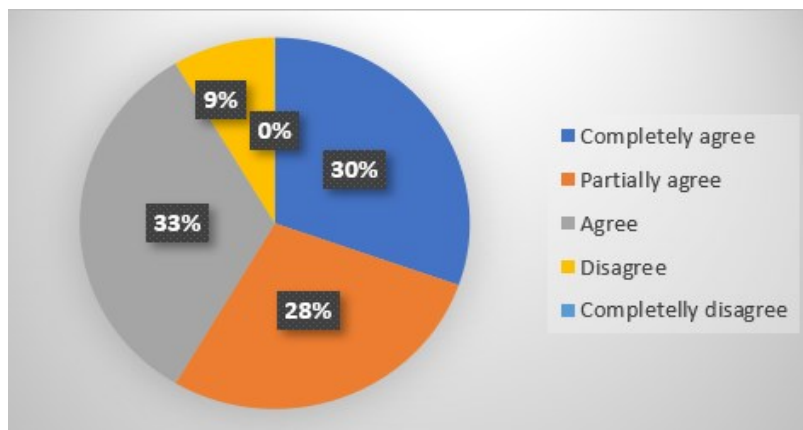
Graph 4 – Phenomenon of “employment based on political ties” affects the phenomenon of brain drain



Source: Own research

Contrary to the previous claim, the *phenomenon of "employment based on political ties" affects the phenomenon of brain drain* is highly recognized by examinations as the main cause of brain drain with as much as 64% of responses.

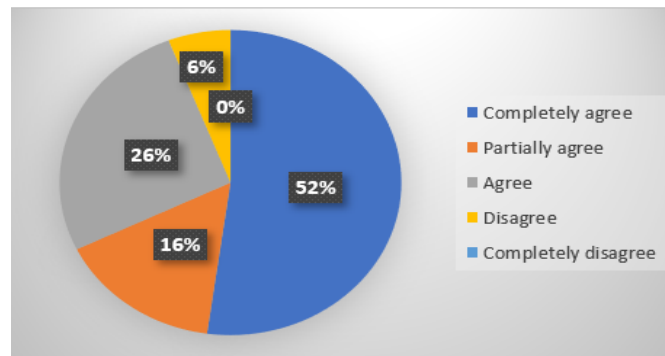
Graph 5 – Disproportion between available labor force and labor market affects phenomenon of brain drain



Source: Own research

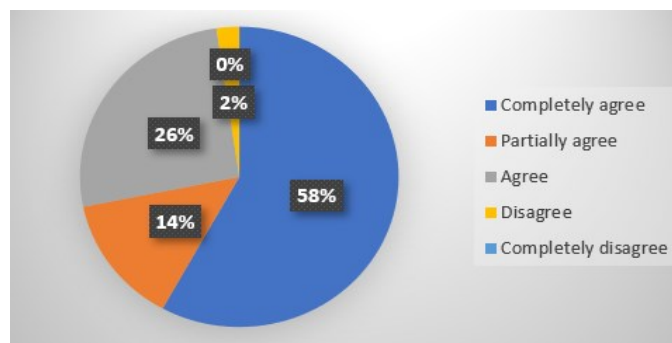
The condition on the labor market was also considered as a factor that may contribute to the brain drain from the country. Thus, the disproportion that exists between the qualified staff and the demand on the labor market was taken into account and included in the research, but the respondents had a divided opinion with a narrow difference in the answers about how this condition is crucial for the brain drain.

Graph 6 – Discrimination in employment affects phenomenon of brain drain



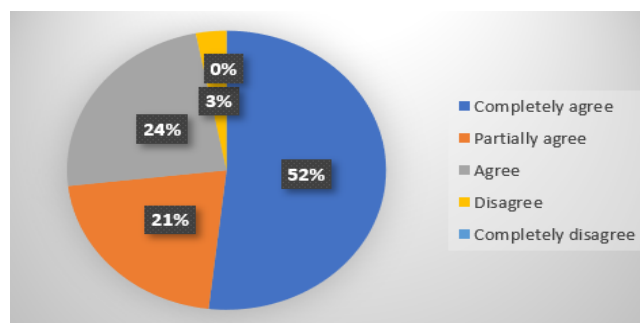
Source: Own research

Graph 7 - Unstable jobs and a salary that doesn't match the competencies affects the phenomenon of brain drain



Source: Own research

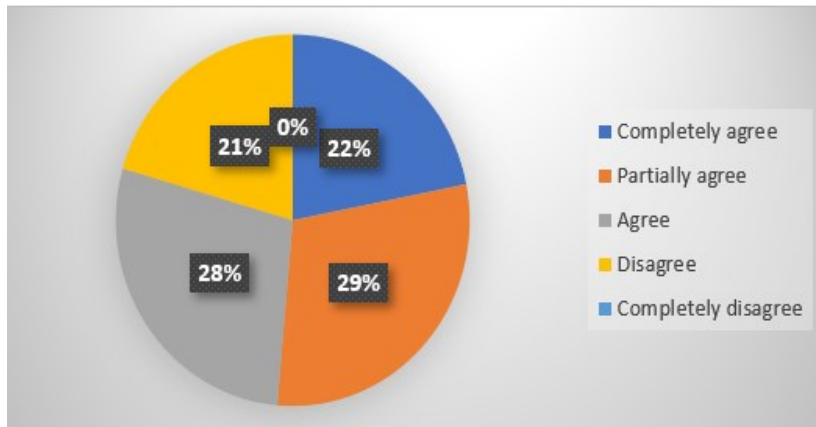
Graph 8 - Unprotected and unguaranteed labor rights, especially when it comes to young people, affects the phenomenon of brain drain



Source: Own research

It is significant that *unstable jobs and wages that do not match the competencies* (58%), *discrimination in employment on various grounds* (52%) and *unprotected labor rights* (52%) are highly recognized as key reasons for demotivation of the citizens who seek its realization abroad.

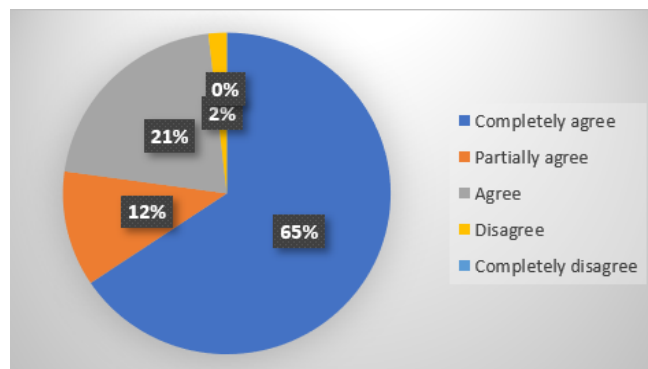
Graph 9 - Further education, additional training and retraining affects the phenomenon of brain drain



Source: Own research

There is a diversity in opinion how great is a need for further education and retraining of the labor force in order to bridge the gap between supply and demand in the labor market and stop the brain drain. 28% agree, and 29% partially agree with the possibility that this is the cause of the brain drain, while a relatively low 22% fully believe that this may be the cause of migration.

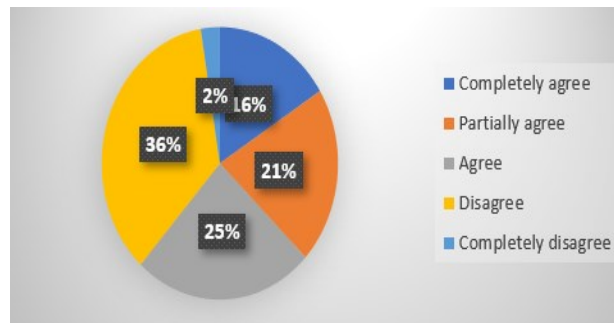
Graph 10 - Deep politicization in society affects the phenomenon of brain drain



Source: Own research

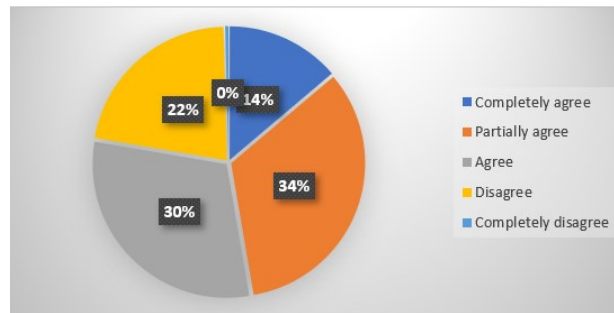
From the answers of the respondents it can be seen that as a key problem that needs to be solved quickly is the deep politicization in the society, which even 66% of the respondents said that it is problematic and alarming.

Graph 11 - Having your own business with solid earnings affects the phenomenon of brain drain



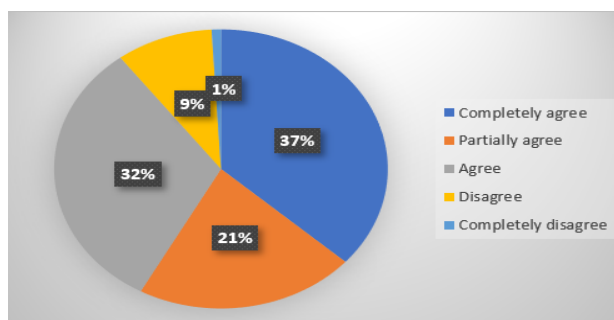
Source: Own research

Graph 12 - Access to financial resources from the state for starting your own business affects the phenomenon of brain drain



Source: Own research

Graph 13 - Bureaucracy and complex administrative procedures affects the phenomenon of brain drain

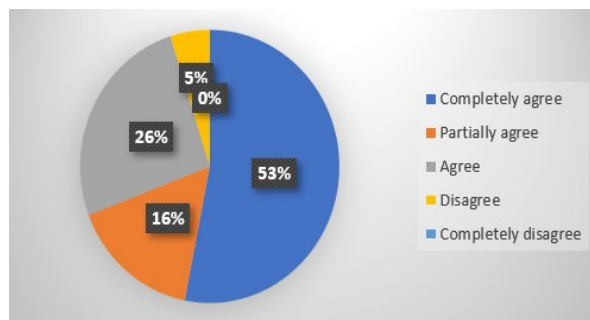


Source: Own research

Economic issues directly related to the development of entrepreneurship such as access to finance for establishing businesses, difficult bureaucratic procedures, opportunities for self-employment and solid earnings are recognized as important, but

are not detected as a high priority in terms of emigration and outflow of educated talented people. In contrast, trust in the legal system is set high on the priority scale for solving as a problem by 53% of respondents.

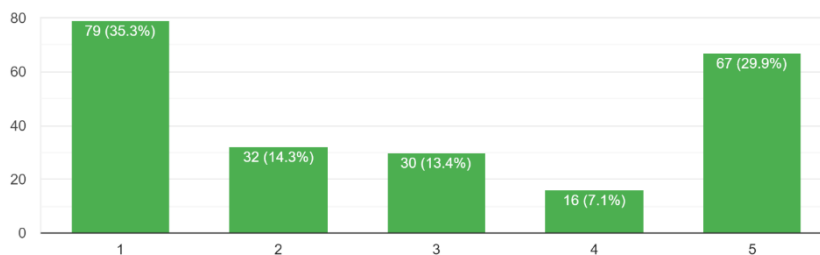
Graph 14 - Trust in the legal system affects the phenomenon of brain drain



Source: Own research

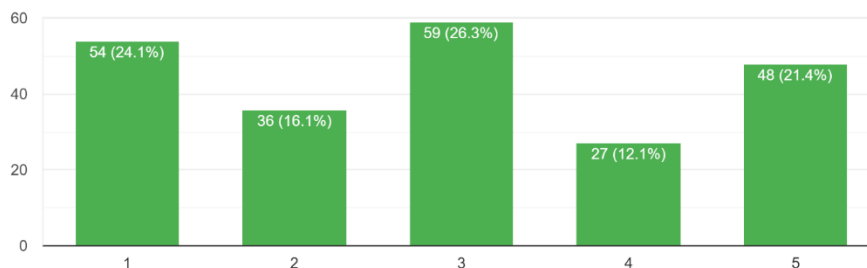
The second part of the questionnaire consists of 5 factors: *quality of life, work and work environment, Family security, political stability and poverty* which of the respondents should be rated on a scale of 1 to 5 (1 highest importance, 5 lowest importance).

Graph 15 - Quality of life



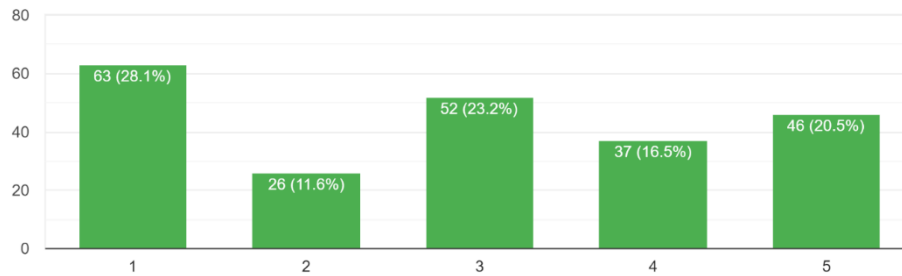
Source: Own research

Graph 16 - Work and work environment



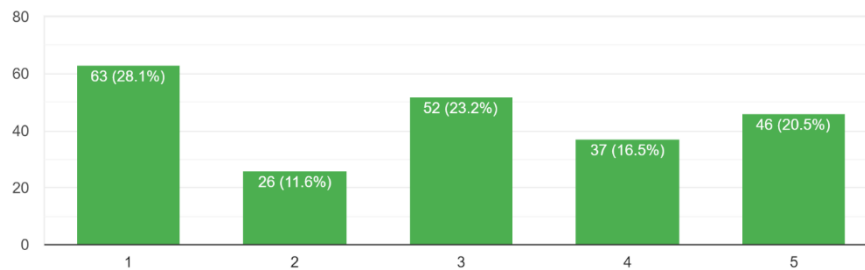
Source: Own research

Graph 17 – Family safety



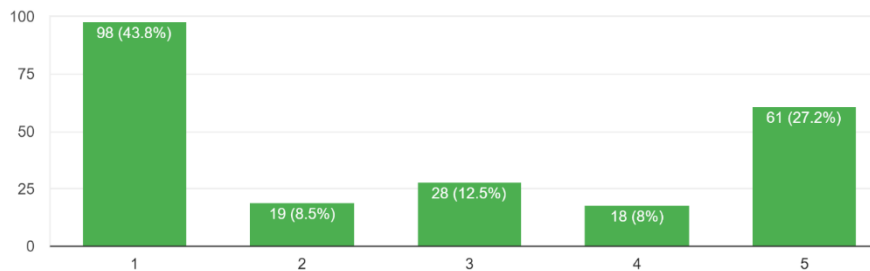
Source: Own research

Graph 18 – Political stability



Source: Own research

Graph 19 - Poverty



Source: Own research

From the answers of the respondents, it can be seen that there is a diversity in the opinions about some of the offered factors, but the greatest value has poverty as a factor, which in 43.8% of the respondents is considered the main reason for emigration.

CONCLUSION

Raising awareness about the 'brain drain' and the need for timely solutions is crucial for the region's future prosperity. There is an urgency to apply direct specific policies to soften immigration and its effects on society.

When we talk about brain drain, it is good to know that this phenomenon distinguishes two concepts: brain exchange and brain waste. (Feld, 2021). From the results of this research it cannot be concluded whether in the Republic of N. Macedonia it is a matter of brain exchange or brain waste. It was not a subject of the research at all and for that purpose additional research will be needed. That is why we use the general term brain drain, which has been defined as the departure of educated and professional people from one country, economic sector, or field for another usually for better pay or living conditions.

From conducted research it can be concluded that financial factors are not recognised as a key reason for emigration from Republic of N. Macedonia. Namely, if we analyze the independent variables with financial/economic sign that are included in the research, such as: employment, owning a business, earnings, access of the financial resources for starting a business, etc. we can concluded that by the respondents they are recognised as important on this issue, but are not considered key and crucial to the general state of brain drain. The frequency of the respondent's answers shows extremely high values in the factors: employment based on political ties 64%, politicization of the society 65%, and trust in legal system 53%. In the ranking by importance as causes of brain drain: quality of life, work and work environment, family security, political stability and poverty as factors, poverty is unequivocally most recognized as one of the most motivating reasons for people to leave N. Macedonia. Looking at the general context, it should be mentioned that political stability, given that the last decade has been significantly disrupted in N. Macedonia, is one of the recognized factors for emigration. The scientific literature says that political instability manifested as political changes can be beneficial to entrepreneurship in the short term.

Political changes may contribute to increased business start-ups, but they are detrimental to the long-term survival of enterprises. Therefore, they do not guarantee good entrepreneurial performance (Shane, 2003). This aspect of the political changes, together with the rest of the factors such as stability and trust in the legal system,

corruption and politicization, which in this case are manifested as discrimination in employment and remuneration for employment, quality of life, etc. in the scientific literature are considered as the main brake on entrepreneurship (Serafimovska, 2014). Thus, it can be concluded that development of the entrepreneurship through government measures aimed at increasing access to financial resources and the other programs that can facilitate the establishment and operation of the enterprises, will not directly contribute to preventing the brain drain. On the contrary, it can be concluded that development of entrepreneurship and the brain drain have common causes (of stagnation, i.e. increased outflow). They need to be removed through appropriate government policies and reforms aimed mainly at eliminating politicization and corruption. Poverty is one of the highest ranking causes of outflow, but the overall results of the research show that it can be overcome not by typical financial measures, but by changing the general climate in society and creating better social living conditions through reduced politicization, corruption and different types of discrimination.

Young people are the social and economic force of a country, representing its potential for the future. In a time of constantly developing technologies and rapidly changing political, social and economic realities they are among the most equipped to contribute to the solutions of the future. The SEE region should focus on giving young people reasons to stay by providing better jobs, more opportunities and a higher standard of living. To get a more accurate picture of the situation in the country, future research could be expanded to determine the extent of brain waste, which implies a skill loss that occurs when highly skilled workers migrate into forms of employment not requiring the application of skills and experience applied in the previous job.

REFERENCES

- Anderson, T. Curley, M.G., Formica, P., (2010). *Entrepreneurship: The Key to social and Economic Transformation*, Springer, pp. 180.
- Feld, S., (2021). *International Migration, Remittances and Brain drain: Impacts on Development*, Springer, pp. 25-28.
- INSEAD, (2019). *The Global Talent Competitiveness Index 2019: Global Talent in the Age of Artificial Intelligence*, Fontainebleau: France.
- INSEAD, (2020). *The Global Talent Competitiveness Index 2020: Global Talent in the Age of Artificial Intelligence*, Fontainebleau: France.
- Meyer, S., (2004). *The Brain Drain problem: The case of India*, GRIN Verlag, pp. 2.
- Panagiotakopoulos, A. (2020). *Investigating the factors affecting brain drain in Greece: Looking beyond the obvious. World Journal of Entrepreneurship, Management and Sustainable Development*, 16(3), pp.207- 218.

- Petkovska, B.T, (2008). *“Innovation – important factor for improving the Competitiveness of Small and Medium Sized Enterprises”*; in *Entrepreneurship – innovation and competitiveness*, Skopje: Economic Institute. pp. 22.
- Schwab, K. (2017). *The Global Competitiveness Report 2017–2018*. World Economic Forum: Geneva. accessed on 1 december 2020. <http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf>.
- Ramhorst, A., (2021). *Study on Youth Employment in the Western Balkan*. Sarajevo: Regional Cooperation Council.
- Serafimovska, H., Sotiroski., Lj. (2014), *“Implications of the Legal Framework for the Development of Entrepreneurship”*, *International Review of Social Sciences and Humanities Vol. 7, No. 1*, pp. 263-273.
- Shane, S, (2003). *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus*, Edward Elgar, Massacusetts, pp. 23.
- Shane, S., (2005). *Economic Development Through Entrepreneurship: Government, University and Business Linkages*, Edward Elgar Publishing, Inc., Massachusetts, pp. 108-110.
- State Statistical Office, (2020) . *Active Population in the Republic of North Macedonia Results from the Labour Force Survey, III quarter 2020*, accessed on 7 december 2020. http://www.stat.gov.mk/pdf/2020/2.1.20.34_mk.pdf.
- World Bank. (2019). *Europe and Central Asia Economic Update, Fall 2019 : Migration and Brain Drain*. Washington, DC: World Bank. accessed on 5 december 2020. <https://openknowledge.worldbank.org/handle/10986/32481>.

SUSTAINABILITY OF INTEGRATED FINANCIAL REGULATION AND SUPERVISION IN THE EUROPEAN UNION

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ABSTRACT

Financial regulation and supervision are some of the most important components of the financial stability of any economy. The applied institutional framework, i.e., the model and structure of the organization of financial regulation and supervision is crucial for the overall stability as well. The first question to be addressed when choosing a model or the combinations of different structures encompasses to the decision that needs to be made regarding the integrated or the non-integrated system of financial supervision. The traditional sectoral approach for financial supervision is not that effective enough to respond to the growing trend of financial conglomeration. Consequently, the integrated regulation is increasingly present in many countries around the world. During the last two decades, the development of financial regulation is moving in the direction of institutional consolidation. The purpose of this paper is to point out the issue of choosing a model of regulation and supervision in the EU countries in the context of the development of financial conglomerates and complex integrated financial products. The research hypothesis argues that the applied model of integration of financial supervision in the EU member states meets the needs of their financial systems, which are increasingly determined by the complexity of the financial conglomerate.

KEYWORDS: financial system, financial supervision, integrated and non-integrated, European Union

JEL CLASSIFICATION: G18; G28; K20; L50

INTRODUCTION

The financial system is one of the most complex regulated sectors in any national economy. Regulation and supervision of the financial system include defining rules and setting up control mechanisms for the operation of the financial institutions and markets. Definition and implementation of the regulatory framework ensures stability and liquidity of the financial system, while promoting competitiveness and market efficiency.

The existence of a system of regulation and supervision is particularly relevant to investors, because it provides access to high quality information, i.e., alleviates the problems of negative selection and moral hazard.

Goodhart (2000) lists three key goals that the regulation seeks to achieve, as follows:

- Ensuring systemic stability of the financial system, i.e., preventing financial panic that could collapse the entire economy,
- Insurance against monopoly behavior in the financial service providers,
- Investor protection, with emphasis on the most vulnerable target group of small investors.

Regulators, supervisors, policymakers, and the general public have questioned the effectiveness of financial supervision, both in the state of turmoil and financial market crises in recent years (Cukierman, 2011). The question whether modifications in the existing supervision models are needed is also a permanent topic of discussion. History has shown that financial market crises have often been accompanied by regulatory reforms. They both unite under the common goal: to regulate and supervise financial markets and institutions in an optimal manner.

In the last twenty years, financial regulation has been developed rapidly in the light of globalization processes and the growth of financial conglomerates. Financial conglomerates are the most common institutional form of ownership and market links. The above-mentioned types of organizational forms represent the evolutionary result of modern financial markets and show the direction of future changes in financial systems. A financial conglomerate is broadly defined as "A group of jointly controlled companies whose exclusive or dominant activities consist of providing most of the services in at least two different financial sectors: insurance, banking or capital

markets (BIS, 2012). The conglomerate is usually dominated by a bank or an insurance company and is followed by owner-subordinated institutional investors such as: mandatory and voluntary pension funds, leasing companies, open-end or closed-end investment funds. The conglomeration of the financial system has reached the top of scale in the system of European universal banking and insurance, primarily due to the lighter regulation of the cross-sectoral activities of the financial intermediaries.

As of 2018, the dominant model for financial supervision is the integrated model. It is represented in seventeen member states of the EU (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). The “twin peaks” model is represented in five member states (Belgium, the United Kingdom, Italy, France and the Netherlands) with these modifications. Five other countries (Bulgaria, Greece, Luxembourg, Romania, and Croatia), that have retained elements of the sectoral model, have introduced 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 (Nakeva Ruzin, and Jovanovski 2020).

Therefore, it seems justified to examine the reasons that led to these dynamic changes in the institutional order of the supervision system in the EU countries. The focus of this paper will be on the development of infrastructure models of supervision as well as aspects of possible solutions.

The research will make it clear how integrated financial regulation and supervision, i.e., their application can be more effective for monitoring the risks of the entire financial system by responding to possible threats to the stability of financial systems.

MODELS OF GOVERNMENT REGULATION AND SUPERVISION IN THE FINANCIAL SECTOR

Regulation is adopted as an alternative to anti-trust policy in the case where the competition is considered unfeasible or in the case where the activity must be controlled due to monopolistic tendencies. For example, natural monopolies have licenses, and their pricing decisions are controlled in order to protect the consumers from exploitation. Cartelized activities are regulated for the same reasons. Here, regulation is needed due to lack of competition, and it is required to achieve results similar to those that would exist in the competitive activity.

In financial sectors, the problem of monopoly is not so significant, yet there are several reasons for government control. Namely, it is indisputable that there is competition in the financial sector and almost negligible possibility for the existence of monopolies. Furthermore, the self-regulation in the market imperfection conditions can lead to numerous negative implications and disturbances, primarily due to the adverse selection and ex-post action. The need for regulation in the financial sector differs from that in monopolized or cartelized sectors, because potential market failures are different as well. The first of the potential market failures stems from the credible nature of financial operations, and the second one from the uncertainties inherent in the price formation process.

The regulation of modern financial systems is developing in three basic directions, as follows (Olgic, 2012):

1. Corporate governance - regulation and supervision are performed only by the company itself;
2. Self-regulation - regulation and supervision of the financial markets and the institutions, implemented by the individual financial institutions or from the industry associations;

3. Direct government regulation - regulation and supervision of the financial system defined by the legislative framework implemented by the public oversight body.

Over the last twenty years, regulation has developed rapidly in the light of the processes of globalization, deregulation of financial markets and the strengthening of conglomeration in almost all economies. In addition, the trend towards global financial integration corresponds to the emergence of financial crises (Olgić, 2012). Van der Zwet (2003) lists various infrastructure supervision solutions according to the degree of growing integration, as follows:

1. Strengthening the link between sectoral financial supervisors (solo or sectoral supervision) - most often related to the separation of institutions responsible for banking, insurance and capital market supervision;
2. Twin peaks model - a model that includes the establishment of a supervising agency for all types of financial institutions, as well as institutions responsible for "strengthening an orderly and transparent financial market and proper relations between market participants". For example, the Central Bank is directly responsible for the systemic stability of the financial system and has the role of the so-called lender as a last resort (prudent regulation). On the other hand, market conduct supervision (Conduct of business; product regulation) refers to strengthening measures to protect investors, preserve market integrity and improve competitiveness, as well as measures to improve the quality of information for market participants. Rather than a monopoly on a regulatory body, this model creates a kind of regulatory duopoly. This model permits the mitigation of conflicts of interest between promoting the solvency of financial institutions and ensuring sufficient protection for their clients and investors (Schoenmaker and Véron, 2017).
3. Establishment of a single regulatory agency that includes banking, insurance and financial market supervision, independent of the central bank.
4. Establishment of a single regulatory agency for the entire financial system out of hand of the national central banks.

FACTORS THAT INFLUENCE THE CREATION OF A SUSTAINABLE SUPERVISION STRUCTURE

a) Internationalization and integration of the EU financial markets

The integration of European financial systems through the merging of financial markets and cross-border services offered by the financial institutions is of paramount importance for the overall project of the European integration. The common market in financial services is extremely important for the functioning of the European internal market for goods, services and labor. At the same time, the integration of the financial system is essential for the functioning of the monetary union, and above all, for the operations of the European Central Bank (hereinafter referred to as the ECB) as the sole central bank of the Eurozone member states.

Successful transmission of the ECB monetary policy is impossible in conditions of fragmented financial markets. Therefore, one of the priorities in the creating of the monetary union has been the creation of conditions for full integration of the financial markets. However, this integration precisely, which has remained incomplete has been portrayed, at least in Europe, as one of the main amplifiers of the financial crisis and as a root cause for passivity and insufficient readiness to solve problems in the financial system. The unfinished integration of the financial markets, in the conditions of the financial crisis, pointed out the financial sector as the Achilles heel of the European Monetary Union¹.

b) Convergence of market segments

In today's age of globalization and internationalization, the boundaries between financial segments are becoming increasingly blurred. If so, then the principle "Same business, same risk, same rules" should be implemented. All institutions should operate with the same rules. It should also be noted that the need for integration of supervisors in different sectors depends on the emergence of financial conglomerates as in "allfinanz" and "bank assurance". There is no doubt that if the market is dominated by that type of institution, then the issue is particularly related to it. Today, of course, the reality is different, and consequently, the entire EU financial supervision structure does not meet the above requirements. It contains the following weaknesses:

¹<http://www.ecb.europa.eu/press/key/date/2014/html/sp140212.en.html>

- Regarding the effectiveness of financial supervision: a fragmented structure of financial supervision increases the risk of termination in one market, will have consequences and will affect other markets. At the same time, a fragmented supervisory structure will transfer the risk that the information to be assessed as a risky situation of a financial group, and consequently, will not be shared equally among the supervisors involved in the situation.
- Regarding the effectiveness of financial supervision: The fragmented structure of financial supervision creates dual reporting tasks and creates unstable requirements for international financially active institutions.

The issue of international competition: the inefficiency of the existing supervisory regime weakens the competition of the EU financial services in the global competition.

SELECTION OF A SUSTAINABLE MODEL OF INTEGRATED SUPERVISION

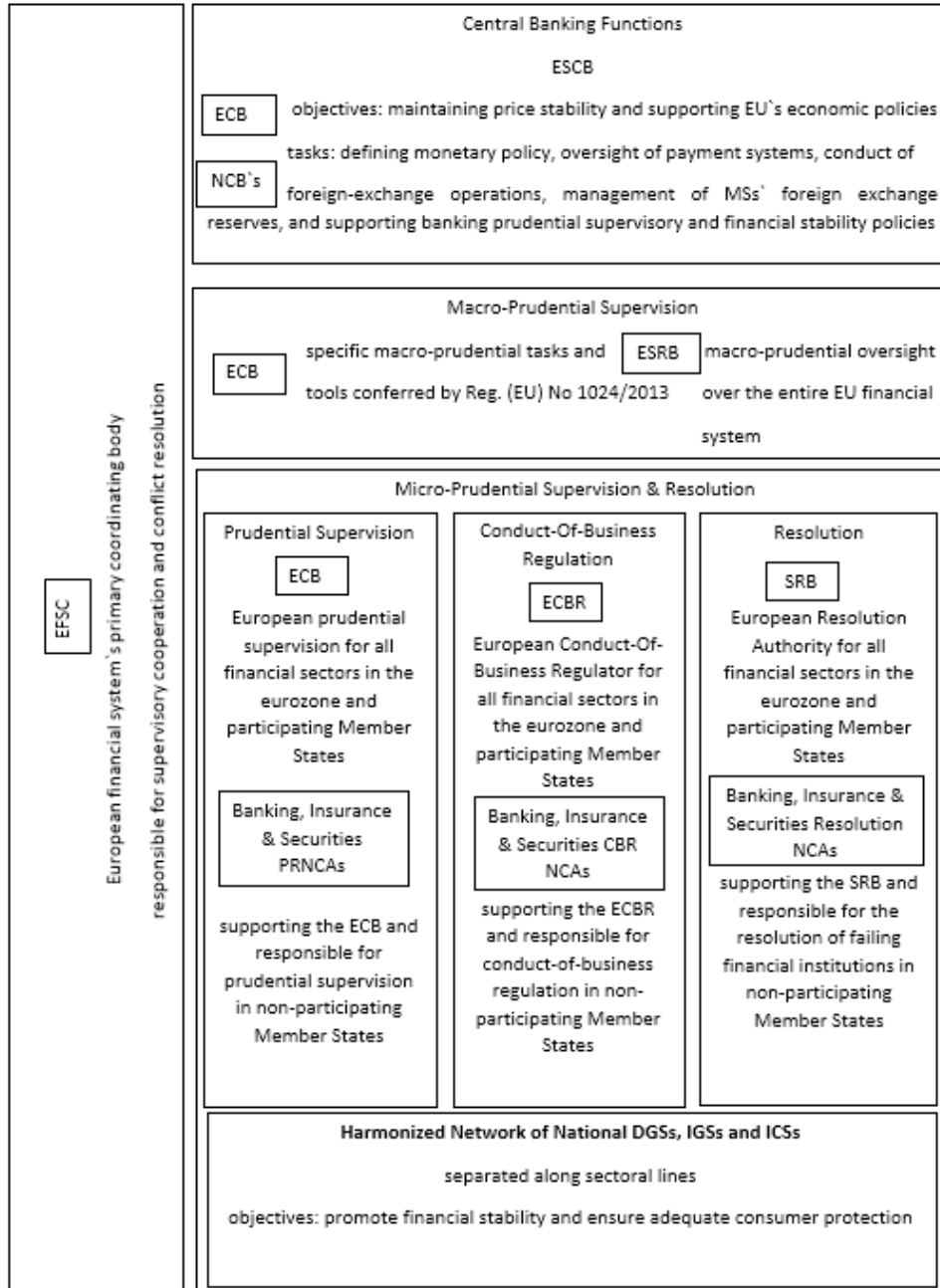
The 2008 financial crisis brought to disclosed all the imperfections of the European financial system and the problems regarding its functionality. The incomplete integration of the financial services market prevented a quick solution and an appropriate response to the crisis; moreover, put in question the normal functioning of the monetary union, and thus, endangered the credibility of the euro as a common currency.

However, the financial crisis was also a kind of "momentum" for completing financial integration through the creation of the European system of financial supervision, which will contribute to a greater stability of the overall European financial system, better transmission of monetary policy within the Eurozone, as well as strengthening the euro as a direct competitor to the dollar as the world reserve currency.

The suggested reform measures would consolidate the European financial stability framework into a hybrid twin peaks model illustrated on Figure 1. Apart from the slight discrepancy between the envisaged centralized supervisory, resolution, and central banking arrangements on one side, and the at least initially nationally organized and sectoral separated safety net on the other side, the new system would be coherent and a great deal simpler than the current architecture. Due to its integrated nature, clear division of responsibilities, and efficient coordination

mechanisms, the new framework would better reflect today's interconnected financial landscape and more easily cope with the thereby posed challenges (Erdélyi, 2015).

Figure 1. Hybrid twin peaks EU financial stability framework



Source: Erdelyi, O J. (2015) Twin Peaks for Europe: State-of-the-Art Financial Supervisory Consolidation, Springer

The foregoing analysis shows that there are a number of complexes, interrelated issues to consider when devising financial stability architectures or contemplating regulatory and supervisory reforms. Any such reform must be

performed with caution under due consideration of a particular jurisdiction's specific circumstances, and mindful of any possible negative externalities together with the fact that regulators and regulated entities alike need time to adapt to changes. Slow progress through incremental reforms that are carefully aligned with existing regulatory structures and traditions are often a superior alternative to a radical transformation of the financial supervisory system (Erdélyi, 2015).

Despite the great diversity of financial stability frameworks employed around the globe, there are a few features generally thought to be integral to their success. As these characteristics can serve as useful starting points for further deliberations irrespective of the specific design of such systems, it seems appropriate to conclude this section by a short review of them (NIER, 2009):

- **Ability to Adapt and Evolve:** Policymakers and regulators involved in financial supervision unequivocally stress the significance of financial stability frameworks' ability to adapt to financial innovation and evolve with the rapidly changing financial environment.

- **Human Capital and Regulatory Culture:** Effective financial supervision depends much more on regulatory culture and the quality of human capital than on specific supervisory structures. Strong leadership and high-quality staff can at least temporarily make suboptimal financial frameworks work effectively until the necessary reforms are carried out.

- **Appropriate Assignment of Regulatory Objectives:** It is of crucial importance that the two objectives of financial regulation are identified—systemic risk reduction and consumer/investor protection—are assigned to one or more regulatory agencies in a manner that each agency making part of the regulatory landscape has a consistent set of objectives creating regulatory synergies and avoiding inter-agency conflicts. Conflicting objectives are thereby best allocated to separate institutions.

- **Appropriate Allocation of Regulatory Tools:** In order to ensure clear accountability and maximum efficiency of regulators, they must be equipped with powers corresponding to their responsibilities—that is, with the tools necessary to achieve their regulatory objectives. The allocation of regulatory tools should ideally take account of potential synergies and conflicts between particular tools as well.

- **Separation of Micro- and Macro-Prudential Supervision:** In response to the current financial crisis, there has been an increased trend of functional and

institutional distinction between micro-and macro-prudential supervision. This separation of powers is believed to introduce vital supervisory checks and balances with a potential to better align supervisory incentives by improving supervisory governance and, thereby reducing the probability of regulatory capture.

- **Increased Central Bank Involvement:** Crisis experience makes a strong case for extending central banks' financial stability mandates. There is an incipient consensus that these institutions should play a major role in both macro prudential supervision and the supervision of systemically important financial institutions, and be formally involved in crisis management.

- **Coordination, Cooperation & Conflict Resolution:** With hindsight to the most recent economic and financial crisis, it is also conventional wisdom that no financial regulatory architecture—however sophisticated it is—can function without effective coordination and cooperation arrangements between all regulatory agencies (including central banks and finance ministries) involved. This applies both within the borders of a single jurisdiction and worldwide, and preferably at all—principal and lower operational—levels of those regulatory agencies. Moreover, formal conflict resolution mechanisms are pivotal in mitigating the impact of potential inter-agency conflicts.

- **Regulatory Consolidation:** The last few decades are characterized by a trend of regulatory unification towards the integrated and twin peaks approaches. Lowering the number of regulatory agencies has proven to be helpful in reducing inter-agency frictions, the risk of duplication of supervisory tasks, and the regulatory burden on the industry.

- **Consistency with Existing Settings:** Any reform of regulatory architectures—whether allocating new powers and responsibilities to existing agencies or performing structural changes—must be consistent with the existing functional and structural settings of the supervisory framework concerned.

- **Financial Safety Nets (Schich and Kim 2011):** Financial system guarantees—in particular DGSs and in the recent past increasingly insurance guarantee and investor compensation schemes as well—are widely seen as indispensable elements of any financial regulatory system contributing to both objectives of financial regulation, e.g., mitigating systemic risk and ensuring sufficient consumer protection.

However, there are also several perceived disadvantages of the twin peaks model. First, twin peaks may create a regulatory overlap with dual-regulated entities. The twin peaks model means that it is 'inevitable that two separate regulators would have two separate rule books and two separate systems' (Godwin, 2017).

Of course, the proposed financial supervisory architectural design is merely one of several possible alternatives, but it seems a reasonably viable one in light of the ongoing trend toward financial supervisory consolidation and the above outlined considerable benefits associated with it.

CONCLUSION

A well-developed and efficient financial system is a key component at every national level in the economy. The impact of the financial system on economic growth and development is very important, but it also has a significant risk of shocks and instability. Therefore, it is especially important to set up control mechanisms and to implement an efficient and reliable system of supervision and oversight.

The evolution of the supervisory system in the last two decades can be characterized as particularly dynamic and intense. On one hand, financial systems developed faster than national economies in the mid-1990s, sophisticated products and services were introduced, and financial institutions were no longer unambiguously defined. The trend of consolidation of different financial sectors has been set and the question of the justification of the prevailing model of sectoral approach to financial supervision and supervision at the national level has been raised.

Finally, the global financial crisis has highlighted more than just the need for national integration of the supervisory system into a single institution, but also the need for new institutions at the supranational level. This issue is especially important in the conditions of high degree of integration of the financial market in the EU countries, and especially in the new member states that are characterized by underdeveloped financial systems, sensitive to external influences.

At the EU supranational level, there is a consensus among Member States on the need to strengthen the existing institutional structures for financial stability in order to ensure greater efficiency and cooperation between institutions for supervision. Accordingly, the financial crisis has encouraged the implementation of a new supranational framework for financial market supervision and institutions operating

in the EU. The development of national regulation and supervision systems has moved towards the integration of the competent agencies.

Today, in most EU countries, the single regulator model is applied, which means supervising the entire financial system under the jurisdiction of an institution that includes prudential control and investor protection functions. In order to build the overall "architecture of financial stability", it is necessary to constantly improve cooperation between supervisory institutions, in order to grow; develop and ensure security and trust in national and supranational financial systems.

REFERENCES

- BIS., 2012. "Principles for the supervision of financial conglomerates", <http://www.bis.org/publ/joint29.pdf>
- Cukierman A., 2011. "Reflections on the crisis and on its lessons for regulatory reform and for central bank policies", *Journal of Financial Stability* 7(1), pp. 26–37.
- Erdélyi, O J., 2015. "Twin Peaks for Europe: State-of-the-Art Financial Supervisory Consolidation", *Springer*.
- Goodhart, C. A. E., 2000. "The Organizational Structure of Banking Supervision ", *FSI Occasional Papers*, Financial Stability Institute, BIS, 1.
- Godwin, A., 2017. "Introduction to special issue – the twin peaks model of financial regulation and reform in South Africa ", *Law and Financial Markets Review*, 11:4, pp.151-153, DOI: 10.1080/17521440.2017.1447777
- Nakeva Ruzin, A., and Jovanovski K., 2020. "Evolution of the Financial Supervision Architecture in the EU Member States-Potential Lessons for Reforming the Macedonian Financial Framework," *Economic Development* No. 1-2 pp.76-91
- NIER, E. W., 2009. "Financial Stability Frameworks and the Role of Central Banks: Lessons from the Crisis ", *IMF Working Paper*, WP/09/70.
- Olgic D, B., 2012. "Uloga i utjecaj institucionalnih investitora na razvoj tržišta kapitala odabranih tranzicijskih zemalja i Republike Hrvatske", *doktorska disertacija*, Rijeka.
- Schich S, Kim B-H., 2011. "Guarantee arrangements for financial promises: how widely should the safety net be cast? ", *OECD Journal: Financial Market Trends*(1), pp.201–235.
- Schoenmaker, D, and Véron N., 2017. "A 'twin peaks' vision for Europe", *Bruegel Policy Contribution*, no 30.
- Van der Zwet, A., 2003. "The Blurring of Distinctions between Financial Sectors: Fact or Fiction? ", *De Nederlandsche Bank, Occasional Studies*, 1, 2.
- <http://www.ecb.europa.eu/press/key/date/2014/html/sp140212.en.html>.

DISTANCE LEARNING IN AN ELECTRONIC ENVIRONMENT DURING THE COVID-19 PANDEMIC

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ABSTRACT

The COVID-19 pandemic has affected all areas of our life including learning and education. 2020 will remain in the history of world education with the unprecedented physical closure of schools and universities and the rapid transition of educational activities in a virtual online mode. Traditional teaching methods have been transformed in digital format. The learning process was conducted entirely in an electronic environment, which had to be organised and provided with electronic resources - different types of electronic media and information and communications technologies (ICT) in education.

The aim of the article is to examine the experience gained from e-learning in a social distance at universities in Bulgaria. This study focuses on academic staff perspectives of main challenges and problems in distance learning process during the pandemic at higher educational institutions using the example of University of Agribusiness and Rural Development (UARD). As part of our study, we interviewed academic and administrative staff in University of Agribusiness and Rural Development to investigate the challenges that were faced in the periods of social distance.

Lessons learned from "crisis education" analysis outline the strategic framework for the necessary changes in learning models, providing distance education, leveraging hi-tech, low-tech and no-tech approaches, so that today's education can meet future challenges.

KEY WORDS: distance learning, e-learning, information and communications technologies (ICT), COVID-19 pandemic

JEL CLASSIFICATION: I20, I21, I23

INTRODUCTION

The COVID-19 is a huge challenge to national education systems. According to UNESCO more than 1.5 billion students and youth across the planet are or have been affected by school and university closures due to the COVID-19 pandemic.¹ This unexpected change is being realized as a crisis measure to control the spread of the Covid-19 virus. In this sense, distance learning, which takes place in hundreds of educational systems and includes different types of synchronous and asynchronous forms of e-learning is determined by some researchers as "crisis education". A large number of universities across the world are shifting the focus from traditional education to a web-supported education that can be provided either fully online or through blended learning (hybrid learning) (Rudenko, 2020).

The pandemic caused rapid changes in higher education in Bulgaria. The parties in the educational process in the country - teachers, students, institutional heads and officials had to adapt to new reality. The interruption of the educational process in connection with the restrictions imposed by COVID-19 changed both the organization and the methods of teaching. Educational institutions had very little time to prepare for a remote-teaching regime. The measures taken by the institutions in Bulgaria were aimed primarily at ensuring an effectively functioning distance learning system.

Today, the major challenges facing education systems are related to how the new opportunities created during the crisis by the physical closure of educational institutions can be used to transform organizational and pedagogical models in contemporary education. The objectives of this study are: to analyze good educational practices and innovative models in distance learning in an electronic environment in Bulgaria; to reveal the advantages and limitations of using e-learning; to outline opportunities for changing the educational practice and organizational model.

NATURE AND CHARACTERISTICS OF DISTANCE LEARNING AND E-LEARNING IN EDUCATION

E-learning forms are used in distance learning when there is no need for direct contact between teacher and student. They are also used in face-to-face teaching through the introduction of various electronic media. E-learning, also referred to as

¹ <https://en.unesco.org/covid19/educationresponse/globalcoalition>

online learning, electronic learning, or web - learning, refers to the use of different types of electronic media and information and communication technologies (ICT) in education. Distance learning is a learning process where the student and the teacher are separated by location, but not necessarily by time difference. The created distance is compensated by technological means: audio, video, computer and communication technologies and tools. The discussion of the definition and practices of e-learning focuses on the intersection of education, teaching, and learning with ICT (Friesen, 2009) ICT refers to any product used to store, retrieve, manipulate, transmit, or receive information electronically in a digital form. ICT system is generally an information system, a communications system or, more specifically speaking, a computer system – including all hardware, software and peripheral equipment – operated by a limited group of users. The term is commonly used as a synonym for computers and computer networks, but it also encompasses other information distribution technologies such as television and telephones.² “In recent decades, the use of information and communication technologies for educational purposes has increased, and the spread of network technologies has caused e-learning practices to evolve significantly” (Kahiigi et al, 2008), especially for learning outside the premises of the school. E-learning/E-education has been introduced as a tool in the learning process in the majority of the international universities worldwide (Srivastava, 2018).

E-learning can be two main categories: synchronous and asynchronous. In synchronous learning, the student and the teacher are online and interact at the same time from different places. They deliver and receive the learning resources via video conference, Internet, mobile or chat. Asynchronous e-learning is pause-and-resume kind of learning. Thus, the student and the teacher cannot be online at same time. Asynchronous e-learning facilitated by media such as e-mail, blogs, discussion forums, CDs, DVDs, e-book’s etc. Students may learn at any time, download documents, and chat with teachers and other classmates. Many learners prefer asynchronous instead of synchronous learning because they can learn at their preferable time. Students may spend more time refining their contributions, which are generally considered more thoughtful compared to synchronous communication (Hrastinski, 2007). Table 1 summarizes main considerations for using one or the other category.

² <https://europeyou.eu/es/what-is-information-and-communication-technology/>

Table 1. Synchronous vs. asynchronous e-learning

| | Synchronous e-learning | Asynchronous e-learning |
|-------------------------------|---|--|
| In which cases? | <ul style="list-style-type: none"> • Small group of students • Exchange support • Discuss less “complex” issues • To plan or coordinate work, tasks | <ul style="list-style-type: none"> • Large group of students • Discuss “complex” issues • When synchronous meeting cannot be scheduled |
| Why? | <ul style="list-style-type: none"> • Increased commitment and convergence on meaning | <ul style="list-style-type: none"> • Increased person ability to process information • More flexible |
| Learning from the sources of: | <ol style="list-style-type: none"> 1. Virtual Classroom 2. Audio and Video Conferencing 3. Chatting 4. Application Sharing 5. Messaging 6. Webinars | <ul style="list-style-type: none"> • Self-paced online courses • Discussion forums, groups, blogs • Discussion boards • Emails • Online libraries |

Source: Adapted from Hrastinski, S. (2008)

According to Hrastinski (2008), for the discussion of complex issues, synchronous e-learning, by media such as videoconferencing, instant messaging and chat, and arranging face-to-face meetings as a complement, may be essential as support for students to get to know each other and for planning the tasks at hand. However, when discussing complex issues, in which time for reflection is needed, it seems preferable to switch to asynchronous e-learning and use media such as e-mail, discussion boards, and blogs (Hrastinski, 2008). Synchronous and asynchronous learning complement each other and the combination of them provide variety of ways to exchange information in e-education process.

In terms of social isolation imposed by the Covid-19 pandemic, it is necessary to evaluate both the advantages and disadvantages of distance learning in electronic environment.

STUDY ON STAFF PERSPECTIVES OF MAIN CHALLENGES AND PROBLEMS IN DISTANCE LEARNING PROCESS DURING THE PANDEMIC AT UARD

The purpose of this study was to examine possible challenges that were obstructing the adoption of e-learning platforms in the education and the experience

gained by them during the academic year 2020/2021 on e-learning process. The study adopted the descriptive research design.

Specific objectives are to determine:

- the extent the academic and service staff utilized e-learning in their teaching;
- the ICT competences possessed by the UARD academic staff;
- the problems faced by academics in proper utilization of e-learning packages.

A questionnaire was used to elicit answers to the following research questions that guided the study:

- Staff attitude towards e-learning in general;
- Staff first impressions on e-learning platform of UARD “Electronic University”, on its positive or negative aspects;
- Staff preparedness for a university e-learning environment
- Staff readiness for participation
- Possibly proposing improvements

43 members of academic staff and service staff at the UARD were asked to evaluate their experience with e-learning during the isolation imposed by the COVID-19. Summarizing the results of our survey, we can point out that answers showed positive attitudes toward the e-learning, with slight differences in some of them. The main advantages of online learning are highlighted in the answers, such as: “It is convenient, affordable and saves time”; “It corresponds to the modern development of technologies and teaching methods”; “The only options during the crisis by the physical closure of educational institutions”; “Possibility of self-dependent work”; “Flexible way of learning”. It is noteworthy that the vast majority of respondents felt that real-time face-to-face interactions were fundamental regards the social value that is derived in a traditional learning as an essential factor in learners’ attitudes. It makes sense that the new model of online interaction between a teacher and a student appears to take some time. The statements relating to platform flexibility and accessibility were rated good enough. The overwhelming majority of respondents expressed their satisfaction with the university e-platform, and they found it easily accessible, convenient, multifunctional. A small number of respondents indicated some difficulties faced while using the E-University platform. This can be explained by the lack of adequate training or experience with those platforms. All of the participants

in the survey declare their readiness for participation in e-learning. Some of them declare it conditional, if it is necessary, for example during the pandemic. The majority of respondents proposed conduction of an additional trainings and establishment and publication of instruction manuals for using e-platforms and e-resources by bough the teachers and the students. Their degree of exposure and the quality of the accessibility of ICT is a significant consideration that can influence attitudes and readiness to e-learning in higher education.

In addition, an analysis of the e-learning process conducted for the study period was made.

Main characteristics are summarized in the table 2. Analyses of the results showed that technical support of the e-learning process is not sufficient. In our opinion, an e-learning framework should be outlined, which should be developed in such a way that it is practically applicable. The e-learning framework should offer guidelines for developing learners' skills both through the application of appropriate learning methods for the e-environment and through the use of technical means (software and hardware). The study further revealed that the majority of the professors and the students have the competence of using the computer and e-learning application but additional training is needed to keep their knowledge and skills up to date with new realities. Some challenges for effective utilization of e-learning are considered: inadequate ICT infrastructure on the part of professors and students, internet access problems, lack of update computer packages readily available for application on the part of participants, lack of time and administrative support in providing ICT materials; insufficient technical support from ICT professionals; lack of internet service knowledge on the part of academics; lack of adequate training to them on how to integrate e-learning gadgets etc.

Based on the survey, we can conclude that e-learning is successful in UARD for the period during the crisis by the physical closure of educational institutions. Students appreciate the effort made by their professors to provide the e-learning process with materials in the disciplines, namely full-text lectures, additional literature, video lectures and synchronous communication. But on the other hand, the participants in e-learning report the negative consequences of this type of training. For example, too many hours in front of the computer, lack of real connection with their professors and other students, problems with internet connection, poor technical equipment (some of

them do not have the appropriate hardware). As stated in UNESCO IESALC (2020), the main technical difficulties faced by students in higher education during the pandemic are mainly related to hardware and internet connection, communication with fellow students and teachers, compliance with regular schedule of the learning process (UNESCO IESALC (2020)). The COVID-19 crisis has also affected low-income students, who have reported problems with lack of technical equipment. The results are a decrease in motivation due to poor technical support, and hence the inability to cope with the assigned tasks and exams.

Table 2. Characteristics of the Distance Learning process during the pandemic at UARD for academic 2020/2021

| | |
|--------------------------------------|--|
| Forms of e-learning | <ul style="list-style-type: none"> ✓ Synchronous (videoconferencing, virtual classrooms, webinars) ✓ Asynchronous (online courses in platform "Electronic university") |
| Video conferencing software products | <ul style="list-style-type: none"> ✓ Google meet ✓ Zoom ✓ Skype |
| Learning Management System | <ul style="list-style-type: none"> ✓ MOODLE³ |
| Forms of current control | <ul style="list-style-type: none"> ✓ Synchronous (solving cases, presentations) ✓ Asynchronous (assignments, tests, course projects in platform "Electronic university") |
| Form of exams | <ul style="list-style-type: none"> ✓ Synchronous (theoretical tests) ✓ Asynchronous (assignments, tests, course projects in platform "Electronic university") |

Based on the analysis, main conclusions are made regarding the characteristics of organizational and pedagogical models for distance learning in electronic environment during the pandemic in educational system in Bulgaria as follows:

- Changing the educational paradigm by introducing different models of blended learning (combining elements of face-to-face learning and IT-assisted face-to-face learning, synchronous e-learning and distance learning in an e-environment). Effective use of a combination of synchronous (students learn live in the real classroom or in a virtual classroom) and asynchronous (students

³ The MOODLE course management system is an opensource system that can be used for creating online courses.

learn independently or interact as a team in cyberspace at different times) approaches.

- Increasing investments in distance learning to prepare for future periods of university closure, to improve distance learning in an e-learning environment in the university to create an appropriate e-infrastructure for the implementation of blended learning models.
- Emphasis on the well-being of students and academics
- Increased funding for teacher training and education in terms of: identifying behavioural and cognitive changes in students; providing support for learning and personal development; conducting various forms of e-learning. Advantageous use of innovative methods to support academics, such as online professional development, coaching and supervision.

CONCLUSION

Distance learning in an electronic environment has become a current and promising trend in education. The COVID-19 pandemic brought many challenges necessitated an educational reform providing participants in learning process with new models of communication, learning and professional engagement.

UARD has successfully made the transition to online forms of course delivery thanks to the availability of online study options. A virtual learning environment "Electronic university" enables students to have consistent learning experiences on the joint learning platform. Technical support and adequate ICT infrastructure has been critical to the success of the distance learning delivery mode at University of Agribusiness and Rural Development in the early and ongoing stages of the COVID-19 pandemic. Lessons learned from "crisis education" analysis outline the strategic framework for the necessary changes in learning models, providing distance education, leveraging hi-tech, low-tech and no-tech approaches, so that today's education can meet future challenges.

REFERENCES:

- Friesen, N. (2009). Re-thinking e-learning research: Foundations, methods and practices. New York: Peter Lang. DOI: 10.7202/1000006ar
- Hrastinski, S. (2007). "The Potential of Synchronous Communication to Enhance Participation in Online Discussions," ICIS 2007 Proceedings Paper 80. <http://aisel.aisnet.org/icis2007/80>.
- Hrastinski, S. (2008). Asynchronous and Synchronous E-Learning. EDUCAUSE Review, Available at: <https://er.educause.edu/articles/2008/11/asynchronous-and-synchronous-elearning#fnr7>
- <https://en.unesco.org/covid19/educationresponse/globalcoalition>
- <https://europeyou.eu/es/what-is-information-and-communication-technology/>
- Kahiigi, E.K., Ekenberg, L., Hansson, H., Tusubira, F.F., & Danielson, M. (2008). Exploring the e-learning state of the art. The Electronic Journal of e-Learning, 6 (2), 77-88. Available online at <http://www.ejel.org>
- Nacheva, R., A. Jansone (2020). E-learning in a pandemic: the Bulgarian and Latvian experience in higher education. Известия списание на Икономически университет 4 (2020), ISSN (Online): 2367-6949
- Rudenko, E. et al. 2020. Distance learning during the pandemic: managing the challenges. E3S Web of Conferences 210, 18038 (2020), <https://doi.org/10.1051/e3sconf/202021018038>
- Srivastava, P. (2018). Advantages & Disadvantages of E-Education & E-Learning. Journal of Retail Marketing & Distribution Management, Vol. 2, Issue, 03. 22-27, Dec, 2018. Available online at <http://www.nrjp.co.in>
- UNESCO IESALC. (2020). COVID-19 and higher education: Today and tomorrow. Impact analysis, policy responses and recommendations. [online] Available at: <http://www.iesalc.unesco.org/en/wpcontent/uploads/2020/05/COVID-19-EN-130520.pdf>

DIGITAL ENTREPRENEURSHIP THROUGH SOCIAL MEDIA FOR START-UP BUSINESSES IN THE REPUBLIC OF NORTH MACEDONIA

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ABSTRACT

Recent changes in the digital landscape, especially evident through the emergence of the COVID-19 pandemic have shifted the boundaries and obstacles of e-commerce. As the startup businesses comprise the moving force of national economies, there is an increase of a new type of entrepreneurship initiative, called digital entrepreneurship. By utilizing ICT and the Internet, the paper examines the foundations and forces behind the digital entrepreneurship, and whether they can be translated into benefits for entrepreneurs in the Republic of North Macedonia.

As shown by data from the state, one of the biggest challenges North Macedonian start-ups face is financial capacity and market stability. Through one of the dimensions of digital entrepreneurship, social media communication and marketing, the research is focused whether the new digital entrepreneur can achieve greater and more consistent sales numbers through e-commerce.

Based on the research and analysis of both secondary and primary data, a positive correlation can be seen between social media communication and the increase in online purchasing intention of consumers, represented by several different determinants. This entails managerial implication in rethinking the marketing strategy of a start-up business, which has traditionally focused mostly on utilizing social media as a complementary channel or not using it at all, and shifting towards a model of social e-commerce which shows future promise and potential.

KEYWORDS: Digital entrepreneurship, startup businesses, digital entrepreneur, marketing strategy, social e-commerce

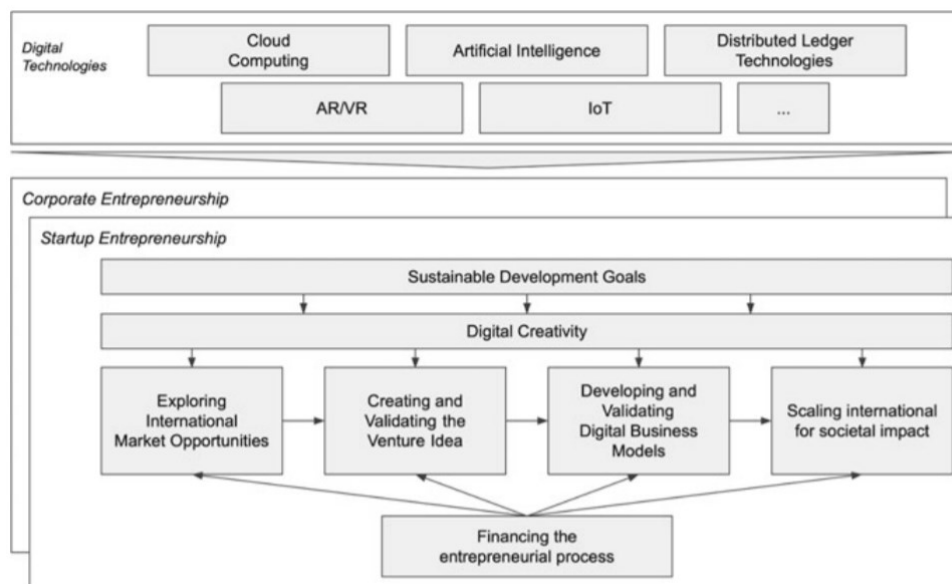
JEL CLASSIFICATION: L26, M31

2. INTRODUCTION

Through recent years, ICT technologies have shaped new opportunities for entrepreneurs and start-up businesses. The focus has started shifting initially with the Internet as an additional channel for sales, with complete digital transformation of all business processes in the following period. This resulted in the establishment of digital entrepreneurship, which encompasses various different ICT technologies at its foundation. Entrepreneurship is regarded as the cornerstone of the modern economy, with countries having a dominant number of start-up and micro businesses compared to other sizes. In the Republic of North Macedonia, where most of the registered companies fall under the micro category (under 10 employees) with 82.1% and small category (8.3%), followed by medium companies (9.3%). Corporations (over 250 employees) account for only 0.3% of all active registered companies¹.

There are specific digital developments have had an impact on entrepreneurship, as well as businesses of various sizes (whether SMEs or corporations) to rethink and reshape their existing business and communication models, which are presented in Figure 1.

Figure 1. Elements of Digital Entrepreneurship

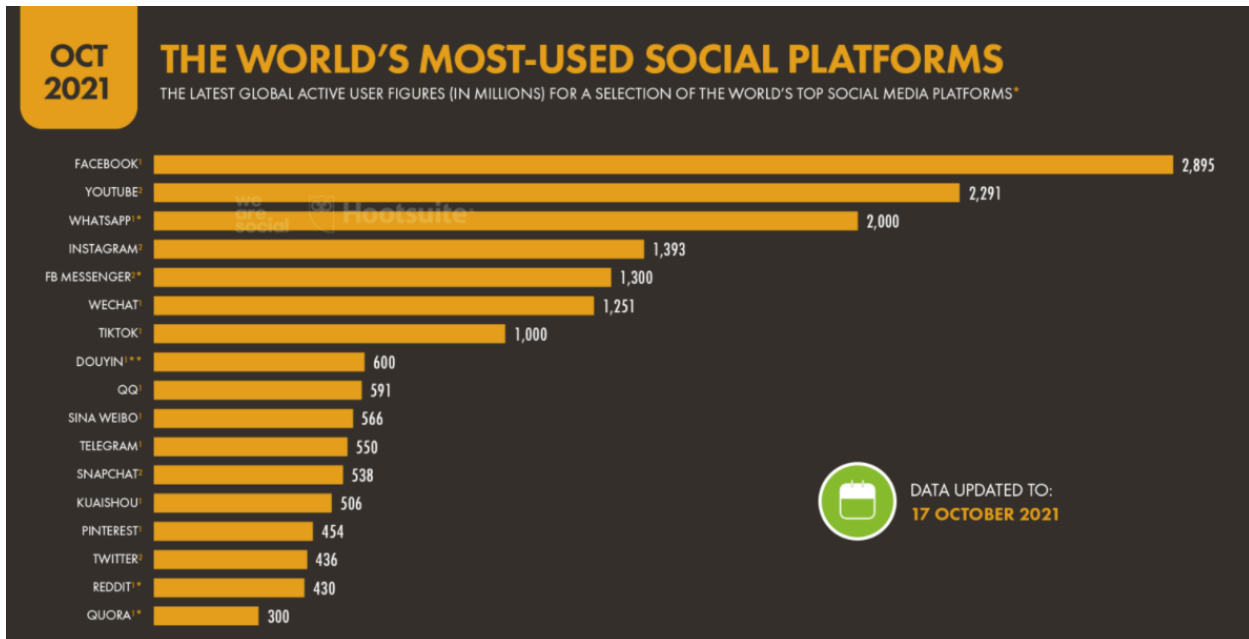


Source: Soltanifar et al., 2021

¹ <https://www.stat.gov.mk/PrikaziSoopstenie.aspx?id=79&rbr=13589>

As the business landscape and resources are constantly changing, start-ups have a larger array of digital tools and platforms to leverage for a successful launch. One of the most prominent communications channels in recent years have been social media, especially evident during pandemic times with high usage rates, presented in Figure 2.

Figure 2. Social media usage by platform



Source: <https://datareportal.com/social-media-users>

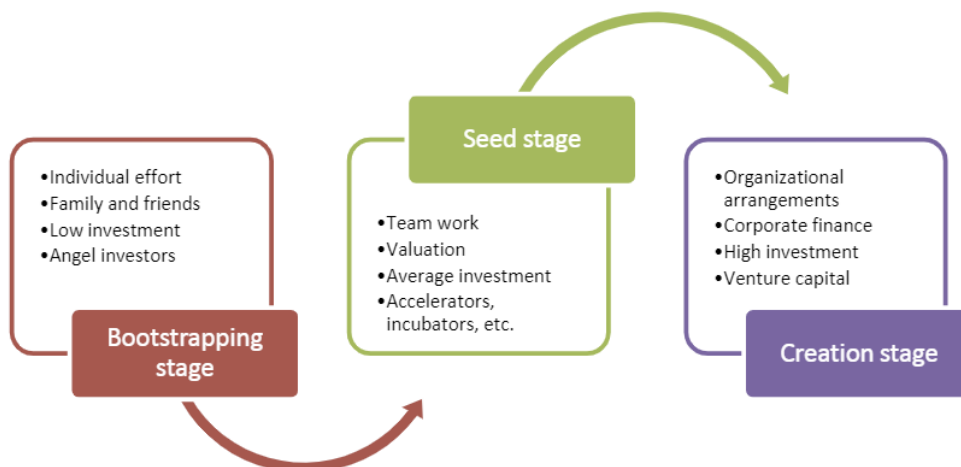
Facebook traditionally holds the first place, however there is a significant rise in YouTube, WhatsApp and Facebook Messenger as social media platforms used by consumers. This is in line with the prevalent word of mouth influence which has been noted in the past years (Alhidari et al., 2015). On YouTube, users can create videos related to the brand; "unboxing" their products, event footage or amateur commercials (Pace, 2008; Smith et al., 2012). According to Ertimur and Gilly (2012), these videos attract potential buyers much more than market-generated videos. The third and fifth most popular social networking platforms are WhatsApp and Facebook Messenger, respectively. Unlike Facebook and YouTube, they are classified as platforms for messaging, chatting or calling. WhatsApp has built its business platform to enable businesses to have a relevant business profile, provide customer support and share news with customers about their new products or services. For small businesses, there are built-in features, such as WhatsApp Business application, while for medium and

large businesses, there is a WhatsApp Business API. Facebook has made Messenger a standalone application and currently has over one billion and three hundred million users. Businesses can now advertise, create chat communications, send newsletters and much more through Messenger. By combining aspects of digital entrepreneurship with the communication power of social media, entrepreneurs can reach audiences at reduced costs, with potentially greater effect on sales. As social media tends to be more personal, this new approach enables entrepreneurs to quickly launch and present their products and services to the general public, while offering an immediate conversion point. The potential increase in e-commerce sales could enable sooner scaling of the start-up and moving through the stages of the company lifecycle, which is researched as the main topic in this paper.

3. LITERATURE REVIEW

Entrepreneurship has many different definitions and has evolved throughout the years. Some authors define entrepreneurs as “individuals who exploit a market opportunity through technical and organization innovation” (Schumpeter, 1965), while others see entrepreneurs as “having characteristics of seeking opportunities, taking risks and having the tenacity to push an idea through to reality combine into a special perspective” (Kuratko, 2005). The prevalent elements of entrepreneurship can be seen as innovation and creativity, which start the process of entrepreneurship and the entrepreneurial path, leading to the creation of a start-up company.

Figure 3. Lifecycle of start-ups



Source: Salamzadeh & Kawamorita, 2015

Figure 3 presents stages in the lifecycle of start-ups, which is based on a more traditional model preceding ICT and the Internet. At each stage there are different activities which can be deemed necessary for a start-up to successfully function. Some authors believe that the seed stage is critical for a successful start-up and can generally be seen as the stage where most initiative fall through. Most common obstacles start-ups face can include financial challenges, support mechanisms and environmental elements (Salamzadeh, 2015). In the Republic of North Macedonia during pandemic times, statistics show that the biggest obstacles for start-ups organization of work with 47% of companies, investments and financial stability with 49% and market sales and stability with 59% (FITR, 2021). However, changes (and omittance) of certain elements in the activities and stages can be viewed through digital entrepreneurship. In modern times, businesses navigate five trends that shape the digital future of business – mobile computing, cloud computing, social media, IoT (Internet of Things) and Big Data (Valacich & Schneider, 2018). This transformation has slowly begun at the end of the previous century, where organizations were labeled as either brick-and-mortar, brick-and-click and click-and-mortar (Saeed et al., 2003). Digital entrepreneurship, differs from the traditional model, as it involves entrepreneurial pursuits which occur exclusively on a digital platform (Giones, 2017). In turn, this involves digital assets, meaning products and services can become digital, although this is not considered an exclusive form for the notion. As digitalization of the organization is considered difficult for larger organizations, start-ups can be the natural place for this type of change to happen (Antonizzi & Smuts, 2020).

Of the five digital entrepreneurship trends, social media can potentially help with the biggest obstacle Macedonian start-ups face in recent years – generating market sales on a consistent basis. Recent research has found that the online purchasing intention depends on the following variables: attitude, buying impulse, subjective norms and the perceived usefulness (Pena Garcia et al., 2020). The rise of e-commerce and the development of social networks are introducing a new form of online shopping called "social e-commerce". According to Huang & Benyoucef (2013), social e-commerce is defined commercial application of the Internet related to social media and technologies, based on social interaction and content generated by Internet users in order to help consumers make decisions about it. The goal of social e-commerce is to

develop more social and interactive approaches or platforms that will allow customers to express themselves and share their experiences with other potential buyers as well as business entities.

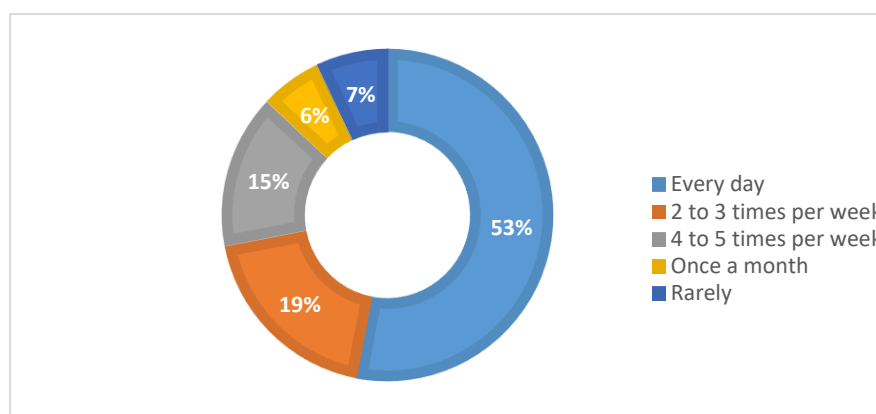
4. METHODOLOGY

The research for the paper is conducted according to a pre-defined research plan, as follows: clearly set research goals, precisely defined survey questions, specifically defined sample of respondents and appropriate statistical techniques for data analysis and prediction of results. Qualitative and quantitative methods were used for the needs of the research. Quantitative methods are used to examine the relationships between dependent variables and the independent variable and to test hypotheses based on the data collected, while qualitative methods are used to lay the groundwork for research and define research questions. The research takes place in several phases, as follows: first, a detailed review of the literature is made in terms of models and methods used in these types of research and the needs and objectives of the research are defined. In the second phase, an online questionnaire was created and data from 350 respondents from a randomized sample were collected.

5. RESEARCH AND DISCUSSION

The research questionnaire was filled by 350 respondents, focusing on users who already had an experience with online shopping. Of these, 91% or 320 respondents are female, and the remaining 9% are male. In terms of age, 34% of respondents are aged 26 to 33 years, 32% are aged 34 to 41 years, 15% are aged 42 to 49 years, 11% are aged 18 to 25 years, and 7% are over 50 years old.

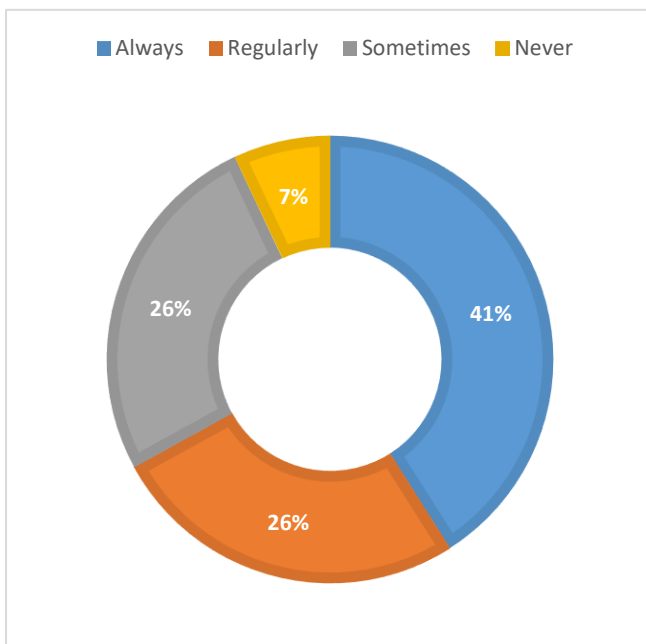
Figure 4: Frequency of social media profile visits



Source: Own research

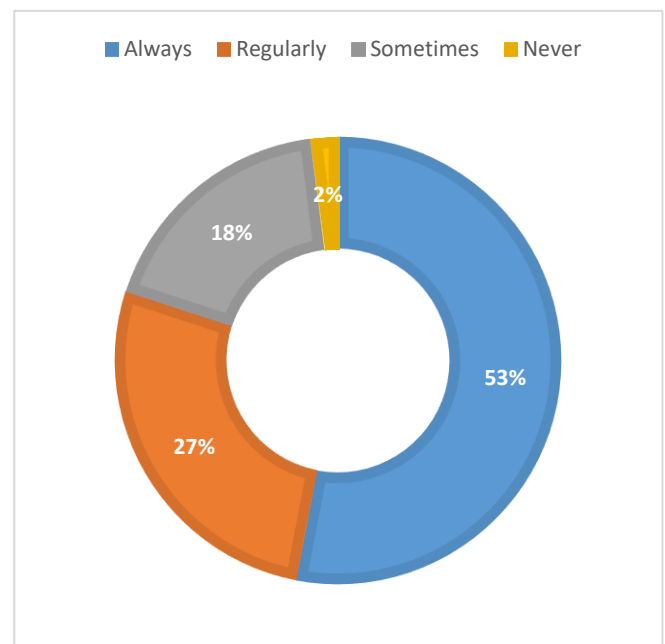
As shown in Figure 4, as many as 53% of the respondents visit the social media profiles of the online stores where they buy the desired products every day, 19% visit them 2 to 3 times a week, 15%, visit them 4 to 5 times a week, 7 % of respondents visit them very rarely, and the remaining 6% visit them once a month, which indicates the fact that online shoppers really use social media as a moderator in making decisions about buying products.

Figure 5: Frequency of utilizing chat tools on social media and web-sites



Source: Own research

Figure 6: Frequency of viewing ads and comments on social media



Source: Own research

The results presented in Figure 5 indicate that online shoppers always apply communication chats and Facebook messenger to collect enough messages about products before making final purchasing decisions. Namely, as many as 41% of the respondents stated that they always use communication chats, and only 7% do not communicate with online shoppers before buying products. The percentage of respondents is only 26%, who often or sometimes use these chats for communication or Facebook messenger. Regarding the frequency of reading reviews and comments on the Internet about the products, the results presented in Figure 6 indicate that as many as 53% of respondents always read reviews and comments, 27% of them read them

often, 18% of respondents sometimes read them, and only 2% of respondents never read product reviews on the Internet.

For the needs of the research, an analysis was made of the data obtained from the online questionnaire, ie the impact of the determinants of the messages transmitted through the Facebook pages to the online stores. To analyze this impact, a Likert scale with a rating of respondents's answers from 1 to 5 is applied.

Table 1: Descriptive analysis of the influence in communication determinants through social media

| Variable | Question | Average value | Standard deviation |
|--|----------|---------------|--------------------|
| Quality of communication | KVP1 | 3.17 | 0.90 |
| | KVP2 | 3.19 | 1.03 |
| | KVP3 | 2.86 | 0.99 |
| Start-up credibility | KRP1 | 2.80 | 1.04 |
| | KRP2 | 2.77 | 1 |
| | KRP3 | 3.66 | 1.07 |
| Need for communication | PP1 | 4.23 | 1.05 |
| | PP2 | 4.20 | 1.08 |
| | PP3 | 4.22 | 1.07 |
| Attitude toward communication | SP1 | 4.36 | 0.96 |
| | SP2 | 3.51 | 1.10 |
| | SP3 | 2.83 | 1.31 |
| Usefulness of communication | KOP1 | 3.85 | 1.03 |
| | KOP2 | 3.25 | 1.12 |
| Acceptance of messages | PRP1 | 3.45 | 1.15 |
| | PRP2 | 3.77 | 1.08 |
| | PRP3 | 3.67 | 1.12 |
| Influence in online purchasing behaviour | NMK1 | 4.02 | 1.08 |
| | NMK2 | 3.74 | 1.22 |
| | NMK3 | 3.76 | 1.20 |
| | NMK4 | 4.13 | 1.18 |
| | NMK5 | 4.23 | 1.13 |
| | NMK6 | 4.23 | 1.12 |

Source: Own research

From the conducted descriptive analysis and the obtained results given in Table 1, it can be concluded that the statement, ie the statement: "I always read the messages about the same product (SP1)" has the highest absolute mean value, 4.36, or the highest significance for further research, which means that this attitude of the respondents towards the product reviews, which they read on social media, has the greatest impact on the intentions of online shopping. On the other hand, the statement "Product messages are credible (KRP2)" has the lowest absolute mean, 2.77, ie the lowest significance for further research, which means that this statement, which describes the authenticity of messages, as part of their credibility, has least impact on online shopping intentions.

The determinants of the messages were specifically analyzed, which concluded that their impact on the intentions for online shopping is common, ie they can not be analyzed without each other, each determinant influencing social e-commerce in a significant manner. The quality and credibility of messages for key determinants in making final purchasing decisions by customers. Namely, if buyers perceive the messages, ie the information offered about the products on the Internet as low quality and negative, it will be much harder to decide to buy the desired products and vice versa, if they perceive the online messages for quality and positive, much faster will make purchasing decisions. Also, online shoppers, before they start searching the Internet, have precisely defined needs for buying certain products, which directly affect their purchase intentions. Hence, they can develop, positive or negative, as well as strong and weak attitudes towards certain information that is placed on the Internet about the products they want to buy.

6. CONCLUSION

Transforming the communication between companies and consumers on a social media platform serves as a positive basis for the beginning of social e-commerce. Communication messages are more susceptible to influence the online purchasing decision if they have high quality, are accurate and credible, useful and accepted by customers, then it can be said that this communication is positive and that it affects the intentions for online shopping in the form of buying decisions. These determinants,

along with the needs and attitudes of online shoppers, are a successful combination of guaranteed online shopping decisions made by online shoppers.

The analysis of the determinants of online messages and the analysis of their impact on the intentions for online shopping achieved the main goal of this research which was to research the impact of the determinants of social media on the intentions of online shopping, which affects the element of social e-commerce sales for a start-up. The results of the research create significant managerial implications, because the impact of the determinants on the social media communication is evident in several different determinants. This is especially important for start ups who can advertise their digital products and services on social media, however it can also be applied for traditional (non-digital) products and services. In this context, start ups need to adapt their online marketing strategies to successfully promote and sell their products on social media. The research can be expanded in two directions. First, the same research methodology can be performed in other countries in the Balkan region, which will generate relevant results for start-ups on a larger scale, as well as verify results between countries. Second, the research can be expanded in other areas which are relevant for startup businesses outlined in the literature review (such as financial capacity, organizational capacity and etc.) by introducing new determinants influencing internal and external factors.

REFERENCES

- Alhidari, A., Iyer, P., & Paswan, A. (2015). Personal level antecedents of eWOM and purchase intention, on social networking sites. *Journal of Customer Behaviour* iss. 14
- Antonizzi J., Smuts H., (2020), *The Characteristics of Digital Entrepreneurship and Digital Transformation: A Systematic Literature Review*, I3E 2020: Responsible Design, Implementation and Use of Information and Communication Technology
- Giones F, Brem A., (2017), *Digital technology entrepreneurship: a definition and research agenda*. *Technol. Innov. Manag.*;7(5)
- Ertimur, B. and Gilly, M.C. (2012) "So Whaddya Think? Consumers Create Ads and Other Consumers Critique Them", *Journal of Interactive Marketing*, 26(3)
- Huang Z. Benyoucef M. (2013), *From e-commerce to social commerce: A close look at design features*, *Electronic Commerce Research Applications*, Vol. 12
- Kuratko, D. F. (2005). The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship Theory and Practice*, 29(5), 577-598.
- N. Peña García, I. Gil-Saura, A. Rodríguez-Orejuela, J.R. Siqueira-Junior (2020), *Dataset Purchase Intention and Purchase Behavior Online: A Cross-Cultural Approach*, *Heliyon*, Volume 6, Issue 6, ISSN 2405-8440
- Pace, S. (2008), *YouTube: an opportunity for consumer narrative analysis?*, *Qualitative Market Research: An International Journal*, 11(2)

- Saeed, K. A., Grover, V. and Hwang, Y. (2003). 'Creating Synergy with a Clicks and Mortar Approach', *Communications of the ACM* 46(12)
- Salamzadeh A., Kawamorita H., (2015), *Startup Companies: Life Cycle and Challenges*, The 4th International Conference on Employment, Education and Entrepreneurship (EEE)
- Salamzadeh, A. (2015). *New Venture Creation: Controversial Perspectives and Theories*. *Economic Analysis*, 48(3/4).
- Schumpeter J. A. (1965). *Economic Theory and Entrepreneurial History*. In: Aitken HG (ed) *Explorations in enterprise*. Harvard University Press, Cambridge, MA
- Smith, A.N., Fischer, E. and Yongjian, C. (2012), *How Does Brand-related User generated Content Differ across YouTube, Facebook, and Twitter?*, *Journal of Interactive Marketing*, volume 26, issue 2
- Soltanifar M., Hughes M., Gocke L., (2021), *Digital Entrepreneurship – Impact on Business and Society*, Springer, ISBN 978-3-030-53913-9
- Valacich, J. S., & Schneider, C. (2018) *Information systems today: managing in the digital world*, 8th edn. Pearson.

Internet sources:

- FITR (2021), *Risks and Measures for Economic Healing of Startups*, available at <https://fitr.mk/wp-content/uploads/2021/11/PREZENTACIJA-FITR.pdf>
- <https://www.stat.gov.mk/PrikaziSoopstenie.aspx?id=79&rbr=13589>
- <https://datareportal.com/social-media-users>

WINE SECTOR ANALYZED THROUGH PESTLE ANALYSIS AS A PART OF THE STRATEGIC MANAGEMENT

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ABSTRACT

The wine sector plays a key role in the agricultural segment in North Macedonia. The main goal of this study is to identify the political, economic, social, technological, ecological and the legislative aspects of the Macedonian wine industry using the PESTLE method.

Secondary data, collected from different databases were used for carrying out the investigation within this paper. Also, interviews with the key players in the industry were made.

The analysis showed that when the political factors are stable and favourable the strategy of the Ministry for agriculture, forestry and water economy and the Wine association are playing big role in the wine sector. The economic factors have big impact on the wine industry and were evaluated by parameters which describe the economic situation in the wine sector. Viticulture sector is one of the most important sectors in the agriculture in North Macedonia and its impact on the agricultural GDP of the country is around 17 – 20 %. Social factors were examined by the demographic trends, level of education and social groups, cultural believes and values. In North Macedonia the wine is a part of the culture especially among the Christian population and wine production in this region has deep roots, even before the Christianity. Still the wine culture is not the on the level as it is in Italy and France, and the consumers are lacking wine education. For the technological environment important benchmarks are innovation, technology transfer and technological development. Furthermore, the ecological standards in North Macedonia are facing a lot of challenges considering the biodiversity, recycling of raw materials, air, and water pollution. In the analysis regarding the legal factors the laws and regulations that are affecting the wine industry were considered.

KEY WORDS: PESTLE analysis, Wine sector, Strategic management

JEL CLASSIFICATION: Q13, Q19

INTRODUCTION

In the modern conditions and with the fast development of the globalization process the world market is much more open than in the past. The companies and corporations which are competing need a proper strategy for development. This strategy can be effective if they are relying on the basis of the strategic management. This paper aims to analyze all the factors influencing the environment for the functioning of the wine sector in North Macedonia. The wine and viticulture sector are one of the most important sectors in the agriculture in the country. Around 100.000 people are directly engaged within this sector like the wineries, winemakers, viticulturists, and employees for the companies which are producing the materials for the respective industry. North Macedonia has a long tradition of winemaking and has a good climate for winegrowing. Therefore, the strategic managerial decisions can have a very big impact in this industry especially in the field of technological update in the work process and the environmental aspects as well . So far, there is no publicly published PESTLE analysis of the wine sector in North Macedonia and scholars draw attention to this topic and model the advantages of using such analysis in the Macedonian environment. The PESTLE analysis, done within this paper, will serve as a good basis for the managers in the wine and viticulture sector to make strategic management decisions.

RESEARCH METHODOLOGY

Secondary data, collected from the relevant institutions related to the wine sector in the Republic of North Macedonia were used for carrying out the research. Also, interviews with the key players in the industry were made. The PESTEL analysis stands for political, economic, social, technological, legislative, and environmental factors. Regarding the political factors, the main figures analyzed in the paper are international relations of the country, political stability and geopolitics. The economic factors were analyzed by studying the total share of the agriculture sector in GDP, the number of employees in agriculture and the average gross salary in the agriculture sector. When social factors are concerned the demographic trends, cultural believes and values are covered. The technological factors were analyzed by studying the innovation, technology transfer and technological development in the country. The air and water pollution and the climate changes were used for analyzing the ecological

factors. Regarding the legal factors, the laws, regulations, labor regulation, requirements were considered (Matovic, 2020).

PESTLE AND STRATEGIC MANAGEMENT

Strategic management as a term and concept is not new. The term was first used in the 1970's, and it meant that a staff of strategic planners thought up strategic programs and then tried to sell them to decision makers. In the 1990's, the view of strategic planning and strategic management is much different. Goodstein, Nolan, and Pfeiffer's definition of strategic planning takes us away from the notion that strategic planning is a staff job and focuses us more on a process that requires the senior leaders of an organization to set its strategic direction (Wells, 2015). The senior managers are the decision makers when it comes to the Strategic management decisions. The manager's duties are helping the organization to control the resources in their best way so they can accomplish their objective. The goals can be met if the managers are fulfilling the following managerial duties: Planning, Organization, Leading and controlling (Garth & George, 2008).

It is the individual managers who must take responsibility for formulating strategies to attain a competitive advantage and putting those strategies into effect. Furthermore, it is up to the managers to make the strategic planning process which consists of five steps (Charles & Garth, 2009):

- Choose the corporate mission and major corporate goals.
- Consider the organization's external competitive environment to identify opportunities and threats.
- Analyze the organization's internal operating environment to identify the organization's strengths and weaknesses.
- Select strategies that build on the organization's strengths and correct its weaknesses to take advantage of external opportunities and counter external threats. These strategies should be consistent with the mission and major goals of the organization. They should be congruent and constitute a viable business model.
- Implement the strategies

When strategic management is concerned the external factors are very important in the decision-making process. PESTEL analysis is assessed as a prerequisite/mandatory method that allows identification of the factors relevant to the business environment and provides data and information that allow organizations within the analyzed environment to predict the situation in order to adapt to new situation and develop competitiveness (Matovic, 2020).

PESTEL stands for analysis of the political, economic, social, technological, ecological, and legal factors. PESTEL analysis has two basic functions for the companies. The first is that it allows identification of the environment within which the company operates. The second basic function is that it provides data and information that will enable the company to predict situations and circumstances that it might encounter in future. PESTEL analysis is therefore a precondition analysis, which should be utilized in strategic management (Yuksel, 2012). As an analysis this method has its strength and weaknesses. The main advantages of the PESTEL analysis are (Mihailova, 2020):

- They are cost beneficiary and easy to do.
- It gives the opportunity to understand the wider business environment.
- Supports the development of strategic thinking.
- May increase the perception of threats to a project.
- Can help the organization anticipate future difficulties and take action to avoid or reduce their effects.
- Can help the organization assess opportunities and take advantage of them.

The disadvantages of PESTLE analysis are given as follows:

- Usually offers a simple list without critical presentation.
- The rapid change in society makes it increasingly difficult to predict events that may affect the organization in the future.
- Gathering a large amount of information can make it difficult for us to see the “forest behind the trees” and lead to “analysis paralysis”.
- The analysis may be based on assumptions that may be unfounded.

Given the objectification of the analysis and the achievement of reliable results, the presence of high expertise by those applying the PESTLE analysis is an imperative requirement.

PESTEL ANALYSIS FOR THE WINE AND VITICULTURE IN NORTH MACEDONIA

Considering the fact that the wine and viticulture sector are important for Macedonia's agricultural sector the following PESTEL analysis has been made. The analysis is done using the secondary data information from the Association Wines of Macedonia, the National Strategy for agriculture and rural development for 2021-2027, as well as from other sources.

- Analysis of the political factors

The legislative power of Republic of North Macedonia is vested in the Assembly of Republic of North Macedonia. The political situation is stable, although it is considered to be a bit fragile because there are big political disputes between the two main political parties. Republic of North Macedonia is a member of the NATO Alliance and is aspiring to start the accession negotiations with European Union, but from 2019 Bulgaria is holding the veto regarding this topic because of the historical issues between the two countries. Still the country is dedicated and there is a big political will for starting the negotiation process and joining into the EU. Furthermore, republic of North Macedonia is a part of Western Balkan and a part of Open Balkan initiative and thus is using the EU funds which are available. One of the main goals for Western Balkan and EU is to develop and maintain a stable economic setting which is crucial for the production, business, national economies, and the community. The public institutions and ministries are facing challenges caused by politically motivated decisions while the NGO sector is active.

Regarding the policy creation the Ministry of Agriculture, Forestry and Water Economy is in charge for agriculture, viticulture and wine regulations and they are implementing a national strategy for agriculture and rural development on every six years. Currently the National strategy for agriculture and rural development 2021-2027 should be implemented. Furthermore, the IPARD program is playing a great role in the agriculture sector as well as in the wine sector. One of the biggest projects implemented through the IPARD program and within the National strategy for agriculture and rural development 2014 - 2020 was "technical support" program that is currently in a process of implementation. Also, the program of "investment in the public rural infrastructure" is in process of accreditation as well as the program for support and consulting services named "Lider" which will be finished in the upcoming

period. The Tax system in North Macedonia is VAT (Value Added Tax system) and the general tax rate is 18%, whereas the preferential tax rate is 5%. Regarding the wine regulation and wine promotion in North Macedonia there are many opportunities for the state authorities to enhance this process and to establish the Macedonian wine even better on the global market. First and foremost, protection of its geographical origin and standardization of the quality with the legal EU framework is needed, so it can be protected, recognized and accepted on this market (National Strategy for agriculture and rural development 2021-2027).

- *Analysis of the economic factors*

The agricultural sector played a key role in the development of the societies since the start of the human civilization. It provides the basic core of human existence like food for the population, raw materials for the food industry, medicines and a lot of other goods and services. Hence, the agricultural sector is of great importance for any national economy especially for the developing countries like North Macedonia. North Macedonia has a favorable climate condition for agricultural development. In North Macedonia the agriculture, forestry and fishing industry increased their value from 871,4 million euros in 2014 to 910,9 million in 2019. On the other hand, the agriculture sector lost its value added in the Macedonian GDP from 10,2% to 8,0% for the same period (Table 1). Regarding the employees in the agriculture, forestry and fishery sector the number is in constant decline. The average gross salary in the sector increased by 22% from 2014 to 2019. During the analyzed period the agricultural land (in ha) was ranging from 1.263.000 to 1.267.000 ha, whereas the land for vineyards increased from 23.061 to 24.468 ha.

Table 1. Economic indicators for analyzing the agriculture sector

| Indicator | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|---------|---------|---------|---------|---------|--------|--------|
| GDP ('000 eur) | 8.562 | 9.072 | 9.657 | 10.038 | 10.744 | 11.209 | 11.300 |
| Total share of the agriculture sector in GDP (%) | 10,2% | 9,7% | 9,1% | 7,9% | 8,5% | 8,0% | 8.6% |
| Employees in agriculture forestry and fishery | 183.239 | 182.843 | 179.135 | 178.249 | 177.780 | N/A | N/A |
| Average gross salary in agriculture (MKD) | 22.917 | 22.976 | 24.514 | 25.545 | 27.782 | 29.351 | N/A |
| Agricultural land ('000 ha) | 1.263 | 1.264 | 1.267 | 1.266 | 1.264 | 1.265 | N/A |
| Vineyards (ha) | 23.061 | 23.240 | 23.613 | 23.703 | 24.088 | 24.468 | N/A |

Source: National strategy for agriculture and rural development for 2021 – 2027

North Macedonia is a member of the Central European Free Trade Agreement (CEFTA), which gives to the countries the opportunity to trade easier. The population that lives in the rural area of North Macedonia is around 45% from the total population with the tendency of declining due to the poor infrastructure and poverty. Between 2017 and 2019 the average of 45% of the employees (342.474) were in the rural areas 13,9% of which were working in the agriculture sector (National Strategy for agriculture and rural development, 2021 – 2027).

Viticulture sector is one of the most important sectors in the agriculture in North Macedonia and its impact on the agricultural GDP of the country is around 17 – 20 %. The vineyard area occupied 21.109 ha in 2013 and in 2019 it increased by 24.468 ha. During this period the dynamics of raising the vineyards was by 2% each year. The vine production was relatively stable with production of 260,000 t per year or 11,3t/ha. On the areas where the irrigation system is implemented the production is higher and it is ranging from 17t/ha to 23t/ha. The structure of the vineyards is unfavourable with

60% of the vineyards being older the 15 years and most of the agricultural parcels are smaller than 1ha (National Strategy for agriculture and rural development, 2021 – 2027).

Regarding the employments, around 100.000 people in North Macedonia are engaged directly or indirectly with the wine industry (viticulturist, employees in the vineries and employees for the companies which are producing materials for the wine industry). According to the National strategy for agriculture and rural development currently there are 76 vineries operating with a tendency of increasing this number because of the new relieved regulations for registration of smaller and family wineries. The established protocol for wine trade between North Macedonia and the European Union contributes to strengthening the trade integration with EU and to significantly increased wine exports. The average wine production each year is variable, and it is shaped by the climate conditions. In the period from 2014 to 2019 the production rate was around 100 million liters per year. Concerning the export, in the period from 2014 to 2020 the biggest export market was the EU, and 63% from the whole wine export was in this political group.

The main challenges, that the wine producers are facing with, are cash flow and liquidity. Most of the producers are facing with a lack of capital investment. As a result of both, the increased price of the electricity and the material resources, the production costs are also higher. Due to the high interest rates the access of the cash flow is limited which is a discouraging factor for investments. Furthermore, the land price is relatively high in the vine regions and that is influencing the decision for enlarging the vineyard. Therefore, in order to these obstacles state institutions need to be more involved in the whole process.

When the human capital is concerned, the whole wine sector is facing with a shortage of the qualified work force because of the migration to the cities and outside of the country, which directly is making impact on the production and competitiveness.

The implementation of modern technologies through investment in machinery for a machine harvesting for most of the wineries is a positive tendency for the wine sector in the country. It increases the productivity and decreases the dependence on the human resources.

The wineries and the wine sector stand a chance and there is a big potential in the wine tourism, but the infrastructure is insufficient.

- *Analysis of the social factors*

The social and demographic features in North Macedonia in the last three decades had been typical as for the other countries in transition. After the transition period the country suffered sharp decline in living standards, high unemployment rate, political instability, and massive immigration. The number of people employed in the agriculture sector is decreasing, the qualified work force is very rare, and the country is shifting towards service sectors. It is mainly due to the migration of a lot of people from the villages to the cities because of the opportunities and better infrastructure and amenities.

The social factors can have a big impact on the wine industry. In Republic of North Macedonia the wine is a part of the culture especially among the Christian population and wine production in this region has deep roots, even before the Christianity. Still the wine culture is not on the level as it is in Italy and France, and the consumers are lacking wine education. Furthermore, huge part of the individual wine producers has legal-property issues and some of them are a part of the gray economy. Most consumers in North Macedonia have medium purchase power and they are buying cheaper wine which directly is influencing on the wine market and the production. Most of the wine is sold in the capital Skopje where the population density is the biggest. Also, the consummation is increasing in the summertime because of the tourist season in the main tourist places in the country like Ohrid, Gevgelija, Dojran, Bitola. The main religions in the country are Christian Orthodoxy and Islam. In the areas where Islam is a dominant religion the wine consummation is drastically lower due to religious beliefs.

- *Analysis of the technological factors*

The Macedonian wine sector should seek for opportunities for innovation and implementation of higher technological standards in the production and in the agricultural operations in order to remain economically competitive and to meet the challenges of the market and on sustainable development. The advanced technology in vineyards and in wineries is providing opportunities for creating a better added value and is providing less dependence of human resources. This process includes implementation of precision agriculture, which includes data-based technologies,

machine harvesting, digitalized weather reports, satellite navigation tools can help the producers in decreasing the expenses on the long run.

Macedonian wine producers and grape growers are running behind with the implementation of new technologies and the implementation of latest technology is very rare, and there is not a single winery in the country that has research and development department. Although in the last years there are some changes especially in the work of the biggest wineries still the technological process is obsolete, and this is causing troubles especially for the smaller wineries. Most of them are lacking know-how and smart farming is impossible, which will affect the final product and competitiveness.

- *Analysis of the ecological factors*

North Macedonia is facing a lot of environmental challenges and is running behind the EU regarding the law implementation in this field.

Regarding the ecological issues the Ministry of Environment and Physical Planning of North Macedonia is in charge and since 2005 an Environmental Law is being implemented. Furthermore, North Macedonia is facing with a high air pollution, which is significantly affecting the image of the entire industry in a very negative sense. The climate change is influencing the vine-ripening industry and this sector can be very vulnerable in regard with this condition. Hence the country has favorable climate conditions, but the vineyards are not always properly treated with pesticides. North Macedonia is suitable for organic production as well as natural wine production.

- *Analysis of the legal factors*

The Macedonian sectorial legislation outlines two main laws regarding the wine production: The Law of wine and the Law of agriculture and rural development (Wine law, 2010).

The Wine law, having a direct influence on the wineries and wine producers, is meeting the producer's needs and its changes are made with the coordination of the industry. The government is giving its support through subsidies for vine-growers, wine producers and wine exporters. This legislative gave an opportunity for increased export, but it is not enough for adequate development and in the part of viticulture it

is not properly allocated. Furthermore, the Book of rules is needed for day-to-day activities of the institution for giving the needed support of the industry. For the industry it is necessary to avoid frequent changes in the legislative norm because it will result in confusion and uncertainty, and it will cause a significant damage on the producers. The wine industry is also facing challenges with redemption and payments for grapes which are unacceptable for a market economy and still there are case is the country. Furthermore, a very small number of wineries are possessing protected trademarks and the awareness for this regulation is on very low level.

CONCLUSION

The purpose of the PESTEL analysis is to provide information about the decisions especially for managers who are involved in the decision-making process. Furthermore, this analysis underlines the strengths and weaknesses of each analysed aspect. Through analysing the political, economic, social, technological, legal, and environmental factors the managers will have bigger picture about the external factors that can impact their decision. The weak fundamentals of all the factors will have a negative impact in the industry.

The results obtained from the PESTLE analysis of the wine sector in North Macedonia have shown that as a result of the poor ecological standards and low integration of new technologies most of the challenges that the Macedonian wine sector is facing with are the ecological and technological factors. Contrary, the country has a lot of advantages for the development of the wine industry such as good climate conditions, excellent price to quality ratio, good law regulation, and long-lasting tradition.

REFERENCES

- Association Wines of Macedonia, <https://winesofmacedonia.mk/>
- Denise Lindsey Wells 2015, Strategic Management for Senior Leaders, Arlington, Virginia
- Ihsan Yüksel 2012, developing a Multi-Criteria Decision-Making Model for PESTEL Analysis, International Journal of Business and Management; Vol. 7, No. 24;
- Jones R. Gareth 2008, Jennifer M. George, Sovremen Menadzment, Globalni Komunikacii, Skopje, p.9
- Hill.W Charles 2009, Jones.R Garth, Essentials of Strategic management, South-Western, Cengage Learning p27
- Mihailova Mihaela 2020, The state of agriculture in Bulgaria – PESTLE analysis, Bulgarian Journal of Agricultural Science, 26 (No 5) 935–943
- Matovic Marinovic Ivana 2019, PESTEL Analysis of External Environment as a Success Factor of Startup Business, p.97
- National strategy for Agriculture and Rural development of R. North Macedonia for the period of 2021 – 2027, available at: <https://ipard.gov.mk/wp-content/uploads/2021/02/%D0%9D%D0%B0%D1%86%D0%B8%D0%BE%D0%BD%D0%B0%D0%BB%D0%BD%D0%B0-%D1%81%D1%82%D1%80%D0%B0%D1%82%D0%B5%D0%B3%D0%B8%D1%98%D0%B0-%D0%B7%D0%B0-%D0%B7%D0%B5%D0%BC%D1%98%D0%BE%D0%B4%D0%B5%D0%BB%D1%81%D1%82%D0%B2%D0%BE-%D0%B8-%D1%80%D1%83%D1%80%D0%B0%D0%BB%D0%B5%D0%BD-%D1%80%D0%B0%D0%B7%D0%B2%D0%BE%D1%98-2021-2027.pdf>
- Wine Law, Official Gazette of the Republic of Macedonia" No. 50/2010

STRENGTHEN THE RULE OF LAW BY CHANGING THE INSTITUTIONAL FRAMEWORK FOR COMBATING CORRUPTION

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ABSTRACT

Numerous surveys and rankings of international organizations on corruption issues show that North Macedonia has serious problems in combating corruption and therefore a substantial approach is needed to improve the situation.

That is the point of this paper - taking essential steps in the fight against corruption. The focus is on the change in the institutional approach in the fight against corruption, ie replacement of the current preventive model (where the leading institution is the State Commission for Prevention of Corruption - SCPC) and replacement with the model of law enforcement agencies, ie in the future leading institution in North Macedonia to be the Basic Public Prosecutor's Office for Prosecution of Organized Crime and Corruption.

The paper emphasizes that by changing the main body for fight against corruption, the SCPC will be transformed into a Commission for Prevention of Conflict of Interest. In that way, the current body will continue to work but with competencies of educational, preventive and administrative character, because even today that body has no operational competencies.

In the paper the author points out that to achieve a significant result in the fight against corruption, substantial changes are needed in the composition and operation of the Judicial Council, the Council of Public Prosecutors and the Steering Committee of the Academy for Judges and Public Prosecutors. These are the key institutions in the judiciary and it is necessary to increase transparency and accountability in their work, and especially in their composition.

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Throughout the paper, special emphasis is placed on gender representation on an equal basis in order to jointly improve the situation in the fight against corruption, from which everyone suffers.

In the paper, the author creates a strategic approach to reducing the high level of corruption in North Macedonia, by offering several recommendations that in the medium and long term should improve the situation in the suppression of corruption.

KEYWORDS: corruption, rule of law, strategic approach, gender representation, transparency, accountability.

JEL CLASSIFICATION: K10, K14

INTRODUCTION

„Anti-Corruption Roadmap:

Political Will - Quality Legislation - Independent Institutions - Reduced Corruption“

Macedonian anti-corruption legislation framework was adopted in 2002 by the Law on Prevention of Corruption, followed by the establishment of the State Commission for Prevention of Corruption (SCPC). Additionally, in 2007 the regulation on conflict of interests was adopted - the Law on Prevention of Conflict of Interest.

The SCPC is basically a preventive body. Although the new Law on Prevention of Corruption and Conflict of Interest, from 2019, makes efforts to increase its investigative powers, overall, the SCPC retains the model established in 2002.

If we combine the previous results of the work of the national body for prevention of corruption, the numerous analytical reports prepared by experts, civil society organizations, international evaluation bodies, as well as the expectations of the public, we will conclude that it is necessary to think towards building a new approach in the fight against corruption.

Regarding the above, for example, Transparency International registered a continuous decline in the CP Index for North Macedonia, namely in 2014 – 64th, 2018 – 93th, 2019 – 106th and in 2020 – 111th place (<https://www.transparency.org/en/cpi/2020/index/nzl>), which indicates that substantial steps need to be taken to improve the situation.

The fact is that the Law on Lobbying from 2008 was not implemented at all (the new law from 2020 does not give much hope that the situation will change for the

better), also the application of the law on protection of whistleblowers is very weak. Overcoming this situation requires a change in the institutional approach towards the fight against corruption.

In a situation where you have a high perception of corruption, that it has penetrated into every pore of society, it is necessary to approach comprehensive reforms of the system, but in the first place it is necessary to change the anti-corruption model.

Basically, in North Macedonia the preventive model for fighting corruption should be changed to a model from the second group - in law enforcement agencies (where the leading institution will be the Public Prosecutor's Office), In the world there are many models of anti-corruption bodies but are generally grouped into three: preventive bodies, law enforcement agencies and multi-purpose bodies for prevention and repression).

Research methods

Within the paper, the method of content analysis is applied in order to determine the factors that are obstacles in the practical implementation. Based on this method, potential solutions are created to overcome the weaknesses because through the analysis we come to the essential elements.

A comparative method is used in order to present practical experiences in other countries and their results. This method compares the effects of specific policies and is the basis for drawing conclusions.

In addition, the comparative method is used in the analysis of research data and rankings.

The statistical method also takes its place, through the analysis of data from various rankings and researches, as well as the historical method, which presents the historical circumstances that had an impact on certain relations.

The case study method also has its place because the paper focuses on the weaknesses of the institutional anti-corruption framework in North Macedonia and creating solutions to improve the situation.

In the final part, the author of the paper offers general solutions for improving the situation in dealing with corruption in North Macedonia through a comprehensive change of the institutional framework for its suppression.

1. HOW DID THE MACEDONIAN SOCIETY REACH THE 111TH PLACE IN THE RANKING OF TRANSPARENCY INTERNATIONAL?

For more than three decades, the Republic of Macedonia (now North Macedonia) has faced numerous challenges related to its existence, development, prosperity and future. The problems arose with the disintegration of the former Yugoslavia and the creation of the state of the Republic of Macedonia. Problems were of various grounds, namely: economic, political, social, then, conflict relations on a national basis, non-recognition of independence, imposition of the name issue by the southern neighbor. All this together has led to uncertainty about the future.

The economic collapse of Macedonian citizens began with the privatization of state-owned companies, known as the transition process. In the process, capital fell into the hands of former managers, many companies went bankrupt and hundreds of thousands of workers lost their jobs.

Social problems exploded, tax evasion began to rise, and at the same time incidents on a national basis were on the rise. The Kosovo war in 1999 brought additional chaos when about 300,000 Albanian refugees came to Macedonia. Only two years later was the war in Macedonia ending with the Ohrid peace agreement. The agreement envisages equitable representation of nationalities in the state administration (according to the percentage of the census) but one important element was forgotten - quality.

The Republic of Macedonia has ratified all major international instruments in the fight against corruption and organized crime, starting with the Criminal Law Convention against Corruption and the Civil Law Convention against Corruption of the Council of Europe, as well as the UNCAC of the UN. In 2002, the State Commission for Prevention of Corruption was established, as a preventive body, and a number of other measures.

Regarding the CPI rankings of Transparency International, it should be noted that in 2013-2014 Macedonia was ranked 67th and 64th, respectively, Slovenia and Croatia were better than it, while the other Balkan countries were ranked worse (<https://www.transparency.org/en/cpi/2014/index/mkd>).

The situation changed drastically in 2019-2020 when Macedonia (now North Macedonia) was ranked from 111 to 114th place, behind other Balkan countries (<https://www.transparency.org/en/cpi/2020/index/mkd>).

A similar conclusion will be drawn from The Heritage Foundation data on their Index of Economic Freedom. Namely, in 2018 Macedonia was on the 33rd place (2018 IEF (XLS) table download The Heritage Foundation) while in 2021 (<https://www.heritage.org/index/ranking>) on the 46th place, with special remarks in the area of rule of law and the fight against corruption.

North Macedonia's reversal in the fight against corruption is also presented by the Global Risk Profile (GRP) in their 2021 Global Corruption Index ((GCI) (<https://globalriskprofile.com/>)). Namely, in their ranking, North Macedonia is on the 85th place, unlike in 2020, when it was on the 81st place (<https://risk-indexes.com/global-corruption-index/>).

Domestic corruption surveys provide more detailed information on the situation. Thus, in the Corruption Assessment Report - Level of Corruption, issued in 2020 by the Macedonian Center for International Cooperation (<https://mcms.mk/images/docs/2020/izveshtaj-za-procena-na-korupcijata-vo-severna-makedonija-2020.pdf>) concludes that an inefficient judicial system is a major factor in the prevalence of corruption. In addition to the widespread prevalence of corruption, its impunity is also emphasized, which has a strong impact on the social fight against corruption. The report emphasizes that the judiciary and the prosecution are sectors in which there is the most widespread corruption, according to the perception of citizens.

Following a research conducted by the Center for Civil Communications for conducting public procurement, a "Shadow Report on Public Procurement in North Macedonia 2020" was prepared (<https://www.ccc.org.mk/images/stories/senkamk2020.pdf>). The report emphasizes that there is no improvement in the fight against corruption in public procurement, that very few investigations are opened and even fewer cases reach indictment. While at the same time the number of findings on irregularities in public procurement by the State Auditor is growing. That is, confirmation of the conclusion about impunity from the research of the Macedonian Center for International Cooperation. In doing so, it

should be borne in mind that through public procurement huge funds are spent from the state budget, expressed in hundreds of millions of euros.

If we continue with the analysis, we will conclude how North Macedonia reached those positions.

Namely, for years, the most attractive sector for employment is the state administration, with guaranteed salaries and other benefits. Thus, each ruling party sought to bring its supporters into the administration (a kind of reward, but also an obligation for future support). Thus, the basic principles for employment and promotion in the public sector have become loyalty to the party (not the state) and clientelism, in contrast to countries with low levels of corruption where the dominant criterion is professionalism and skills.

This way of employment and promotion is largely present in all areas, including the police, judiciary, prosecution, prisons, ministries, various agencies. In short, the system can no longer function because it is blocked.

In 2015, the affair with the wiretapping of telephone conversations of a huge number of citizens appeared, an affair that had a substantial impact on the future direction of the country. A Special Public Prosecutor's Office was set up to clear up the affair, but to make matters worse after three years, a new corruption affair broke out in which the special public prosecutor played a key role (<https://balkaninsight.com/2019/08/21/north-macedonia-arrests-outgoing-chief-special-prosecutor/>).

In addition, information was published that the employees of the mentioned Special Public Prosecutor's Office received a significant amount of compensation without a legal basis (it was announced to the public that the case is being acted upon but so far nothing concrete).

As a result of the decisive influence of the ruling political parties in the formation of key institutions in the judiciary, the space for professionals is minimal, so we come to the key problem - impunity.

All these processes take place in front of the public, the citizens lose faith in the institutions, see no perspective and most often decide to move to another country, mainly in western countries with a high degree of functional institutions – ie., where the rule of law.

The dysfunction of the institutions was also demonstrated during the COVID pandemic. Namely, in the middle of August 2021 North Macedonia was on the sixth place in the world in the number of deaths per 1 million inhabitants ([https://www.statista.com/statistics/1104709/coronavirus-deaths-worldwide-per-million-inhabitants /](https://www.statista.com/statistics/1104709/coronavirus-deaths-worldwide-per-million-inhabitants/)).

Meanwhile, the public was informed of a corruption scandal involving the supply of vaccines from China. Namely, it became known that senior government officials tried to procure vaccines from China through an intermediary company, of course for a commission. There was a strong reaction from the public, but to date, there is no information that the public prosecutor's office has opened an investigation into the case (<https://www.slobodenpecat.mk/nabavkata-na-vakczini-od-kina-pod-lupana-antikorupczionerite/>).

The high level of corruption in North Macedonia is an obstacle to EU integration, it destroys the national economy (government debt is more than 60 percent of GDP, <https://netpress.com.mk/avniot-dolg-otide-na-60-7-procenti-makedoni-a-dolzhi-6-5-mili-ardi-evra/>), the security sector is very weak, and thus human rights and freedoms are endangered. This situation is unsustainable because the next step is complete system dysfunction.

This situation can not be overcome by "moderate" measures, but by strong and decisive action, ie, the citizens to feel that there are independent institutions and that there is hope for "rule of law".

2. WHAT TO CHANGE AND HOW?

The fight for suppression or reduction of corruption takes place according to a defined roadmap, ie, it is about steps that are realized sequentially.

The first step is to have a strong and determined political will to fight corruption (Brinkerhoff, D.W. 2000, „Assessing political will for anti-corruption efforts: an analytic framework“, Public Administration and Development). This means that the people who will be in key positions in the country do not have "dark spots" from their past, to have high moral capacity and repulsion of all forms of unacceptable behavior, such as nepotism, clientelism, conflict of interest.

The second step is the adoption of quality legislation for the prevention and repression of corruption. This is the easiest step and that is why in North Macedonia

there is largely compliance with anti-corruption regulations at European and world level.

The third step is the final, ie the existence of independent institutions (according to the Jakarta principles) that will implement the law (Institutional Arrangements to Combat Corruption - A Comparative Study, 2005, UNDP). Here is the problem, namely, in the above I emphasized the great political influence in composing all institutions, with special emphasis on key institutions.

Politicized institutions are an obstacle to the proper implementation of laws and thus indicate that there is no political will for an effective and objective fight against corruption.

This is an anti-corruption roadmap that applies to all countries, but because the subject of this paper is the situation with corruption in North Macedonia, in addition, strategic approach to reducing corruption in North Macedonia will be presented.

How to reduce corruption in the Macedonian system?

In order to tackle North Macedonia's high level of corruption, substantial reforms are needed.

The National Strategy for Prevention of Corruption and Conflict of Interest (<https://dksk.mk/wp-content/uploads/2021/01/Nacionalna-strategija-DKSK-KONECNA.pdf>) prepared by SCPC and adopted by the Parliament is a good document, but the point is that in the fight against corruption we need to take a step back, to build a functional foundation of the system because the problem is there. No matter how great your desire to achieve results, it is still unachievable if the realization of the processes takes place through politicized institutions.

There are a number of institutional models for fighting corruption in the world (Slamkov Gj., Filipovski Z, 2019 „Institutional approach in the fight against corruption - Anti-Corruption Bodies“) but they are generally classified into three groups: preventive bodies (with core competencies: education, prevention, training, strategy development, asset declarations), law enforcement agencies (with preventive and operational competencies) and multi-purpose law enforcement agencies (there are a small number of them, including the strongest anti-corruption body in the world - the Independent Commission Against Corruption in Hong Kong).

Macedonia has had the preventive model of an anti-corruption body for almost 20 years, with SCPC as the leading institution. The fact is that the situation has changed and that the new challenges need to be adequately addressed, ie a change in the institutional model for combating corruption is needed, ie, from a preventive body to a law enforcement body (Slamkov Gj, 2019, "New mechanisms for strengthening efficiency in the fight against corruption", Monograph: The role of innovation as a development factor).

The reform of the Macedonian system should be broader, namely, the essential strategic activities should include: changes in the competencies of the Basic Public Prosecutor's Office for Prosecuting Organized Crime and Corruption, transformation of the State Commission for Prevention of Corruption into a Commission for Prevention of Conflict of Interests, partial change in the manner of election / appointment of members of the Judicial Council, Council of Public Prosecutors, as well as of the Steering Committee of the Academy for Judges and Public Prosecutors.

That means:

- Increasing the competencies of the Basic Public Prosecutor's Office for the Prosecution of Organized Crime and Corruption in order to be the main institution in the fight against corruption.
- Transformation of the State Commission for Prevention of Corruption into a Commission for Prevention of Conflict of Interest,
- Improving independence and prevention of influences in the work of the Judicial Council, the Council of Public Prosecutors and the Steering Committee of the Academy for Judges and Public Prosecutors.

a) ***The competencies and organizational structure of the Basic Public Prosecutor's Office for the Prosecution of Organized Crime and Corruption are regulated by the Law on Public Prosecution*** (<https://jorm.gov.mk/zakon-za-javnoto-obvinitelstvo-2/>).

Practice and comparative experience (eg Croatia, <http://www.dorh.hr/Default.aspx?sec=609>) show that in order to deal with the high level of corruption in North Macedonia, the leading institution should be an operational body.

Comparatively speaking, the choice is between a body in the Ministry of Interior (e.g. Central Office for the Repression of Corruption -Belgium), and a special anti-corruption prosecutor's office (e.g. The Office for the Suppression of Corruption and Organised Crime – Croatia).

For Macedonian occasions, a more appropriate solution is the Public Prosecutor's Office for Fighting Corruption because it will have the competencies for both, investigation and prosecution, ie the most appropriate choice of a leading body for combating corruption is the Basic Public Prosecutor's Office for the Prosecution of Organized Crime and Corruption.

However, the current legislation needs to be changed. It is necessary to adopt a special law on the Basic Public Office Office for the Prosecution of Organized Crime and Corruption.

Given the gravity of the problems dealt with by this prosecution, it is necessary to adopt a special law that will regulate all issues within its competence, the manner of election of public prosecutors, investigators and other employees, as well as other issues (starting from the positive examples in the region).

Within the Basic Public Prosecutor's Office for the Prosecution of Organized Crime and Corruption, it is necessary to have several organizational units, as follows: for prevention, for investigations and documentation, for examination and securing of assets acquired by committing a crime, for accusations, for international cooperation.

However, the most important issue is the selection of staff who will work in the institution, because they represent the institution, realize its competencies. Namely, on paper we can create the best institution but if the staff is not competent then we can not expect success.

Thus, the Basic Public Prosecutor's Office for the Prosecution of Organized Crime and Corruption in order to be able to take the expanded role requires a qualitative selection of staff in the largest possible transparent procedure, primarily for the professional public, with gender equality, with an emphasis on professionalism, expertise, moral credibility. The above implies conducting staff trainings for the new competencies, as well as exchange of international experiences.

b) Transformation of the State Commission for the Prevention of Corruption into a Commission for the Prevention of Conflict of Interest is the most appropriate solution starting from the current position of the Commission.

Namely, the Commission for Prevention of Conflict of Interests will be responsible for the conflict of interests in exercising public powers and taking actions in case of conflict of interest, monitoring and checking the asset declarations, developing personal and institutional integrity, education in the field of conflict of interest, as well as lobbying.

Achieving the mentioned goal requires the adoption of a Law on Prevention of Conflict of Interest. The law will be the legal basis for the establishment and action of the Commission for the Prevention of Conflict of Interests, by precisely defining its competencies. Such a body will be the legal successor of the existing State Commission for Prevention of Corruption, in terms of established legal competencies.

Regarding lobbying, although regulated by law from 2008, the issue of lobbying was not applied at all in practice. Therefore, initial steps are needed to implement these normative solutions.

Namely, in 2020, a new law on lobbying was adopted (<https://dsk.mk/wp-content/uploads/2021/06/Zakon-za-lobiranje.pdf>), which regulates lobbying more deeply, but still this law has a weak point that will have a direct impact on the implementation - and that is the control mechanisms.

First of all, lobbying requires a campaign to raise awareness of the importance of lobbying. Public campaign for introducing the citizens to the meaning of lobbying, its purpose, as well as the institutions where lobbying can be done (Slamkov Gj., Stamevski V., 2019 „Lobbying as a way to achieve common goals and Corruption - touch points and delineation“, International Journal of science and arts IDEA).

In addition, training is needed for decision makers in the legislature, the executive and local self-government on law enforcement. Introducing the above categories with their rights and obligations in the application of the law, in order to prevent illegal lobbying that has the character of corruptive actions.

One of the most important components in the fight against corruption is integrity, as a system of internal defense elements that prevent the individual from entering into corruption, conflict of interest or other socially unacceptable phenomena.

Despite the fact that in the past several projects related to strengthening integrity have been implemented, the high level of corruption shows that much needs to be done in this field. Thus, campaigns are needed to raise citizens' awareness of the

importance of integrity, from public officials in the most important institutions to individuals in basic positions.

It is very important to emphasize that the success of these campaigns will be influenced by the functioning of the criminal justice system, especially the work of the courts and the adjudication of corruption cases in which holders of high state positions are involved.

Non-selectivity is an indicator of the success of these policies, because if there is selective justice and controlled procedures then the citizens will not have faith in the judiciary, and thus the projects for strengthening integrity will have no effect.

c) *Reforming the central bodies of the judiciary that have a strong connection with the fight against corruption.*

The goal is reformed institutions that will include people with high integrity and great professional experience. In that way, qualitative conditions need to be created for objective selection and dismissal of judges and public prosecutors, as well as listeners at the Academy for Judges and Public Prosecutors.

This will improve the independence and prevention of influences in the work of the Judicial Council, the Council of Public Prosecutors and the Steering Committee of the Academy for Judges and Public Prosecutors.

One of the first activities is the Amendment of the Law on the Judicial Council, the Law on the Council of Public Prosecutors and the Law on the Academy for Judges and Public Prosecutors.

The Judicial Council and the Council of Public Prosecutors are constitutional matters, but the Constitution leaves the procedure for their composition to be regulated by law (Law on the Judicial Council, Law on the Council of Public Prosecutors). The point of the legal changes should be on the principle of transparency in the election / appointment of members.

Problems from practice impose the need for a more objective procedure for appointment / election of members of the Judicial Council and the Council of Public Prosecutors.

The members of the Judicial Council and the Council of Public Prosecutors who are appointed in the Assembly of North Macedonia should go through two control filters, ie, except the political one (President and Parliamentary Committee on

Elections and Appointments) to be include the expert factor . They need to go through a public interview to answer the questions of the above.

Transparency should also be increased in the selection of members of the Judicial Council and the Council of Public Prosecutors who are directly elected by judges / public prosecutors.

This is a key activity for strengthening the integrity and independence of the judiciary / public prosecutor's office, and thus in the fight against corruption.

The next important activity is a better approach to composing the Steering Committee of the Academy for Judges and Public Prosecutors.

According to the current legal solution, the Steering Committee consists of four representatives of the judiciary (two appointed by the Judicial Council, one appointed by the Association of Judges and one appointed by the Supreme Court) four representatives of the prosecution (two appointed by the Council of Public Prosecutors, one appointed by the Association of Public Prosecutors and one appointed The Public Prosecutor Office of North Macedonia) and one member is appointed by the Minister of Justice. They have their deputies (https://jpacademy.gov.mk/initial_training/zakon-za-akademijata-za-sudii-i-javni-obviniteli/).

The whole process lacks transparency, namely, the transparency in the appointment of the members of the Steering Committee should be increased, but also the model of its composition should be changed. In fact, this body has many great competencies, among them, elects the Director of the Academy and listeners for future judges and public prosecutors.

In the past, cases of conflict of interest for members of the mentioned institutions have been reported in the media. In order to prevent such occurrences, it is necessary to create effective procedures to prevent nepotism, cronyism or corrupt practices in the work of the Judicial Council, the Council of Public Prosecutors and the Steering Committee of the Academy for Judges and Public Prosecutors.

In that direction, the adoption of a code of ethics in the above institutions and their consistent application is needed.

But in any case, strengthening transparency in the work of the Judicial Council, the Council of Public Prosecutors and the Steering Committee of the Academy for Judges and Public Prosecutors is essential.

The above outlines the basic activities that need to be undertaken in order to build preconditions for reducing corruption in North Macedonia. The point is placed on the most important bodies in the judiciary, as well as on the specialized anti-corruption body.

Within the second phase, it is necessary to create solutions for other institutions that have points of contact in this area, such as the State Audit Office, the Public Revenue Office, the Financial Police, the Agency for Protection of the Right to Free Access to Public Information.

Achieving the above activities and goals requires the involvement of civil society, especially organizations working in the field of rule of law and the fight against corruption.

The harmful consequences of corruption affect all citizens, because through corruption the state system is destroyed, so it is necessary to emphasize gender representation as one of the factors for sustainable and successful reforms.

Starting from the fact that we live in a global society where information is transmitted at high speed around the world, with a high degree of interdependence, it is necessary to use international experience (of course, taking into account our own characteristics) in order to reduce and suppress corruption through the implementation of planned measures.

By undertaking these steps, the work of the relevant anti-corruption bodies will be strengthened, while by doing so, the compliance of institutions with the rule of law and the respect for human rights will also be enhanced.

3. TRIANGLE OF SUCCESS

Rule of law is one of the basic Copenhagen criteria (https://eur-lex.europa.eu/summary/glossary/accession_criteria_copenhagen.html) which requires the state to have functional institutions to preserve democratic governance and human rights. This is one of the criteria that are a prerequisite for membership in the European Union.

The Republic of Macedonia (now North Macedonia) has been a candidate country for EU membership for more than 15 years. A time period in which there were many oscillations in various sectors, including the fight against corruption.

The current situation with the fight against corruption in North Macedonia is worrying and therefore essential measures are needed that will show effect in a reasonable period.

The above text presented several strategic institutional initiatives but they can not be applied in isolation from other processes in society.

One of the rules of psychology is that if a person lives for a long time in a certain environment and in certain circumstances, he/she gets used to those living conditions and considers them normal. Thus, Macedonian citizens for a long time in their daily lives have corruption and all its negative consequences. Thus, for example, today someone may succeed in getting something in front of others that he does not deserve, but in the coming days he will be discriminated (victim) because someone else will get a privilege that he does not deserve, but to the detriment of other citizens.

Therefore, together with the preventive and repressive measures, it is necessary to run a campaign to raise public awareness about the harmfulness of corruption, both in general and on an individual level.

This is a triangle of actions: strengthening public awareness, prevention and repression. This is the model through which Hong Kong managed to get out of the widespread corruption in the 70s of the last century and today to be in the top 15 in the ranking of Transparency International (<https://www.transparency.org/en/cpi/2020/index/nzl#>), to be for more than 20 consecutive years in the first place of the Heritage Foundation for Economic Freedom (<https://www.brandhk.gov.hk/html/en/HongKongsAdvantages/WorldsFreestEconomyAgain.html>).

Raising citizens' awareness of the fight against and resistance to corruption largely depends on the full implementation of justice by the judiciary, especially in cases involving high-ranking political figures or businessmen. If this is not the case, then awareness-raising and prevention policies will have no basis for implementation, and thus it is unlikely to get out of the group of corrupt countries.

This situation can be overcome only by strengthening the independence of the most important institutions in the system, because then, in the lower structures, the system itself will be cleansed of corruption and crime.

And this brings us back to the beginning - political will. It is the key to liberating the institutions and creating conditions for them to independently and objectively realize their competencies.

CONCLUSION

Corruption is everywhere and the fight against it should be constant, but which instruments will be used depends on the degree of its prevalence.

Holders of dealing with corruption are institutions that have such a mandate or have another field of action but are closely related to the fight against corruption.

However, institutions are legal entities that are managed by individuals, with staff specialized in the given area. The integrity of individuals builds the integrity of the institution, they are mutually conditioned.

In Macedonia (now North Macedonia) according to numerous rankings, a high degree of corruption has been found. This situation brings with it all the negative consequences, from mass emigration of citizens to dysfunction of the system.

In such situations it is necessary to act substantially, in order to solve the problem basically, because the modified actions are not solutions but a waste of time.

Within the paper, several proposals for changes in the institutional model for dealing with corruption in North Macedonia are presented. All solutions are related to several principles: transparency, professionalism, integrity, moral values and accountability.

Radical anti-corruption solutions are needed in countries with high levels of corruption, the only question being - how long it will take to realize that they must be implemented.

REFERENCES

- Brinkerhoff, D.W. 2000, „Assessing political will for anti-corruption efforts: an analytic framework”, *Public Administration and Development*, Vol. 20, No. 3
- Slamkov Gjorgi, 2019, „New mechanisms for strengthening efficiency in the fight against corruption”, *Monograph: The role of innovation as a development factor*, European University-Skopje, p. 110 - 119,

- Slamkov Gjorgi., Filipovski Zoran., 2019, „Institutional approach in the fight against corruption - Anti-Corruption Bodies“, International refereed scientific journal „Vision“, Vision University, Volume 4, Issue 1, p. 17 – 43,
- Slamkov Gjorgi, Stamevski Vasko, 2019 „Lobbying as a way to achieve common goals and Corruption - touch points and delineation“, International Journal of science and arts IDEA, European University – Skopje, Vol. 3, no. 6, p-g. 79-89,
- Copenhagen Criteria, <https://www.consilium.europa.eu/media/21225/72921.pdf>
https://eur-lex.europa.eu/summary/glossary/accession_criteria_copenhagen.html
- Institutional Arrangements to Combat Corruption - A Comparative Study, 2005, UNDP, https://www.un.org/ruleoflaw/files/Institutional_arrangements_to_combat_corruption_2005.pdf
- Jakarta Statement on Principles for Anti-Corruption Agencies, 2012, https://www.unodc.org/documents/corruption/WG-Prevention/Art_6_Preventive_anti-corruption_bodies/JAKARTA_STATEMENT_en.pdf
- Shadow Report on Public Procurement in North Macedonia 2020, Center for Civil Communications, <https://www.ccc.org.mk/images/stories/senkamk2020.pdf>
- The National Strategy for Prevention of Corruption and Conflict of Interest <https://dksk.mk/wp-content/uploads/2021/01/Nacionalna-strategija-DKSK-KONECNA.pdf>
- The Corruption Assessment Report - Level of Corruption, 2020, Macedonian Center for International Cooperation, pg. 45-49, <https://mcms.mk/images/docs/2020/izveshtaj-za-procena-na-korupcijata-vo-severna-makedonija-2020.pdf>
- Law on Public Prosecution, Official Gazette of the Republic of North Macedonia, no.42/2020 <https://jorm.gov.mk/zakon-za-javnoto-obvinitelstvo-2/>
- Law on lobbying, Official Gazette of the Republic of North Macedonia no: 122/2021 <https://dksk.mk/wp-content/uploads/2021/06/Zakon-za-lobiranje.pdf>
- Law on the Judicial Council of the Republic of Macedonia, Official Gazette of the Republic of Macedonia No. 60/2006, http://www.aa.mk/WBStorage/Files/Zakon_sudski_sovet_RM.pdf
- Law on the Council of Public Prosecutors, "Official Gazette of the Republic of Macedonia" no. 150/2007, <https://jorm.gov.mk/zakon-za-sovetot-na-javni-obviniteli/>

- Law on the Academy for Judges and Public Prosecutors, Official Gazette of the Republic of Macedonia, no. 20/2015, https://jpacademy.gov.mk/initial_training/zakon-za-akademijata-za-sudii-i-javni-obviniteli/
- Global Corruption Index - GCI (<https://globalriskprofile.com/>),
- <http://www.dorh.hr/Default.aspx?sec=609>
- <https://uskok.hr/en>
- <https://www.police.be/5998/fr/a-propos/directions-centrales>
- <https://www.transparency.org/en/cpi/2020/index/nzl>
- <https://www.transparency.org/en/cpi/2014/index/mkd>
- <https://www.heritage.org/index/ranking>
- <https://risk-indexes.com/global-corruption-index/>
- <https://balkaninsight.com/2019/08/21/north-macedonia-arrests-outgoing-chief-special-prosecutor/>
- <https://www.statista.com/statistics/1104709/coronavirus-deaths-worldwide-per-million-inhabitants/>
- <https://www.slobodenpecat.mk/nabavkata-na-vakczini-od-kina-pod-lupa-na-antikorupzionerite/>
- <https://netpress.com.mk/avniot-dolg-otide-na-60-7-procenti-makedoni-a-dolzhi-6-5-mili-ardi-evra/>
- <https://www.brandhk.gov.hk/html/en/HongKongsAdvantages/WorldsFreestEconomyAgain.html>

GENDER POLICY IN INSURANCE COMPANIES IN THE REPUBLIC OF NORTH MACEDONIA

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ABSTRACT

The chosen topic in this research „Gender policy in insurance companies in the Republic of North Macedonia” is an issue which has not been tackled so far. Therefore, it represents an interesting topic for the insurance companies and for the general public, as well.

Based on the collected data during the research, which included a survey of 16 insurance companies from which 11 apply non-life and 5 apply life insurance activities, the given answers generally show that women are represented adequately and managerial positions like for ex. head of department or head of directorate are generally led by women. As it can be seen from the title of the topic, the research is limited only to the insurance area.

Insurance companies are focused on professionalism and the competences/personal qualifications of the employees, yet at the same time giving special importance and priority to the equitable gender representation

The results show that the insurance companies respect the principles of equitable gender representation.

KEYWORDS: insurance companies, gender equality, principles, equitable gender representation, professionalism.

JEL CLASSIFICATION: G22, G29, J16

1. INTRODUCTION

Gender equality, as well as protection from discrimination, are topics ensured by the highest legal act in the country - the Constitution of the Republic of North Macedonia. Legal requirements arising from local legislation, namely the provisions from the Labour Relations Act, the Law on Equal Opportunities for Women and Men, the Law on Prevention and Protection Against Discrimination, as well as applicable international conventions in North Macedonia and other laws, regulate the complex issues about gender policies.

This research intends to offer an overview of the current situation of gender representation in the insurance sector, namely in local insurance companies.

Insurance company is a joint stock company with headquarters in North Macedonia, which has permission by the Insurance supervision agency for the performance of insurance work (Article 12, Insurance supervision Law, 2020).

Issues addressed in this research report include:

- the number of employees and gender representation,
- level of education of the employees,
- company administration (high level of management) as well as gender representation,
- number of managerial positions (middle level of management) and gender representation,
- the employment process (year 2019-2020) and the way of selecting the employees,
- salaries and benefits from the work.

Equality between men and women (gender equality) refers to the equal rights, responsibilities and opportunities of women and men and girls and boys (Office of the Special Advisor on Gender Issues and Advancement of Women, 2001).

Gender equality is not only a basic human right, but its achievement has enormous socio-economic ramification (UN women, n.d.).

The importance that the Republic of North Macedonia dedicates to gender equality can be seen in the conduct of new laws and the supplementation of existing laws, strategies and action plans such as: the Law on Equal Opportunities for Women and Men, the Law on Prevention and Protection Against Discrimination, National Strategy for Gender Equality, National Action Plan for Gender Equality, various reports on the evaluation

of the implementation of the Law on Equal Opportunities for Women and Men at central and local level.

Also, in accordance with the Law on Equal Opportunities for Women and Men, Article 23 (Law on equal opportunities of women and men, 2012, 2014), within the Ministry of Labour and Social Policy, a procedure is established to ascertain the unequal treatment of women and men. The procedure is conducted by the representative for equal opportunities for women and men, a person employed as a civil servant in the Ministry of Labour and Social Policy.

The representative for equal opportunities for women and men within his competencies, independently performs the duties and tasks related to the legal protection of gender-discriminated persons and initiating the procedure for determining the unequal treatment of women and men in accordance with the provisions of the Law on Equal Opportunities for Women and Men, cooperates with the competent bodies (competent inspection body, Ombudsman or other competent body), prepares annual reports and analyses and performs other activities (Article 21, Law on equal opportunities of women and men, 2012, 2014).

Given the fact that the topic of gender representation in public institutions is an issue addressed and monitored by various local organizations, the purpose of this research is to provide a realistic picture of the state of gender representation in insurance companies.

1.1 The legal framework

Article 9 of the Constitution of the Republic of North Macedonia (The Constitution of the Republic of North Macedonia, 1991) states that:

“The citizens of the Republic of North Macedonia are equal in freedoms and rights regardless of gender, race, skin colour, national and social background, political and religious conviction, property and social position. The citizens are equal in front of the Constitution and laws.”

The Labour Relations Act, in article 6 (The labour relations act, 2020) provides that:

“The employer is not allowed to put his worker or the job applicant in an unequal position depending on his ethnicity or race, skin colour, gender, age, health condition, respectively disabilities, religious beliefs, political and others, membership in unions,

national or social background, family status, property status, sexual orientation or other personal circumstances”

Law on Equal Opportunities for Women and Men, in article 2 paragraph (2) (The law on equal opportunities of women and men, 2012, 2014) provides:

“(2) Creating equal opportunities is a concern for the whole society, hence of all entities in the public and private sector and is the removal of obstacles and the creation of full equality between women and men “.

The purpose of the Law on Prevention and Protection Against Discrimination (Article 2, Law on Prevention and Protection Against Discrimination, 2020), is to secure the principle of equality and prevention and protection from discrimination in the application of human rights.

The National Action Plan for the Implementation of the Law on the Prevention and Protection Against Discrimination (2015-2020) aims to provide specific tasks and activities over a 5-year period, to advance the goals and implementation of the measures, the expected results, as well as the qualitative and quantitative indicators of success.

The 2016-2020 National Equality and Non-Discrimination Strategy is a strategic document of the Government of the Republic of North Macedonia, which defines the goals, measures, indicators and key policy makers in designing the policy for promotion of rights and equal opportunities in various areas of social life, defining as well responsible implementing agencies and all stakeholders in attaining equality and non-discrimination in the Republic of North Macedonia.

The Gender Responsive Budgeting in the Republic of Macedonia (2012-2017) (Ministry of labour and social policy, n.d.) is focused on three strategic areas: 1) introducing a gender perspective in the programs and budgets of the budget beneficiaries at central and local level, 2) improving the legal framework for the inclusion of gender responsive budgeting, and 3) strengthening the institutional mechanisms and capacity building that are required for incorporation of the gender perspective in the creation of policies and programs and related budgets.

The Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), approved in 1979 by the General Assembly of UN and has been ratified by 190 member countries, among them also North Macedonia in January 18th,1994.

By accepting the Convention, states commit themselves to undertake a series of measures to end discrimination against women in all forms, including:

- to incorporate the principle of equality of men and women in their legal system, abolish all discriminatory laws and adopt appropriate ones prohibiting discrimination against women;
- to establish tribunals and other public institutions to ensure the effective protection of women against discrimination; and
- to ensure elimination of all acts of discrimination against women by persons, organizations or enterprises (UN Women, n.d.).

The Convention for Equal Payment 1951 (C 100), Article 1, provides:

„(a) the term reward covers ordinary payments, basic or minimal or salary and any additional income paid to the employee directly or indirectly or in cash or in nature by the employer as a result of the employee’s employment;

(b) equal pay term for male and female workers for work with the same competencies refers to the amounts of payment determined without discrimination in relation to gender“¹.

2. RESEARCH METHODOLOGY

The methodology used for the realization of this research has included the survey of the participants of the insurance companies through the completed questionnaire from 16² insurance companies from which 11 apply non-life and 5 apply life insurance activities, the review of local legislation which solves the issues addressed in the report, as well as the conventions or applicable international relations in the Republic of North Macedonia.

The used questionnaire includes twenty one questions, whereas the used language is Macedonian language and its Cyrillic alphabet.

¹Article 1, the Convention for equal payment 1951, this instrument is one of the fundamental conventions General Conference of the International Work Organization, after it was called in Geneva by the Governing Body of the International Work Office, who held his thirty-fourth session in June 6th 1951 and decided to approve some of the proposals regarding the principle of equal remuneration for men and women, employees with the same qualifications.

²One of the surveyed companies did not respond at all

The research methodology that has been used in this research is the descriptive statistical analysis, during the presentation of the data obtained from the research, graph taken from the questionnaire were also used.

Also, this research uses data from State Statistical Office and Gender Equality Index.

The recommendations include proposals derived from research findings during the research period.

2.1 Research questions and hypotheses

During this research, it is important to use data that come out of the questionnaire to give answers to the following questions:

1. Are the principles of equitable gender representation respected by insurance companies?
2. Is gender a factor which influences taking a certain managerial position?

Because this research was conducted specifically for the insurance industry in North Macedonia, the first objective of the research is to explore gender equality and the research hypotheses are:

H1: Women are represented equally in the insurance companies.

H2: Important managerial positions in insurance companies are led by female representatives.

3. LITERATURE REVIEW

The National Equality and Non-Discrimination Strategy 2016-2020 is a strategic document of the Government of the Republic of North Macedonia, which sets those objectives, measures, indicators, key policy makers for the promotion of equal rights and opportunities in different areas of life, responsible actors and all actors in creating equality and non-discrimination in the Republic of North Macedonia.

The research, DISCRIMINATION IN THE REPUBLIC OF NORTH MACEDONIA: Legal staff, challenges and the perception of the basis of discrimination (Nikolovska, 2020), is intended to reflect the state of discrimination in the Republic of North Macedonia, through the retrospective of the constitutional order and the legal staff to the problems related to the repeal of the Law on Prevention and Protection Against Discrimination and the adoption of the new law in October of 2020.

The research, HOW REGULATORS USE SEX-DISAGGREGATED DATA AND REGTECH TO ENHANCE FINANCIAL INCLUSION, examines the role that financial services regulators can play in efforts to address financial inclusion of women: how they are using, or could use, sex disaggregated data to enhance women's access to and use of financial products and services of the right quality that meet their needs; and how new technologies could help (Toronto Centre, 2021).

The study THE PERSPECTIVES OF WOMEN FROM RURAL AREAS analyses the existing legal framework and policies, explores the range of social exclusion of women in rural areas, starting from the labor market, local public and social life, participation in local decision-making processes, but at the same time expresses their needs and challenges (Risteska et. al, 2011).

WOMEN IN RURAL AREAS - MORE OBSTACLES THAN OPPORTUNITIES. The analysis shows where is the Republic of North Macedonia currently located in relation to the formal-legal achievements in the establishment of gender equality, and at the same time, by identifying problems and the challenges that rural women face on a daily basis in the process of realization of certain rights, shows the extent to which existing legal solutions, policies and practices make these women equal access to education, social and health care (Stojanovikj et al., 2011).

4. ANALYSIS AND DISCUSSION OF RESULTS

According to the data of the State Statistical Office, in the III quarter of 2021, the active population in the Republic of North Macedonia is 945,158 people, of which 796,681 are employed and 148,477 are unemployed. The activity rate in this period is 56.2, the employment rate is 47.4, while the unemployment rate is 15.7 (State statistical office of R. of NorthMacedonia, n.d.)

4.1 The number of employees and gender representation

In all surveyed companies the number of employees is as follows:

- 26.7% have from 0 to 50 employees;
- 13.3% have from 51 to 100 employees;
- 33.3% have from 101 to 150 employees;
- 26.7% have over 151 employees;

From the total number of employees, 93.3% of insurance companies have declared that the percentage of male employees varies from 26% to 50%, whereas 100% of insurance companies have declared that the percentage of employed women is from 51% to 70%.

Referring to the above data, it turns out that most of the employees or more than 51% in insurance companies are employed women.

4.2 Level of education of the employees

Based on data of State Statistical Office, the majority of employed persons, 55.5% are with 3 and 4 years of secondary education, of which 36.2% are men and 19.3% are women. University level education includes university level education, Master's degree and Doctorate (PhD). According to the Labour Force Survey 2017, 24.0% of the employed persons had completed university level education, of which 11.6% men and 12.4% women (State statistical office, 2017).

When asked what percentage of the total number of employed persons have primary level of education, the respondents answered as follows:

- 53.3% answered that up to 25% of the employees have primary level of education, whereas 46.7% have declared that they don't have such employees.

From the above percentages it can be seen that the employees with primary level of education are in small numbers and in some insurance companies they don't appear at all.

When asked what percentage of the total number of employees are with secondary education, the respondents answered as follows:

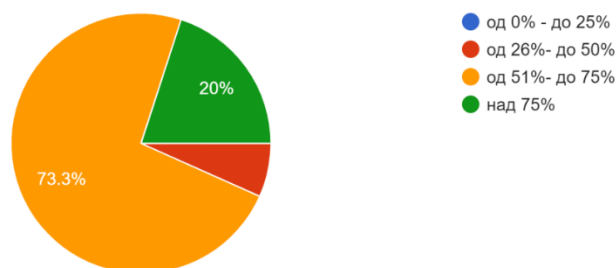
- 66.7% have answered that 26% to 50% of the employees have secondary education;
- 26.7% have answered that 0% to 25% of the employees have secondary education;
- 6.7% have answered that 51% to 75% of the employees have secondary education;

When asked what percentage of the total number of employees are with university level of education, the respondents answered as follows:

- 73.3% have answered that 51% to 75% of the employees have university level of education (Graphics 2);

- 20% have answered that over 75% of the employees have university level of education (Graphics 2);
- 6.7% have answered that 26% to 50% of the employees have university level of education (Graph 1).

Graph 1. The percentage of employees with university level of education



Source: Author

Based on the statements of the respondents, it can be seen that most of the employed persons in the insurance companies have university level of education.

The results show that for insurance companies it is very important that the employed persons have completed university level education.

Based on conclusions of the Gender Equality Index, Women, on average, outperform men in graduates of university education and participation in lifelong learning (UNDP-UN Women, 2019).

4.3 Company administration (high level of management) as well as gender representation

The corporate administration can be organized according to the single-tier system (Board of Directors) or according to the two-tier system (Managing Board or administrator and Supervisory Board) (Company law, 2014).

When asked how many executive members are in the Board of Directors/members of Managing Board the respondents have answered as it follows:

- 33.4% have 1 executive member of the Board of Directors/member of the Managing Board;

- 20% have 2 executive members of the Board of Directors/members of the Managing Board;
- 40% have 3 executive members of the Board of Directors/members of the Managing Board;
- 6.7% has 5 executive members of the Board of Directors/members of the Managing Board.

When asked about is the percentage of members of the management body of the company that are female, the respondents answered as follows:

- 26.6% don't have female members;
- 13.3% have 1 female member;
- 6.7% have 3 female members;
- in 20% of the insurance companies, the percentage of female members is 33.33%;
- in 13.3% of the insurance companies, the percentage of female members is 33%;
- in 6.7% of the insurance companies, the percentage of female members is 50%;
- in 6.7% of the insurance companies, the percentage of female members is 100%.

The number of female members in the management bodies varies from company to company, somewhere they are with a higher percentage whereas somewhere the percentage is 0.

On the question of whether the position of a General Director is currently held by a female, 33.3% answered with „yes“, whereas 66,8% answered with „no“.

The position of a General Director in most of the insurance companies is held by men, however the percentage of companies that are led by women is not low.

4.4 Number of managerial positions (middle management)³ and gender representation

When asked about the number of managers in insurance companies, the respondents answered as follows (Table 1):

³ Middle management means any managerial position in the insurance company (head of department, head of directorate)

Table 1. Number of managers at middle management positions

| <i>Number of managers</i> | <i>Number of companies</i> | <i>Number of companies (%)</i> |
|---------------------------|----------------------------|--------------------------------|
| 1-5 | 6 | 40 |
| 6-10 | 5 | 33.33 |
| 11-15 | 2 | 13.33 |
| 16-20 | 0 | 0 |
| 21-25 | 0 | 0 |
| 26-30 | 2 | 13.33 |

Source: Author

When asked about the percentage of the total number of managers that belong to women and to men, the respondents answered as follows:

- a) 67% are female – 33% are men (in 13.33% of the insurance companies)
- b) 27% are female – 73% are men (in 26.67% of the insurance companies)
- c) 50% are female – 50% are men (in 6.67% of the companies)
- d) 22% are female – 78% are men (in 6.67% of the companies)
- e) 100% are female (in 13.33% of the insurance companies)
- f) 0% are female – 100% are men (in 6.67% of the companies)
- g) 43.33 % are female – 56.67% are men (in 6.67% of the companies)
- h) 54% are female – 46% are men (in 6.67% of the companies)
- i) 60% are female – 40% are men (in 6.67% of the companies)
- j) 62.5% are female – 37.5% are men (in 6.67% of the companies)

Managerial positions like Head of department and Head of directorate in most of the companies are held by women.

4.5 Employment (year 2019-2020) and the way of selecting the employees

To the question whether during 2019 and 2020 there were new employments (and if so, what percentage of them were female), all surveyed companies responded positively, that there were new employments, and the percentage of female employees varied from 34% to 100 % (60% in 2 of the companies, 100 % in 2 of the companies, and 62.5%, 51,8%, 34%, 58.49%,63%, 65%, 67%, 47%, 76%, 50%, 90% in the remaining 11 companies).

On the question of whether the company uses recruiting strategy to increase the number of female employees, all of the respondents answered with „no“, some of them with the explanation that:

- the company does not need such a strategy and that recruitment is based on the qualifications and experience of the candidates;
- they consider that principles for equitable gender representation are respected
- during the recruitment of staff the appropriate gender representation is taken into account, but also the competencies and professionalism.

The negative answer of the respondents about the strategy for recruitment to increase the number of female employees can be justified because, as it can be seen, even without such a strategy, the principle of gender equality is respected.

When asked whether the company requires a gender-diverse state of candidates for management roles, 67% of the companies have answered with „no“, while some of them have answered:

- the qualifications of the candidate are crucial;
- while filling managerial positions, the company is more focused on the competencies of the candidates, because according to the structure of gender the relationship is on a solid scale;
- at the moment there is no list of candidates, with the introduction of such a list, attention will be paid to gender equality;

33.4% responded positively and one of the companies has responded with “yes”, but nevertheless the priority is on the professionalism and the competences of the candidates.

When asked how many of the employees that have left the job during 2020 are female, only one company responded that they didn't have such a case, whilst in other companies the percentage of women employees that have left their job is higher and is 68%, 60%, 50%, 60.9%, 29%, 46%, 52.5%, 90%, 44.44%, 62%, 35%, 70%, and 36% per company.

Based on the conclusions of the Gender Equality Index, the duration of the working life of women in the Republic of North Macedonia is, on average, less by 12 years compared to the working life of men which is the second lowest level of average working life of women compared to all other EU member states (UNDP-UN Women, 2019).

The results obtained for the median tenure (in years) of the company's female and male employees are presented in Tables 2 and 3, respectively.

Table 2. Median tenure (in years) of women employed in the insurance companies

| <i>Median tenure (in years)</i> | <i>Number of companies</i> | <i>Number of companies (%)</i> |
|-------------------------------------|--------------------------------|------------------------------------|
| 1-4 | 5 | 33.33 |
| 5-8 | 5 | 33.33 |
| 9-12 | 2 | 13.33 |
| Don't have definite tenure | 2 | 13.33 |
| Indefinite tenure | 1 | 6.67 |

Source: Author

Table 3. Median tenure (in years) of male employed in the insurance companies

| <i>Median tenure (in years)</i> | <i>Number of companies</i> | <i>Number of companies (%)</i> |
|-------------------------------------|--------------------------------|------------------------------------|
| 1-4 | 4 | 26.67 |
| 5-8 | 6 | 40 |
| 9-12 | 2 | 13.33 |
| Don't have definite tenure | 2 | 13.33 |
| Indefinite tenure | 1 | 6.67 |

Source: Author

4.6 Salaries and benefits from work

On the question of whether there is a difference in wages between female and male employees, in 53.6% there is no difference in salary based on gender; 6.7% have stated that the difference is plus minus 4%, whilst the remaining half or 40.2% have stated as follows:

- there is a difference in salary only on the basis of the complexity of work;
- salaries are equal based on job positions;

- wage difference between employees depends exclusively on the job position and qualifications of the employee;
- salary difference depends on the employment contract.

On the question of whether the company provides benefits\services for family care, 53.6 % answered „no“ whilst 46.8% answered with „yes“.

On the question of whether flexible working hours are allowed for women returning from maternity leave, most of the respondents in total 80.2% answered with „yes“, some of them answered as follows:

- yes in certain cases;
- if the job position allows work from home, in agreement with the leader, home office is possible for women returning from maternity leave;

Whilst 13.4% answered with a „no“, and only 6.7% answered: - „only if the law allows it“.

According to Gender Equality Index for North Macedonia, employed women in North Macedonia have, on average, less flexibility with their working hours compared to men, thus less opportunities to balance between work and private life (UNDP-UN Women, 2019).

In the final question addressed to the respondents - whether you think that the number of employed women is sufficiently represented, all of the respondents have answered with a “yes” even one insurance company answered :- „yes, with increasing tendency“.

CONCLUSION AND RECOMMENDATIONS

From the research it can be concluded that women are adequately represented in local insurance companies and that female representatives hold managerial positions in company, conclusion by which both hypotheses given at the beginning are verified.

In terms of middle management (head of department, head of directorate), most of them are led by women.

During the last two years (2019 and 2020) new hires mainly involved women employees.

Respondents stated that gender equality is a priority in their companies and that they respect the principles of gender equality.

It's important to mention that companies, besides the equitable gender representation, consider also the personal competences, level of education and professionalization of the employees.

Gender is not a factor for leading certain positions, but personal qualifications are.

Differences in salaries between the genders do not, salaries are based on the type and the complexity of work.

Given the number of women employed in each insurance company which is 51% -70% it is clearly proved that in this industry women employees do not encounter difficulties during employment.

Recommendations directed to insurance companies:

- In insurance companies which have 1 executive member of the Board of Directors\member of the Managing Board, it is recommended to change the way of administration and to appoint at least 2 executive members of the Board of Directors\members of the Managing Board.
- In insurance companies in which none of the members of the managing bodies are female, it is recommended to give priority to female members.
- It is recommended the number of managerial positions to belong 50 % to women and 50% to men.
- It is recommended the companies to pay more attention to family care benefits\services

REFERENCES

- The Constitution of the Republic of North Macedonia. (1991). Official Gazette of Republic of Macedonia, no. 52/1991. Available at: <https://www.sobranie.mk/content/Odluki%20USTAV/UstavSRSM.pdf>
- Convention for equal payment. (1951). Available at: <https://kss.mk/wp-content/uploads/2016/09/100-Konvencija-za-ednakvo-plakjanje-1951.pdf>
- Company Law. (2014). Official Gazette of Republic of North Macedonia" no..138/14. Available at: <https://aso.mk/wp-content/uploads/2019/04/Zakon-za-trgovskite-drustva.pdf>
- Gender Responsive Budgeting in the Republic of Macedonia (2012-2017), Ministry of Labour and Social Policy. Available at: <https://www.globalwps.org/data/MKD/files/2012->

[2017%20Strategy%20for%20Introducing%20Gender%20Responsive%20Budgeting.pdf](#)

- Insurance Supervision Law. (2020). Official Gazette of the Republic of North Macedonia, no.31/2020. Available at: <https://aso.mk/wp-content/uploads/2020/02/zso-neoficijalen-precisten-31-2020.pdf>
- Labour Relations Act of Republic of North Macedonia. (2020). Official Gazette of the Republic of North Macedonia, no.267/20. Available at: https://www.mtsp.gov.mk/content/pdf/trud_2017/pravilnici/16,11-%D0%B0%D0%BA%D0%BE%D0%BD%D0%A0%D0%B0%D0%B1%D0%9E%D0%B4%D0%BD%D0%BE%D1%81%D0%B8.pdf
- Law on Equal Opportunities of Women and Men of Republic of North Macedonia. (2012, 2014). Official Gazette of the Republic of Macedonia, 6/2012, 166/2014). Available at: https://www.mtsp.gov.mk/content/pdf/zakoni/2017/precisten%20tekst%202015%20na%20ZEM_nov.pdf
- Law on Prevention and Protection Against Discrimination of Republic of North Macedonia. (2020). Official Gazette of Republic of North Macedonia, no.. 258/2020. Available at: <https://www.mtsp.gov.mk/content/%D0%97%D0%B0%D0%BA%D0%BE%D0%BD%20%D0%B7%D0%B0%20%D1%81%D0%BF%D1%80%D0%B5%D1%87%D1%83%D0%B2%D0%B0%D1%9A%D0%B5%20%D0%B8%20%D0%B7%D0%B0%D1%88%D1%82%D0%B8%D1%82%D0%B0%20%D0%BE%D0%B4%20%D0%B4%D0%B8%D1%81%D0%BA%D1%80%D0%B8%D0%BC%D0%B8%D0%BD%D0%B0%D1%86%D0%B8%D1%98%D0%B0.pdf>
- National Action Plan for the Implementation of the Law on the Prevention and Protection Against Discrimination 2015-2020. Available at: https://www.mtsp.gov.mk/content/word/NAP%20for%20ADL%202015-2020_MK.doc
- National Equality and Non-Discrimination Strategy 2016-2020. Ministry of Labour and Social Policy. Available at: <https://epale.ec.europa.eu/sv/node/160327> and https://www.mtsp.gov.mk/content/pdf/dokumenti/7.7_Strategija%20za%20ednakvost%20i%20nediskriminacija.pdf
- Nikolovska, M. C. (2020). Discrimination in the Republic of North Macedonia: legal staff, challenges and perception of the basis of discrimination. Available at: <https://www.ihr.org.mk/storage/app/media/Publications/Analiza%20diskriminacija%20vo%20RSM%202020%20AL.pdf>

- Office of the Special Advisor on Gender Issues and Advancement of Women. (2001). Gender mainstreaming: Strategy for promoting gender equality. Available at: <https://www.un.org/womenwatch/osagi/pdf/factsheet1.pdf>
- Risteska, M. Mickovska-Raleva, A. and Lazarevski, G. Perspectives of Women in Rural Areas. Baseline Study of the Status and Livelihoods of Women in Rural Areas and Recommendations for Gender Responsive Policy Responses, CRPM/UN Women, 2011
- Stojanovikj D., Tomikj T., Kunovska V., Vasileva A. (n.d.). Women in rural areas - more obstacles than opportunities, Available at: https://mhc.org.mk/wpcontent/uploads/2019/05/Ruralni_Sredini_MK_5_.pdf
- State statistical office. (2017). Labour force survey. Available at: <https://www.stat.gov.mk/Publikacii/2.4.18.03.pdf>
- State Statistical Office. (n.d.) Available at: <https://www.stat.gov.mk/PrikaziSoopstenie.aspx?rbtxt=98>
- Toronto Centre. (2021). How regulators use sex-disaggregated data and REGTECH to enhance financial inclusion. Available at: https://res.torontocentre.org/guidedocs/TC_USAID%20Main%20Report%20FINAL%20May18.pdf
- UN women. (n.d.). Available at: <https://www.unwomen.org/en/about-us/about-un-women>
- UN Women. (n.d.). Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). Available at: <https://www.un.org/womenwatch/daw/cedaw/cedaw.htm>
- UNDP-UN Women, Gender Equality Index for North Macedonia 2019 - Measuring Gender Equality, page 19, available at https://www.mtsp.gov.mk/content/pdf/dokumenti/2019/Gender%20Index_ENG.pdf

THE CHARACTERISTICS OF PUBLIC SPACE AND URBAN STREETS AND THEIR IMPACT ON PERCEPTION AND FEELINGS OF THE PARTICIPANTS

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ABSTRACT

Without a structured physical layout and a system of street connections inside cities, successful urban development has never been possible. Streets have played an important role in cities from ancient times, connecting areas, people, and things, promoting business, social interaction, and transportation. Cities' cultural, social, economic, and political functions have been partially defined by streets, plazas, and well-designed public areas. They were – and still are – the first feature to distinguish a place's status, from a haphazard and unplanned settlement to a well-established town or metropolis. In many parts of the world, people are reclaiming their streets as public places. Streets are being redesigned to allow communities to use them to their full potential and as a form of social engagement.

However, despite its great importance, not many studies attempted to explore the characteristics and roles of streets and public places, especially within the Macedonian context. The purpose of this study is to explore the sense of comfort and safety of people while being in urban streets and public places. Moreover, in view of the main research objective, besides the characteristics of the urban streets, the demographic variables, such as gender and age were examined as to their relevance for their perceptions.

The research results have indicated that the characteristics of the urban streets have impact on participant's perception and feelings, while in terms of demographic variables, only age has a significant role in the perception of the public space of Skopje from every aspect, but not in the sense of comfort and safety while walking in urban streets and public spaces.

KEYWORDS: Urban streets, public places, comfort, safety

JEL CLASSIFICATION: R10, R14, R49

1. INTRODUCTION

In the mid-seventeenth century, the term "public" was first used to refer to a theatre audience in France. It took on the connotation of "public place containing a vast diversity of individuals and composed of acquaintances and strangers" in the 18th century.

In the modern world, the term "public" has taken on new meanings and connotations. Arendt (2013) distinguishes between the two definitions of the term "publicity." The term can either mean everything that appears in public and it is seen and heard by everyone or it refers to the world that is common to all of us, not the privately owned one. Francis (1989) prefers to treat public space and the public sphere as a single entity. The public realm is defined as areas that are as accessible to the general public as public space. The common ground for civility and a sense of publicness is public space, which is where publicity is generated and articulated. Some studies use the forms of public space to define "public space". Public space "involves all the natural and artificial environment to which the public can access freely; roads and squares in a settlement area which are open to commercial or urban use; open spaces and parks; and also all the public/private spaces to which public access is not limited (at least during the day)" (Bartlett School of Planning,2016).

Public spaces are locations of personal and social satisfaction, as well as collective living spaces, expressions of natural and cultural diversity, and vital aspects that serve as a foundation for the formation of an identity. In public spaces, the public recognizes itself and watches the evolution of spatial quality (Ozbayraktar,2017).

2. LITERATURE REVIEW

2.1. Urban Streets as Public Spaces

In the process of studying the phenomena that have historically been named as streets, the review of written documents and works has come to the conclusion that the phenomenon is treated differently in different periods.

In the Middle Ages, street networks took place within the city walls. The exceptional limitation of the space reflects on the maximum thickening of the urban matter and

reduction of the space for streets. Vitruvius (1990) describes the streets as a public space, giving a description of the shape according to which, the squares should be built with the surroundings. He describes the size, proportions of the sides, the primary function for large gatherings and process monitoring, as well as the space it touches (porches and colonnades). From today's point of view, the anthropological, anthropomorphic approach to the introduction of architectural and architectural elements (porches, colonnades) that are in direct contact with large public spaces such as streets or squares is extremely important, especially given the fact that it is evidently absent in modern shaped vocabulary of architects and urban planners (Blazhevski,2019).

According to Mughtin (2003), it is impossible to start a classification of streets of any kind without taking into account the Vitruvius' approach. He specifically refers to the part where Vitruvius (1990) describes the three basic types of scenery used in Greek theatrical performances. The description of the scenes is in the form of streets or public spaces that should serve as a space for theatrical play, as follows: for tragedies - pillars, tympanums, porches are built behind the scenes or in other word the ambience of city streets that stretch into perspective in the depth of the scene. For comedies - backdrops that illustrate streets along simple houses, with balconies and windows reminiscent of ordinary buildings are build, while for satirical representations, Vitruvius (1990) envisages a setting in nature with trees, vegetation, relief motifs and the like. In his approach, Vitruvius (1990) mentions the construction of porches behind the scenes and next to the theaters that would serve as a place where visitors can take shelter in case of rain. He also describes the porches as form elements that would be used for walking in the cities. They should be planned with greenery and drainage.

Leon Battista Alberti in the book "Ten Books on Architecture" gives special emphasis on materialization, as well as the proportions and shape elements of architecture (physical structures) that stretch along the so-called. "routes" – streets (Vitruvius,1990). Therefore, Mughtin (2003) points out that it was Leon Battista Alberti, and later Andrea Palladio who were the first authors to distinguish between city and suburban streets and were used to connect the same. Andrea Palladio pays particular attention to the access paths he uses in his villa projects accentuates with

tree lines on both sides. In this way it provides shade along the road and emphasizes the axes of symmetry in the composition of the landscape (Blazhevski,2019).

Consequently, from the very first definition, it is believed that the machines and vehicles have a great influence over the city and its development and shape. This impact acts through the communications, the streets and the roads along which the vehicles move and along which the buildings and the neighborhoods develop (Blazhevski, 2019). In this directions, Buchanan (1978) shows that if in the process of traffic planning the primary importance was given to the quality of the environment in the urban space, then only some types of vehicles would be allowed and to a limited extent. The fact is that the individual transport - by car occupies the largest area and participates with the highest percentage in air pollution of the city per capita. On the other hand, rail public transport is also incomparably more efficient and less polluting. Although these comparisons are clear, it is obvious that no one has engaged in realistic application on a larger scale (Blazhevski, 2019).

The streets have always been identified as one of the first levels of organization of the urban space. Hays (2000) in his extensive review of architectural theory emphasizes Aldo Rossi's interest in the tasks of the so-called human geography and morphology of the city. According to Rossi(1966), this discipline has the task of studying urban structures in correlation with the places where they appear. It is a sociological study within a limited space. However, in order to proceed with the analysis of the site, it is necessary to determine in advance the boundaries within which it will be defined. For that reason, Rossi (1966) relays on three levels:

- a) street level, which covers the buildings and the undeveloped space around;
- b) a level consisting of several blocks with common features;
- c) a level of the whole city, understood as the sum of city quarters.

The street can be seen as a road that has an urban character, or as an urban place that serves as a right of way, or as an ensemble of objects, sequences from different spaces with different functions.

Influenced by the modern world, the treatment and observation of the street as an urban road is dominant. In parallel with this view, a basis is being created which explains the street as a multifunctional urban place (Marshall,2005). Streets are the

most important symbols of the public realm, as they make up a large portion of open communal space. They take into consideration the practical, social and recreation needs of people which are strongly linked with the growth of the economy, physical health and community sense (Chadha,2017).

2.2. Theories about the Relationship between People's Behavior and Physical Form

Lynch (1961) in his book "Image of the City" suggests new approach of understanding the order of urban city. This theory, known as E-B research, is based on the city memories of the people and its essence is to study the relationship between physical environment and people's behavior associated with it. From here, it is believed that there is a connection between people and urban streets. The most appealing theory to academics and designers interested in creating better environment is the theory of behavior settings introduced by Baker (1968). This is due to the inclusion of both human and non-human conditions and entities within the theory, which sets apart from person-centered theories (Baker et al., 1983). The theory has been further developed by Wicker (1979), who combine the theory with psychology-related concepts. The Wicker's theory undermined the "physical milieu" thus become subject of criticism to other scientists who see the theory as a violation of the original Baker's theory.

According to Daniel et al. (1981), some environmental factors are determinants of the value for the perceived place. These factors are the degree of accessibility, uniqueness, availability and activities. Yet, some activities are more "demanding" than others (Wicker,1987). The required "fit" between the physical environment and user's activities depends on the activity's nature.

The model developed by Kaplan (1983), include the required or discouraged behavior in a particular setting and the plan and willingness of the people; what they are trying to do. Here, the emphasis is put on supportive environment where individuals strive towards goals and outcomes. The perception and knowledge of the people regarding the world is mainly influenced by the external information from the environment. Therefore, the clearer the information is, the easier is for a person to accomplish his

plans, while lack of information can lead to frustration, feelings of helplessness and distraction (Kaplan, 1983).

Another model, developed by Generaux et al. (1983), suggest that there are necessary actions that are decided by the person. Depending on the environment, their fulfillment can be easy or difficult, but yet they are clearly goal-directed and needed.

Although the architecture is an important for urbanization, therefore any great street, it is a place where community truly “bloom”. Today, the rapid growth and the city constructions have an enormous impact on the relationship of the people, as they are the urban users, and the social spaces. Dynamic and well-used streets are places where everyone enjoys; people coexist, find mutual interests and experience vibrant link (Chadha,2017). Therefore, it can be said that the user of the street directly influences the street character. It all depends on the purpose and function of the location, physical form and user cultural characteristics (De Simas, 2017)

In addition, the psychical characteristics of the streets such as location, appearance, landscape features and quality play important role in creating sense of the place. Location is emphasized due to ability to make the street accessible through using the strategic location, well-connected with the other parts of the city, accessible by different modes of transportation and by making the street recognizable by the locations’ buildings, landmarks or any other street elements. Besides that, the physical appearance such as the height, size, color, materials, age has a role in making the street to be recognized. These features make the street safe and comfortable for the users. Moreover, the trees, streetlights, sitting areas, pedestrian level, traffic, and walkways have an essential contribution in people’s perception whether the street is safe or not (Musaab et al., 2015).

3. METHODOLOGY

This paper aims to explore the sense of comfort and safety of people while being in urban streets and public places. Moreover, it examines how do the variables ‘age’and ‘gender’ influence the perception and feelings on public places.

In this research, the authors tried to bring together the data and information available in expert literature and legislation, in university lectures and research, on the Internet pages of relevant academic and state institutions, as well as satellite and aerophotometric data about sections of the city – made available through global networks and browsers. The graphic materials were vectorised on a level of diagrams that offer a visual presentation of the central characteristic of urban streets – their cross section. These graphic materials were analysed following the theory of graphs. They were overlaid and grouped with visual comparison. The extremes of the phenomena, the lowest and highest values, were discarded as exceptions, while the border areas of the phenomenon were included for the purpose of defining the range in the shape of a cloud zone of most common positions on the graph.

In addition, in order to collect data, an online questionnaire was used as a main survey method. Subject of analysis in the research are all citizens of Skopje, Republic of North Macedonia. The data was collected over a three-week period of time from July to August 2021. A link to the online survey was sent to all potential participants. The invitation email contained information on the purpose of the research, as well as the voluntary and anonymous nature of the survey. A total of 105 participants submitted fully completed surveys.

Overall, there were 408 respondents in the study (54% females and 46% males). The age dissemination suggested that the majority of the respondents (29%) are between 36-45 years old, followed by the 25-35 years old (23%) and 46-55 (23%), while the respondents aged 55+ account for 22%.

4. RESULTS AND DISCUSSION

This study provides an insightful result based on the dimension of the different part in the city, shown in Table 1. The quay of Vardar, the boulevard Partizanski odredi, boulevard Metropolit Teodorsij Gologanov and Ilinden boulevard are considered to be “hosts” of many buildings per m², while the boulevard Partizanski odredi and Ilinden boulevard have highest percentage of greenery thorough the street. In terms of number of people using the mentioned streets, the quay of Vardar, the old town and the city park are 100% pedestrian, followed by street in old town of Skopje(49,1%),

railway station (32,3%), the boulevard Partizanski odredi (31,5%), the Ilinden boulevard (30,3%).

Table 1. Different locations and their dimensions

| Location | W _{pedestrians} (m ¹) | W _{cars} (m ¹) | W _{greenery} (m ¹) | W _{section} (m ¹) | H _{buildings} (m ¹) | A _{scs} (m ²) | W _{section} / H _{buildings} | P _{pedestrians} (%) | P _{cars} (%) | P _{greenery} (%) |
|-------------------------------------|--|-------------------------------------|---|--|--|------------------------------------|---|------------------------------|-----------------------|---------------------------|
| Railway Station in Skopje | 10.0 | 21.0 | 0.0 | 31.0 | 10.0 | 310.0 | 3.1 | 32.3 | 67.7 | 0.0 |
| Bldv Boris Trajkovski | 4.0 | 14.0 | 0.0 | 18.0 | 9.0 | 162.0 | 2.0 | 22.2 | 77.8 | 0.0 |
| Street in Old town of Skopje | 13.0 | 12.0 | 1.5 | 26.5 | 10.0 | 265.0 | 2.7 | 49.1 | 45.3 | 5.7 |
| Bldv. Partizanski odredi | 14.0 | 19.0 | 11.5 | 44.5 | 20.0 | 890.0 | 2.2 | 31.5 | 42.7 | 25.8 |
| Bldv. Mitropolit Teodosij Gologanov | 5.0 | 14.0 | 0.0 | 19.0 | 26.5 | 503.5 | 0.7 | 26.3 | 73.7 | 0.0 |
| Vardar riverbank | 24.0 | 0.0 | 0.0 | 24.0 | 15.0 | 360.0 | 1.6 | 100.0 | 0.0 | 0.0 |
| Bldv. Ilinden | 10.0 | 14.0 | 9.0 | 33.0 | 15.0 | 495.0 | 2.2 | 30.3 | 42.4 | 27.3 |
| Стариот дел од Градски парк | 5.0 | 0.0 | 0.0 | 5.0 | 1.0 | 5.0 | 5.0 | 100.0 | 0.0 | 0.0 |
| City park (old part) | 7.0 | 0.0 | 0.0 | 7.0 | 1.0 | 7.0 | 7.0 | 100.0 | 0.0 | 0.0 |
| Minimum | 4 | 0 | 0 | 5 | 1 | 5 | 1 | 22 | 0 | 0 |
| Maximum | 24 | 21 | 12 | 45 | 27 | 890 | 7 | 100 | 78 | 27 |
| Avarage | 10.2 | 10.4 | 2.4 | 23.1 | 11.9 | 333.1 | 2.9 | 54.6 | 38.8 | 6.5 |

On the other hand, the opinion of the respondents provides initial insight into their perceptions and feelings regarding the urban streets and public spaces. According to the research results shown in Table 2, the respondents feel most comfortable while moving on boulevard Partizanski Odredi (M=3,95), followed by the Quay of the river Vardar (M=3,73), the Ilinden boulevard (M=3,45) and boulevard Metropolitan Theodosius Gologanov (M=3,11).

Table 2. Respondent's opinions on safety

| I feel comfortable and safe moving like a pedestrian or cyclist along... | Mean |
|--|------|
| The boulevard Partizanski Odredi | 3,95 |
| The Quay of the river Vardar | 3,73 |
| The Ilinden boulevard | 3,45 |
| The boulevard Metropolitan Theodosius Gologanov | 3,11 |

Besides that, according to Table 3., the research results show that on a scale to 10, the respondents evaluate the public space with below than the average score (M=4,25).

Table 3. Respondent's evaluations on public place

| Issue | Mean |
|---|------|
| On a scale of 1 to 10, evaluate the public space of Skopje from every aspect. | 4,25 |

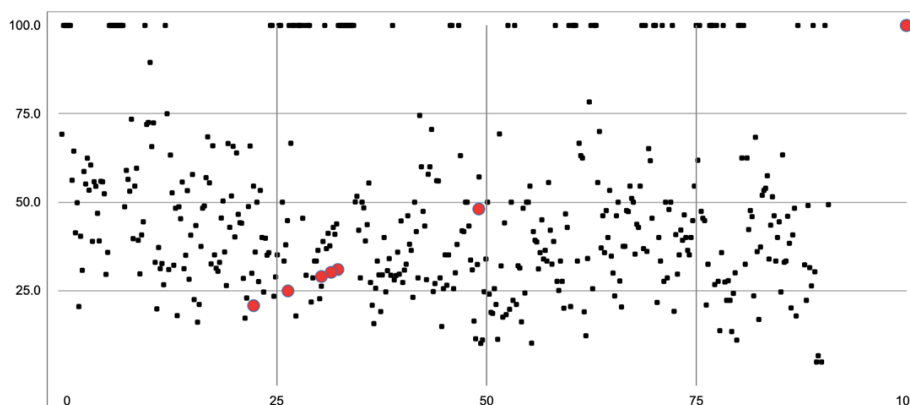
The research results shown in Table 4., as well, show that most of the respondents do not feel safe while being in the City Park, boulevard Boris Trajkovski and Skopje Rail Station, the old part of the City Park and old Skopje Bazaar.

Table 4. Respondent's opinions on feeling safety and security in different locations

| Issue | Yes | No |
|---|-----|-----|
| The part of the City Park around the lakes gives a feeling of safety and security for movement around the clock | 25% | 75% |
| The old part of the City Park gives a sense of security and safety for moving in a new all day | 45% | 55% |
| Do the narrow streets in the old Skopje Bazaar give you a sense of security and safety? | 47% | 53% |
| Do you feel safe moving along the pedestrian or cyclist along Boris Trajkovski Boulevard? | 17% | 83% |
| Do the area in and around the Skopje Railway Station feel safe at night? | 13% | 87% |

To sum up, according to the provided results, the quay of the river Vardar, the boulevard Partizanski odredi and Ilinden boulevard offer the best results. In other words, these places have multiple functions in the public space; there are motor vehicles, cyclists, pedestrians, etc., which result in high level of frequency uninterruptedly. At the same time, these places have excellent tall foliage and exceptional organization on the transverse profile of the street in terms of physical protection from motor traffic. What is also important is the length of the streets greater than a few kilometers, which creates an ambience that lasts longer during the usage and the stores, cafe bars and restaurants positioned on the streets which make them having multiple functions.

Graph 1. Locations and their percentage of pedestrian service



In addition, people with different demographic profiles were asked about their perceptions and feelings while walking in the streets around Skopje. First, to test the

differences in perceptions and feelings, a comparison was made based on the gender through T-Test. The data presented in the Table 5., shows that there is no statistically significant difference among gender groups regarding their sense of comfort and safety while walking.

Table 5. Sense of comfort and safety based on gender groups

| | | | |
|---------------|---|------|-----------------|
| | I feel comfortable and safe moving like a pedestrian or cyclist along the boulevard Partizanski Odredi. | | |
| | Mean | SD | Sig (2- tailed) |
| Female | 3,92 | 1,01 | 0,13 |
| Male | 3,95 | 1,01 | |
| | I feel comfortable and safe moving like a pedestrian or cyclist along the Quay of the river Vardar. | | |
| | Mean | SD | Sig (2- tailed) |
| Female | 3,69 | 1,13 | 0,058 |
| Male | 3,72 | 1,14 | |
| | I feel comfortable and safe moving like a pedestrian or cyclist along Ilinden Boulevard | | |
| | Mean | SD | Sig (2- tailed) |
| Female | 3,42 | 1,17 | 0,56 |
| Male | 3,45 | 1,17 | |
| | On a scale of 1 to 10, evaluate the public space of Skopje from every aspect. | | |
| | Mean | SD | Sig (2- tailed) |
| Female | 4,21 | 1,58 | 0,11 |
| Male | 4,24 | 1,61 | |
| | I feel comfortable and safe moving like a pedestrian or cyclist along the boulevard Metropolitan Theodosius Gologanov. | | |
| | Mean | SD | Sig (2- tailed) |
| Female | 3,1 | 1,17 | 0,82 |
| Male | 3,12 | 1,19 | |

However, according to the research findings shown in Table 6., there are statistically significant difference among age groups regarding their perception of public space of Skopje from every aspect, but not in the sense of comfort and safety while walking. There is a statistically significant difference among age groups in regard to evaluation of the public space of Skopje from every aspect. People aged bellow 46, consider the Skopje's public space as better in comparison with the older population (aged above 46).

Table 6. Sense of comfort and safety based on age groups

| | | | |
|--------------|---|------|----------------|
| | I feel comfortable and safe moving like a pedestrian or cyclist along the boulevard Partizanski Odredi. | | |
| | Mean | SD | Sig (2-tailed) |
| 25-35 | 3,94 | 1,02 | 0,54 |
| 36-45 | 3,94 | 1,08 | |
| 46-55 | 3,89 | 1,02 | |
| 55+ | 3,89 | 1,02 | |
| | I feel comfortable and safe moving like a pedestrian or cyclist along the Quay of the river Vardar. | | |
| | Mean | SD | Sig (2-tailed) |
| 25-35 | 3,12 | 1,19 | 0,73 |
| 36-45 | 3,13 | 1,18 | |
| 46-55 | 3,03 | 1,16 | |
| 55+ | 3,03 | 1,16 | |
| | I feel comfortable and safe moving like a pedestrian or cyclist along Ilinden Boulevard | | |
| | Mean | SD | Sig (2-tailed) |
| 25-35 | 3,71 | 1,15 | 0,48 |
| 36-45 | 3,72 | 1,37 | |
| 46-55 | 3,73 | 1,13 | |
| 55+ | 3,69 | 1,11 | |
| | On a scale of 1 to 10, evaluate the public space of Skopje from every aspect. | | |
| | Mean | SD | Sig (2-tailed) |
| 25-35 | 3,47 | 1,16 | 0,03 |
| 36-45 | 3,44 | 1,17 | |
| 46-55 | 3,38 | 1,19 | |
| 55+ | 3,38 | 1,17 | |
| | I feel comfortable and safe moving like a pedestrian or cyclist along the boulevard Metropolitan Theodosius Gologanov. | | |
| | Mean | SD | Sig (2-tailed) |
| 25-35 | 4,23 | 1,59 | 0,66 |
| 36-45 | 4,25 | 1,60 | |
| 46-55 | 4,02 | 1,61 | |
| 55+ | 4,22 | 1,60 | |

On the streets and boulevards, there are increased number of vehicles. People drive much faster every day, so the number of the car accidents and victims is increasing as well. Older people consider this as more seriously than younger population, thus although there is no statistically significant difference in sense of comfort among age groups, they are more concern regarding the number of victims and car accidents.

Moreover, as part of the explanation behind this can be experted from the Skopje 2014, a uniquely excessive project which aim was transforming Skopje from a brutalist Yugoslav city into a modern, attractive, neoclassicist capital up to European standards. While the most of the “intervention” has been focused on the “new” center of the city, the “old” Ottoman center was subject of the major renovation. Although, from that moment on, this space is considered as more secure and much livelier area, it remains bereft of new statues and buildings honoring Alexander the Great. In addition, Yugoslav-era spaces were either destroyed or refitted with neoclassical façades. The research supports the McAuley (1998) idea that the older people show to be more place attached, due to social-historical elements of the city. Older people are not happy with the new look of the city and therefore they evaluate the public space of Skopje from every aspect with lower score than younger population. On the other side, young people are less attached to the historical elements of the city, but more likely to prefer to live in more dynamic, modern, and accessible places.

CONCLUSION

The academic literature contains an extensive discussion on the topic of urban streets and public spaces, yet there is a lack of research with regard to the perception and feelings of people on the same. At the same time, the provided discussion in this paper provides an overview of some of the strengths and the limitations of the available literature.

Having completed this broad analysis, the conclusion is that urban streets, like most of the urban phenomena, and the city itself, are difficult to be defined and described with conventional methods and instruments. It is difficult to offer a definition or thesis in a single sentence, without neglecting or overlooking essential characteristics of urban streets. Instead, this paper offers a descriptive definition of the phenomenon of urban

streets, measuring their characteristics within numerical intervals and describing the potentials and qualities that urban streets have offered to the city, both in the past and the present.

History reveals that urban streets have been primarily designed two-dimensionally, meeting the current needs and following the trends. As late as the advent of the industrial or post-industrial city, the buildings lined along urban streets acquired their specific role in the urban image. This was the time when the new bourgeoisie took centre-stage and Paris with its boulevards became the paradigm for a modern metropolis.

Urban streets are the core threads that connect the city. The expansion of the city can be organized through multiplication of urban streets following the principle of grids or tree networks. These two principles are the basic patterns to which all mutual relations of urban streets can be reduced. The interaction frequency and the length of the streets themselves depend on their genesis, the period in which they were generated, and the meaning they have for the immediate surroundings and the city as a whole. The dimensions of the cross-section, as well as the correlation between the width of the cross-section and the height of the buildings, are different. Through analyses and measuring, as presented in the graph, it is possible to locate various densities and values. From there, we can infer that the greatest number of examples of beautiful urban streets have similar dimensions and proportions of their cross-section.

Moreover, this paper supports the theory, known as E-B research, which shows that there is a connection between people and urban streets. The research findings suggest that there is no significant differences in perception and feelings of people from different gender, yet significant difference in perception among age groups.

The interactions within the limits of the urban street occur in favour of all participants and contribute toward a positive human development in every sense. Urban streets are an unavoidable and essential part of the urban weaving, and we can count them into the catalogue of universal civilizational gains. Furthermore, for building a sustainable city (from city focused on green energy to intelligent city infrastructure) one can take into consideration mainly the people who live there, because

sustainability is not only using new technology and systems, but rather it refers to changing behavior. For instance, the installation of public transportation does not guarantee that people will use them, therefore drive less. For this reason, people have to be aware of the factors that contributes to the cities being sustainable or unsustainable, which have to be addressed in the planning process as well.

Consequently, the discussion that is provided also reveals the benefits that for the architects and experts. They have to be sensitive to the way in which they conceptualize propose an intervention, extensions and developments in a city such that they are aligned with the physical, socio-economic and environmental context, in behalf of maintaining the identity and image. All unsuccessful attempts in the past are prescribed to the lack of awareness of the space/street users. So, unless they have feeling like they are involved in the process of humanizing, they will not collaborate. Therefore, not only the street values, but peoples' reflection may be used as a check when planning and designing new city streets, sustainable city streets or reconstructing existing ones.

Research Limitations

The study's limitations are acknowledged. This work is a beginning of a different view on the class of phenomena called urban streets. It could be expanded and made more detailed in the part dedicated to the systematization and taxonomy of actual areas. The potential of this work is its possible application in the future studies of the treatment and trends in the allocation of traffic surfaces in the city. Within the existing legislation, there are possibilities for changes and corrections in favour of protecting the most important traffic participants – humans. They will lay the foundations for a further cultural, economic, and overall civilizational development in the cities.

Moreover, in terms of people's perception, one of the most significant drawbacks is that the sample may not be representative of the general population. Despite the fact that the respondents are anonymous, the level of honesty should not be assumed. The demographic location of the responders is the final limitation. The findings are based solely on research conducted in Skopje, Republic of North Macedonia, therefore

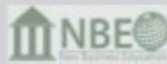
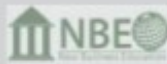
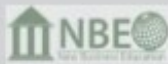
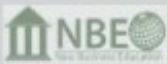
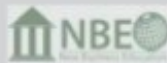
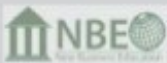
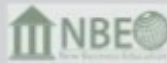
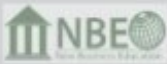
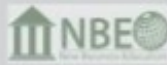
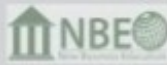
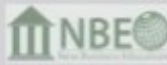
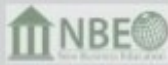
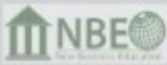
additional research should provide a more comprehensive examination of such variables.

However, all of these limitations can face a comprehensive extension in a future research. Future studies can utilize larger samples and possibly even representative samples to further enhance the knowledge about perception and feelings of the people in the country and their linkage demographic variables.

REFERENCES:

- Arent,H., 2013, İnsanlık durumu seçme eserler 1 (The Human condition). 7. Basım. İstanbul: İletişim yayınları, p.92-104.
- Baker,R.G.,1968,Ecological Psychology: Concepts and methods for studying the environmental of human behavior. Standford, California: Standford University Press.
- Baker.R., Bechtel,R., Gump,P., Mood,R., Wicker,A. & Schoggen,P., 1983,Discussion of “Enigma of ecological psychology” by G.Kaminski, Journal of Environmental Psychology, #(1),p.173-183.
- Barlett School of Planning,2016, Living places: Caring for quality [homepage on the internet]. c2004 Available from: http://www.futurecommunities.net/files/images/ving_. Last accessed: August,2021
- Blazhevski,S. (2019). Morphosyntax of urban street. Doctoral Dissertation. .Faculty of Architecture, Ss. Cyril and Methodius University ,Skopje, Republic of North Macedonia
- Bunchanan, C. ,1978, Traffic in towns: As assessment after twenty years. Build Environment, 9(2), pp. 93-98
- Chadha,R.,2017,Exploring the relationship between people and social urban places through streets of Old and New Delhi.Sushant School of Art and Arhitecture, Ansal University, Gurgaon, India.
- De Simas,M.,2017, Streets as storytellers: Defining places and connecting people. Available online at: <https://www.bdcnetwork.com/blog/streets-storytellers-defining-places-and-connecting-people>. Last accessed: November,2021
- Francis,M.,1989,Control as a dimension of public-space quality. In: Altman I, Zube E H, editors. Public places and spaces. New York and London: Plenum Press,p.147-152.
- Genereux,R,L., Ward,L.M. & Russels, J.A.,1983, The behavioral components in the meaning of places. Journal of Environmental Psychology, 3(1), p.43-55
- Hays,M.,2000, Architectural theory since 1968, Chapter 1, p.509

- Kaplan,S.,1983, A model of person-environment compatibility. *Environments and Behavior*, 15(3), p.311-332
- Lynch,K.,1961, *The image of city*, Cambridge, Mass:MIT Press
- Marshall, S.,2005,*Streets & Patterns*, Chapter 1, p.23
- McAuley,W.,1998, History, Race, and Attachment to Place among Elders in the Rural All-Black Towns of Oklahoma.*The Journals of Gerontology: Series B*, 53B (1), p.S35–S45
- Moughtin,C.,2003, *Urban Design: Street and Square*, Chapter 1, p.127
- Musaab,S.A.,Shuhana,S.,Nahith,T.A.,2015, A Review Paper on the Role of Commercial Streets' Characteristics in Influencing Sense of Place. *Jorunal of . Social sciences & Humanities*, 26 (4).p.2825 - 2839
- Özbayraktar,M., Pekdemir,M., Mirzaliyeva,G.,2017,Spatial Character Analysis of Streets as Public Spaces: The Case of Izmit Hurriyet and Cumhuriyet Street, Turkey. *IOP Conf. Series: Materials Science and Engineering*,22. doi:10.1088/1757-899X/245/7/072019
- Vitruvius,P.M.,1990, *Deset knjiga o arhitekturi = De architectura libri decem* (превод). Chapter 4, p.100
- Wicker,A.,1979,*An introduction to ecological psychology*. Monterey.CA:Boooks/Cole
- D.Stokols & I.Altman (Eds).*Handbook of environmental psychology*. New York: John Wiley & Sons
- Роси,А.,1966, *Архитектура града*, Chpater 1, p.37



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