INSTITUT ZA NAUCNA ISTRAZIVANJA I RAZVOJ
INSTITUTI PER HULUMTIME SHKENCORE DHE ZHVILLIM
INSTITUTE FOR SCIENTIFIC RESEARCH AND DEVELOPMENT
ULCINJ - MONTENEGRO

Volume: 9 – Issue: 1 – Aprill 2024 – Humanities Session

International Scientific Journal Monte

ISJM

ISSN Online: 2661 – 2666
ISSN Print: 2661 – 264X

DOI: 10.33807/monte.2024v9n1

Distribution

Published by the Institute for Scientific Research and Development, Ulcinj, Montenegro

ISSN Online	: 2661 – 2666
ISSN Print	: 2661 – 264X
Pub. Date Season	: April 2024
Volume	: 9
Number	: 1
Founded	: 2017
Place of Publication	: Ulqinj, Montenegro
Publication Type	Is an international, periodical, double-blind peer-reviewed and online academic journal published biannually
Official Language	: English
Frequency	: April and December
Publisher	: Institute for Scientific Research and Development
e-mail	: info@journalmonte.com
Telephone	: +382 69 265 707
Homepage	: www.journalmonte.com

Science Board

International Scientific Journal Monte

ISJM

YEAR: 2024 • VOLUME: 9 • ISSUE: 1

CONTENTS

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI:10.33807/monte.20243087 | Volume 9, No.1 (2024): April

INOVATIVE CONCEPT OF REORGANIZATION OF THE HIGHER EDUCATION SYSTEM IN THE CONTEXT OF KNOWLEDGE ECONOMY AND EUROPEAN INTEGRATION OF THE WESTERN BALKAN COUNTRIES

Aleksandar Gajić[*]
University "Union – Nikola Tesla" Belgrade, Serbia, Center for Strategy National Security Research – CESNA B, Belgrade
gajic.aleksandar76@gmail.com

ABSTRACT

The process of European integration represents first class, social project for all the countries of the subregion of the Western Balkans. The author considers the implementation of the Bologna Declaration and the Lisbon Strategy, as well as Tempus and Erasmus Mundus program of the European Commission dedicated to the establishment of a Knowledge economy in the surveyed countries. The analysis shows that the Western Balkan countries are making great efforts to implement provisions of the Bologna process, particularly at the level of formal adoption in the form of law. However, numerous weaknesses are reported in the implementation of the Lisbon Strategy and the elements of strengthening the impact of the labour market. According to all relevant indicators, the level of the Europeanisation of higher education in the Western Balkans is below the EU average, which points to the unsustainability and the necessity for the transformation of existing concepts.

Keywords *Innovative concept; Higher education; Knowledge economy; European integration; Western Balkan*

INTRODUCTION

The last decade of the twentieth century, testifies that he began a period of globalization, which is characterized by global competition, breaking the standards of the world market and the international orientation of the organization. Globalization represents a set of different processes which basically have the idea of developing and connecting the world and can be considered from different angles. However, most often defined as a concept, form and phenomenon that implies multiple and drastic changes in all dimensions of life. It has the ability to create change which affect on the whole world. Human knowledge has become the main source of wealth and an important pillar of any society. The quality of higher education determines the future of every country, which led to significant changes in this area. However, in order to education be productive and efficiently it has to follows the rapid changes of everyday life. It is quite clear that knowledge in today's world has become the most important potential, and the development of information and communication technologies contributed to the entire planet are increasingly relies on this "intangible" resource. New situation, which involves the modernization of administration and management, increasing demand for educational and scientific research activities, connectivity and networking, puts new challenges for the Western Balkan countries, which all have a common goal - accession to the European Union. The interest of the entire Western Balkan region is its own development and strengthening connection with Europe, whereby high education can play a significant role. (Arandarenko and Bartlett, 2012, p. 202.)

METHODOLOGY

The modern world is constantly exposed to numerous contradictions that characterize all regions and individual countries. The population will be in controversial conditions, benefits provided by scientific achievements and drastic threats with current threats to human security. It can be said that in the strategy of the overall development of European integration, they represent the fundamental decisions of certain post-socialist countries. The current

---

[*] Associate PhD, Faculty of Management Sremski Karlovci, University "Union – Nikola Tesla" Belgrade, Serbia, Center for Strategy National Security Research – CESNA B, Belgrade; gajic.aleksandar76@gmail.com

situation points to the responsibility of relevant international and national entities to permanently take appropriate measures in the context of resolving the observed controversies and ensuring a prosperous future. The subject of our research is the consideration of innovative trends in the higher education system in the context of eliminating apparent anomalies, improving the economy and creating conditions for successful convergence towards the European Union. This implies the conception and implementation of appropriate standards in the given sphere, in accordance with Community law, and with the purpose of ensuring the existence of citizens.

The main goal of our work is the scientific research of specific aspects of the reorganization of the higher education system of the countries of the Western Balkans subregion in the project of the Knowledge Economy and their European integration, which has not been sufficiently implemented so far. We will try to use the established academic procedures to look at the most important postulates of the observed topic, as the first-class tasks of the responsible factors of the given creations. A special challenge in the realization of the set tasks is the adoption of standards and certain legislative documents, harmonized with the positive experiences of progressive countries and the legislation of the European Union. In the text, we specifically point out the specifics of the reform of education and science in the concept of association, emphasize weaknesses with perceived repercussions and possible recommendations for their elimination.

We define research hypotheses according to the problem, the subject and the formulated goals, following the traditional Asadem principles.

Basic hypothesis:

The reorganization of the higher education system is a necessary condition for the realization of the strategic project of the long-term development of the countries of the Western Balkans and their inclusion in the European educational space. Innovations and the implementation of the Knowledge Economy project ensure the elimination of anomalies and the realization of the concept of postmodern integrations. The aforementioned postulates create the conditions for the implementation of the population's existential demands, and then the criteria for successful convergence into the European Union.

Special hypotheses:

H 1: Objective indicators indicate that there are numerous weaknesses in the functioning of institutions in various areas, especially in higher education and knowledge affirmation, which reflects on other segments of society in the observed area.

H 2: The processes of European integration and affirmation of knowledge imply the formulation, adoption and application of acts, harmonized with the corresponding international regulations. The successful implementation of the experiences of developed countries can ensure the improvement of the quality of life, improvement of the economic environment and satisfaction with the provision of services at all levels of the organization of society.

In our work, all essential methods of scientific knowledge will be applied, with emphasis on analysis, synthesis, description, classification, systematization and generalization. By using the given methods, a logical and clear path will be ensured, which will result in the realization of the observed research subject and the realization of the projected goals. From the general scientific methods, the hypothetical method of induction and deduction, statistical and comparative method will be applied. Consequently, we will use appropriate academic procedures, instruments and techniques of the research process.

The importance and justification of the current research is reflected in the scientific and social aspects of looking at the mentioned topic, as a first-class social phenomenon. The scientific contribution is manifested in the systematization of existing and acquisition of new knowledge in the fields of education, innovation, economy and other social disciplines, providing wide opportunities for improving the general situation in specific countries and the Western Balkans microregion. Proper engagement of given capacities eliminates weaknesses in the functioning of certain institutions involved in projects, problems in work coordination and other contradictions. Our research encourages debate and social dialogue, from the position of broadest identification and consideration of acute difficulties. The need for formulating real challenges and potential solutions in science and education by applying adequate solutions in theory and practice is initiated in order to improve the situation and ensure the sustainable development of certain areas and the community as a whole.

The social importance and justification is reflected through a competent analysis of the reform of higher education in the countries of the Western Balkans, the application of innovations and the Knowledge Economy project for the purpose of European integration of individual countries.

It is necessary to fulfill the conditions within the scope of competent public administration bodies, as well as the engagement of all government institutions. Establish cooperation between public institutions and non-governmental organizations, indigenous associations, media and other community actors. A relevant interpretation of the necessity for a reform approach to the mentioned topic will imply a deep understanding and a creative relationship of all official factors of society in the context of eliminating negative repercussions and ensuring the progress of state creation. The attitudes and perceptions of different social groups will contribute to the inauguration of the rule of law, the conglomerate of human rights and freedoms, the satisfaction of citizens with the treatment and services of public services, and the implementation of procedures for convergence towards the European Union and other lucrative international associations.

RESULTS AND DISCUSSION

HIGH EDUCATION IN THE AMBIENCE OF KNOWLEDGE ECONOMY

The development of technology and all the massive use of computers have led to that today on the Internet for one year appears more information than the total in all previous years of human history. It can be said that today a total knowledge doubled from hour to hour. Earlier, the monopoly on knowledge could keep long, and companies and states have had dozens of years to use their own specific advantages and uniqueness on a global level. Knowledge is expanding very slowly, so the competitors had a long time to find out what is happening and copied the idea. Today it is impossible, because knowledge is spreading throughout the world almost instantaneously. The success and survival in this environment can realize only those who are able to produce and permanently increase their own knowledge and manage with it strategically. According with new trends, successful future and the path of development of each country must be economy which is based on knowledge and quality of high education (Nešković, S., et al., 2016, p. 445).

Today's society has become a society of knowledge and has the following characteristics:

has no boundaries and knowledge flows through it at high speed

knowledge has replaced classical dominance based on natural resources, labor and capital

revolution in the technology

on the global market can be competitive only those who have the best technology and highly educated human resources

domestic businesses has increasingly become multinational, transnational and global

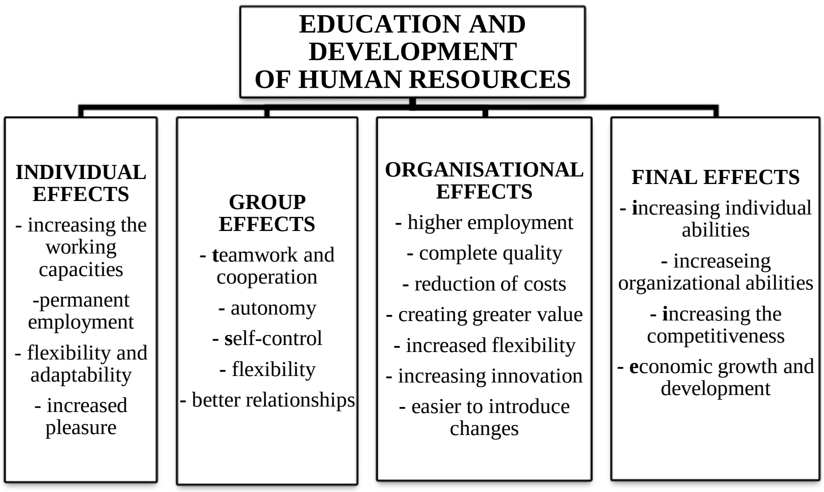
high education became the basis for the development and prosperity.

Modern economy is definitely economy of specific knowledge. The knowledge which is contained in scientific and technological achievements accelerates the process of globalization, enhances interdependency in the world economy and on the world market and determines the pace and processes of social development in general. Thanks to new technologies, communication and new economy globalization is imposed new rules, new content, new dimensions and new knowledge and created new conditions that have to adapt to all who want to succeed. It has precisely defined requirements: continuous investment in knowledge, technology, research and development and anyone who is not included in this process on the time, severely lagging behind (Gajić, A., 2023, p. 89). Experiences and facts from practice indicate that the innovation and high technology (which are composed of human knowledge and unique abilities) have become one of the most important elements for the development of modern society. It is considered that today is one of the basic factors of economic growth and development continuous growth of knowledge and innovation capabilities which can't exist without each other. Increasing the knowledge allows new ideas, but without increased innovation capabilities this new and profitable ideas will not be able to be realized. Innovation is the key in the creation of growth and development strategy and in contemporary way of business very few organizations can survive without innovation. Only strategy of development which is based on knowledge and innovation guarantees success.

The impact of globalization on education is cause by the impact of globalization on production process. As the global economy expands, there is a need for specialized education and proper work force. Especially interesting is the impact that trend globalization in economy makes on education. Research show, and practice confirms, that economic globalization and IT revolution demand radical changes in the very nature of the learning process and educational system modernization. Education represents the cradle of society and the treasure trove of knowledge, but it needs to be constantly improved and enriched with new knowledge based on development needs of modern society. Modernization of education system means, above all, modernization of aids in educational process such as introducing new educational technologies (computers, videos, digital education etc.), as well as enrichment of educational content, internationalization of knowledge, globalization of education system, high specialization of educational profiles etc. changes that the IT development brings, possibilities of using different sources and not being limited only to books, as well as a new system of communication, bring with them a new atmosphere – teachers are not the only sources of knowledge and information any more, nor is the school the only center of learning and development. These situations make the value system change and deepen considerably, making the educators to always improve themselves, to be up to date with changes and to constantly work on their additional education, so that they could prepare their students for everything that could be asked of them in the future. Nowadays the schools are expected to give adequate basic education, develop ethical values, form the character and plant key values necessary for further life. All those values will in future give young people better chances for successful jobs and payment – economic security. However, the most important task of education is to follow changes in all the spheres and to change accordingly. Traditional designation of education, which comes from understanding education as systematic acquisition of scientific knowledge about nature, society and human opinion, must be changed with modern designation, which comes from the fact that the education is a system of institutional knowledge acquisition and the teaching of people to gain knowledge, skills and habits they need (Jovanović, Ž., Nešković, S., Kostić, Z., 2017, 242).

Figure 1. The effects of contemporary education

collection of institutions, policies and factors that determine the level of a country's productiveness. Level of competitiveness shows the capacity of national economy to generate sustainable economic growth with the current development level in the medium-term period.



Source: The table is the result of the author's research

The importance of knowledge in human life, living and functioning is ever increasing. It contributes to widening and deepening of human knowledge and cognition, to upgrading the practical functioning in all the aspects of human interests, to faster and easier business functioning, to the management of business processes and the distribution of available resources, to the fuller realization of human rights and freedoms, to the participation in making social and state decisions and to the direction of the way to the future. It all affects the motivation in acquiring more knowledge and developing of information-communication abilities and culture of the individuals and every community, more so because the information-communication knowledge is becoming one of the main conditions for job advancement, in the field, in every aspect of human and economic activity, meaning in life and work of evey individual and community.

EUROPEANISATION OF HIGHER EDUCATION SYSTEM IN THE WESTERN BALKANS COUNTRIES

European initiatives of the utmost importance to the higher education of Western Balkans countries are The Bologna process, The Lisbon strategy and Europe 2020 document. In order to secure sustainable development and the safe future, European Union adopted a strategy known as The Lisbon strategy in 2000. The goals of the strategy were to make EU the most competitive and the most dynamic economy in the world, based on knowledge and able to sustain economic growth, by 2010. The key component of the strategy was development and improvement of knowledge, which meant greater investments in education and professional training, scientifical and technological research and innovation. However, some of the goals of The Lisbon strategy have not been achieved so in EU started the process of making the new strategic frame that resulted in the Europe 2020 document: strategy for smart, sustainable and inclusive growth, whose goal was economic development of EU based on the knowledge and environmental protection, high level of employment, productivity and social cohesion. (Gajić A., and oth., 2024, 231) Education is one of the central themes of this strategy as well and it involves the use of alternative instruments and mechanisms in the implementation of the EU policy, such as Lifelong Learning Programme, Tempus, Erasmus Mundus etc. The strategy has set five goals, two of which are directly related to higher education and research: minimum 3% of GDP should be allocated for the research and development; at least 40% of the younger generation should possess a tertiary level of education or diploma; the share of adults (30-34 years old) with education at the tertiary level should be at least 40%; on average at least 15% of adults should participate in lifelong learning. This strategy is not important only for member states of EU, but it also represents important potential for EU candidate countries to whom belong all the countries of Western Balkans with the exception of Croatia.

The Bologna Declaration of 1999 refers to the reform of higher education systems in Europe and is the basis of the Bologna process, which includes: acceptance of the system of recognizable and comparable degrees, the acceptance of the system which is based on three main cycles of studies (undergraduate, master and doctoral studies), introduction of ECTS (ECST) scoring system and the Diploma Supplement, improvement of the mobility of students, teachers and researchers, ensuring the quality of higher education, the development of comparable curricula, inter-institutional cooperation, mobility schemes and integrated programs of study, training and research. All these instruments are intended to facilitate the employment by recognizing the acquired knowledge and competencies of graduates across Europe. The final aim of the declaration is to establish a single European educational space in which lecturers, researchers and students can move easily and quickly. By accepting the Bologna process the Western Balkan countries have taken on obligations from this declaration. From a wider, euro integration aspect, this means the implementation of the necessary higher education reforms in these countries, in order to reposition their universities at European and international level and improve their own quality and competitiveness.

Lifelong Learning Programme is the cooperation program in the field of education of the European Union which supports the development of all levels of education. For now, the Western Balkans countries can participate in certain types of projects, only if their educational institutions offer expertise in an area which is the theme of the project and thus contribute to achieving the best possible results. Since LLP is one of the main sources of funding for education development in the EU, it is important that educational institutions of these countries start their preparations for full participation in this program on time.

Tempus (Trans-European mobility scheme for university studies) is the EU program that helps reform and modernize higher education in the partner countries, and is one of the oldest and most successful EU cooperation programmes. The program helps that the education systems of partner countries accept development trends of higher education in EU derived from the Lisbon agenda and the Bologna process and fund projects involving higher education institutions from the EU and more than 20 partner countries. Tempus program started in 1990 with main goal being the modernisation of higher education sector and to enable the institutional cooperation with Central and Eastern Europe. Yugoslavia joined the Tempus program almost immediately after its creation (1991). However, political situation in this region have stopped this cooperation and a lot of time had passed before newly formed countries rejoined the program (EACEA, 2012).

Erasmus Mundus started in 1987. It represents the program of support to cooperation and mobility in higher education through promotion of the best European master and doctoral studies. The goal of the program is quality improvement of higher education and inter-cultural understanding through cooperation with partner countries (which are not members of the EU). It aims to increase the attractiveness and recognition of European higher education around the world and the European Union as one of the centers of excellence. The program works by allowing students and teaching and scientific staff from all over the world the possibility of inclusion in postgraduate studies at the higher education institutions of the EU, and vice versa, it allows for the mobility of students and teachers from EU to the partner countries. EU provides scholarships, both for citizens of partner countries who have been admitted to the Erasmus Mundus master and doctoral programs in EU countries, as well as for its own nationals studying at partner universities. All the countries of Western Balkans participate in this program.

In global terms, the issue of the countries competitiveness is linked to the works of World Economic Forum (WEF) and its Global Competitiveness Index (GCI). This index is based on twelve pillars of competitiveness organized in three groups. Higher education and trainings are part of the second group that shows Efficiency Increase Factors of analyzed country. All the data are normalized on the scale from 1 to 7 (1 – the worst mark, 7 – the best mark), which is also the range for possible values for all the indicators, pillars of competitiveness and the Global Competitiveness Index (GCI) itself. The significance the pillars within the group have on the particular country depends on its development level. Taking everything into consideration GCI could be roughly defined aa

Table 1. Comparative overview of socio-economic data for 2022 of Western Balkan countries and EU countries with the most developed/top quality higher education

2022	Population (in millions)	GDP (in US$ millions)	GDP per capita (US $)	HCI (Higher Education and Training) 1-7 1 (worst) 7 (best)	Competitiveness of Higher Education Ranking (Out of 140 countries)
Albania	2,9	18,916.38	6,810.1	4,7	47
BiH	3,5	24,473.91	7,568.8	3,8	97
Montenegro	0,6	6,229.80	10,093.4	4,6	54
Macedonia	1,8	13,563.13	6,591.5	4,8	46
Serbia	6,6	63,563.40	9,537.7	4,3	71
Denmark	5,8	400,167.20	67,790.1	5,8	9
France	66,7	2,779,092.24	40,886.3	5,3	25
Finland	5,2	282,896.25	50,916.3	6,1	2
Germany	80,6	4,082,469.49	48,718.0	5,6	17
England	65,1	3,089,072.72	46,125.3	5,6	18

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI:10.33807/monte.20243087 | Volume 9, No.1 (2024): April

Source:https://data.worldbank.org/indicator/NY.GDP.PCAP.CD

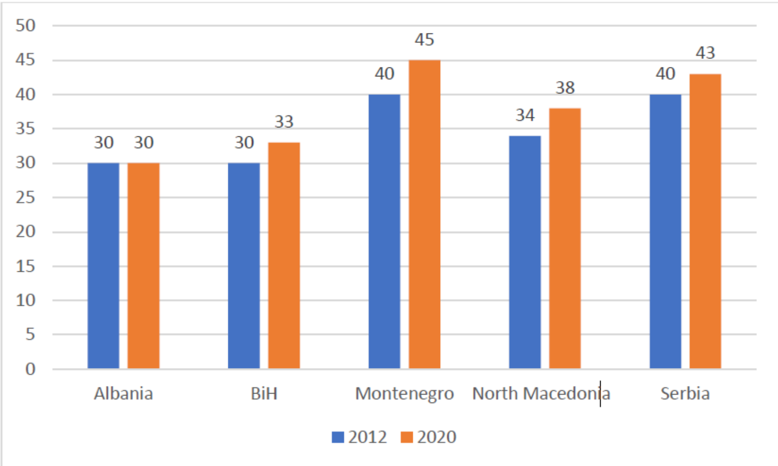
In conclusion, it can be observed that the period of transition and structural economic reforms in the Western Balkan countries has not led to the expected improvement in the standard of living for the population. On the contrary, the economic crisis has further complicated the situation, negatively impacting various segments, including higher education. Data analysis shows that Western Balkan countries continue to have low gross domestic product (GDP) and significantly lower GDP per capita values compared to the researched EU countries. Additionally, the competitiveness of higher education in this region is low, with a ranking ranging from 46th to 97th out of 140 countries analyzed by the World Economic Forum (WEF). Macedonia stands out as a country with the highest value in the Global Competitiveness Index (GCI) in the field of higher education, while Bosnia and Herzegovina are ranked the lowest.

Compared to EU countries, where higher education is rated extremely high, especially Finland, which ranks second out of 140 countries, Western Balkan countries lag behind in this area. Researched European EU countries are ranked highly in terms of the competitiveness of higher education, further indicating a performance gap between these regions.

Furthermore, a possible addition to these conclusions may relate to identifying the need for additional reforms and strategies that could improve the economic situation and competitiveness of higher education in Western Balkan countries. Emphasizing the role of education in overall economic development may be crucial in developing long-term plans and policies.

Figure 2. Trends in GDP per capita, 2010 - 2020

Figure 2.2 Trends in GDP per capita (PPS), 2010–2020 (Index, European Union-27 = 100)



Source: Eurostat online data, February 2022.

Source: Eurostat online https://ourworldindata.org/grapher/gdp-per-capita-maddison

Many changes that the age of globalization brought before the companies and the countries have led to the new challenges in terms of sustaining competitiveness, and the future will demand the fulfilment of even higher quality tasks. Modern global markets are based on completely new rules of competitiveness, which resulted in company and country strategy changes. In order to create and improve competitiveness nowadays it is clearly emphasized the orientation on investments into intangible assets. Science and technology are built into the basis of every modern society and are part of every aspect of human life. Ever faster scientific and technological progress and IT development emphasize the importance of human capital. In the "knowledge society" competitiveness advantage is based on human knowledge and the use of potential chances and possibilities whose realisation asks for human knowledge. Nowadays key factor for competitiveness improvement is human capital which more often than not reaches up to 90% of company value. That is the acknowledgment that the knowledge, competence and skills are keys for positive competitiveness position. The country, the capital and the equipment are no longer the deciding factor in world market. Individuals, companies and even countries are becoming more and more dependent on the ways in which they develop their abilities and apply their knowledge with the goal of realising their goals.

CONCLUSION

Socio-economic changes that accompany rapid scientific and technological development, especially the expansion of modern technologies, need highly educated people who are able to function effectively in social processes and use the available technology. Economy competitiveness on the global scale demands high level of expertise and work force competitiveness, because the modern technological processes are based on highly educated population. Even the countries that have significant natural resources, nowadays cannot partake in further development race without educated and innovation-trained people. When it comes to the development and the application of new technologies, development tendencies of market economy oriented countries show that the education and the creation of highly skilled human resources are in the top of national strategy priorities and economic and technological development policies. Therefore the postmodern education must imply the development of highly educated personnel which can improve the national development and respond adequately to the demands of modern environment. The development of top education must be correlated to the modern development of science and technology, which means the education of human resources for specific needs and types of technical, technological, communications and innovation technologies. The new age called the digital age and the age of knowledge, demands new types of education as well. However, it is without a doubt that the institutionalised education remains the best form of education if it follows modern trends. Everything said leads to a conclusion that 21st century education needs to be guided towards the gain of specific knowledge and skills. In these new and changed circumstances, the education has a goal of increasing the human adaptability to the coming time and to increase the abilities that humans need in order to be able to fight and adjust the changes. That means that the human's future will depend on its education.

Higher education plays significant role in the European integration processes and in the encouragement of economic and social development of Western Balkans countries. It is necessary to follow global trends and persevere through the higher education reform processes, and the reforms should be based on advanced knowledge and skills in different areas. When we talk about the Western Balkans countries it can be concluded that when it comes to the European integration processes, all of them are putting maximum effort into the implementation of all the parts of the Bologna process, and into the achievement of the goals of the Lisbon strategy and the Europe 2020 document considering the higher education. All the countries of the region have taken part in the Tempus, Erasmus Mundus and the other EU higher education programs. However, the achievement levels of these countries, as well as individual national investments into this field, are still below EU average. It is clear that the total quality of higher education in Western Balkans region is still not on satisfactory level and it needs to be put an additional effort in order to fulfil the set goals and create competitiveness of higher education and intellectual resources of these countries in the "Knowledge Economy". (Nešković, 2022, 55) The key to strengthen these transitional economies is the creation and development of higher education of European (and world) quality, compatibility of educational offer with the demand of a unified market, the creation and implementation of study programs that stimulate innovation and entrepreneurship and the development of innovation practices which would allow for postgraduates to gain new experiences and practical knowledge relevant to the quick employment.

In the field of inter-disciplinary research of systems in general, the general systems theory is the subject of study. The goal of the Goods and Services Tax (GST) is to investigate the principles that can be applied to the systems at any level of the systemic inquiry process.

The general theory of systems proper was first proposed by Ludwig von Bertalanffy in the year 1950. Later, in the seventies, Humberto Maturana introduced the notion of autopoiesis, which accounts for the structuring of living systems as closed networks of self-production of the components that make them. A. W. In the field of cybernetics, Ross Ashby and Norbert Wiener established a mathematical theory that is closely related to control theory. This theory is known as the mathematical theory of communication and control of systems through feedback regulation. The same decade saw the work of René Thom and E.C. In accordance with bifurcations in dynamic systems, Zeeman developed the theory of catastrophes, which is a field of mathematics that categorizes occurrences that are marked by rapid alterations in their behavior (Friedman, 1994).

Chaos theory is a mathematical theory of nonlinear dynamical systems that was first described in 1980 by David Ruelle, Edward Lorenz, Mitchell Feigenbaum, Steve Smale, and James A. Yorke. This theory describes bifurcations, unusual attractions, and chaotic motions. Complex adaptive system (CAS) is a new science of complexity that describes emergence, adaptation, and self

REFERENCES

Arandarenko, M., Bartlett, W., (2012) Conclusions: Improving Skill Policies in the Western Balkans. In: Arandarenko, M and Bartlett, W. (eds), Labour Market and Skills in the Western Balkans. London: LSEE, 201-205.

Bologna declaration, (1999) The European Higher Education Area, Joint Declaration of the European Ministers of Education, The Bologna Declaration of the June 19th 1999.

Education, Audiovisual and Culture Executive Agency (EACEA), (2012) Overview of the Higher Education Systems in the Tempus Partner Countries: Western Balkans, A Tempus Study, No 13, November 2012, EACEA, Brussels European commission, Education, Audiovisual and Culture Executive Agency, (EACEA), History of Tempus programme

Gajić, A., Vujičić, S., (2023) Biogas – Natural Gas – and the World Energy Crisiss, Proceedings No. 39, State, Society: Power and Culture, Belgrade, CESNA B, MANUB and Univetsity St. Cyril and St. Methodius Veliko Tarnovo, Bulgaria

Gajić, A., (2023) Ecology and Green Technologies in the Concept of Sustainable Economic Development of Western Balkans Countries, Proceedings of International University Travnik, No 27/2023

Gajić, A., and. Oth., (2024) Implementation of the European Open Learning Model in the Educational System Transformation Project, European legislative No 85/2024, Belgrade, Institute for International Politics and Economy

Jovanović, Ž., Nešković, S., Kostić, Z., (2017) Knowledge economy and intellectual property in the context of social development Serbia - Case Study, Military Work, 68 (3), 242-254.

Miklavič, K., (2018) Europeanisation in action: the (re)construction and role of higher education in post-conflict settings, Journal of European Higher Education Area, No 2, 93-108.

Nešković, S., and oth., (2016) Economic intelligence and intellectual capital in agriculture competitiveness - case study, Belgrade: Economics of Agriculture, No 2.

Nešković, S., (2022) Digital Modernization of Agricultural Holdings and Safety Production in the Context of Economic Development of Society, Proceedings 10th International Conference European University Brčko, Brčko District, Bosnia and Herzegovina

World Economic Forum (http://reports.weforum.org/global-competitiveness-report-2021-2022/)

World Economic Forum (http://reports.weforum.org/human-capital-report-2023/)

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM) DOI: 10.33807/monte.20243127 | Volume 9, No.1 (2024): April

EXAMINING THE LINK BETWEEN BANKING SECTOR DEVELOPMENT AND ECONOMIC GROWTH: AN EMPIRICAL ANALYSIS OF ALBANIA

Dr. Ardita BYLO [1], Elena MEMUSHAJ [2]*

[1] University of New York Tirana

[2] University of New York Tirana

ABSTRACT

This research aims to examine the relationship between banking sector development and economic growth in Albania, focusing on specific indicators such as bank capital to asset ratio, non-performing loans, credit to the private sector, deposit money bank assets to GDP, inflation rate, GDP growth, and GDP per capita growth.

The study is grounded in the finance-growth nexus theory, which posits that financial development fosters economic growth through improved capital accumulation and resource allocation. The framework considers how banking sector health influences macroeconomic stability and growth.

The research employs a quantitative approach using secondary data from credible sources such as the World Bank. The econometric model assesses the impact of banking sector indicators on economic growth in Albania over the period 2012-2021.

Findings confirm that banking sector development significantly impacts economic growth in Albania. High levels of non-performing loans hinder growth, while enhanced credit to the private sector and robust bank capital ratios promote economic development. Policymakers should focus on reducing non-performing loans and strengthening the banking sector's capital base to foster sustainable economic growth. Effective financial regulations and policies are crucial to ensuring a stable and efficient banking sector that can support long-term economic prosperity in Albania.

Keywords: *Banking Sector; GDP; NPL; Albania; Economic Development*

INTRODUCTION

Economic growth is a critical objective for any nation, as it drives improvements in living standards, reduces poverty, and enhances overall prosperity. In this context, the role of the financial sector, particularly the banking industry, has garnered significant attention from policymakers and scholars alike. The relationship between financial development and economic growth has been extensively studied, with substantial evidence suggesting that a well-functioning banking sector can significantly contribute to economic progress by facilitating efficient allocation of resources, promoting investment, and enhancing productivity (King & Levine, 1993; Levine, 2005).

Albania, a transition economy in Southeastern Europe, provides a compelling case for examining the dynamics between banking sector development and economic growth. Since transitioning from a centrally planned economy to a market-oriented system in the early 1990s, Albania has undergone significant economic and financial reforms. Despite these efforts, the country still faces numerous challenges, including high levels of non-performing loans (NPLs), limited access to credit, and macroeconomic volatility. Understanding how these banking sector indicators impact economic growth is crucial for formulating effective policies to promote sustainable development.

This study aims to investigate the relationship between various banking sector indicators and economic growth in Albania over the period 2012-2021. Specifically, it examines the impact of the bank capital to asset ratio, nonperforming loans to total gross loans percentage, credit to the private sector, deposit money bank assets to GDP, inflation rate, GDP growth, and GDP per capita growth. By analyzing these variables, the research seeks to provide insights into how the health and development of the banking sector influence the broader economy.

The significance of this study lies in its potential to inform policymakers about the key factors within the banking sector that drive economic growth. In light of Albania's ongoing economic transition and integration into the global economy, identifying and addressing the impediments to financial sector stability and efficiency is paramount. Moreover, this research contributes to the broader literature on the finance-growth nexus by providing empirical evidence from a transition economy context, which is often underrepresented in existing studies.

The remainder of the paper is structured as follows: Section 2 reviews the relevant literature on the relationship between banking sector development and economic growth. Section 3 outlines the methodology employed in the study, including data sources, variable definitions, and analytical techniques. Section 4 presents the empirical results, highlighting the key findings and their implications. Finally, Section 5 concludes the paper with a discussion of the conclusions and policy implications derived from the study.

1. Literature Review

The relationship between banking sector development and economic growth has been a focal point of economic research for decades. This section reviews the relevant theoretical and empirical literature that underpins this study, highlighting key findings and their implications for the context of Albania.

The finance-growth nexus theory posits that financial development facilitates economic growth by improving capital accumulation and resource allocation (Goldsmith, 1969; Schumpeter, 1911). According to this theory, a welldeveloped banking sector promotes economic growth by mobilizing savings, facilitating investments, enhancing risk management, and providing liquidity (Levine, 2005). Additionally, banking institutions play a crucial role in reducing information asymmetries and transaction costs, which in turn fosters entrepreneurial activities and innovation (Beck et al., 2000).

Empirical studies have provided substantial support for the finance-growth nexus. King and Levine (1993) found that financial development is positively correlated with economic growth, productivity improvements, and capital accumulation. Their cross-country analysis demonstrated that countries with better-developed financial systems tend to grow faster. Similarly, Levine, Loayza, and Beck (2000) showed that financial intermediary development significantly influences economic growth, highlighting the importance of banking sector efficiency and stability.

Several specific banking sector indicators have been identified as critical determinants of economic growth. These include the bank capital to asset ratio, non-performing loans (NPLs) to total gross loans percentage, credit to the private sector, and deposit money bank assets to GDP:

1. **Bank Capital to Asset Ratio**: A higher bank capital to asset ratio indicates a more stable banking sector, as it reflects a bank's ability to absorb losses. This stability is crucial for fostering investor confidence and ensuring continuous credit flow to the economy (Berger, 1995).
2. **Non-Performing Loans (NPLs)**: High levels of NPLs can signal banking sector distress, reducing banks' ability to lend and negatively impacting economic growth. Studies have shown that NPLs can lead to credit crunches, impeding investment and consumption (Nkusu, 2011).
3. **Credit to the Private Sector**: Increased credit to the private sector is often associated with higher economic growth, as it facilitates business expansion and entrepreneurial activities. Beck, Levine, and Loayza (2000) demonstrated that credit to the private sector is a robust predictor of economic growth.

4. **Deposit Money Bank Assets to GDP**: This indicator measures the size of the banking sector relative to the economy. A larger banking sector typically reflects better financial intermediation and economic growth potential (Levine, 2005).

In transition economies like Albania, the banking sector's role in economic growth is particularly critical. These economies often face challenges such as underdeveloped financial markets, high NPLs, and regulatory inefficiencies. Research in transition economies has highlighted the importance of strengthening banking sector stability and efficiency to support economic growth (Bonin et al., 2005).

Gabeshi (2022) and Musta (2016) provide empirical evidence from Albania, showing that financial sector reforms and improved banking sector performance have contributed to economic growth. However, persistent issues such as high NPL ratios and limited access to credit remain significant obstacles.

The reviewed literature suggests several policy implications. First, enhancing banking sector stability through prudent regulation and supervision can mitigate the adverse effects of NPLs. Second, promoting financial inclusion and access to credit for businesses can stimulate economic activities. Lastly, fostering a competitive and efficient banking sector can improve resource allocation and support sustainable economic growth.

2. Methodology

The research employs a quantitative approach using secondary data from credible sources such as the World Bank (World Bank Group, n.d.). The econometric model assesses the impact of banking sector indicators on economic growth in Albania over the period 2012-2021. The dependent variable is economic growth, measured by GDP growth. Independent variables include bank capital to asset ratio, non-performing loans, credit to the private sector, deposit money bank assets to GDP, inflation rate, and GDP per capita growth. Descriptive, correlational, and regression analyses are conducted using SPSS and STATA to determine the relationships and significance of these variables.

Economic Growth is the dependent variable represented by the GDP growth percentage of Albania. The annual percentage growth rate of GDP at market prices is based on the constant local currency. Its estimates are based on sources and methods of the World Bank. An increase in the GDP growth rate is likely to be good for economic growth and show that the economy is getting stronger.

Bank Capital to Asset Ratio shows how much a bank has in stock compared to how much it has in total assets. It shows how stable a bank's finances are and how well it can handle problems. It is thought that a bigger percentage of bank capital to assets will help the economy grow. This means that banks are better prepared to handle losses, which can help keep the economy stable and help the economy grow.

Bank Non-performing Loans to total gross loans percentage shows how many non-performing loans, or loans with late payments, there are out of the total number of bank loans. It looks at how stable and reliable a bank's loan business is. It is expected that a rise in loans that aren't being paid back will slow down economic growth. This is because a high rate of bad loans is a sign of financial instability in the banking system, which could stop banks from giving to useful parts of the economy.

Monetary Sector credit to the private sector (% GDP) shows how much cash is available to both private businesses and people. It is expected that giving more bank loans to the private sector will help the economy grow. This is because it means there are more loans available, which can help businesses, investments, and consumer spending, all of which can lead to economic growth.

The size of Albania's banking business in relation to the economy is shown by ***Deposit money bank assets to GDP Albania***. The growth of the economy is likely to benefit from the growth of the banking sector. This calls for a more complicated financial system that can support economic activity and make good use of resources.

The ***inflation rate*** is the percentage change in the usual price level of goods and services over a certain time frame. It shows how rising costs have hurt people's ability to buy things. The rate of inflation is expected to hurt the growth of the economy. Inflationary stresses can make people feel less safe and less able to buy things, which lowers economic activity and investment.

The below econometric model is used to examine the relationship between the dependent variable, namely Economic Growth, and the independent factors.

$$\begin{aligned}\text{GDP Growth} = \beta 0 + \beta 1 \times \text{Bank Capital / Asset Ratio} \\ + \beta 2 \times \text{Bank NonPerforming Loans / Total Gross Loans Percentage} \\ + \beta 3 \times \text{Monetary Sector Credit / Private Sector} + \beta 4 \times \text{Deposit Money Bank / GDP} \\ + \beta 5 \times \text{Inflation Rate} + \varepsilon\end{aligned}$$

The study employed regression analysis to determine the significance of each independent variable and its corresponding values in forecasting the fluctuations in the Economic Growth variable.

3. Empirical Results

The present study employs regression analysis to examine the relationship between the independent variables, namely GDP, Inflation Rate, Deposit Money Bank to GDP, GDP Growth, Bank Capital to Asset Ratio, Bank Non-Performing Loans to Total Gross Loans Percentage, Monetary Sector Credit to Private Sector, and GDP per Capital, and the dependent variable, Economic Growth.

The average GDP growth in Albania during the study period was 2.524%, with a standard deviation of 3.047%. Nonperforming loans averaged 14.169%, indicating a substantial portion of loans were problematic, potentially hampering economic growth.

Table 1. *Model*

Linear regression			
	Number of obs	=	9
	Prob > F	=	0.0018
	R-squared	=	0.9954

GDP Growth	Coef.	Robust Std. Err.	t	P>t
Bank Non-Performing Loans	-0.685829	.0604043	-11.35	0.008
Inflation Rate	-5.200953	.7662848	-6.79	0.021
Bank Capital to Asset	-2.989021	.5196206	-5.75	0.029
Bank Capital to Asset (Lagged)	2.444516	.2580737	9.47	0.011
Credit to the private sector	-1.819914	.0906227	-20.08	0.002
Credit to the private sector (Lagged)	2.633358	.1064058	24.75	0.002
Constant	-3.568514	10.603	-0.34	0.768

The regression model has a very high R-squared value of 0.9954, indicating that approximately 99.54% of the variation in GDP growth can be explained by the independent variables included in the model. This suggests that the chosen predictors (bank non-performing loans, inflation rate, bank capital to asset ratios, and credit to the private sector) collectively have a strong explanatory power for GDP growth in Albania during this period.

Individual predictors such as bank non-performing loans, inflation rate, bank capital to asset ratios, and credit to the private sector (both current and lagged) show statistically significant coefficients (p-values ranging from 0.002 to 0.029), suggesting that changes in these variables are associated with changes in GDP growth.

The obtained model shows an increase in non-performing loans is associated with a decrease in GDP growth. Inflation rate has a negative impact on economic growth, consistent with economic theory. Increases in bank capital to asset ratios generally lead to decreases in GDP growth, though the lagged variable shows a positive impact on GDP growth. On the other hand, credit to the private sector has initially negative and afterward a higher positive impact on GDP growth, suggesting that increased lending and support economic growth in longer terms. Based on these findings, policy recommendations for enhancing GDP growth in Albania could focus on:

- Addressing non-performing loans to improve banking sector stability.
- Implementing policies to control inflation rates to foster economic growth.
- Ensuring adequate capitalization of banks to support economic activities.
- Facilitating credit availability to the private sector to stimulate economic expansion.

These findings provide a comprehensive understanding of the factors influencing GDP growth in Albania over the specified period, offering valuable insights for economic policy formulation and future research directions.

The significance of addressing non-performing loans and maintaining the stability of Albania's banking industry to sustain enduring economic growth is emphasized. The research demonstrates the correlation between the expansion of Albania's financial sector and the advancement of its economy. The expansion of the banking industry may contribute positively to economic growth. However, it is imperative to consider other variables and regulations to ensure that such growth is viable in the long run. Albania is faced with the imperative of addressing non-performing loans, ensuring financial stability, and implementing sound monetary and fiscal policies to foster economic expansion.

Conclusions

This study examines the link between Albania's banking sector development and economic growth. The research presents a comprehensive examination of the interrelationships between various economic indicators and their impact on the GDP growth, in Albania. The study's theoretical framework serves as a basis for understanding the intricate dynamics between these indicators and economic growth. By investigating this relationship, the research question aims to shed light on the factors influencing economic growth in Albania.

The regression model demonstrates that the selected independent variables such as bank non-performing loans, inflation rate, bank capital to asset ratios, and credit to the private sector are highly influential in shaping economic growth in Albania.

An increase in non-performing loans negatively impacts GDP growth, highlighting the importance of addressing asset quality issues in the banking sector. Higher inflation rates are associated with lower GDP growth, emphasizing the need for effective monetary policy to control inflationary pressures. While increases in current bank capital to asset ratios tend to reduce GDP growth, higher levels in the previous period have a positive impact on current GDP growth. This underscores the importance of maintaining adequate capitalization in the banking system over time. Finally, greater availability of credit to the private sector supports higher GDP growth, indicating the role of financial intermediation in fostering economic activity.

Based on the findings from the regression analysis for Albania spanning 2012-2021, several targeted policy recommendations emerge to foster sustainable economic growth. Firstly, prioritizing reforms in the banking sector to address non-performing loans and enhance asset quality is crucial for stabilizing financial institutions and facilitating increased lending capacity. Secondly, implementing effective monetary policies to control inflation rates is essential to maintaining price stability, thereby supporting consumer confidence and business investment. Thirdly, promoting policies that ensure adequate capitalization of banks will strengthen their resilience and ability to withstand economic shocks while continuing to support lending activities. Lastly, facilitating easier access to credit for both businesses and individuals can stimulate investment and consumption, driving overall economic expansion and enhancing Albania’s economic competitiveness in the global market. These measures collectively aim to create a conducive environment for sustained economic growth, resilience, and prosperity in Albania.

The model's robustness may be limited by the small number of observations (9 years of data). Future studies with a larger dataset could provide more robust insights into the dynamics of GDP growth in Albania.

External factors not included in the model (such as geopolitical events, global economic trends) may also influence GDP growth and should be considered in policy formulation.

In conclusion, the regression analysis highlights the critical factors influencing GDP growth in Albania and provides actionable insights for policymakers to promote sustainable economic development. Addressing banking sector stability, inflation control, capital adequacy, and credit availability are key areas that could contribute significantly to enhancing economic performance in Albania over the long term.

REFERENCES

Beck, T., Levine, R., & Loayza, N. (2000). Finance and the sources of growth. *Journal of Financial Economics*, *58*(1), 261–300. https://doi.org/10.1016/S0304-405X(00)00072-6

Berger, A. N. (1995). The Relationship between Capital and Earnings in Banking. *Journal of Money, Credit and Banking*, *27*(2), 432–456. https://doi.org/10.2307/2077877

Bonin, J. P., Hasan, I., & Wachtel, P. (2005). Bank performance, efficiency and ownership in transition countries. *Journal of Banking & Finance*, *29*(1), *al of Monetary Economics*, *32*(3), 513–542. https://doi.org/10.1016/0304-3932(93)90028-E

Levine, R. (2005). Chapter 12 Finance and Growth: Theory and Evidence. In P. Aghion & S. N. Durlauf (Eds.), *Handbook of Economic Growth* (Vol. 1, pp. 865–934). Elsevier. https://doi.org/10.1016/S1574-0684(05)01012-9

Levine, R., Loayza, N., & Beck, T. (2000). Financial intermediation and growth: Causality and causes. *Journal of Monetary Economics*, *46*(1), 31–77. https://doi.org/10.1016/S03043932(00)00017-9

Musta, E. (2016). *Financial Development Influence on Economic Growth in Albania | European Journal of Economics and Business Studies*. https://revistia.com/index.php/ejes/article/view/5298

Nkusu, M. M. (2011). *Nonperforming Loans and Macrofinancial Vulnerabilities in Advanced Economies*. International Monetary Fund.

Schumpeter, J. (1911). *The theory of economic development*. Harvard University Press.

World Bank Group. (n.d.). *World Bank Open Data*. Retrieved November 22, 2020, from https://data.worldbank.org/

31–53. https://doi.org/10.1016/j.jbankfin.2004.06.015

Gabeshi, K. (2022). The Impact of Bank Credit to the Public and Private Sector on the Economic Growth in Albania. *Ovidius University Annals. Economic Sciences Series*, *22*(1), 882–888. https://doi.org/10.61801/OUAESS.2022.1.117

Goldsmith, R. N. (1969). *Financial Structure and Development*. Yale University Press.

King, R. G., & Levine, R. (1993). Finance, entrepreneurship and growth. *Journ*

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243139 | Volume 9, No.1 (2024): April

THE IMPORTANCE AND VALUE OF TOURISM DEVELOPMENT IN ALBANIA

SUBTOPIC : WILL ALBANIA BE THE NEXT CHOSEN DESTINATION ?

Dr. Alfred Lako[1], Alba Robert Dumi[2]
[1]*Departement of Environmental Engineering, Faculty of Civil Engineering, Polytechnic University of Tirana, Albania,*
[2]*Management Department, Dean of Faculty of Economicss, Tirana Business University, Albania*

ABSTRACT

Albania, this pearl completely undiscovered by foreigners worldwide and hermetically sealed form the outside world, has stunned a large number of tourists those least years. Although the tourist season has barely ended, we still have an amazing overflow of tourists from different countries. For this scientific paper, we took the cause from a question that arises: Albania, this beautiful and unique pearl of Balkan, which is surprising the world with its splendor nature, will it be re-elected as one of the top choices of travellers as a trendy and exotic destination in 2024? As field researchers and professors, we rightly thought of drafting a study to analyze the advantages and disadvantages of mobile tourism, what must be developed and improved, and most importantly how the culture and traditional ways must be promoted by the locals and revealed as Albanians authentic gems. The purpose of the study is to bring an encouragement hand to the Albanian entrepreneurs on improving their service, conditions, prices, ethical behavior, and customary communication with the aim of not only increasing the tourist flow in the coming years, but also improve the quality of this service, leading to a better and value-added reputation of Albania.

***Key words**: Mobile tourism, Service improvement, Price flexibility, Ethical behavior, Quality services*

GENERAL INFORMATION AND PURPOSE OF THIS PAPER RESEARCH

Why is tourism an important element in Albania's economy?
Albania is a country that in recent years has undergone remarkable development. Initially known as an isolated and emergent country with a modest economy, today it is returning to the eyes of tourists as an unique attraction and it is now seen by the nature lovers as a hidden paradise. Tourism in Albania has started to develop substantially over the past 20 years, with an annual growth rate of about 10–15 percent[1]. Originally in the eyes of the visitors, there was this inexplicable curiosity about what this nation lying between mountains, lakes, rivers, seas and lagoons could potentially have been hiding. The number of visitors has risen from a few thousand 20 years ago to 6.4 million visitors in 2019. Therefore it is important to mention that the increase has continued particularly during the post-Covid period. The Institute of Statistics of Albania has reported that in 2022 there were 7.5 million tourists from January to April, and especially this year, we have a three-fold increase, the year 2023 marked a peak in the arrivals of tourists from all over the world.
This trend brought to our attention as researchers and academics, to examine the quantitative and qualitative indicators of Albanian tourism, and how it can become an exclusive destination of tourism among the Mediterranean countries.

[1]Albanian Report 2019, pg. 4

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243139 | Volume 9, No.1 (2024): April

INTRODUCTION

Our country has a four-dimensional geographical and tourist area: the north-eastern mountainous area, the north-western hilly area, the central coastal area extending to the Adriatic Sea and the southern central area extending to the Ionian Sea. Shkodra with stone chateau “Rozafati”, Berati with the rare beauty protected by UNESCO, the city of a thousand windows, Kruja with the sporadic attractiveness of the fortress of our national hero Skenderbeg, Petrela near Tirana with fantastic citadels, of the ancient illyrian style. The magnificent and distinctive Gjirokastra Castle, with its bastions above the city, serves as the "icing on the cake" introducing its visitors with one of the oldest cities of Albania, which still preserves today the traditional way of constructing their houses with hand-laid stones and carved wood windows and doors. Built entirely on the hillside the families still uphold a long-standing tradition whereby each house must place a tiny bench in front of their doors for people who are weary of the scaling and offer them a coffee or some water. Përmet is also a principal attraction in the region, and it is known for its food, river rafting, outdoor excursions and traditional music and celebrations. Ali Pasha Tepelena's Castle has a special style construction that honors his figure in excellence.

Distinguished by the style of stonework, which is carved by hand or with primitive tools, these wonders reveal an ancient and very mysterious culture for foreigners. Much of the tourism in Përmet and the region as a whole revolves around the Vjosa River. “The Vjosa and its tributaries are unrivalled in Europe. This river scenery requires the greatest level of natural protection because there are no other rivers like it left on the continent.” (Balkan Rivers ND). However, the natural exquisiteness of the last wild river in Europe is threatened by barrage construction plans2. In light of these natural wonders, it is important to note that we are currently doing a scientific investigation of this natural beauty in our capacity as a subject-matter experts and professors.

Summarizing some other coastal inventions, we may say that our nation combines coastal and mountainous geographical placement in the following ways:

1. The Alps of Albania merge with a fantastic beauty with Shkodra Lake, Prespa Lakes, Koman River, amidst greenery and natural forests.
2. The sandy sea shores start from Velipoja and extend to Karavasta Lagoon in Lushnje, another "pearl" among the natural coniferous plants and trees.
3. Rock seashores start from the beautiful city of Vlora, and extend to Saranda in the south of the country, another "treasure" between the rugged mountain area and natural 100-year-old pine trees.
4. It is worth mentioning the rock seashores and the antique amphitheater of Butrint, another prized "pearl" protected by UNESCO[3].

METHODOLOGY

This scientific work begins with the identification of “phenomenological” research, in which the researchers identify the “essence” of human experiences (a) concerning a phenomenon (*as in our study: increased interest, curiosity, rare natural beauty, virgin coastal areas, healthy natural food, etc)*

(b) “Lived experiences” marks phenomenology as a philosophy as well as a method, and the procedure involves studying a small number of subject’s thorough extensive and prolonged engagement to develop patterns and relationship meaning (Moustark, 1994): *As in our study: from observation, we concluded that satisfied tourists return again, but with larger groups, with more days of stay and enjoying new experiences, such as new delighting plates, trying extremes sports and discovering unknown nature spots and panoramic views.*

For example: The tour-based tourists are the highest-value market segment. About 70–80 per cent of them are between 20 and 55 years of age, coming mainly from Germany, Austria, France, the United Kingdom and Scandinavia, and to a lesser extent the United States, Australia, Canada and New Zealand. One interviewee who owns a hotel in Përmet that mostly serves guests from tour operators says that 60 per cent of its guests are German tourists, 30 per cent French and the rest English, Italian, and other, mostly European nationalities[4].

---

[2] Towards sustainable tourism in Albania’s Vjosa River Region 10 Sector structure, pg. 10
[3] Dumi A. Jerm Journal Usa, Year 2020, pg. 345
[4] Syri Tv Publication, Albania and touristic attractions, year 2023

(c) Design and method: This paper research adopted qualitative method using interviews as an instrument for data collection. *In our study: for the period May- September 2023 we distributed 120 questionnaires, we conducted 80 interviews with tourist operators in Shkodra, Lezha, Durrës, Tirana, Vlora, Saranda and Ksamil..*
(d) Qualitative method was also used in our study's population and the sample is a target group of tourist operator, entrepreneur and vacationer. *For example, financial services, which are a supporting function, do not directly operate within the sustainable tourism value chain, but they strongly influence how tourism businesses set up, grow and operate, and how tourists access and pay for every transaction during their experience.*
Main hypothesis: How the development of a strategic plan on the improvement of tourism behavior and updatable economic techniques will help Albania to be a preferred destination above its neighbor's countries?

Auxiliary hypothesis 1: Does the local government have a considered strategy in place for the growth of tourism in 2024?

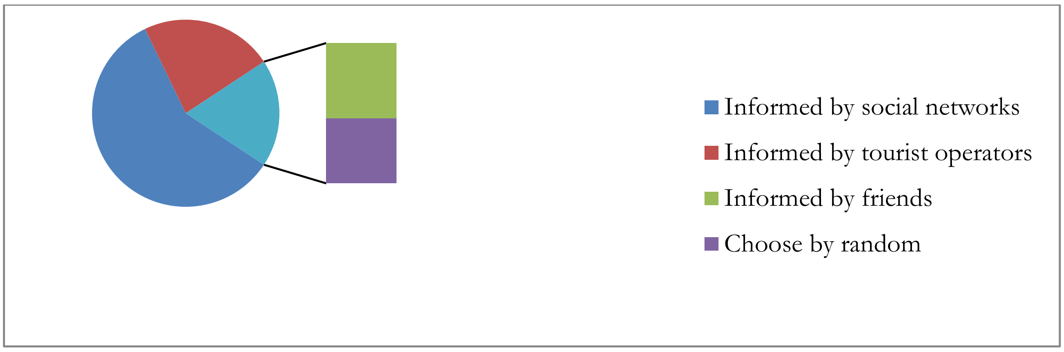
Auxiliary hypothesis 2: How and why we require a strategic plan that is customized to our objectives in order to enhance the quality of Albania's current tourist attractions as well as to draw in a wider spectrum of visitors, such as gastronomy tourism, aquatic and wildlife tourism, but also medical and sports tourism ?

DATA ANALYSIS OF THE STUDY

In our study analysis, we will be summarizing some questions in order to aim correct results. The first five questions are related to gender and age group. Data processing shows that 34 % of the interviewees are women, 46 % are men and 20 % are children.

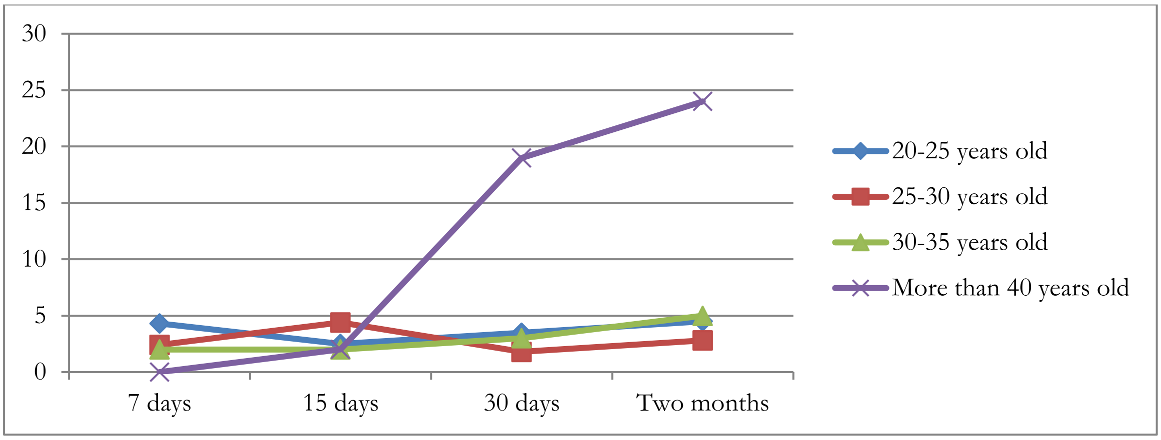
1. *To the question: Are you coming to our country for the first time? 60 % answer: No, we have come more than once, 40 % answers: We are coming for the first time.*

2. *To the question: Have you been informed by social networks, tourist operators, friends, or did you choose our country by random? The answer is demonstrated below:*



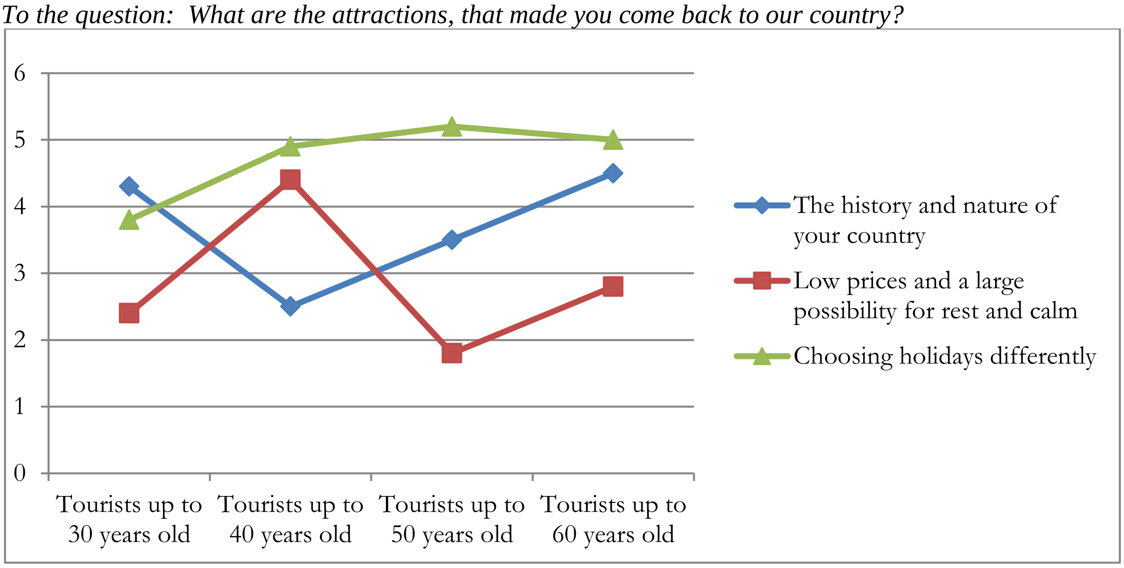
Graph 1: The interviewees are more inclined to choose our country by showing reliability in online publications via social networks, evaluations given or evaluation systems. The largest percentage is this indicator. Refer to Chart no. 1

3. *To the question: Have you chosen to stay in Albania for more than 15 days, 30 days, 60 days?*



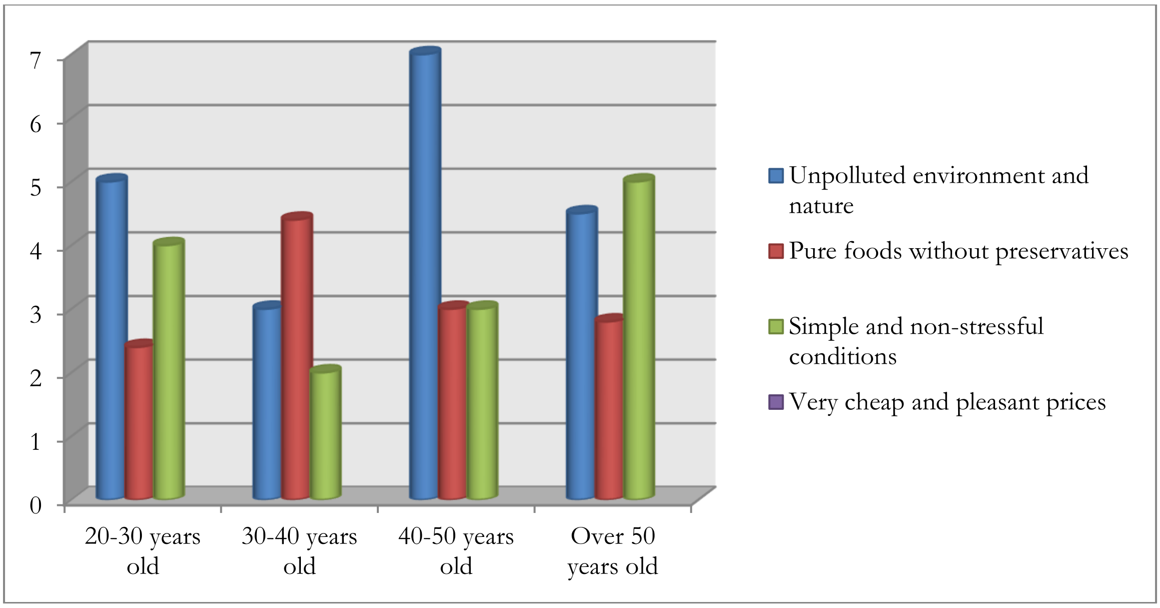
Graph 2: Referring to the chart above, we see that the age group with long-term residence is over 40 years old. This is because the need for rest and peace is greater in this age group. Another reason is that the younger age groups are more inclined to change destinations, in search of new attractions.

4. *To the question: What are the attractions, that made you come back to our country?*



Graph 3: Referring to the chart above, we see that our country is an interesting attraction and offers many opportunities for relaxation, food, beautiful places and opportunities for rest. About 45 % of the people who chose the tourist attraction option in the questionnaire think that it is more enjoyable to enjoy the environmental and cultural change than an "all inclusive" model. About 52 % of the people who in the questionnaire chose the option of peace and pleasant prices in the tourist vacation, they think it is more relaxing.

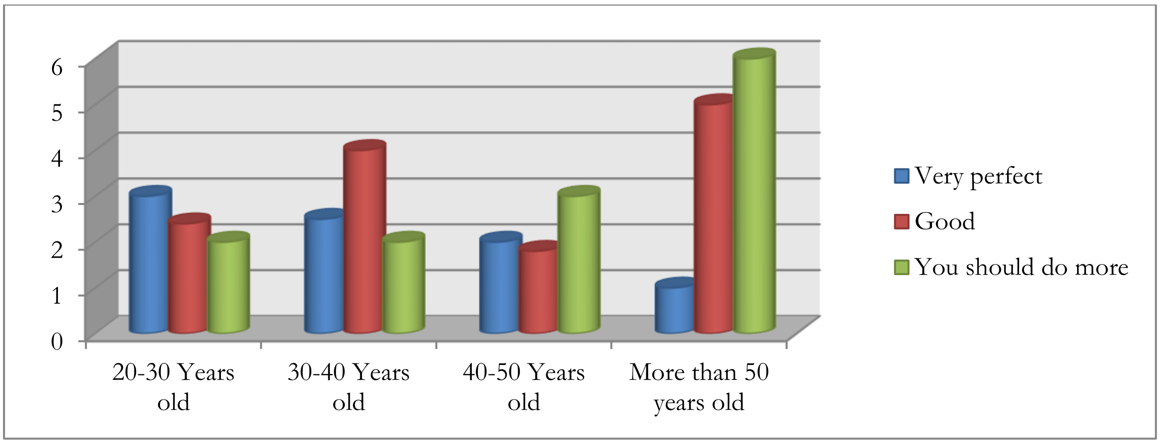
5. *To the question: What are some positive advantages that make you choose our country, in contrast to Italy, Greece or Croatia?*



Graph 4: In this graph, we can observe that the natural purity of our country, free of pollution and harmful chemicals, has the highest percentage (66 % of respondents). We are, however, in the midst of a research quandary, as although many tourists find the "touristic side views" primarily clear and unaltered, they also notice that rubbish management in neighborhoods and less touristic areas requires immediate improvement.

Why does this opinion have the highest percentage as it is real and interesting?

6. *To the question: Do you think that the local government has properly played its role in the development of local tourism in Albania?*



Graph 5: In this graph, we see that, 37 % of respondents are very satisfied, but they think that the role of local government should be greater, 52 % of respondents think that the role of local government should be more beneficial to local entrepreneurs. From the interviews in this target groups (more than 50 years old), the reasons for giving this answer are as follows:

1. The local government should be more present in the regional development, with the increase in the level of public cleanliness, the quality of drinking water and acoustic cleanliness and the noise of clubs and discotheques.
2. The local government should be more present in the control of prices, which in many cases are increased without cause by entrepreneurs.

3. The local government should be more present in the cleanliness of the centers of big cities.
4. The local government should be in support small and family managed business and activities for the promotion of new innovations that time demands. Those smalls business needs a better work of advertising and commercial communication as they are less known by foreigner tourists.
5. The government must help and assist the advertising of different attractions by the local television and social media.

CONCLUSION AND RECOMMENDATIONS

Despite the need to change and improve several aspects of the governance of internal and external tourism, in particular by the administration and regularization of uniform prices according to the attractiveness of the area concerned, the administration of advertising made to small traders and local businesses and the application of financial aid, this study's analysis revealed that this was a highly successful year for tourism in our nation.
Albania is a little nation with a territory of 28.748 km^2, yet it has abundant natural and human resources. The weather is unique and worth highlighting because it is moderate and has more average sunny days. This benefit is provided by the location and size of the territory. This is a compelling feature that draws visitors to our nation, just like mountain and sea, valley and river, mountain tourism, and coastal tourism. This truth was reaffirmed this year, when there were almost 50 % more tourists visiting our nation than in any previous year.
There is a need to avoid being complacent, as we covered above. Nevertheless, let's begin creating a master strategy for 2024. We, as academic experts in the area, suggest the following actions to achieve this goal:

1. To ensure a better relationship of communication and coordination between local entrepreneurs and leaders in the districts.
2. To ensure greater participation of local entrepreneurs (small and medium-sized businesses, etc.) in local decision-making such as price politics.
3. It is primordial to follow other more developed western models, without of course leaving the local tradition and culture behind.
4. To work more with Albanian students and young people, towards new tourist markets such as film, festival, music and camping tourism.
5. Ultimately but most importantly we must develop our country with not only festival and short-term plans but also with profitable and long-term strategies.

REFERENCES

Albanian Public resources, Communication in Public administration Koxhaj A, Economic Faculty, Tirana University, year 2003,

Kotter, J.P. and Heskett, J.L. (1992). Culture and performance. New York: Free Press.

Lewis, G. (1990). Corporate strategy in action: The strategy process in British road services.

Mitroff, I.I. and Kilmann, R.H. (2001). Organizational Stories: Approach to the design and analysis of organizations through myths and stories. In R.H. Kilmann, L.R. Pondy, and L. Steven (Eds.),The Management of Organization Design. New York: Elsevier.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM) DOI: 10.33807/monte.20243089
Volume 9, No.1 (2024): April

APPLICATION OF PUBLIC RELATIONS STRATEGIES AND TACTICS IN PROMOTING THE SUSTAINABLE DEVELOPMENT OF DURMITOR NATIONAL PARK

Danka Stijepović, saradnica u nastavi, Crna Gora

Univerzitet Mediteran Podgorica

danka.stijepovic@unimediteran.net

ABSTRACT

The subject of the research paper refers to the application of strategies and tactics in public relations, which influence the international and national role and promotion of national parks in Montenegro, especially on the example of NP Durmitor. According to the subject and objectives of the research, as well as in accordance with the structure of the work, research methods are defined. The paper will use the historical-descriptive method that serves to present the characteristics of national parks in Montenegro as types of tourist destinations, i.e. their positioning. In addition to the theoretical framework, the research will also include a situational analysis of NP Durmitor - SWOT on the advantages and disadvantages of the potential for the development of mountain tourism, in order to determine the advantages and disadvantages in the opportunities for valorizing the potential of the national park and their presentation through the promotional aspect of public relations.

In addition to the mentioned method, a comparison of the practice of planning strategic frameworks for the promotion of NP Durmitor with advanced achievements in other protected areas in the countries of the region and Europe will be used. In this context, the current way of communication with the public of national parks in Montenegro will be elaborated and a comparison will be made with the practice used in the promotion of protected areas in our environment. The usual methods of empirical research will be used, deductive or inductive research methods as needed, and finally, as a crown, method analysis and synthesis.

In conclusion, the identification of the target population for mountain tourism, the goals and objectives of OSJ, as well as key promotional messages follow. At the end - suggestions of OSJ strategy and tactics in the context of media promotion of the tourism potential of the Durmitor region and we hope the contribution of this work in improving the sustainable development of NP Durmitor.

Keywords*: public relations, strategies and tactics, national parks, strategies.*

PRIMJENA STRATEGIJA I TAKTIKA U ODNOSIMA S JAVNOŠĆU U UNAPREĐENJU ODRŽIVOG RAZVOJA NACIONALNOG PARKA DURMITOR

APSTRAKT

Predmet istraživanja rada odnosi se na primjenu strategija i taktika u odnosima s javnošću, koje utiču na međunarodnu i nacionalnu ulogu i promociju nacionalnih parkova u Crnoj Gori, posebno na primjeru NP Durmitor.Prema predmetu i ciljevima istraživanja, kao i u skladu sa strukturom rada definisane su i metode istraživanja. U radu će se koristiti istorijsko-deskriptivni metod koji služi za predstavljanje karakteristika nacionalnih parkova u Crnoj Gori kao tipova turističkih destinacija, odnosno njihovog pozicioniranja. Istraživanje će pored teorijskog okvira uključiti i situaciono analizu NP Durmitor - SWOT o prednostima i nedostacima potencijala za razvoj planinskog turizma, kako bi se utvrdile prednosti i nedostaci u mogućnostima za valorizaciju potencijala nacionalnog parka i njihovo predstavljanje putem promotivnog aspekta odnosa s javnošću.

Pored navedene metode koristiće se komparacija prakse planiranja strateških okvira promocije NP Durmitor sa naprednim dostignućima u drugim zaštićenim područjima u zemljama regiona i Evrope. U tom kontekstu naročito će biti elaboriran dosadašnji način komunikacije sa javnošću nacionalnih parkova u Crnoj Gori i napraviti poređenje sa praksom koja se koristi u promociji zaštićenih područja u našem okruženju.Koristiće se i uobičajene metode empirijskog istraživanja, prema potrebi deduktivna ili induktivna metoda istraživanja i na kraju svih, kao kruna, analiza metode i sinteze.

U zaključku slijede, identifikacija ciljne populacije za planinski turizam, ciljevi i zadaci OSJ, kao i ključne promotivne poruke. Na kraju - prijedlozi strategije i taktike OSJ u kontekstu medijske promocije potencijala turizma durmitorskog kraja i nadamo se doprinos ovog rada u unaprijeđenju održivog razvoja NP Durmitor

Ključne riječi: *odnosi s javnošću, strategije i taktike, nacionalni parkovi, strategij.*

UVOD

Razvoj turizma u zastićenim područjima prirode, posebno u nacionalnim parkovima i zaštićenim područjima, u fokusu je turističke potražnje na svjetskom turističkom tržištu. Nacionalni parkovi, poput Durmitora, su simbioza netaknutog prirodnog ambijenta, autentičnosti, karakterističnih šumskih ekosistema, geomorfoloških i hidrografskih fenomena, endemičnih biljnih i životinjskih vrsta, impozantnih krajolika, koji udovoljavaju ukusima najprobirljivije turističke klijentele. Nacionalni park Durmitor značajan je turistički potencijal za razvoj različitih vidova turizma, bez obzira na sezonske ograničenosti. Osnovni predmet istraživanja se odnosi na primjenu strategija i taktika u odnosima s javnošću i nihov uticaj na međunarodnu i nacionalnu promociju prirodnih vrijednosti i turističkih potencijala NP Durmitor. Izbor teme istraživanja bio je i motiv više za istraživanja ekonomsko-turističkih potencijala NP Durmitor i njihovo predstavljanje putem promotivnog aspekta, kao sastavnog dijela odnosa s javnošću u ukupnoj ponudi Nacionalnih parkova Crne Gore. U istraživačkom dijelu rada u NP Durmitor biće urađene ankete s turistima-posjetiocima i zaposelnim u ovom nacionalnom parku. Cilj i svrha istraživanja za polazište koriste stav - da područje Nacionalnog parka Durmitor, koje zbog svojih univerzalnih pririodnih vrijednosti uživa nacionalnu i međunarodnu zaštitu, uz dosadašnju nedovoljno iskorišćenu praksu promocije, zaslužuje mnogo intezivnije i kvalitetnije oblike eksterne komunikacje u okviru strategije i taktike odnosa s javnošću, što za cilj ima doprinos boljoj promociji Durmitora.

POLJE ISTRAŽIVANJA

Predmet istraživanja rada odnosi na primjenu strategija i taktika u odnosima s javnošću, koje utiču na međunarodnu i nacionalnu ulogu i promociju nacionalnih parkova u Crnoj Gori, posebno na primjeru NP Durmitor. Rad će se bazirati na opservaciji dosadašnjih tehnika i strategija u komunikaciji sa javnošću, u funkciji predstavljanja prirodnih i drugih vrijednosti Durmitora u domaćoj i međunarodnoj javnosti. Predmet istraživanja rada je i ispitivanje mogućnosti za primjenu PR i marketing strategija u promociji potencijala planinskog turizma. Prije svega u radu će se identifikovati problemi u tom kontekstu i pokušati dati dala smjernice na njihovom prevazilaženju. Fokus ovog rada opravdano se usmjereva na ulogu strategija i taktika u OSJ u promociji potencijala Nacionalnog parka Durmitor, kao samo jednog dijela ukupnog potencijala planinskog turizma u Crnoj Gori, koji sve više uzima maha. Predmet istraživanja rada je interesantnan i zbog uticaja pandemije korona, koja osim u zdravstu ostavlja brojne negativne tragove u raznim oblastima, a naročito turizmu. Pored ispitivanja analize stanja u NP Durmitor uključeni su geografsko-antropološki, ekonomski, socijalni i drugi aspekti, koji utiču na ovaj specifični vid turizma

Problemi istraživanja uglavnom su vezani za još uvijek neadekvatno korišćenje svih dostupnih mjera promocije kod domaće i međunarodne javnosti. U konačnom, rad treba da ponudi rješenja za prevazilaženje do sada detektovanih problema u svim oblicima komunikacije sa javnošću i adekvatne promocije područja NP Durmitor, kako bi se u narednom periodu animirao veći broj gostiju da tokom cijele godine posjećuju ovo zaštićeno područje. Na osnovu navedenog predmeta istraživanja može se istaći da rad treba da ujedno sadrži i odgovor na suštinsko pitanje i teoretsku postavku rada - kako strategije i taktike OSJ mogu uticati na unaprijeđenje održivog razvoja Nacionalnog parka Durmitor, posebno u oblasti planinskog turizma i procesu izgradnje turističkog brenda. U domaćim okvirima ova tema malo je ekploatisana.

METODOLOGIJA

Prilikom izrade rada korisitili smo sljedeće metode istraživanja: metoda analize i sinteze, komparativna metoda uz uobičajene induktivno-deduktivne metode, kao i istorijsko-deskriptivna metoda. U radu će se, takođe, koristi kvalitativno i kvantitativno istraživanje. Metodološko polazište su relevantni teorijski modeli u odnosima s javnošću, a putem anketa i intervjua pripremiće se i sprovesti adekvatno istraživanje na terenu. Metode koje se primjenjuju, tj. osnovni istraživački postupak sastoji se u prikupljanju podataka iz literature i dokumenata, metodom analize sadržaja i metodama-tehnikama intervjuisanja i anketiranja.kako bi se ostvarili ciljevi istraživanja i dobili odgovori na istrživačka pitanja korističe se još i SWOT,te situaciona analiza, kao i metode posmatranja i komparativna anliza. Zatim, slijede intervjuisanje i anketiranje, Dakle, korišćenje kvalitativnih i kvantitativnih metoda-tehnika.

REZULTATI ISTRAŽIVANJA

Istraživanje je obuhvatilo 251 ispitanika – 200 turista,tj. posjetilaca i 51 zaposlenog, a obvljeno je u periodu maj-avgust 2023. godine. . Statistička obrada podataka obavljena je metodom multivarijacione analize i statističkog paketa programa SPSS. Značaj ove ankete,kao kvantitativnog metoda ogleda se i u upotpunjavanju podataka i novih saznanja (kao nastavak kvalitativne metode intervjua) tj. svih koji se bave ovom oblašću turizma, i njihovih odgovora o vrstama strategija i taktika , te zastupljenosti PR u NP Durmitor.

Analizom rezultata anketnog istraživanja dolazimo do sledećih zaključaka. Podaci dobijeni iz prva dva pitanja o demografskim karakteristikama ispitanika pokazuju da je prisutan veći broj pripadnika muškog nego ženskog pola. Takođe primjećujemo da je 58% ispitanika mlađe od 45 godina što ukazuje na veću sklonost mlađe populacije na posjetu Nacionalnom parku. Zaključujemo da je najviše posjetilaca – turista već posjetilo NP „Durmitor", odnosno da nijesu prvi put u ovom NP. Najviše ispitanika je saznalo za NP „Durmitor" preko društvenih mreža, medija ili preporuka prijatelja. Smatraju da je na turističkoj mapi regiona NP „Durmitor" prepoznatljiv po prirodnim ljepotama, rijetkim biljnim i životinjskim vrstama i šumskim ekosistemima. Promociju ovog NP najbolje će pospješiti uvođenje novih atraktivnih sadržaja, intenzivniji i efektniji marketing, dok im se najviše dopadaju prirodne ljepote. U NP „Durmitor", smatraju posjetioci, treba otvoriti smještajne kapacitete viših kategorija, te spriječiti devastaciju i uništenje kanjona Tare.

Zaposleni u NP Durmitor zadovoljni su poslovanjem, uslovima rada, radnim okruženjem, organizacijom rada, međuljudskim odnosima, motivisani su za posao, zadovoljni dok rade, a posao im omogućava da iskažu svoja znanja i sposobnosti.

Među prvih 10 rangiranih manifestnih varijabli imidža NP spadaju: visok nivo enterijera i eksterijera kompanije, briga o korisnicima proizvoda ili usluga, zainteresovanost zaposlenih za dalja usavršavanja, radi unepređenja kvaliteta usluga, tehnička i tehnološka opremljenost NP da pruži visok nivo kvaliteta usluga. Zaposleni su osposobljeni da pruže visok kvalitet usluga. Istraživanja o najvažnijim pitanjima vezanih za rad organizacije imaju pozitivan uticaj na imidž u javnosti, visok nivo prilagodljivosti zaposlenih novim situacijama, kulture poslovnog odijevanja. Zaposleni su svjesni njihovog uticaja na izgradnju i održavanje imidža NP, i NP redovno uvažava opravdane primjedbe ili reklamacije korisnika usluga.

Ispitanici se najmanje slažu oko sljedećih varijabli: visok nivo povjerenja među zaposlenima – 0,81, zaposleni su osposobljeni da pruže visok nivo kvaliteta usluga – 0,84, zaposleni su zainteresovani za dalja usavršavanja radi unapređenja kvaliteta usluga – 0,85, visok nivo enterijera i eksterijera NP – 0,85, visok nivo kulture poslovnog odijevanja – 0,86.

ZAKLJUČAK

Savremeni poslovni svijet i korisnici usluga u turističkim a pogotovo u specifičnim djelatnostima kao što su nacionalni parkovi sve više daju značaj odnosima s javnostima. Praktična i naučna iskustva dokazuju da su imidž kompanija, pa i nacionalnih parkova uslovljeni pozicijom na tržištu, načinom upravljanja, te primjenom adekvatne strategije i tehnika u odnosima s javnostima. Tako je i ovaj rad prije svega, usmjeren ka doprinosu primjena strategija i novih tehnika odnosa s javnošću na unaprijeđivanju održivog razvoja, Nacionalnog parka Durmitor. Tim više što Nacionalni park „Durmitor“ uživa dvojaku međunarodnu zaštitu od kako je upisan 1980.g. u listu svjetske prirodne baštine UNESCO-a, pa se održivo korišćenje prirodnih i stvorenih resursa na ovom području postavljaju kao imperative.

osnovni ciljevi i istraživanja ovog rada bili su usmjereni na posmatranje uzročno-posljedičnih odnosa primjene adekvatnih strategija i tehnika u OsJ u unapređenju održivog razvoja NP Durmitor i imidža tog NP u javnosti. U tom kontekstu decidno je utvrđeno da naučna i praktična iskustva dokazuju da je imidž kompanije, samim tim i Nacionalnog parka uslovljen pozicijom na tržištu, načinom upravljanja, primjenom adekvatne strategije i tehnika u OsJ. Nacionalni park Durmitor ima solidno izdiferencirane ciljeve OsJ, ali treba da poradi na izgradnji prepoznatljivog imidža, boljoj komunikaciji sa internom i eksternom javnošću, učvršćivanju povjerenja odnosa rukovodstva i zaposlenih, te između zaposlenih radnika, kao i na obogaćivanju turističkih aktivnosti. Da ubuduće mnogo više pažnje treba poklanjati promotivnom aspektu NP Durmitor, što će značajno doprinijeti intenzivnijoj posjeti turista, ekonomskoj isplativosti. To će, svakako pozitivno uticati i na održivi razvoj ovog nacionalnog parka. Ako se nastavi sa pandemijom korone potrebno je pojačati i proaktivnu strategiju i krizni PR. NP Durmitor plasira ponude na sajmovima i kongresima turizma u zemljama u okruženju, Evropi, svijetu, u digitalnim medijima, štampanim. Međutim, treba što više da uključe sve popularnije on line oglašavanje i sponzorisanje. Upotreba inovativnih strategija i tehnika u odnosima s javnošću u održivosti NP Durmitor doprinijeće unapređenju razvoja NP. Kao najveće šanse turistički poslenici navode diversifikaciju turističke ponude kroz razvoj različitih vrsta turizma, očuvanje životne sredine i ranovrsnost biodiverziteta, razvoj organske poljoprivrede, finansiranje iz EU fondova i privlačenje investitora za poboljšanje infrastrukture. Povjerenje, motivacija, identifikacija zaposlenih u NP Durmitor su na visokom nivou, a poslovanje na međunarodnom nivou argumentuje poštovanje različitih kultura, religije, etike, jezika, obrazovanja, običaja, ekonomske moći turista. NP Durmitor uspješno sarađuje sa domaćim, regionalnim, inostranim medijima, formirajući tako ličnu kartu NP, arhivu informativnog materijala, novinarskih mapa, medijskih priručnika. No potrebno je formirati novinarski web centar, neophodno je analitičnije planiranje OsJ u budućnosti, uspostavljanjem razumijevanja i povjerenja mendžmenta i javnosti. Upravljanje OsJ u NP Durmitor zasniva se na uočavanju problema, planiranju, komuniciranju i evaluaciji programa i na poštovanju etičkih principa u komunikaciji sa ciljnom javnošću.

REFERENCES

Bakić O.: Marketing menadžment turističke destinacije, treće dopunjeno izdanje, Čigoja štampa, Beograd, 2005.

Blek S.: Odnosi s javnošću, Biblioteka MARKETING, Beograd, 1997.

Borrini G, Feyerabend G.B., Kothari A., Oviedo G.: Indigenous and Local Communities and Protected Areas: Towards Equity and Enhanced Conservation: Guidance on Policy and Practice for Co-managed Protected Areas and Community Conserved Areas, IUCN World Commission on Protected Areas, University College, Cardiff, IUCN, 2004.

Cooper C., Fletcher J., Fyall A., Gilbert D., Wanhill S.: Tourism Principles and Practice (4th ed.), 2008.

Collins: Concise Dictionary, fifth edition, HarperCollins Publishers, Great Britain, 2001.

Đuričin D., Janošević S.: Menadžment i strategija, Ekonomski Fakultet Univerziteta u Beogradu, 2007.

Honey M.: Ecotourism and Sustainable Development, Island Press, Washington, 2008.

Hsu C., Killion L., Brown G., Gross M.J., Huang S.: Tourism Marketing: An Asia-Pacific Perspective (9780470814901)

Jobber D., Fahy, J.: Osnovi marketinga, DATA STATUS, Beograd, 2006.

Mose I.: Protected Areas and Regional Development in Europe: Towards a New Model for the 21st Century, shgate, 2007.

Murphy P.E.: Tourism: A Community Approach, Routledge, 1985.

Pike S.: Destination Marketing Organizations: Bridging Theory and Practice, Elsevier, 2004.

Poon A.: Tourism, Technology and Competitive Strategies, CAB Intrnational, Wallingford, 1993.

Popesku J.: Redaktor, Menadžment turističke destinacije, Univerzitet Singidunum, FTHM, Beograd, 2008.

Robbins S., Coulter, M.: Menadžment, DATA STATUS, Beograd, 2005.

Šutalo V.: Odnosi s javnošću, Visoka poslovna škola, Zagreb, 2017.

Unković M.: Održivi razvoj i ekologija, Univerzitet Sinergija, Beograd, 2012.

Wearing S.: University of Technology, Sidney and Heather Nelson, Australia and sustainable tourism, 2004.

Weaver D.: Ecotourism, Wiley Australia Tourism Series, 2nd edition, John Wiley & Sons, Australia Ltd, 2008.

Bogdanović D.: Primena odnosa s javnošću u obrazovnim institucijama, Univerzitet u Beogradu, Tehnički fakultet u Boru, 2 (1) (2016) 15-27

Đekić, Tatjana; Stojanović, Miroslava: Uticaj društveno-ekoloških faktora na razvoj turizma, Visoka poslovna škola strukovnih studija Leskovac, Zbornik radova Tehnološkog fakulteta u Leskovcu ISSN 0352-6542, 20 (2011), 294 – 300 UDK 65.011/.012:338.48, 2011.

Đorić, M.: Komunikacija i novi mediji, CET Čitalište, br. 67, novembar 2007.

Isaacs, J.C.: The limited potential of ecotourism to contribute to wildlife conservation. The Ecologist, 2000, 28(1):61-69 i Eadington, W.R., and V.L. Smith The emergence of alternative forms of tourism, in Tourism Alternatives: Potentials and Problems in the Development of Tourism. Pennsylvania, USA: University of Pennsylvania Press, 1992.

Janković, Marija; Luburić, Veselin; Šofranac, Rajko: Održivi turizam kao osnova upravljanja u nacionalnim parkovima u Crnoj Gori, ЕКОНОМИКА Vol. 63, ISSN 0350-137X, EISSN 2334-9190, UDK 338 (497,1) october-december 2017, № 4

Sredanović, Velizar: Javnost i mediji u Crnoj Gori. Cetinje: Štamparija Obod, 2007. 227 str, ilustr.ISBN 978-86-7420-034-6 [COBISS.CG-ID 11457552]

Sredanović, Velizar: Ekološki pristup odnosa s javnošću i novinarstva društva u tranziciji na pragu ekološke izdržljivosti u rizičnom društvu. U: Zaštita prirode u 21. vijeku. Podgorica: Zavod za zaštitu prirode Crne Gore, 2011, str. 855-858. [COBISS.CG-ID 4376077]Mediji i obrazovanje: (permanentno obrazovanje).

Nacionalna strategija održivog razvoja do 2030. godine, Ministarstvo održivog razvoja i turizma

Pravilnik o klasifikaciji, minimalnim uslovima i kategorizaciji ugostiteljskih objekata, Ministarstvo turizma, Sl. List RCG, br. 32/02, 38/03

Zakon o nacionalnim parkovima, Sl. List CG, br 28/2014 i 39/2016

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243091 | Volume 9, No.1 (2024): April

CONTEMPORARY TRENDS AND DEVELOPMENT STRATEGY OF CULINARY TOURISM

Fatmire (Shala) Dreshaj[1] Kushtrim Dreshaj[*], Sali Krasniqi[2]*
[1]University of Business and Technology, Kosovo – fatmire.dreshaj@ubt-uni.net
[*]University of Business and Technology, Kosovo kushtrim.dreshaj@ubt-uni.net
[2]University of Business and Technology, Kosovo sali.krasniqi@ubt-uni.net*

ABSTRACT

At the end of the twentieth century, due to the fluid behavior of tourism, the concept of large-scale tourism was abandoned, to be transformed into the development of tourism based on protection and special forms of tourism.
In the new stage of tourism development, food becomes an essential part of the tourist experience, which creates particularly exploited forms of food-related tourism, the most important of which are: gourmet, culinary, rural and culinary tourism.
It should be noted that the practical division is difficult to specify exactly, because these types of tourism are intertwined and include segments of other alternative types of tourism. However, the basis of the formation of culinary tourism can be analyzed by defining the terms related to culinary tourism and determining the factors that condition it.
Keywords: *tourist services, quality, culinary tourism, tourism industry, consumers*

INTRODUCTION

Cooking is an activity based on experimental practice, with distinct historical character, development limited in time, with a global tendency to spread and accept. Culinary is a segment located on the line of connection between the primary human needs, human nutrition, food preparation methods, the study of preparation processes and their use for the purposes of alternative tourism.
Culinary tourism, in contrast to the classical theory of tourism in which it was considered that they are not serious factors for development and that they do not have a special impact, today appear as an accelerator of tourism and hospitality.

It is significant to note that culinary tourism appears and develops at a time when in the world there are two problems related to people's food, which are simultaneously interactive - a causal factor for the development of culinary tourism. This new moment is determined as:
- a problem arising from lack of food
- a problem arising from improper nutrition of the population.

It is interesting that culinary tourism finds a special place in the rest of the world where the question of the existence or lack of capacity to feed the population is solved, the problem of feeding the population is also solved, but the problem of nutrition is modified. in the direction of finding ways of proper nutrition. Culinary tourism is motivated by tourists' need for new gastronomic, food and culinary experiences. These goals can be classified into two large groups: natural - culinary and culinary - cultural attractions.

Culinary tourism is a real breakthrough for some environments and represents an element used for economic affirmation. Culinary tourism, due to the specifics related to the dependence on live work, solves a good part of the unemployment issue, creates excellent income and foreign exchange flows, improves the basic needs of people, creates a favorable economic ground. Therefore, hardly anyone, or rather no one, pays attention to the negative consequences that arise from the rest of the actions that occur as a result of tourist visits to those countries.
Culinary tourism is a special, alternative form of tourism, which is inspired and motivated by the need for culinary experiences and to gain knowledge about the technical-technological process of preparing dishes. According to (Erik

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243091 | Volume 9, No.1 (2024): April

Wolf)[1], president of the International Culinary Tourism Association, culinary tourism represents the development and promotion of "food and beverage preparation" as an attraction for tourists. In tourism theory, there is considerable inconsistency and terminological disparity in the definition of culinary tourism.
Tourism theory, in terms of defining the term culinary tourism, is usually defended with the thesis that tourism in general and alternative forms in particular are relatively new and new phenomena and that tourism theory is growing and maturing. In the modern theory of tourism, there is a rush of definitions for culinary tourism, which does not result in a concrete definition and clear attitudes. That is, culinary tourism is a form of tourism related to food, for this reason it is often mistakenly defined as a special form of rural tourism, as a special form of cultural tourism and most often only as part of some tourist trips.

Culinary tourism is a special form of tourism, which conveys a part of the culture of cooking and which conveys only the technical-technological content of cooking, the value of the dishes, their influence and meaning for man.
According to (Lisa Goldman)[2], the development of culinary tourism is inspired by the relationship between cuisine and culture, because they complement each other and cannot do without each other. Culinary tourism is so popular because it connects us to a way of life, including family history or the history of places and their culture.
These claims go to the point where, according to (Erik Wolf), culinary tourism is a substitute for cultural tourism, because cooking is a manifestation of culture, but also because food and drink are part of the five human senses and leave memories in people. , more than any museum visit.
But in the same context, Wolf (Erik Wolf) creates a dualism, saying that culinary tourism means FLOSS - freshness, locality, organic production, seasonality, sustainability (FLOSS: fresh, local, organic, seasonal, sustainable) . Wolf denies entering the realm of rural tourism and says:

Culinary tourism is farm-to-table tourism, so many restaurants are adapted to tourism programs in a way that means that culinary tourism is interested in the sphere of production and the technique and technology of agro-production - which is not true.
The significance of the differences of culinary tourism from other alternative forms of tourism can be determined by analyzing the essential and practical character of the comparative forms.
Basically, culinary tourism is not part of cultural tourism. Cooking is part of people's living culture, but culinary tourism is not always connected with traditionalism, which is basically the carrier of the cultural life of a country's population. Most of the time, in modern cooking, it is about professional technique and work technology.
Culinary tourism is not rural tourism, nor is it an integral part of it. Rural tourism provides the structure of food production, production technology and production technique of agricultural products, and the tourism-accommodation base is located in rural areas, to convey the village environment, lifestyle and culture of the rural environment.
Culinary tourism uses some of the elements of village tourism, such as traditional food production, but this does not mean that it is an integral part of it. On the contrary, the basic motive of culinary tourism is the production of dishes and the creation of a new culinary imagination quite attractive for tourists.

Culinary tourism is the carrier of cultural foundations, but the question arises: "are all potential tourists motivated by the cultural aspect of cooking or are the recreational, educational, food, business segments also in question". Culinary tourism is an activity that consists in providing services in order to meet the needs of tourists related to the change of permanent residence from culinary-tourist needs, but also to the needs of the resident population.
Cooking is carried out with production, processing and finishing, but most often with the finalization of products from other economic activities, such as agriculture, industry, crafts. If hospitality cooking is singled out, as the most prominent kitchen activity, then we can define it as the processing of raw materials, semi-products and products, with the investment of additional work to shape the products from the previous stages that are. shaped as a culinary service in the series of stages in which the general social activity takes place, which comes after the extraction and processing stage.

Tourists have two basic options. One of them is the kitchen vacation, in which customers adapt their stay in the accommodation facilities or outside them with certain multi-day programs for training and cooking lessons. The second option is to organize culinary tours in different destinations and take an active part in the preparation of the dishes. In Europe, culinary residency programs in hotels include rental car visits to nearby villages.

[1] Erik Wolf, International Culinary tourism Assosiation, Ontario, Canada, 2001
[2] Lisa Goldman, Tour de Forks, Ontario, Canada, 2002

At the end of the analysis of culinary tourism, a parallel should be made with the theoretical views in different sciences and scientific disciplines and their mutual relations. Tourism theory is often criticized by tourism critics when defining and conceptualizing general tourism and modern alternative forms of tourism. Culinary tourism is emerging at a time that coincides with modern international performance strategies, according to which the total operation is based on the demands and needs of the consumer. This is the first moment that contradicts the classical school of tourism, which sought the motives of tourist trips exclusively in the three segments sun - water - air, and not in alternative motives and opportunities.

Culinary tourism begins and develops in the third period of tourism development. In the first two periods (the period of the privileged classes and mass tourism), cooking was only a secondary segment related to the satisfaction of the biological needs of tourists, today cooking is a dominant tourist motive, which influences the choice of destination and the form and forms of realization of tourist activities.

When an explanation is given for the theoretical bases of culinary tourism, it should be started from the demand in culinary tourism, which brings researchers into an interactive correlation with the motivational factors. According to a research[3], there are four basic motivators for participation and the role of food in tourist motivation. The authors of the research link the motivators with the social psychological structure, in terms of the understanding of the models practiced in the research of touristic demand. According to Hudson[4], the two sets of initiating (push) factors and attracting (host) factors refer to: familiar food used by potential tourists (push factors lead them to unfamiliar food that appears as an attractive motivator.

Given the fact that the definition of a culinary-tourism product must include all the natural elements of tourism and cuisine, in particular, it must be based on three basic questions that are analogous to other activities: "the question of those who produce , the question of what producers produce and offer for exchange and the question of those who buy". It is characteristic of any production, and especially of culinary production, that the content of the product is immediately visible and appreciable, to be devoted to special attention to the product as the final result of the culinary-tourist activity.

Seen from the point of view of tourism theory, for a long time attention has been paid to the total offer of tourist services - hospitality and almost generally the goods that are offered, that is, the specific product that is placed in the tourist market. . Here the emphasis is on the culinary product, because it was only an additional part of the tourist offer. The reason is probably that tourism was seen as a group of service activities, therefore the object of exchange in tourism was called service and the content of tourism consumption was rarely or rather not taken into account at all.

When defining the product in culinary tourism, one should start from the basic settings for culinary tourism. That is, culinary tourism is completely different from the experience gained from one or more meals. Culinary tourism includes various activities from simple cooking, from the experience gained in agrotourism, from the experience gained in the food industry, from discovering the identity of the national cuisine. It includes learning and participating in culinary activities and learning from great culinary masters.

Culinary - the tourist product directly affects the formation of the concept of culinary tourism (more precisely, the owners of accommodation and catering facilities in hotels, chefs, companies that deal with food products, tour operators) and transporters in the tourism industry.

Culinary tourism product means the activities related to the need to satisfy culinary-tourist needs, which refer to:
- organization of parties related to food
- agro tours related to culinary tourism
- culinary and agricultural themed tours
- selected tours (U-pick) culinary and agro-tours
- culinary packages offered by tour operators
- culinary tours with motives caused by the partnership: producer - restaurant
- activities of associations specialized in regional and national cuisines
- events promoting regional products

[3] Agjencia e Zhvillimit të Uellsit (WDA) (2000a). Duke ngrënë në Uells, një udhëzues për shije Anëtarët e balenave . Cardiff: WDA.
[4] Hudson, S. (1999). Sjellja e konsumatorit në lidhje me turizmin. Në A. Pizman & Y. Mansfeld (ed) Sjellja e Konsumatorit në Udhëtim dhe Turizëm (fq. 7-32). Nju Jork: Hawthorn Press

- culinary and agricultural fairs.

The product in culinary tourism consists of:
A) Kitchen section
- the materials, products and semi-products that are needed for the production of food and cooking, characteristic of the touristic place, the touristic region or the country.
- materials, products and semi-products needed for the production of food and dishes, characteristic of international cuisine.
- the technology and techniques necessary for the preparation of national dishes
- the technology and techniques necessary for the preparation of international dishes
- technology and technique for national cuisine
- technology and technique for international cuisine
- Experts and presenters of national and international cuisine
- presentation of kitchen products.

The culinary segment highlights the historical and geographical characteristics of certain culinary products or procedures (dishes, ways of serving). Consumers in culinary tourism should enjoy the history, special features, expertise and taste of the food.
In the case of the classification of culinary tourism, it starts from the assumption of the existence of a theoretical interest in knowledge, but also a practical purpose and with a determined approach to classification. The theoretical basis towards which culinary tourism tends is based on the study of food, the technique and technology of preparation, traditional and modern, food preservation and the like.

The classification of culinary and culinary tourism should begin with food, because food is an essential part of the tourist experience in culinary tourism. Food is now not only an integral part of tourist travel, but represents a strong motivating factor on the basis of which some forms of tourist travel are formed.
Grosso modo, the first level of classification refers to two main constituent elements - cuisine and tourism. The division of basic activities determines not only the expectations and the level of needs that must be met in practice, but also the methodology, principles and rules that we will be guided by during their study.
The separation of the two basic spheres shows that in practice it is a question of a high level of expectations, which are different from the requirements and coverage of basic needs that are the object of other types of tourist trips. Tourists in culinary tourism are usually connoisseurs of cooking and/or eager for culinary experiences, but are virtual in the culinary dimension, in some parts, activities and/or segments of it that are conceptually related to cooking.
In the new strategic approach, the diversification strategy begins to be actively implemented, within which, in addition to the development of new products, a new market is also developed, with the aim of new or improved tourism products with greater access successful in existing markets and in new markets, with reduced seasonal dependence on mature markets, and to reduce the risk of stagnation in certain markets, to compete more successfully in the international market.

The main promotion direction consists of intensive internationalization while maintaining the trend of domestic demand. The target markets, taking into account the national structure, consist of:
• Native
The internal market is the key to long-term stability and represents a strategic interest for culinary tourism and is also the most important for the development of new tourism and culinary products - especially for smaller and less developed areas (which in the stage of first they don't have the means to penetrate foreign markets). Domestic demand enables them to set up and start operations and later gradually enter foreign markets.
Therefore, the strategy determines in the internal market the carrying out of activities to encourage and promote the development of tourist products and to carry out communication activities in the market, which will contribute to stopping the decline in demand and its minimal increase. The activities in the local market are adapted to the structure of the local guest and are mainly aimed at specific culinary tourism products (so it is not about the promotion image, but about a very specific promotion, oriented towards sales).
• Foreigners
Regardless of the determination that the local market is key for long-term stability and should represent a strategic interest of Kosovar tourism, the main direction should be intensive internationalization. Foreign markets strategy means:

- Existing emission markets to be processed more intensively and innovatively
- to take advantage of the positive trends and dynamics of markets that are developing and represent potential
- development of new potential markets
- in this way, the destination will balance in the long term the structure of demand sources and reduce the dependence on individual markets and ensure a more balanced growth in the future.

There are two megatrends in world tourist flows: one refers to tourist flows towards traditional forms of tourist movements (directed towards seas, mountains, big cities and others), while the second is directed towards alternative and sustainable forms of tourist movements, including cuisine and tourism.
Given that Kosovo can be a successful culinary-tourist destination, informational activities, coordination of various subjects of the culinary-tourist offer, development of the information system, international cooperation of culinary tourism and other activities should be directed precisely through the department of tourism at the Ministry of Economy and through the associations that should be created for this purpose.
Communication in the world in the field of culinary tourism, in addition to the structure, implies a clear strategy of progress in the domestic and international tourist market. The strategy should be understood as a vision or a long-term way of integration with the local and international environment. Therefore, the basic assumption for the expected success in the creation of Kosovo as a culinary-tourist destination, alongside the rest, especially in the field of the promotional mix, where promotional factors must be carried out by the field of promotion to create, maintain and advance the positive sense of Kosovo as culinary-tourist destination.

Today in the market there is a simple way to achieve a differential advantage, which is the production of a high-value culinary-tourism product. In order to achieve the goal, it is necessary not only to raise the high level of service provision, but also to provide a better quality product, reducing at the same time all the concerns and/or insecurity of tourists. From the product value side, it is necessary to emphasize that tourists no longer buy (both in the case of culinary and other forms of tourism) only individual services and products. Most often it is a package deal, which includes a wide range of products and services during just one trip. In other words, in most cases, they travel to experience, learn and see something new and different from the usual everyday life. Moreover, in the moments when they are involved in the tourist trip, tourists want to experience a good mood and have positive emotions that actually originate from the feeling of security, the diversity of the offer and the possibility of choice.
The defined vision for culinary tourism in the Republic of Kosovo will integrate the purpose, standards of conduct and culinary tourism values of the state. Since today's position aims at other types of tourism, the culinary-tourist direction should go towards expressing the culinary, traditional, cultural, natural, hydrographic advantages of the climate.

REFERENCES

C.Michael Hall (2007) Food tourism, around the World, Elsevier Ltd., British Library Cataloging in Publication Data, University of Oxford

Lisa Goldman, Tour de Forks, Ontario, Canada, 2002.

Erik Wolf, International Culinary Tourism Association , Ontario, Canada, 2001.

Ignatov, E. (2003). Canadian Culinary Tourists: How well did we know them?. Unpublished MA thesis, Department of Recreation and Leisure Studies, University of Waterloo.

Hudson, S. (1999). Consumer behavior related to tourism. In A. Pizman & Y. Mansfeld (ed) Consumer Behavior in Travel and Tourism (pp. 7-32). New York: Hawthorn Press

Kwun, D. JK. & Oh, H. (2007). Consumers' evaluation of brand portfolios.

International Journal of Hospitality Management 27.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243093 | Volume 9, No.1 (2024): April

THE MANAGEMNT OF GOVERNANCE ANALYSES AND PERFORMANCE OF SME'S GROUTH IN ALBANIA

Gerti Dajci[1], Alba Dumi[2]

[1]Dean of Management Faculty of UFO University of Tirana

[2]Dean of Management Faculty of TBU University of Tirana

alba.besi12@gmail.com

ABSTRACT

All businesses are facing difficult economic and financial situations, many countries are facing bankruptcy situations of many activities, many economies are failing because they are unprepared for what awaits them. The COVID-19 situation brought the whole world to its knees. SMEs are most affected, as in the game of competition and market they fight for survival. These are the hypotheses that we will analyze in this scientific paper. We want to focus on a worrying issue for small Albanian businesses, and help these entrepreneurs find new ways and solutions to save them from bankruptcy. In this paper, the basic methods of conducting research are the combination of quantitative method and qualitative method. Qualitative research generally includes data in the form of words, descriptions, while quantitative research uses numbers and measures things. The decision to choose between quantitative research, qualitative research, or both depends on a number of factors, but the most important are: the field of research, the problem of research, and the perspective of the researcher.

In the case of this paper, this combination has been realized as the analysis of the literature and the evaluation of the measures by the Albanian government towards university education requires the qualitative method. On the other hand, quantitative methods are needed to measure the effectiveness of these measures.In the analysis of our work we will focus on the concrete situation, as from the research we have seen that many small businesses (about 67% have gone bankrupt) Let us not forget that SMEs are the backbone of a country's national economy, and Albania is in great need of their economic and social impact.

Therefore, we as professors of these disciplines request that through this research to bring in the focus of analysis the emergency situation in our country with the desire to serve entrepreneurs in new ideas of reviving their businesses.

Key words: *Management, structure of Small and Middle Enterprises, national economy,Albania economy, Covid 19 and social impact*

GENERAL INTRODUCTION

All organizations today exist to fulfill a key mission in their life cycle and a set of specific objectives. If an organization wants to fulfill its mission and objectives, it must first act. When organizations are large and complex, organizational activities are more difficult to define and coordinate. The analysis of this scientific paper that we are presenting, focuses on the role of SMEs in the economy of a country like Albania, its organization and its most important forms, bringing it with a practical case study. SMEs are the pillars of the economy, pose challenges for managers and are very important for those organizations that strive to achieve excellence in today's highly competitive environment and tomorrow's management.

The development of SMEs and their contribution to long-term economic stability depends on their size and structure. This allows them to have the flexibility and ability to adapt to the conditions of fierce competition in the conditions of well-developed markets. Small and medium business management enterprises are considered as the "Moving Force" of modern economies due to their multiple contribution in terms of technological innovations, job creation, export promotion, etc. In Albania, until recently there was no clear definition of micro-enterprises. Moreover, unlike many countries in Central and Eastern Europe which had a steady activity of the private sector, in Albania before the 90s there was no sign of this sector because it was prohibited by law. The birth and development of the private sector in Albania occurs with the collapse of the centralized economy system and the opening of the doors to the market economy. In this period, small and medium enterprises had a special development, which in the 20-year history of economic transition that our country has experienced, have played a crucial role in the economic development of the country. During the transition to a market economy, as for any other country, small and medium business is the backbone of the country's economy. Small businesses act as catalysts in terms of economic growth, as well as for the development of other such areas. such as arts, human resources, manufacturing and the sports sector.

Studies show that SMEs are important because their potential to create new jobs and distribute wealth, which has multiple effects on a country's socio-economic activities, ultimately results in socio-effects. -economic in the development of a country's activities. The development of the private sector is essential in ensuring the continuity of economic growth. Of course, given that the vast majority of the private sector consists of small and medium enterprises, it is understandable that the multidimensional support of their development is at the heart of the development philosophy of this sector. The development of small and medium enterprises is a primary element for creating a sustainable economic development, reducing poverty and alleviating social problems by bringing about a more equal distribution of income and an increase in employment.

Small businesses are often very innovative companies. They can introduce new products, new management styles and new promotional strategies. A large number of new products are created precisely by small businesses. On the other hand, an increasing number of small businesses make society and the economy more flexible. This can facilitate technological innovations, provide new opportunities or ideas, and enable the development of skills for implementing these ideas. As in many countries of the world and especially in transition countries like Albania, small businesses constitute the main pillar of the economy. Small and medium enterprises in Albania occupy over 98% of enterprises and employ about 80% of the workforce.

The purpose of this paper is to analyze the financing strategies used mostly by small and medium businesses in the city of Tirana, Vlora, Durres, Fier, and to analyze the financing challenges that these businesses face most at a time when economic growth is negative.

More specifically the objectives of this study are:

a. To present the financing methods which are mostly used by small businesses in the city of Tirana, Vlora, Durres Fier.

b. To present the level of investments made by small and medium businesses.

c. To present the challenges and barriers faced by small businesses in the city of Tirana, Vlora, Durres, Fier.

d. To present the level of loans received by small businesses in the city of Tirana, Vlora, Durres, Fier.

e. Analyze the impact that the tax burden has on credit to enable the expansion and incentive of businesses.

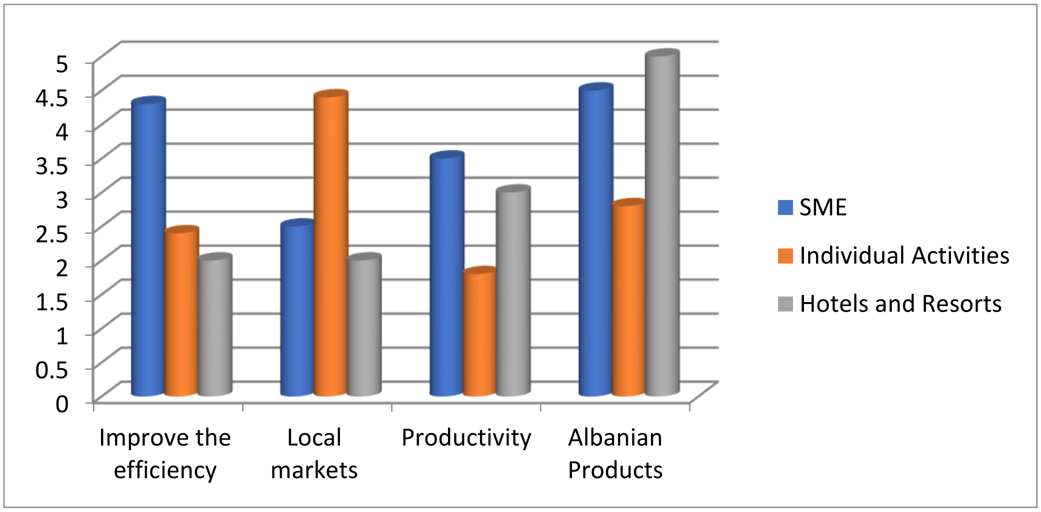
In the study hypothesis we will focus on the research question such as: What strategies do small businesses use in Albania in order to increase profit and attract new customers?

a. What are the most successful SMEs in Albania and the strategies they use?
b. What impact is the COVID-19 pandemic having on these businesses?

In order to fulfill the purpose of the study and return an answer to the research question, the hypothesis of this study is set out below.

LITERATURE REVIEW ON SMES AND THEIR CHARACTERISTICS

The role of SMEs in developing countries such as Albania is essential for revenue generation and economic growth. The definition of SMEs is important for two reasons. First, researchers need to make sure that the issue they are studying is the same as that of other researchers in the field. Second, small and medium-sized government policy makers need to have a clear and concise definition in order to ensure that all funds spent are properly oriented. For example, if a government policy could be to help small businesses with their health insurance problems, a business with 100 employees would have very different problems compared to a business with no employees, except owner. (Osteryoung & Derek, 1993)



Source: Albanian report, 2022-2023

They can be an important factor in fostering competition. and market efficiency. SMEs also improve the efficiency of local markets and productively use limited resources such as capital. Small and medium enterprises are very important for the Albanian economy. They make up about 99% of all companies registered in the country. They contribute to increasing competition and the presence of Albanian product in European markets. SMEs are the leading private enterprises that continuously generate employment and contribute to sectoral restructuring, service development and the production of goods.

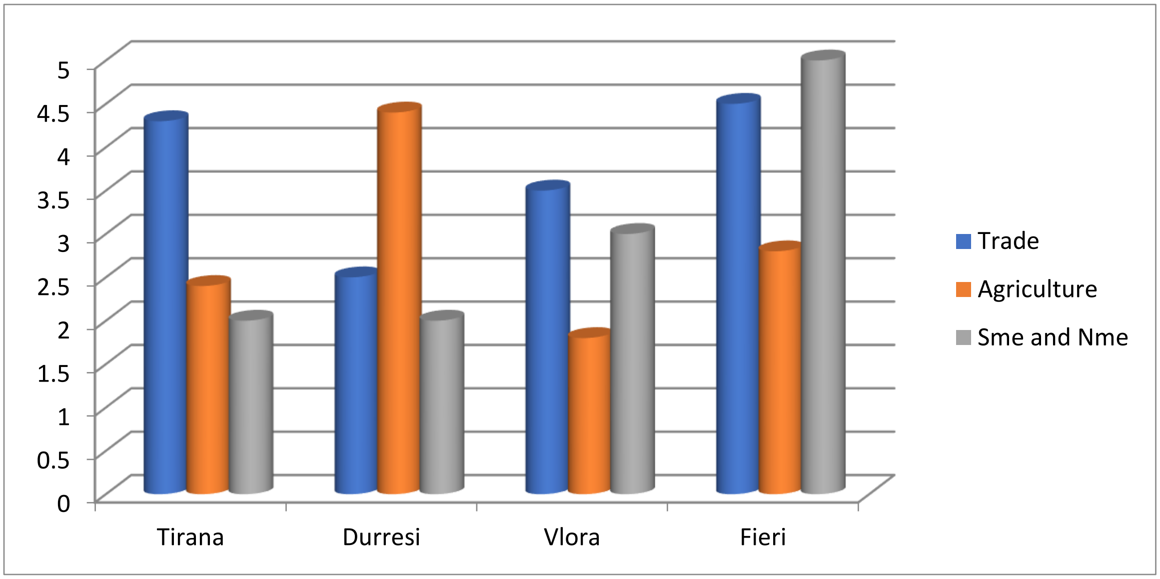
METHODOLOGY

Research can be considered exploratory or confirmatory. Confirmatory research tests hypotheses. The results of these tests aid in decision making, suggesting a specific course of action. Exploratory research takes different approaches. They may be needed to develop ideas, leading first to the development of research hypotheses.

Some researchers often discover the reactions and activities of respondents using marketing research methods. Marketing research is a systematic process of planning, collecting, analyzing and interpreting data and information related to marketing problems. There are various methods that enable researchers to "enter into the mind of the consumer", through primary data.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243093 | Volume 9, No.1 (2024): April

A questionnaire consists of a set of questions which are presented to the respondents. Because of its flexibility, the questionnaire is the most common instrument used to collect primary data. Before completing them in the field, researchers develop and test to all small and medium businesses in the city of Fier, Vlora, Tirana, Durresi, them to adjust the questionnaires from uncertainties. The form, wording and sequence of the questions can affect all the answers.



Source: Albanian report, 2022-2023

The closed questions give all the possible answers to be interpreted and organized in tables easily. For this study, a questionnaire structured by me was developed and implemented, with the help of the leading pedagogue, and was addressed to all small and medium businesses in the city of Fier, Vlora, Tirana, Durresi, which include questions in which information was collected based on objectives, questions. research and hypotheses raised in this study.

In this study, due to the nature of the research, structured questionnaires were used in the survey, which were completed through social networks, where the interviewer is not in front of the respondent and thus the respondents are explained in advance in the initial description of the questionnaire which is its purpose and the reason why we chose that citizen. In the case of my paper, the respondents are students as they are affected by this situation. Secondary data. For the realization of this study a methodology was used that combined primary data with secondary ones. Among the secondary data, an important place is occupied by the contemporary literature on the impact of the pandemic in the world and its impact on businesses, especially SMEs, taking Albania as a concrete case. Primary data. Special attention was paid to the primary research conducted online which is a novelty for this study. Often times the information needed to solve the problem is not found in the internal or secondary data so we have to rely on the primary data. The research was designed in such a way as to ease the cost of gathering information and at the same time to achieve satisfactory results that would help to draw the most accurate conclusions. Primary data include the questionnaire conducted with the help and advice of the lead lecturer. After structuring it and working on Google Dosc, it was possible to provide primary data.

The questionnaire, as explained above, was piloted, so there was no ambiguity regarding the questions posed in the completed questionnaires. It was then built into Google Forms and distributed electronically to applications such as: email, linkedin, facebook, instagram, whatsapp. The disadvantage of this technique was that the owners / managers could not be contacted in shopping malls, supermarkets, markets, streets, houses, workplaces as the situation itself does not allow us to be close to other people and have close contact with them. Maybe this was a limitation to fill out more questionnaires, but the important thing was that his goal was achieved.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243093 | Volume 9, No.1 (2024): April

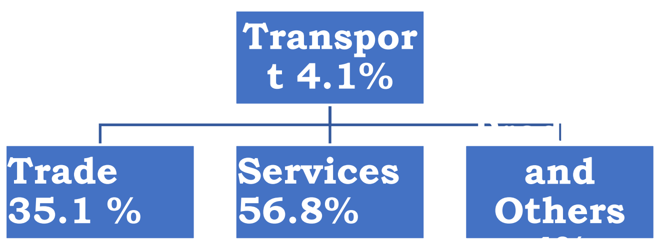
DATA ANALYSIS

This study, by its very nature, has focused on descriptive analysis. The most basic statistical analysis is descriptive analysis. Through this analysis we make the initial transformation of the data, in order to describe the basic characteristics such as: central tendency, distribution and densities. One of the most effective ways of presenting information, especially numerical ones, is to construct and present the data obtained through graphs. This, also because many people are confused by the appearance of numbers.

Below is the data analysis of the distributed questionnaires.

In the first question the respondents were asked what kind of activity their SME takes place. In the following graph we notice that the activity which predominates more in the city of Tirana, Vlora, Durres Fier, is the activity of services. Knowing that this city is held for tourism, we can say that the answer was expected.

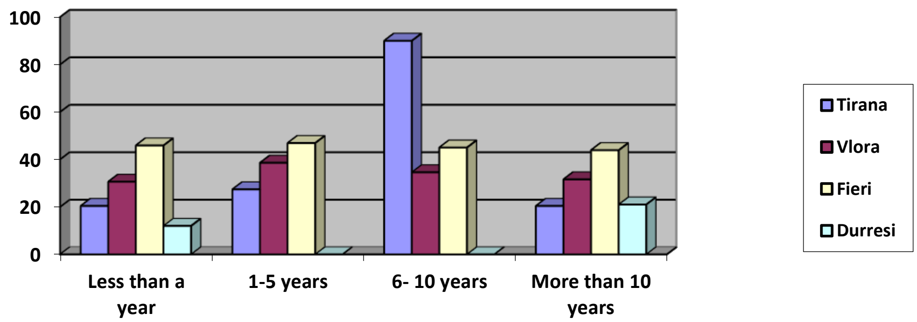
See Tab 1 below:



Tab1: The percentage of activities according to the field of activity of SME perform

In the following question we want to know the contribution that SMEs make in our country. We saw it in the third chapter where SMEs in Albania served as catalysts and regulators of the Albanian economy. Also their indicators were more positive sides and opportunities, than negative sides and threats. Therefore, in the second question of the questionnaire, the respondents were asked how many years they have been operating in the Albanian market. From the graph below we see that the highest percentage is occupied by the period 1-5 years with 51.4%.

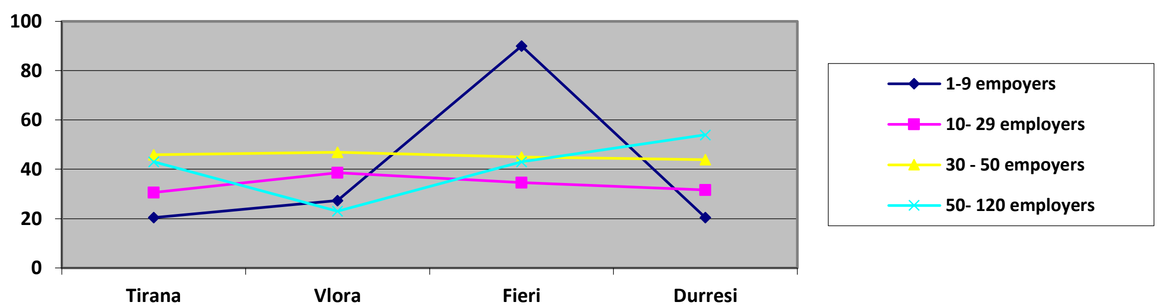
See Graph 1 below.



Graph 1: Separation of group activities according to the time created

In the next question, respondents were asked about the number of employees in their business. What we notice is that the highest percentage is occupied by the group 1-9 employees. We can say that it is an appropriate number and expected response given that the activity exercised were mostly service.

See Graph 2 below.



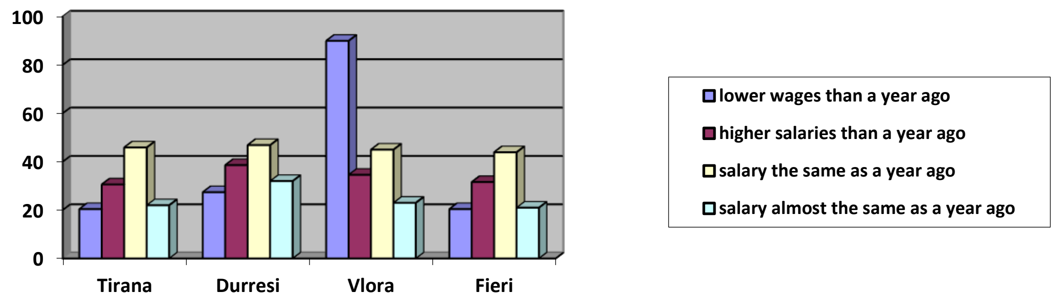
Graph 2 Number of employees in the cities where the study is conducted. Division into categories with maximum density.

The next question belongs to the second section called "Financial Performance of SMEs. The impact of SMEs on the economy is very high so they are a very important link, but what can we say about the financial resources of businesses in Tirana, Vlora, Durres, Fieri? We will see the answers in the next questions.

In the first question of the second section, respondents were asked about their income, compared to the previous visa. So how much was their income last year?

See Graph 3 below.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243093 | Volume 9, No.1 (2024): April

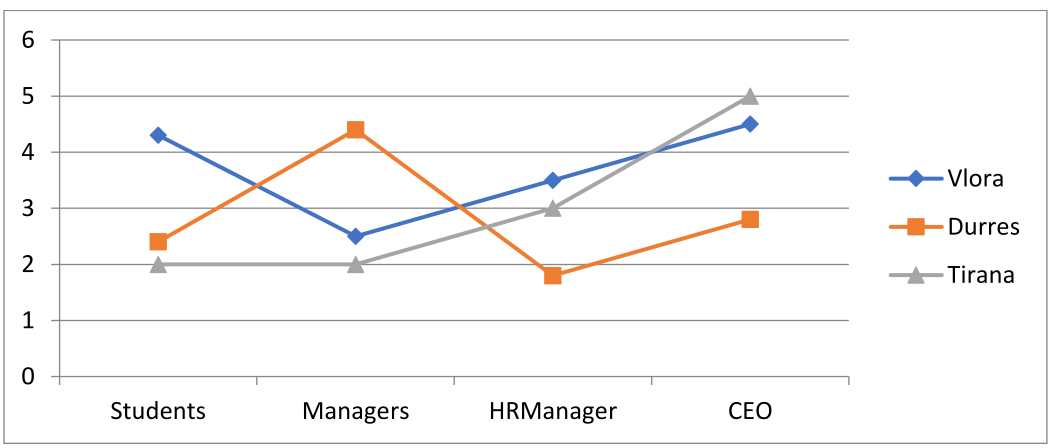


Graph 3 The indicators of wage movement during the covid- 19 situation

While in the following question they are asked about the current year. So how much are their sales this year? These questions are conducted in order to see the importance of SMEs in our country and the support that should be given to them by the government. From the figure below we see that the respondents have high confidence and have expressed that this year, despite the pandemic caused by COVID-19 their sales will increase.

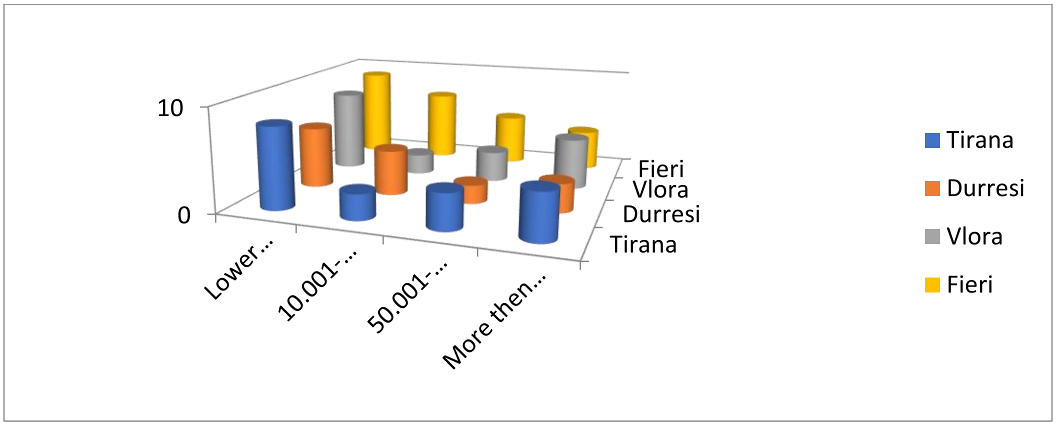
This question therefore relates precisely to this pandemic. Are SMEs in the city of Tirana, Vlora, Durres, Fier affected by the COVID-19 pandemic? Below is a table with the most common answers given by the interviewees.

See the Table 2 below.



Tab2: The Number of respondents interviewed in this study

While in the next question, the respondents were asked about investing in their business after the pandemic. They have been given several alternatives of money in Euro currency, and the highest percentage is occupied by the group "less than 10,000 Euros". See Graph 5 below.



Graph 5the interviewees source of fundings, less than 10.000 euros or more than 100.000 euros

In the next question, the interviewees were asked about the source of funding. What we see is that almost half of them 48.6% use equity, which may come from their SME, or may be savings over the years. What we see is that the Loan and Credit alternatives are close in percentage to each other.

The following question is an open-ended question, so no alternatives are provided where respondents can select.It relates to the tactic of attracting new customers. SMEs in the city of Tirana, Vlora, Durres Fier responded that they used these tactics: See the following table where the respondents are 180 people.

Answers	**Density**
Marketing	21 answers
Reducing prices	25 answers
Maximum cleanliness conditions	12 answers
Hard work	18 answers
Menu expansion and service quality	4 answers
Communication and courtesy with the client	12 answers
To add products to my store	32 answers

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243093 | Volume 9, No.1 (2024): April

To always be as close as possible to the customer by meeting his requirements for the service he requires, with new and quality goods	54 nswers and 2 responses are indifferent

Table 6: Te new idesa and tactics of attracting new customers

ANALYSIS AND FINDINGS

In many cases with sources of personal financing, borrowed from families or relatives, but in the vast majority of banking and financial institutions of the country. Entrepreneurial activities achieved a significant increase in 2017-2018, but the covid situation 19 found them unprepared. Many enterprises closed down as shown in the analysis of the questionnaires, many others applied dismissals, losing staff or significantly reducing salaries. In our findings, 23.9% of entrepreneurial activities were subjected to the credit system, to use these funds, for non-bankruptcy, for the continuation of staff payments as they did not want to remove qualified staff from work. The departure of staff for these entrepreneurs is considered a greater loss than the pandemic situation.

CONCLUSION

SMEs in Albania are classified based on the number of employees and annual turnover and / or annual balance sheet. In terms of the economic importance that small and medium enterprises have, we can say that they have a great weight in the economy of a country. They contribute to growth, job creation and social development which is to be appreciated. They are considered the "locomotive of economic growth". Although the purpose and objectives of the goal have been of a different direction, based on the results and conclusions, we can say that the paper can be a good support base for policy-making on SMEs in this crisis period for all. In addition, the paper can help both entrepreneurs and policy makers as follows:

Entrepreneurs:

- ✓ to reconceptualize their enterprises and to orient themselves by creating an ambitious environment for increasing the value of their businesses.
- ✓ To evaluate data on current sources of financing, used by small business entrepreneurs and access to credit.
- ✓ To serve as a basis to further give some suggestions for taking the necessary actions for the sustainable development of this sector, as well as to increase the level of welfare.

The future of Albania is promising, not only that the leaders are recovering from this situation of difficulty, but also that this situation will serve for the birth of new innovative ideas. In the practice of fair management, a very motivating expression has been used "After every failure and decline, there is a flourishing situation, after every crisis there is a new economic birth" and so it will happen in SMEs in Albania.

6. REFERENCES

Albanian reforming and Goverment Report, Winter 2003-2004 issue of Albanian economical report, pg 147-123- 158.

Andrew & Ross 1980: Adopt the new philosophy, The Putnam Publishing Group, ISBN: 039955000-3, p34

Bass, B.M. (1990). Handbook of leadership New York: Free Press.pp 5

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243093 | Volume 9, No.1 (2024): April

Bowers, D & Seashore S, Predicting organizational effectiveness with a four-factor theory of leadership, 11, 238 -263. Albanian reforms strategy and Administrative Science Quarterly, year 2020

Bradler A, & Sediss W, 1989,Analysis of covariance structures, The report Company and HMR training, Ontario, Kingston, p 40

Dhima, Adrian, 2003, The reform of public sector in Albania, The Institute for Legal and Public Publications, Albania MOE. p 6

Dhima, Adrian, 2003, The reform of public sector in Albania, The Institute for Legal and Public Publications, Albania MOE. p 16,21

Dhima, Adrian, 2003, The reform of public sector in Albania, The Institute for Legal and Public Publications, Albania MOE. p 23

Dumi, Alba, 2012, “The role of university in reform of public sector”, AIJS Journal, vol 2, p 3, 135

Dumi, Alba, 2016, “The role of university in reform of public sector”, AIJS Journal, vol 2, p 3, 238-263.

Dumi A, SME and Albanian Institutions, JERM Mediteranean Journal 2019, pp 23

Gene Klan Holkers, of the Center for Creative Leadership and innovation pg 12, 23, 28 year 2010

Gilbertt and Shutler July 2006 column for GovLeaders. org, Ray Blunt, American society INCOMS Public Sector Consortium, Public Sector and economic environment year 2007

Glueck, W.F, Jauch, L, 1984, Business Policy and Strategic Management, 4th, New York, McGraw-Hill, p 128UNICEF report 2007, 2009, 2010 Albanian development strategy. Albanian Finance incomes 2009, pg 10

U. S. Department of State, Center for Administrative Innovation, U. S. Embassies GovLeaders. org, author Cynthia McCauley, Methodology pg, 128 year 2009 USAID internet link,

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM) DOI: 10.33807/monte.20243095
Volume 9, No.1 (2024): April

IMPACT OF THE APPLICATION OF GREEN MARKETING ON CONSUMER BEHAVIOR IN MONTENEGRO

Marija Nikolić
University of Mediterranean, Montenegro
marijapopovic88yahoo.com

ABSTRACT

The research, "The impact of the application of green marketing on the behavior of consumers in Montenegro" deals with the behavior of consumers in Montenegro according to modern marketing trends. This research seeks to answer the question of whether the application of green marketing affects consumer confidence in Montenegro? The methodological framework of this research was conducted on a sample of 117 randomly selected respondents. The data were processed with the SPSS statistical program. The main hypothesis of this research is, "The level of application of the concept of green marketing significantly affects consumer confidence in Montenegro. "The research "Impact of the application of green marketing on consumer behavior in Montenegro" seeks to contribute to the understanding of consumers and their habits in our environment. This research has shown that consumers in Montenegro are environmentally aware in significant numbers and according to their own claims, the concept of green marketing has an impact on consumer confidence in Montenegro. The research showed that gender as a demographic variable does not play a significant role in consumer trust in the concept of green marketing, but that members of both genders buy and consume ecological products to a similar extent and see their importance for health and the environment. The research also shows that age and the household's monthly cash income have a statistically significant effect on consumer behavior, as well as awareness of the importance of ecological products. This research also shows that household income has the greatest influence on the purchase of ecological products. The above indicates a high correlation between the purchase of ecological products and consumers with high monthly household incomes. That consumer behavior was influenced by the concept of green marketing is indicated by the fact that emerged from the research, that 65 percent of all respondents rated themselves as environmentally conscious.

***Keywords**: Symposium, green marketing, consumer behavior, Montenegro*

INTRODUCTION

The research, "The impact of the application of green marketing on the behavior of consumers in Montenegro" deals with the behavior of consumers in Montenegro according to modern marketing trends. This research seeks to answer the question of whether the application of green marketing affects consumer confidence in Montenegro? This is a significant instruction for Montenegrin companies engaged in production, for the purpose of harmonizing business with the needs of consumers. We are also trying to influence companies to carry out additional marketing about the importance of the environment, because companies will also benefit from environmental protection, as socially responsible, which are part of the world that strives for the development of a healthy environment and future for our community. The methodological framework of this research was conducted on a sample of 117 randomly selected respondents. The data were processed with the SPSS statistical program. The main hypothesis of this research is, "The level of application of the concept of green marketing significantly affects consumer confidence in Montenegro."

This research will answer the question of whether consumers in Montenegro have confidence in the global trend of applying green marketing, as well as whether there is an influence of green marketing on consumers' attitudes and decisions when purchasing. The assumption is that women have a greater tendency to shop in general, and also a tendency to care about health, appearance, and have empathy and sensitivity towards the environment and society. Therefore, we will assume that women have a greater tendency to buy organic products than the opposite sex.

The hypothesis is: "Female consumers are more inclined to buy ecological products." It is also assumed that age affects consumers' choice of ecological products, and that older consumers are more inclined to choose ecological products. The next sub-hypothesis reads: "Older consumers are more inclined to buy ecological products."

Given that the next important demographic characteristic is the household's monthly income, and organic products are often more expensive than traditional ones, it is also a logical assumption that more money in the household budget means choosing organic products more often when shopping compared to households with a smaller monthly budget. The next sub-hypothesis reads: "Consumers with higher monthly incomes are more inclined to buy ecological products."

In the first chapter of the work, the theoretical framework of the concept of green marketing will be presented. In the second chapter of the work, the methodological framework will be presented, as well as the research results of the given hypothesis of the work. Finally, in the third chapter, the author will deal with the possibilities of applying green marketing in creating consumer satisfaction in Montenegro.

For a long time, it was considered that green marketing is used as a trick to win over environmentally conscious consumers, but over time, the good sides and benefits that it has for the environment, as well as for consumers and producers, are increasingly being recognized. Green marketing introduces important opportunities for industry, especially in innovation.

Today's modern products can significantly contribute to a better quality of life. The process of adapting a green marketing process is very difficult. Understanding the characteristics of consumers and their behavior requires exceptional efforts by marketers. The number of suppliers on the market of green products is increasing. It is no longer enough just to be aware of this fact, complex strategies of segmentation, targeting and positioning are also required. For successful green marketing, it is not enough to have only a product made from natural materials, as well as suitable packaging made from recycled materials. It is necessary for each product to comply with sanitary, technological and health regulations in order to reach the shelves at all. It is necessary to create a strong brand so that the products have a permanent identity, a brand that will summarize the uniqueness of the company and encourage a feeling of trust, usefulness, well-being and security. It is also necessary for the products to contain ecological labels, by means of which the producers show that they respect high standards of environmental protection during the entire product cycle. Green products still belong to the class of luxury products for the reason that their price is usually higher than other substitute products. The best thing for customers would be for the company to offer a product with green characteristics without reducing the quality of the product, and all this at a lower price. But this is mostly not possible because these products are burdened with higher costs of testing and development or due to the fact that they are not mass-produced, in order to ensure the environmental acceptability of the product on its way from raw material, through production and trade.

Changes in the environment and society, technology and economic development affect not only changes in business but also changes in the needs and wishes of consumers. Consumer awareness of the impact they can have on pollution, that is, on environmental protection, has created a segment of environmentally responsible consumers. The reaction to the strengthening of the environmental protection movement and the growing ecological awareness of individuals resulted in the appearance of new marketing activities, the emergence of green marketing. One of the characteristics of green marketing related to distribution channels is permanent reversible distribution, which refers to the continuous return of packaging or products. Products move from the customer to the manufacturer through a reversible channel. Such reversible distribution channels have their advantages and disadvantages. Advantages are achieved through better control of the distribution function, reduction of packaging costs, and disadvantages are higher production costs, recycling costs and distribution costs. In addition to these costs, the way of working and the necessary technologies, lower yields in the production of ecological agricultural products, and other specificities, green products often have a significantly higher price compared to products produced in a conventional way and by conventional agriculture.

METHODOLOGICAL FRAMEWORK

Consumer behavior research in Montenegro was conducted on a sample of 117 randomly selected respondents. The data were processed with the SPSS statistical program. The questionnaire is of a structured type, designed with 20 closed questions, where respondents are offered to choose an answer on a scale with 5 possible answers: I do not agree at all, I do not agree, I am uncertain, I agree, I agree completely. The data was collected in such a way that the online survey was forwarded to the respondents for further answering. The sample of respondents is diverse, among the respondents there are representatives of both sexes, people of different ages, educational profiles, occupations, and ability to pay. The most important demographic data of the sample, which will be highlighted when comparing the answers, are the gender of the respondents, the age of the respondents, as well as the monthly income of the household.

Table 1. Socio-demographic structure of the respondents

Socio-demographic variables	respondents
Gender f	82
Gender m	35
	= 117
Age above 30	68
Age beneath 30	49
	= 117
Monthly income below 800 e	48
Monthly income above 800 e	69
	= 117

Research hypothesis

Green marketing as a relatively modern concept has an impact on consumers worldwide. Today, more than ever, we take care of whether a product is healthy for us, whether it contains unnecessary chemicals, emulsifiers, pesticides, plastics. We worry about whether the packaging can dissolve naturally in the environment, how much it has an impact on the harmful effects of water purity, global warming, etc. It is almost a trend to eat food with more protein, less sugar, gluten-free, caffeine-free, etc. Modern man is more concerned about the ecological effect of the purchased product than many previous generations. However, is this also the case in Montenegro? Through these investigations, we will find out whether the global influence of green marketing has "bought" the trust of our consumers. This research will answer the question of whether consumers in Montenegro have confidence in the global trend of applying green marketing, as well as whether there is an influence of green marketing on consumers' attitudes and decisions when purchasing. The basic hypothesis is presented below.

H1 The level of application of the concept of green marketing significantly affects consumer confidence in Montenegro.

The assumption is that women have a greater tendency to shop in general, and a tendency to worry about health, appearance, and have empathy and sensitivity towards the environment. Therefore, it is assumed that they have a greater tendency to buy ecological products than the opposite sex.

H2 Female consumers are more inclined to buy ecological products

It is assumed that age affects consumers' choice of organic products, and that older consumers are more inclined to choose organic products.

H3 Older consumers are more inclined to buy ecological products

Given that the next significant demographic characteristic is the household's monthly income, and ecological products are often more expensive than traditional ones, it is also a logical assumption that more money in the household budget means choosing ecological products more often when shopping compared to households with a smaller monthly budget.

H4 Consumers with higher monthly income are more inclined to buy ecological products

RESEARCH RESULTS

The respondents' answers to each of the 20 items will be displayed individually in the table below, where the percentage indicates how many respondents from the total color chose that answer, while the number in parentheses indicates the exact number of respondents who chose that answer. It is also stated for each item individually how much the standard deviation is, and how much the arithmetic mean is.

Table 2. Research results

	I strongly disagree	I disagree	I am neutral	I agree	I strongly agree	SD	AS

1. I consider myself an environmentally conscious person	2%(2),	1%(1),	16%(19),	56%(65)	26%(30),	23.47	4.03
2. I am aware of the importance of ecological products	0%(0)	1%(1)	13%(15)	61%(71)	25%(29)	26.14	4.1
3. I am ready to spend more money for an ecological product	5%(6)	7%(8)	33%(39)	45%(53)	9%(11)	19.04	1.47
4. I take into consideration the ecological importance when deciding on the purchase of a certain product	3%(3)	5%(6)	36%(42)	43%(50)	14%(16)	19.1	3.6
5. It is important to me not to harm the environment with my actions and choices	0%(0)	4%(5)	7%(8)	58%(68)	31%(36)	25.58	4.15
6. I would describe myself as an environmentally responsible person	1%(1)	1%(1)	19%(22)	55%(64)	25%(29)	23.17	4.02
7. Supporting environmental protection makes me feel special	2%(2)	3%(4)	23%(27)	52%(61)	20%(23)	21.27	3.85
8. I avoid using plastic bags when shopping	6%(7)	21%(25)	33%(39)	31%(36)	9%(10)	13.06	3.15
9. I'm attracted to packaging labeled ecologically and biodegradable	0%(0)	7%(8)	24%(28)	51%(60)	18%(21)	20.74	3.8
10. I consider it unnecessary to print advertising material and invoices, because digital information is harmful to the environment	4%(5)	8%(9)	22%(26)	44%(51)	22%(26)	16.26	3.72
11. I would rather buy local, organic, ecological food, than processed, foreign origin.	3%(3)	3%(4)	10%(12)	43%(50)	41%(48)	21.14	4.16

12. My views on environmental awareness have been influenced by the global development of green marketing	6%(7)	17%(19)	39%(45)	28%(32)	10%(11)	14.01	3.18
13. I like the increase in awareness and social responsibility of global companies about the importance of environmental protection	1%(1)	3%(4)	18%(21)	53%(61)	24%(28)	21.53	3.97
14. Advertising messages from the Internet and television influence my attitudes and my choices when shopping	10%(12)	31%(36)	28%(32)	23%(27)	8%(9)	10.8	2.87
15. I am happy to follow advertising blocks that influence me and others about the importance of choosing ecological products	5%(6)	16%(18)	33%(38)	37%(42)	9%(10)	14.62	3.28
16. I believe that advertisements influence consumers	0%(0)	3%(3)	15%(17)	59%(68)	23%(27)	24.52	4.03
17. I believe that marketing is a powerful tool for managing consumer behavior	0%(0)	1%(1)	10%(11)	58%(65)	32%(36)	24.86	4.2
18. I want to see more content that supports buying products in a way that reduces harm to the environment	2%(2)	3%(3)	21%(24)	56%(64)	18%(21)	22.48	3.87
19. I am attracted to advertisements that encourage the purchase of domestic products	0%(0)	2%(2)	13%(14)	54%(60)	32%(35)	22.63	3.9
20. I would rather buy a product in paper packaging than plastic.	2%(2)	6%(7)	19%(22)	47%(55)	26%(30)	18.82	3.5

3.1. Hypothesis testing

During data processing, observations are made that will help us test the hypotheses given by this research. The table below shows the result of the Chi square test, in which the relationship between the demographic variables and the consumer trust variable will be observed, i.e. the ratio of the number of respondents who answered affirmatively to the items from the questionnaire in relation to the respondents who answered negatively to the items from the questionnaire. And with the help of the HI square test, it will be seen whether there is a statistically significant difference in relation to gender, age, monthly household income and their trust in ecological products, their importance, i.e. consumer behavior in relation to these products.

Table 3. Results of the HI square test

	confidence x2			Fo	ft	fo-ft	(fo-ft)2	(fo-ft)2 / Ft
	Sum	yes	no					
Gender f	82	55	27	55 27	41 41	14 -14	196 196	4,78 4,78
Gender m	35	24	11	24 11	17,5 17,5	6,5 -6,5	42,25 42,25	2,41 2,41 **X2- 14,38** **df1** **p- .000**
Age above 30 years	68	46	22	48 20	34 34	14 -14	196 196	5,76 5,76
Age below 30 years	49	23	26	23 26	24,5 24,5	-1,2 1,5	1,44 2,25	0,06 0,09

								X2-11,67 **df 1** **p- .05**
Monthly income beneath 800 e	48	33	15	33 15	24 24	9 -9	81 81	3,38 3,38
Monthly income above 800 e	69	35	34	35 34	34,5 34,5	0,5 -0.5	0,25 0,25	0,01 0.01 **X2-6,78** **df 1** **p-.06**

After the data were collected through the questionnaire, they were processed using the SPSS method in order to obtain results and answer the hypothesis of this research. The Pearson correlation coefficient was applied in relation to the isolated demographic variables of the respondents, i.e. sex, age, as well as monthly household income, in order to determine whether there are differences when it comes to respondents of different gender, age and monthly income and their relationship to each items from the questionnaire individually, which can further indicate a general conclusion, whether respondents who belong to a certain demographic group have a more specific attitude towards green products, trust, purchasing, awareness of importance, etc., which will ultimately provide an answer to the question posed by the hypothesis.

Table 4. Pearson correlation of demographic variables

		Gender	Age	Monthly income
1. I consider myself an environmentally conscious person	Pearson corelation	.012	.132	.261**

2. I am aware of the importance of ecological products	Pearson corelation	.019	.142	.254**
3. I am ready to spend more money for an ecological product	Pearson corelation	.043	.093	.221*
4. I take into consideration the ecological importance when deciding on the purchase of a certain product	Pearson corelation	.043	.061	.122
5. It is important to me not to harm the environment with my actions and choices	Pearson corelation	.190	.127	.193
6. I would describe myself as an environmentally responsible person	Pearson corelation	.121	.118	.148
7. Supporting environmental protection makes me feel special	Pearson corelation	.005	.032	.212*
8. I avoid using plastic bags when shopping	Pearson corelation	.060	-.011	.190
9. I'm attracted to packaging labeled ecologically and biodegradable	Pearson corelation	.130	.096	.201*
10. I consider it unnecessary to print advertising material and invoices, because digital information is harmful to the environment	Pearson corelation	.115	.161	.243*
11. I would rather buy local, organic, ecological food, than processed, foreign origin.	Pearson corelation	.016	.234*	.235*
12. My views on environmental awareness have been influenced by the global development of green marketing	Pearson corelation	.098	.109	.231*
13. I like the increase in awareness and social responsibility of global	Pearson corelation	.010	.223*	.210*

companies about the importance of environmental protection				
14. Advertising messages from the Internet and television influence my attitudes and my choices when shopping	Pearson corelation	.013	.090	.124
15. I am happy to follow advertising blocks that influence me and others about the importance of choosing ecological products	Pearson corelation	.054	.100	.210*
16. I believe that advertisements influence consumers	Pearson corelation	.090	.098	.122
17. I believe that marketing is a powerful tool for managing consumer behavior	Pearson corelation	.023	.100	.121
18. I want to see more content that supports buying products in a way that reduces harm to the environment	Pearson corelation	.024	.222*	.124
19. I am attracted to advertisements that encourage the purchase of domestic products	Pearson corelation	.018	.232*	.123
20. I would rather buy a product in paper packaging than plastic.	Pearson corelation	.025	.230*	.120

According to the results of the research, it is concluded that, according to the arithmetic mean and standard deviation of each item from the questionnaire individually, the questions are statistically relevant, and can be used for the purpose of obtaining accurate data through further statistical processing. The majority of the respondents answered affirmatively to the items about trust in ecological products, and they answered these questions with "I agree", and the age of the respondents correlates with the level of trust in ecological products, and to a significant extent these statements correlate with higher monthly incomes households.

With the help of processing the obtained results with the SPSS package, H2 test, arithmetic mean, standard deviation, as well as finally with the Pearson correlation coefficient, it is proved that the sample taken for testing is relevant, as well as that the obtained research results are relevant and can be used as evidence in confirming or rejecting research hypotheses. As the majority of respondents answered affirmatively to the items from the questionnaire, the main hypothesis was confirmed, i.e., the application of the concept of green marketing significantly affects consumer confidence in Montenegro. This confirms that the growing application of the concept of green marketing in the world has not bypassed consumers in Montenegro to increase their awareness of the consumption and preference of ecological products. Further, with the help of the Chi-square test, the following conclusions are reached by observing three important demographic variables - gender, age and household income. Gender did not have a statistically significant effect on trust in ecological products, except for a couple of statements when female members chose the answers that it is important not to harm the environment with their actions and actions. After all the above, as the results of the research indicate, gender did not have a statistically significant effect on trust and the purchase of ecological products, and hypothesis number 2 can be rejected.

When processing the demographic variable of age, the conclusion is reached that older respondents have a greater tendency to trust and buy ecological products, and it can be claimed that hypothesis number 3 is confirmed. The older respondents responded positively with a statistically significant difference to the statement, "I would rather buy local, organic, ecological food than processed, foreign-origin food.",, I believe that advertisements influence consumers.",,I believe that marketing is a powerful management tool consumer behavior.",, I want to see more content that supports the purchase of products in a way that reduces harm to the environment.". The monetary income of the household, as the third demographic variable, which participates in the fourth hypothesis of the research, has shown that it has a significant impact on consumer behavior, and that consumers with higher monthly household income have more trust, prefer and buy products that are labeled as ecological and good. for consumer health and environmental protection. This variable very significantly influenced consumers to choose the answer that they consider themselves environmentally conscious, and statistically significantly influenced consumers to choose the answer that they are aware of the importance of ecological products, that they are more willing to spend more money for a better quality product, that they would rather buy product in paper packaging rather than plastic, that they are attracted to packaging labeled ecological and biodegradable, that they like the increase in awareness and social responsibility of global companies about the importance of environmental protection.

This research confirmed hypothesis number 4, which reads - "Consumers with higher monthly incomes are more inclined to buy ecological products." Based on the answers, according to the correlation of the items from the questionnaire with the demographic variables, one gets the impression that consumers in Montenegro have confidence in the concept of green marketing, as well as that the choice of ecological products is influenced by the monetary income of the household, and the monthly income of the household correlates with the purchase of ecological products. Based on everything presented, we can claim that the level of application of the concept of green marketing has significantly influenced consumer confidence in Montenegro. We can also conclude that the age and greater purchasing power of consumers influence greater environmental awareness and the purchase of ecological products by consumers in Montenegro.

According to the results of the research, it is concluded that, according to the arithmetic mean and standard deviation of each item from the questionnaire individually, the questions are statistically relevant, and can be used for the purpose of obtaining accurate data through further statistical processing. The majority of the respondents answered affirmatively to the items about trust in ecological products, and they answered these questions with "I agree", and the age of the respondents correlates with the level of trust in ecological products, and to a significant extent these statements correlate with higher monthly incomes households. With the help of processing the obtained results with the SPSS package, H2 test, arithmetic mean, standard deviation, as well as finally with the Pearson correlation coefficient, it is proved that the sample taken for testing is relevant, as well as that the obtained research results are relevant and can be used as evidence in confirming or rejecting research hypotheses.

As the majority of respondents answered affirmatively to the items from the questionnaire, the main hypothesis was confirmed, i.e., the application of the concept of green marketing significantly affects consumer confidence in Montenegro. This confirms that the growing application of the concept of green marketing in the world has not bypassed consumers in Montenegro to increase their awareness of the consumption and preference of ecological products. Further, with the help of the Chi-square test, the following conclusions are reached by observing three important demographic variables - gender, age and household income. Gender did not have a statistically significant effect on trust in ecological products, except for a couple of statements when female members chose the answers that it is important not to harm the environment with their actions and actions.

After all the above, as the results of the research indicate, gender did not have a statistically significant effect on trust and the purchase of ecological products, and hypothesis number 2 can be rejected. When processing the demographic variable of age, the conclusion is reached that older respondents have a greater tendency to trust and buy ecological products, and it can be claimed that hypothesis number 3 is confirmed. The older respondents responded positively with a statistically significant difference to the statement, "I would rather buy local, organic, ecological food than processed, foreign-origin food.",, I believe that advertisements influence consumers.",,I believe that marketing is a powerful management tool consumer behavior.",, I want to see more content that supports the purchase of products in a way that reduces harm to the environment.". The monetary income of the household, as the third demographic variable, which participates in the fourth hypothesis of the research, has shown that it has a significant impact on consumer behavior, and that consumers with higher monthly household income have more trust, prefer and buy products that are labeled as ecological and good. for consumer health and environmental protection. This variable very significantly influenced consumers to choose the answer that they consider themselves environmentally conscious, and statistically significantly influenced consumers to choose the answer that they are aware of the importance of ecological products, that they are more willing to spend more money for a better quality product, that they would rather buy product in paper packaging rather than plastic, that they are attracted to packaging labeled ecological and biodegradable, that they like the increase in awareness and social responsibility of global companies about the importance of environmental protection.

This research confirmed hypothesis number 4, which reads - "Consumers with higher monthly incomes are more inclined to buy ecological products." Based on the answers, according to the correlation of the items from the questionnaire with the demographic variables, one gets the impression that consumers in Montenegro have confidence in the concept of green marketing, as well as that the choice of ecological products is influenced by the monetary income of the household, and the monthly income of the household correlates with the purchase of ecological products. Based on everything presented, we can claim that the level of application of the concept of green marketing has significantly influenced consumer confidence in Montenegro. We can also conclude that the age and greater purchasing power of consumers influence greater environmental awareness and the purchase of ecological products by consumers in Montenegro.

REFERENCES

Filipović, J., Internet marketing, Center for publishing activities of the Faculty of Economics in Belgrade, Belgrade, (2016)

Kotler, P., Kartajaya, H., Setiawan, I., Marketing 4.0, Moving from traditional to digital, John Wiley & Sons, Inc., Hoboken, New Jersey, (2017).

Kotler, P., Keller, L., Marketing management, 15th edition, Pearson education, London. (2016).

Kotler, Ph., Keller, L. Marketing management, 12th edition, Datastatus, Belgrade (2008),

Milisavljević, M., Strategic Marketing, Publishing Center of the Faculty of Economics in Belgrade, Belgrade. (2006),

Lacković Z., Andrilić B., Fundamentals of strategic marketing, Polytechnic University, Požega (2007)

Nefat A, Green Marketing, Jurja Dobrila University in Pula, Pula (2015)

Ali, A., Khan, A.A., Ahmed, I. Determinants of Pakistani consumers' green purchasing behavior: Some Insights from a developing country, International journal of Business and social science, vol 2. No 3, Special issue (2011)

Anić, Jelenc, Šebetić, "Investigation of demographic characteristics and behavior of buyers of organic food products in Karlovac County" Economic thought and practice of the University of Dubrovnik, vol 24, no 2, (2015)

Bačić M, Green marketing as a new business concept, Jurja Dobrila University in Pula, Faculty of Economics and Tourism "Dr. Mijo Mirković" (2016)

Beaudry, J.E.: The Eco Elite, Footwear News, Vol. 64, No. 30, 2008, pp. 35-40

Chang, C., Feeling ambivalent about going green - Implication For Green Advertising Processing, Journal of Advertising, Vol 40, (2011)

D. Širola, A. Rosandić, Adoption of green marketing among young consumers in Croatia, Proceedings of the University of Rijeka, Vol. 7 (2019)

Tomašević S., Green marketing. Business Advisor, No. 39, (2014)

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243097 | Volume 9, No.1 (2024): April

THE INTERNET AND ITS IMPACT ON OUR COGNITIVE ABILITIES

Mefail Tahiri 1 Ejup Rustemi 2*

1 University of Tetova, North Macedonia

2 University of Tetova, North Macedonia

** mefailt@gmail.com*

ABSTRACT

Throughout the course of human history, the Internet has been the technology that has gained the most extensive and rapid adoption. How we find information, enjoy media, and keep track of our social networks and connections have all been revolutionized by the widespread usage of the Internet. This revolutionary change has occurred in just a few decades. Internet connection has become portable and widespread, to the point where the population of the industrialized world can be said to be "online." This is a result of the even more recent arrival of smartphones. It is abundantly obvious that the Internet has had an impact on a variety of facets of contemporary society. On the other hand, the influence that it might have on the structure and functioning of our brains continues to be a primary focus of research. This paper will try to shed light to this complex topic and bring forward the most important issues that we should keep in mind when dealing with such a phenomenon.

Keywords: *Internet, cognitive, ability, technology, society.*

INTRODUCTION

Here, using data from neuroscience, psychiatry, and psychology, we take a look at some basic theories on how the Internet might be influencing human cognition. We zero in on the following areas to see whether the unique features of the internet are impacting them: a) our ability to focus, since the constant flow of information on the Internet makes it hard to maintain attention on a single task for very long; b) our memory and how we store and retrieve information; and c) our social cognition, because the Internet is influencing our social lives in new ways, including how we view ourselves and our self-esteem, due to the fact that online social settings can mimic and even mimic real-life social processes. The Internet seems to have the ability to bring about both short-term and long-term changes in all of these areas of cognition, which could be reflected in corresponding changes in the brain. Given the existing state of knowledge, this is the overarching conclusion that can be reached (Anderson M, Jiang J., 2018). But, comparing the cognitive effects and brain effects of Internet use in older adults with that of young individuals whose brains are still developing is one of the most pressing issues in the field and a top priority for future studies. We conclude by proposing a method for Internet research to be integrated into broader research frameworks, with the aim of studying the long-term effects of this hitherto unstudied social phenomenon on human cognition and the brain..

It is unclear, however, how much time spent in front of screens and this new medium for connection, information, and communication are influencing our brains and cognitive functioning. Even before the rise of the Internet, a large amount of research had proven that the brain can adapt to certain stimuli and demands, especially when it comes to learning new processes, thanks to its neuroplasticity (Draganski B, Gaser C, Kempermann G et al., 2006). This was especially the case when it came to picking up new procedures. Research has shown that the human brain's neuronal circuitry can undergo permanent modifications in response to a variety of stimuli. Some examples of such situations include learning a new language, picking up a new skill (like juggling), or even just getting ready for a test. There may be changes to neural pathways in the brain as a result of the possibility and need to learn a broad array of new skills and ways to connect with society brought about by the global proliferation of Internet use. Research has shown that even short periods of time spent using a smartphone's touchscreen to access the Internet can cause long-term changes in brain function. Cortical areas involved in sensory and motor processing of the thumb and hand undergo neurological modifications, leading to these abnormalities. Furthermore, the Internet offers a unique platform for the almost unlimited acquisition of new knowledge and intricate procedures that may be utilized in both the virtual and physical realms (Draganski B, Gaser C, Kempermann G et al., 2006)..

REPERCUSSIONS ON THE COGNITIVE CAPABILITIES

Based on the review, Firth et al. al (2019) discovered three primary effects that excessive usage of the internet has on cognitive functioning. To begin, prolonged use of the internet does, in fact, result in physical changes in the brain. When researchers looked at people who used the internet frequently, they discovered that these people had a higher level of activity in the right prefrontal cortex and performed badly on activities that required them to pay attention to distractions. Because the right prefrontal cortex is essential for maintaining attention, researchers have come to the conclusion that individuals who spend a significant amount of time on the internet make higher use of their cognitive resources in order to avoid distractions when they are working on projects. The brain may be taking resources from other regions of the brain that should be utilized to promote achievement, which leads to poor performance. This increased effort to avoid distractions leads to poor performance (Gindrat A-D, Chytiris M, Balerna M et al., 2015). There is a need for additional research to identify and define the physical changes that occur in the brain as a result of technology and internet use; nonetheless, researchers have discovered that excessive internet use has negative impacts on brain function.

The second finding is that researchers have discovered that internet searches have an effect on the acquisition and retention of information. During the process of information acquisition that took place online, it was discovered that the ventral stream, also known as the "what" stream of information processing, was reduced in strength. Additionally, it was discovered that individuals who use the internet to seek for various tasks could not remember the information that they obtained from their internet searches. Researchers have a strong suspicion that the essential neurological processes that are crucial for the retention of information are either being disturbed or not occurring at all when they rely on internet searches to acquire and access information. It has been established by other research that individuals may rely on the internet for the acquisition and access to information, which in turn causes individuals to become dependent on the internet for the storage and utilization of information when it is required.

INTERNET AND PEOPLE'S MENTAL HEALTH

In conclusion, excessive usage of the internet has been linked to issues related to mental health. According to the concept of social cognition, individuals interact with one another on the internet by following social media accounts, enjoying and sharing postings, and commenting on the information that is created by other individuals. The use of these measurements has made it possible for individuals to systematically evaluate themselves in comparison to other people, which might result in the development of issues related to self-esteem. For instance, a person who uses social media may suffer poor self-esteem if they believe that a post or comment they made online ought to have received a significantly greater amount of attention than it actually did. The pressure to reach unreasonable standards is a typical source of stress for young people who use the internet. Body dysmorphia is another common experience among internet users. It is possible for young people to have feelings of uncertainty and despair as a result of seeing and consuming different media trends across numerous platforms (Osterhout L, Poliakov A, Inoue K et al, 2008). It is difficult to establish a causal relationship between the use of the internet and mental health problems because there are a variety of other factors that have an effect on mental health. However, researchers are attempting to better discern the contributions of internet use on mental health in order to make recommendations on how to use the internet in a healthy manner.

When the Internet is considered to be a cognitive augmentation, this is understood to indicate that it assists individuals in enhancing their present cognitive capacities, such as those of acquiring, processing, and organizing information. This is because the Internet provides rapid access to a massive amount of information that is diverse in nature. The relation between information and knowledge is frequently and unproblematically equated. From the perspective of Persson and Savulescu, knowledge and its expansion are considered to be upgrades since they "provide [individuals] with means of improving their standard of living". This is because they enable individuals to pursue their goals in a manner that is both more effective and more efficient. Furthermore, they assert that "connection of minds and information through the Internet seem the most realistic means of substantial cognitive enhancement"(Perrin A, Jiang J., 2018). This is a claim that they make. The relationship between extensive social collaboration and access to knowledge is the characteristic that distinguishes the Internet as a unique technology, one that has the potential to significantly improve human intellect. When information is already accessible and can be processed, collaborative information sharing and structuring can be cognitively beneficial; however, this is only the case when the information is already available.

The Internet has become the most extensive and widely available source of knowledge in recent years. Not only does it make it possible to access information, but it also makes it possible to generate information at a rate that has never been seen before. This is made possible by the ever-increasing computer and processing capacities within it, as well as the opportunities it affords for both human and non-human expression.

According to the Global Digital Report 2019, which was entitled "We Are Social," about three and a half billion people access the Internet through various social media platforms. It is true that all of the major digital platforms, such as Google, Facebook, and Twitter, serve as gatekeepers, which means that they organize and organize the content that is available online. Most of the time, algorithms are the ones that are responsible for the process of organizing information (Perrin A, Jiang J., 2018). Neither the prioritization of honest information nor the enhancement of its visibility and accessibility are among the goals that these algorithms are designed to achieve. They are designed to maintain engagement by disseminating content that either incites indignation or generates the greatest amount of advertising revenue (Perrin A, Jiang J., 2018). As a result, the information is shaped for the goal of advertising optimization or for user interaction; nevertheless, the public is not privy to the process of structuring the information because the algorithms that underlie it are considered to be protected intellectual property (Perrin A, Jiang J., 2018). As a consequence of this, the more the network expands, the more information is produced, transferred, and accessed, the more challenging it becomes to track down information that is actually true or helpful and that could lead to the acquisition of knowledge. We will continue our investigation into the ways in which the algorithmic organization of information leads to the spread of false information on the internet, as well as the ways in which it affects the cognitive capabilities of users in the following section.

Internet use can cause temporary and permanent alterations in specific parts of the brain, according to a multinational team of researchers from Western Sydney University, Harvard, Kings College, Oxford, and the University of Manchester. These alterations may mirror neurological shifts that influence our ability to focus, remember, and engage with others.

The preeminent international publication for psychiatric research, World Psychiatry, published the first review of its type. The researchers looked into popular theories about potential changes to mental processes brought about by the Internet. More specifically, they looked at how much new evidence from neuroimaging, psychology, and psychiatry lent credence to these theories.

The evidence was compiled in order to produce revised models regarding the ways in which the Internet may influence the structure, function, and cognitive development of the brain. Dr. Joseph Firth, Senior Research Fellow at NICM Health Research Institute.

The most important takeaway from this research is that prolonged exposure to the Internet may have an effect on several brain processes. For instance, Professor Firth argues that our ability to concentrate on a single job may be diminished due to the endless flow of Internet-based reminders and notifications, which pushes us to constantly keep a divided attention.

On top of that, the internet has given us access to a mountain of information that is both constantly updated and extremely vast in scope. You can access this resource with just a few clicks or swipes at any time.

It seems like this could start altering how society and the brain store and even value facts and knowledge, considering that most of the world's factual information is now literally at our fingertips.

Some parents and educators are worried about the impact of these new digital tools, particularly social media, on their children's development and education. Children under the age of five should not spend more than one hour a day in front of screens, according to 2018 recommendations from the World Health Organization. More study is required to ascertain the pros and cons of Internet usage among youths, since the report also revealed that most studies investigating the impact of the Internet on the brain have been carried out in adults.

While more study is needed, Dr. Firth suggests that we can mitigate the risks by making sure kids aren't deprived of other important developmental opportunities, like physical activity and social interaction, due to their excessive screen time.

According to the researcher, there are now a plethora of apps and software programs that can help parents and carers limit their children's access to certain websites and content on their smartphones and computers. This can help establish "family-friendly" rules regarding the amount of time children spend on these devices and the content they access.

Additionally, it is crucial to have frequent conversations with children regarding the impact of their online life on them. This will help identify youngsters who may be vulnerable to cyberbullying, addictive behaviors, or even exploitation, and allow for prompt intervention to prevent negative consequences.

Among the individuals who have expressed concern about the possible consequences of excessive Internet use on the brain are Professor Jerome Sarris, Deputy Director and Director of Research at the NICM Health Research Institute at Western Sydney University, the other senior author of the article (Anderson M, Jiang J., 2018).

The university lecturer voiced several worries about the Internet's overwhelming amount of stimulus and the resulting difficulty focusing.

Along with the increasing #Instagramification of society, this could alter the social fabric of our society in addition to the brain's structure and function. As far as I'm concerned, this is correct.

"Internet hygiene" techniques, such as reducing online multitasking, ritualistic 'checking' behaviors, and evening online activity, while engaging in more in-person interactions, and mindfulness and focus practice can help mitigate the negative effects of heavy Internet use, suggests Professor Sarris.

The study's co-author and Oxford research fellow, Dr. Josh Firth, made the following comment: "It's evident the Internet has radically transformed the possibilities for social connections, and the situations within which social relationships might take place. Therefore, it is of the utmost importance to comprehend how the internet can potentially impact our social functioning and identify the areas of our social behavior that are likely to change and those that are unlikely.

Even though the internet and social media platforms can offer a wealth of knowledge and a sense of community, they also have the potential to have a negative impact on the relationships that people have with one another. The researchers at the University of British Columbia in Canada conducted a controlled study in which they discovered that when individuals bring electronic gadgets to the dinner table, it causes them to become engrossed in their attention and results in a loss of personal connection (Anderson M, Jiang J., 2018). It was established, using a scale with seven points, that individuals who were distracted by their phones or other electronic devices while they were seated at the table reported experiencing less enjoyment than those who did not have such distractions. On top of that, individuals who were having a face-to-face encounter at the table while using their electronic devices reported experiencing less satisfaction and involvement than those who were not using their gadgets. If this is the emotional experience that adults have when they are participating in a social engagement that is disrupted by diversions from social media, then it is reasonable to anticipate that it will have an even more significant influence on children and the connections that their minds create while they are still developing (Small GW, Moody TD, Siddarth P et al., 2009).

GOOD VS EVIL

Do not be concerned about the effects that using the internet can have on the brain, even though they may appear to be rather severe. A tool that is getting increasingly utilized, whether at work, schools, or even out in businesses such as restaurants and retail stores, technology and social media is a necessary evil. This use of technology and social media is becoming increasingly prevalent. If you are a parent and you are attempting to restrict the access that your children have to social media, it may appear to be an intimidating task, but it is actually quite simple! Children's minds are still developing, and they require continual stimulation in order to function properly. This is one of the primary reasons why children are often drawn to the distractions that the internet and social media provide. Spending time together as a family is a great way to replace the excitement that comes from using the internet. It is possible that playing cards and board games could serve as a suitable substitute for video games and involvement on social media.

According to research conducted by the Harvard School of Medicine, spending time outside can bring a number of benefits, including increased healing, improved mood, and enhanced attention, as well as the benefits of adequate exercise and vitamin D. In addition, the establishment of "tech-free zones" within the home, such as bedrooms and the dinner table, can be of assistance in managing the amount of time that is spent on social media. Although these actions may appear to be insignificant, they have the potential to have a significant influence on children as they develop into adolescents and adults. According to a number of studies, having family dinners without the interruption or distraction of electronic devices and social media can lead to a reduction in the incidence of substance addiction, sexual activity, suicide, violence, and academic difficulties in later life.

It is essential for parents to restrict the amount of time their children spend on the internet, despite the fact that this is a challenging endeavor. Additionally, we must be aware of the social media interactions that our children are participating in. An excessive amount of time spent on social media has been shown to increase the likelihood of mental health issues such as depression and anxiety, as well as attention and physical health issues, in children and teenagers.

The use of social media during school hours is detrimental to academic performance, and research has shown that individuals who spend more than two hours per day online are more likely to suffer from depression and suicidal ideation than those who spend less than two hours online. In addition, the persistent pursuit of acceptance through likes and open comment boards puts young people at a greater risk of being bullied, shamed, and subjected to peer pressure (Perrin A, Jiang J., 2018). These behaviors can result in issues related to mental health, inaccurate views of other people, and even long-term damage to personal relationships. In point of fact, females between the ages of 8 and 12 have been found to have a negative link with their social well-being, and those who have a significant presence on Facebook have been found to have a higher correlation with antisocial conduct, mania, and aggressive tendencies. Despite the fact that all of this may appear to be overwhelming and a little bit gloomy, there are also wonderful benefits to allowing children to use social media, provided that they are watched properly.

People who have access to social media can connect with their friends and family all around the world and can also provide opportunities for them to meet other people who share their interests. In addition to being a creative way of expressing oneself, it can also function as a platform that assists introverted adolescents in reaping the benefits of social networking (Perrin A, Jiang J., 2018). The internet has the potential to be entertaining, which can lead to a favorable reception inside the brain. Additionally, it has the ability to provide possibilities for real-time interactive learning due to the ease of access and abundance of new knowledge.

There is no way to stop the proliferation of social media, which is expanding into every aspect of everyday life. Because of this, it is essential to recognize the benefits that the internet offers, and it is also essential to remember to take breaks from social media and investigate the connections, interactions, and events that are occurring in your immediate environment.

Prior to the advent of search engines like Yahoo and Google, the process of looking for information required more effort. It required a lot of work to carefully develop a precise query, as well as understanding the different kinds of sources that could be used. Transportation to a library was required on a regular basis. When people had exhausted all of their efforts to locate a certain fact, they made sure to record it in some way, whether it was on paper, in their computer, or in their memories (Perrin A, Jiang J., 2018). They were aware of how difficult it would be to locate that knowledge once more. Searching for knowledge in the modern era is an entirely different experience. You make your way to the nearest technological gadget and search for the answer to your inquiry on Google. In a matter of seconds, an answer to your inquiry will be presented to you, and it will come from a wide variety of sources. There is a disagreement among cognitive scientists and psychologists over whether or not the ease with which information can be found has an effect on the way in which and the type of knowledge that is stored in the brain.

CONCLUSION

We are now doing a massive experiment that includes widespread Internet usage among the whole global population, and the results could be beneficial or bad. It is critical to undertake a more thorough investigation in order to have a more complete comprehension of the societal impacts of this usage in the long run. Standard components of national

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243097 | Volume 9, No.1 (2024): April

data projects may include measuring the frequency, duration, and types of Internet usage. Internet data collection in "biobank" evaluation protocols, for example, could help with this. This data could come from devices or self-report measurements. Researchers may be able to determine the effect of Internet use on mental health and brain function across whole populations (instead of just the small study samples used now) and account for all the potential confounding variables by integrating this with the large amounts of socio-demographic, genetic, lifestyle, and neuroimaging data collected by certain ongoing projects.

REFERENCES

Anderson M, Jiang J. (2018) Teens, social media & technology 2018. *Pew Research Center*.

Draganski B, Gaser C, Kempermann G et al. (2006) Temporal and spatial dynamics of brain structure changes during extensive learning. *J Neurosci*.

Gindrat A-D, Chytiris M, Balerna M et al. (2015) Use-dependent cortical processing from fingertips in touchscreen phone users. *Curr Biol*.

Osterhout L, Poliakov A, Inoue K et al. (2008). Second-language learning and changes in the brain. *J Neurolinguistics*.

Perrin A, Jiang J. (2018). About a quarter of US adults say they are ‘almost constantly’ online. *Pew Research Center*.

Scholz J, Klein MC, Behrens TE et al. (2009) Training induces changes in white-matter architecture. *Nature Neurosci*.

Small GW, Moody TD, Siddarth P et al. (2009) Your brain on Google: patterns of cerebral activation during internet searching. *Am J Geriatr Psychiatry*.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243099 | Volume 9, No.1 (2024): April

THE MERITS AND ETHICAL CONUNDRUMS OF PREDICTIVE POLICING

Ejup Rustemi[1], Mefail Tahiri[2]*
[1]University of Tetova, North Macedonia
[2]University of Tetova, North Macedonia
[*]ejup.rustemi@yahoo.com

ABSTRACT

A strategy known as predictive policing is the application of analytical methods, particularly quantitative methods, with the purpose of identifying potential targets for police intervention, either preventing crime or solving crimes that have already occurred through the use of statistical estimates. A number of different predictive policing strategies are currently being used by law enforcement agencies all around the United States, and a great deal of literature has been written about the effectiveness of these strategies. On the other hand, forecasting is another phrase that is used to describe the process of utilizing analytical methods to discover potential targets. For the purposes of this tutorial, we will be using the terms prediction and forecasting interchangeably, despite the fact that there is a distinction between the two.

Keywords: *policing, technology, AI, prediction, analytics.*

INTRODUCTION

When working with limited resources, the police are able to work more proactively thanks to predictive technologies. The purpose of these tactics is to accomplish the development of efficient strategies that will either deter criminal activity or make the work of investigators more efficient. On the other hand, it is essential that all levels of government comprehend that the implementation of predictive police techniques is not the same as obtaining a crystal ball. Artificial intelligence (AI) is a technology that has the potential to assist us in enhancing the criminal justice system and reducing crime. Using AI, we can evaluate data, forecast hazards, and make decisions more effectively. Artificial intelligence has the potential to spark ethical and social concerns, including privacy, fairness, and accountability.

We can use artificial intelligence to help us identify potential criminals and avert acts of violence. One example is the city of Chicago, which has built a list that is driven by artificial intelligence and categorizes individuals who have been incarcerated according to their likelihood of becoming future criminals. The parameters that are taken into consideration include age, criminal history, victimization, drug arrests, and involvement with a gang organization. Young individuals, persons who have been shot, and those who take drugs are more likely to commit crimes in the future, according to the findings of a recent study (Babuta, Oswald, 2018).

It is argued by proponents of artificial intelligence that this list enables law enforcement to concentrate on the most dangerous persons while simultaneously lowering the amount of human bias in policing and sentencing. They emphasize research that demonstrates that artificial intelligence programs can significantly reduce crime or rates of incarceration by integrating data and machine learning. This list, according to many who are opposed to artificial intelligence, is a covert and unfair system that criminalizes individuals for offenses that they have not yet committed. Those who are concerned about this list are concerned about the fact that it targets people of color disproportionately and has not assisted Chicago in reducing its murder rate. In addition, they have doubts about the accuracy and transparency of the AI systems.

The use of artificial intelligence can help us monitor and keep track of people and activities. The Chinese government, for instance, is utilizing artificial intelligence to develop a formidable surveillance system that incorporates video footage, social media activity, internet transactions, travel data, and personal identities into a "police cloud." This method assists law enforcement in locating criminals, lawbreakers, and terrorists. Facial recognition, voice recognition, and other forms of biometric data are utilized in order to ensure that individuals are matched with other information.

Automated systems obviate the necessity for human oversight. Law enforcement authorities are increasingly depending on deep learning techniques. Consequently, the tools themselves are gaining more authority, and their forecasts are often accepted without additional scrutiny (Berk, Bleich, 2013). Kate Crawford and Jason Schultz describe a phenomenon they call a "accountability gap" in their paper , "AI Systems as State Actors." Based on their research, the "accountability gap" could lead to a situation where both government and private sector personnel have limited understanding or direct participation in the specific decisions that lead to harm.

Nevertheless, Crawford and Schultz highlight that the tools may have diverse origins, such as being manufactured by contractors, developed internally by government entities, or even donated. Furthermore, due to the numerous diverse arrangements, there is a dearth of understanding regarding the appropriate party to be held responsible in the event of system failure.

This research examines the existing applications of artificial intelligence in law enforcement, specifically in the domains of Medicaid and disability benefits, public teacher evaluations, and criminal risk assessments. Columbia University just launched the project in partnership with the AI Now Institute, the Center on Race, Inequality, and the Law at the New York University School of Law, and the Electronic Frontier Foundation. The aim of this research is to analyze ongoing litigation in United States courtrooms where the government's use of algorithms had a crucial role in determining the rights and freedoms at stake in the case. During these occurrences, the researchers examined the methods by which humans utilize artificial intelligence systems. Their discoveries can be summarized as follows:

The deployment of these artificial intelligence systems lacked substantial training, assistance, or supervision, and there were no designated safeguards in place for the beneficiaries. This was partially because they were used to achieve cost reductions and standardization within a monolithic technology-procurement strategy, which often overlooks constitutional liability considerations (Bond, et. al., 2014).

Due to the biased nature of the algorithms, they specifically focused on individuals who were more likely to need assistance in order to minimize the available funds for aid. The authors noted that, like "traveling sales representatives," these automated technologies would transfer information from one location to another, utilizing it for new audiences, hence amplifying the likelihood of bias distorting the outcomes. The writers stated that the algorithmic approach, which was designed to reduce expenses without taking legal or policy issues into account, was responsible for the fundamental constitutional issues that eventually determined the outcome of the lawsuits.

The accountability gap for constitutional transgressions may expand and deepen as artificial intelligence systems rely more on deep learning, which can enhance their autonomy and opacity.

For this reason, the question arises: how do we ensure that software corporations are held accountable for their actions? Would it be appropriate for technology corporations to take responsibility for the manner in which their products are utilized when automated systems are granted complete freedom and human monitoring is rendered obsolete? About this matter, the law is still not entirely clear.

FINDING THE PROPER METHODS

Methods of predictive policing need to be used as a component of an all-encompassing plan for crime prevention in order for them to be of any help to law enforcement. In addition, in order to guarantee that predictive approaches make a major contribution, it is necessary to steer clear of the following pitfalls:

Focusing on the accuracy of predictions rather than the tactical utility of the situation is the first potential pitfall. Consider the following scenario: an analyst is tasked with providing predictions of robberies that are as "accurate" as feasible (Berk, He, Sorenson, 2005). This means that the analyst is tasked with designing an analysis in which as many future crimes as possible happen within locations that have been projected to be high-risk, so verifying that these areas are high-risk. In order to attain this goal, one approach would be to label the entire city as a massive "risk area." However, such a classification would be of little to no use in terms of military strategy. It is possible that identifying a hot spot that is the size of a city yields accurate results; nevertheless, this does not supply any information that law enforcement authorities do not already possess. We have to be willing to accept some constraints on "accuracy" as judged by the proportion of crimes that occur in the hot places they predict. This is necessary in order to guarantee that the projected hot spots are small enough to be actionable.

WHAT CAN GO WRONG?

Using data of poor quality is the second potential pitfall. In general, there are three types of defects that might have an impact on the quality of the data: data censoring, systematic bias, and relevance. During the process of data censorship, information regarding incidents of interest that occurred in specific locations (and at specific times) is omitted. When the data are suppressed, it will give the impression that there is no criminal activity in the locations in question. Because of the way the data are acquired, there is a possibility of systematic bias. As an illustration, if there is a particularly high volume of burglary activity reported between the hours of seven and eight in the morning, it might not be immediately apparent whether a significant number of burglaries actually took place during that hour or whether that was the time when property owners and managers discovered and reported burglaries that had taken place during the previous night (Carton et. al., 2016). Last but not least, relevancy is a term that describes how relevant the data are. In the case of certain crime clusters, having data that goes back a significant number of months or years can be of great use. A number of months' worth of data, on the other hand, will not be of much value if there is a string of robberies that are extremely similar to one another and are likely done by the same offender.

Misunderstanding the causes that led to the prediction is the third potential pitfall. There is a reasonable question that observers, particularly practitioners who are entrusted with eliminating hot spots, can ask: "For a specific hot spot, what factors are driving risk here?"A response such as "The computer said so" is not even close to being sufficient. In general, prediction tools are developed in a manner that makes it difficult, if not impossible, to highlight the risk factors that are present in particular regions.

However, there has been some progress made in this regard. The use of common sense to evaluate the parameters that are incorporated into the model will assist in preventing misleading associations from occurring when techniques such as regression or any of the variants of data mining are applied during the process.

Mistake number four: placing insufficient importance on rating and assessing. During the course of our interviews with practitioners, only a small percentage of them reported having conducted an evaluation of the effectiveness of the predictions they had generated or the interventions that had been planned in response to their forecasts. A comprehensive effort should be made to maintain the most recent data, and as part of that effort, the success of any analysis and treatments should be evaluated. The identification of areas that require improvement, the modification of treatments, and the distribution of resources are all dependent on measurements (Carton et. al., 2016).

The fifth potential pitfall is disregarding civil and private rights. The sheer act of designating some regions and individuals as deserving of additional attention from law enforcement organizations naturally raises problems around civil liberties and the rights to privacy. It would appear that labeling locations as "at-risk" has less challenges because, in this scenario, persons are not being targeted directly.

According to a decision made by the Supreme Court of the United States, the criteria for what constitutes reasonable suspicion are loosened in "high-crime areas" (also in other words, hot spots). On the other hand, the question of what exactly constitutes a "high-crime" area and what kinds of actions are permitted to be performed in such places under "relaxed" reasonable-suspicion norms remains unanswered.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243099 | Volume 9, No.1 (2024): April

FEARS REGARDING PREDICTIVE POLICING

Address specific places and factors that are generating crime risk Although predictive policing has garnered a lot of attention and has shown a lot of promise, there are fallacies that should be avoided and mistakes that should be avoided when adopting these approaches. A significant number of the misconceptions originate from expectations that are not realistic. For example, predictive policing has been so overhyped that the reality cannot meet the hyperbole.

The computer is able to predict the future completely. In spite of the fact that a significant amount of news coverage supports the notion that predictive policing is a "crystal ball," the algorithms that are produced determine the likelihood of future events rather than actual events. The process of finding patterns can be significantly simplified by computers, but the accuracy of their predictions is directly proportional to the quality of the data that is used to produce them.

The computer will handle everything on your behalf. However, despite having advanced software suites, humans are still required to find the relevant data, analyze and process it, conduct analyses based on evolving crime patterns, review and interpret the analysis results (while disregarding any incorrect findings), suggest interventions, and implement actions to make use of the findings and assess the effectiveness of the interventions.

You will need a model that is both robust and expensive. Indeed, most agencies do not necessitate the utilization of cutting-edge software packages or high-end equipment to implement a predictive policing service. Simple heuristics were almost as effective as analytical methods in executing certain jobs for predictive police, as evidenced by several case studies. Complex models have the potential to enhance forecast accuracy, but there is a risk that their effectiveness may diminish over time (Cino, 2017).

Predictions are exactly what they sound like. In order to achieve actual reductions in crime, it is necessary to take action based on projections. An end-to-end process includes predictive policing as one of its components. It is imperative that law enforcement agencies steer clear of the following typical problems in order to guarantee that predictive policing will reach its full potential:

Emphasizing precision over performance. While it may be accurate to label an entire city as a crime hotspot, when it comes to efficiently allocating limited police resources, such a large area is not feasible for targeted interventions due to its size.

The analysts must be willing to acknowledge and adhere to certain limitations on the accuracy, which can be measured by the percentage of total crime that is documented in the data. This is essential to identify small-scale hotspots that can be feasibly addressed by the police. Dependent on data of mediocre quality. Data censoring, systematic bias, and irrelevant data are three common examples of deficiencies in data quality. Data censoring refers to the deliberate omission of data on incidents of interest that occurred at specific locations or times. Systematic bias arises from the way data are collected, leading to biased results. Irrelevant data refers to data that are not useful for addressing the specific problem at hand (Cino, 2017).. An incorrect comprehension of the factors that led to the prediction! For the purpose of avoiding acting on spurious associations, analysts should employ common sense when selecting elements for analysis when applying techniques such as regression or data mining.

Assessing and evaluating are not given sufficient importance. When researchers from RAND conducted interviews with practitioners, they discovered that only a small percentage of respondents had examined the accuracy of the forecasts made by their respective departments. The identification of areas that could use improvement and the efficient distribution of resources are both dependent on effectiveness measurement.

This includes disregarding civil and private rights. Concerns regarding civil and private rights are raised when particular regions or individuals are designated as deserving of special attention from law enforcement. In a decision that was handed down by the Supreme Court of the United States, it was decided that the standards for reasonable suspicion are lowered in "high-crime areas." However, the definition of such an area and the steps that can be taken are still up for debate.

FINAL REMARKS

One of the most important benefits that predictive policing tools offer to law enforcement agencies who are contemplating implementing them is increased situational awareness. The capabilities that are required for small agencies that have relatively few offenses and criminal patterns that are reasonably understandable may be relatively simple. Examples of such capabilities include those that are offered by basic spreadsheets or statistical programs. It is possible that larger agencies that have higher data demands will require more complex systems that are compatible with both the systems that are already in place and those that are used in other jurisdictions.

The researchers recommend that manufacturers explain their systems as identifying crime risks rather than foretelling them. This is for the benefit of the developer. It is also important for developers to be mindful of the financial constraints that law enforcement organizations operate under when it comes to the acquisition and maintenance of new technology. Various business approaches, such as regional cost sharing, should be taken into consideration by vendors in order to make predictive systems more easily accessible to smaller organizations.

For the purpose of combating criminal activity, the researchers stress the importance of including predictive policing into the action done to prevent criminal activity. Interventions that are successful often have top-level backing, adequate resources, automated systems that provide the necessary information, and staff that are assigned with the freedom to fix crime problems while also being accountable for doing so. When combined with reliable predictive analytics, the development of intervention programs that include such characteristics can go a long way toward ensuring that the threat of criminal activity that was forecasted does not materialize into illegal activity (Babuta, Oswald, 2018).

Information plays a significant role in the field of law enforcement. In order to prevent or regulate criminal activity, law enforcement agents collect intelligence, evidence, and leads, process them, and then take action based on their findings. The ability of artificial intelligence technologies to rapidly acquire, process, and analyze large amounts of data on human behavior is what makes AI the ideal partner for law enforcement. This is because information, also known as data, about human behavior is essential for law enforcement.

The use of artificial intelligence can assist law enforcement in a variety of ways, including the detection of shoplifters' suspicious behavior, the identification and issuance of fines to online scammers, the location of stolen vehicles, the analysis of text-based evidence to identify potential intelligence, and, of course, the autonomous patrolling of roads or skies in unmanned vehicles.

In 2018, the United Nations Interregional Crime and Justice Research Institute (UNICRI) and the International Criminal Police Organization (INTERPOL) joined forces to arrange a worldwide event centered on the potential benefits and risks that artificial intelligence and robots offer to law enforcement. Several governmental agencies are currently engaged in the study of applying artificial intelligence to enhance crime prevention and control, despite the law enforcement community's limited familiarity with this relatively new idea and the existing gaps in expertise. This was exemplified throughout the conversation.

Predictive policing is the utilization of artificial intelligence (AI) in law enforcement to anticipate and forecast potential criminal activity prior to its occurrence. This is arguably one of the most fascinating and controversial implementations of artificial intelligence. Predictive policing is often seen as the ultimate solution in combating organized crime. This is because technology allows law enforcement to transcend its usual reactive response to crime and adopt a more proactive stance. Derived from the principles outlined in "The Art of War," the term "foreknowledge" can be described as the strategic advantage that allows enlightened leaders and skilled commanders to consistently triumph over their adversaries, surpassing the accomplishments of ordinary individuals (Babuta, Oswald, 2018).

Although this advanced technology is quite complex in terms of its technological aspects, it is widely recognized and featured prominently in several science fiction novels. Notably, it was depicted in the renowned film Minority Report, helmed by Steven Spielberg. The film depicts a specialized law enforcement agency that utilizes the abilities of precognitive individuals to anticipate and prevent crimes, apprehending potential offenders before they can commit their acts. The film is an adaptation of Philip K. Dick's eponymous novel, originally released in 1956. This occurrence is merely a coincidence, as it happened in the same year that John McCarthy delivered a public presentation at the Dartmouth Conference on the nascent field he termed "artificial intelligence."

Predictive police, in reality, does not employ "precogs" to ascertain the individuals likely to commit a crime, unlike the fictitious concept depicted in Minority Report. Instead, police departments utilize AI algorithms to evaluate data on the kind, location, date, and time of past crimes. This analysis enables them to generate predictions for the most probable occurrence of future crimes, including their location and nature. Subsequently, this forecast is transmitted to the police department. The law enforcement agency can enhance the efficiency of its resources by strategically deploying police personnel at the times and areas when their presence may be most necessary, utilizing this information.

CONCLUSION

Predictive policing technology has the ability to revolutionize law enforcement by enabling them to effectively combat crime for the first time in history. However, if the data that fuels this technology is influenced by bias, the risks will surpass any potential advantages. Regarding predictive policing, we are now in the initial phases of its development. However, it is becoming more and more crucial for law enforcement to tackle these concerns and ensure that the implementation of predictive policing is fair, accountable, transparent, and explainable. Moreover, individuals who will be affected by such tools should be had the chance to participate in the development and execution of these technologies. Regarding the ethical use of artificial intelligence, law enforcement presents a unique scenario as it is a group that, as some argue, may prioritize security above other concerns, such as privacy. If law enforcement can effectively exhibit ethical leadership in the implementation of artificial intelligence tools like predictive policing, it is likely that other communities will adopt similar practices..

REFERENCES

Babuta, A., Oswald, M., & Rinik, C. (2018). Machine Learning Algorithms and Police DecisionMaking: Legal, Ethical and Regulatory Challenges. Royal United Services Institute for Defence and Security Studies.

Berk, R. A., & Bleich, J. (2013). Statistical procedures for forecasting criminal behavior: A comparative assessment. Criminology & Pub.

Berk, R. A., He, Y., & Sorenson, S. B. (2005). Developing a practical forecasting screener for domestic violence incidents. Evaluation Review.

Bond, B. J., Hajjar, L., Ryan, A., & White, M. D. (2014). Lowell, Massachusetts, Smart Policing Initiative: Reducing property crime in targeted hot spots. Washington, DC: Bureau of Justice Assistance.

Carton, S., Helsby, J., Joseph, K., Mahmud, A., Park, Y., Walsh, J., & Ghani, R. (2016). Identifying police officers at risk of adverse events." In Proceedings of the 22nd ACM SIGKDD.

Cino, J. G. (2017). Deploying the Secret Police: The Use of Algorithms in the Criminal Justice System. Ga. St. UL Rev.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243101 | Volume 9, No.1 (2024): April

UNRAVELING THE EFFECTS THAT TECHNOLOGY HAS ON OUR ARTISTIC EXPRESSION

Mefail Tahiri 1 Ejup Rustemi 2*

1 University of Tetova, North Macedonia

2 University of Tetova, North Macedonia

* *mefailt@gmail.com*

ABSTRACT

Since the beginning of time, the world of art has been a fascinating reflection of civilization. The fabric of creative efforts is significantly influenced by technology in this era of digitization, which continues to play a vital role. There has been a paradigm change brought about by the proliferation of digital tools and platforms, which has dramatically altered the environment in which artists may conceive of, disseminate, and interact with their artwork. Technology has unfurled a tapestry of fresh possibilities for artistic expression, transcending borders and making art universally accessible to an ever-expanding worldwide audience. These new discoveries range from the limitless regions of digital painting to the immersive virtual reality encounters that have been made possible by technology.

Keywords: *art, technology, creativity, expression, modern.*

INTRODUCTION

Days when painting together with sculpture were limited to the realm of physical experience are far away in history. Contemporary artists fully embrace technology, using its ability to enhance their creative process and overcome the limitations imposed by traditional art forms. A digital painting offers painters a wide range of possibilities, including a diverse selection of colors, textures, and intriguing effects. Artists are presented with a diverse array of choices to select from. Alternatively, sculptors can use the capabilities of 3D printing technology to produce intricate and complex works that were previously considered unattainable using traditional human methods. The fusion of art and technology revitalizes age-old traditions, paving the way for a boundless realm of innovation.

Devoid of access to humanity's accumulated history of technological advancement, the creation of art in its current form would be utterly unattainable. This encompasses a wide range of artistic endeavors, spanning from the earliest forms of painting to the production of musical instruments and modern film (Bakhshi, Downing, Michael, Osborne, Schneider, 2017).

New kinds of art have been made possible by a wide variety of technology throughout history and modernity. These technologies include ink, paper, and glass, as well as cameras, microphones, and computers. It would be impossible to create the paintings, decorations, photography, movies, and modern digital works that are displayed in our museums and galleries if they were not present. When viewed in this manner, art raises an important question of its own:

In what ways does the advancement of technology make it possible for artistic endeavors to take on new dimensions? In addition, the opposite of this relationship is also significant, as the arts are the primary drivers of innovation and the primary generators of major demand for technology (Bakhshi, Frey, Osborne, 2015). During the course of their work, artists frequently come up with innovative methods and push the limits of their imagination in ways that can lead to the development of new technological directions. Additionally, a large need for innovation is generated by a wider range of activities in the arts, such as the preservation and restoration of historic works, the production of striking visual graphics, and the installation of immersive environments. There is also a clear indication of the demand for technology in the consumption of art, particularly in the form of audiovisual equipment and content.

A CONVERGENCE OF ART AND ADVANCED TECHNOLOGY

In this age of rapid technological growth, art and technology are coming together in ways that have never been seen before, resulting in a fascinating synthesis. Artists are able to integrate technology into their artistic endeavors in a seamless manner, successfully breaking down the walls that formerly divided the digital and physical realms. Engaging interactive artistry, inspiring projection mapping, and engaging augmented reality experiences are exceptional examples of how artists creatively harness technology to construct immersive and enthralling art forms. The borders between merely being spectators and being creators are blurred as a result of these innovative approaches, which fascinate audiences and inspire them to actively participate in the magical domain of artistic expression.

Although technological advancements open up new doors for artistic expression, they also raise concerns about the preservation of traditional art forms that are highly valued (Elgammal, Saleh, 2015). Despite the fact that the digital media is becoming increasingly popular, there is a growing possibility that traditional forms of art may be overtaken or become obscure. On the other hand, technology also offers a potentially useful solution because it makes it possible to continue the documenting and preservation of traditional art for future generations. Through the use of high-resolution digital imagery, virtual galleries, and video cutter applications that are simple to use, art aficionados now have the ability to explore and appreciate artworks from a wide range of time periods and cultural traditions. We are able to bridge the gap between the past and the present by utilizing the potential of technology. This allows us to ensure that traditional art will continue to withstand the test of time while also embracing the opportunities that the digital age presents (Elgammal, Saleh, 2015).

NEW ARTISTIC MEDIUMS WITH THE ADVENT OF THE DIGITAL AGE

As a result of the proliferation of digital technology, digital art has developed into a separate and flourishing medium that has captured the imagination of artists all over the world. Through the utilization of technology, artists are able to create digital artworks that are both spectacular and immersive, so pushing the frontiers of possible creative expression. In recent years, various forms of digital art, such as digital painting, generative art, digital photography, multimedia installations, and video art, have gained significant prominence. These mediums not only provide artists a high level of versatility, but also enable them to boldly experiment with new approaches and styles, fully embracing the limitless possibilities of the digital environment (Gatys, Ecker, Bethge, 2016).

Virtual reality (VR) has emerged as a groundbreaking platform for artistic expression, bringing forth a new era of thrilling possibilities for creative communication. Artists may generate captivating and completely immersive experiences by harnessing the potential of virtual reality (VR), which transports viewers into awe-inspiring virtual environments. Virtual reality (VR) art installations facilitate active engagement and interaction with art, beyond prior imaginative boundaries (Goodfellow, Bengio, Courville, 2017). These installations surpass the conventional limits of art. Artists are at the forefront of pushing the boundaries of narrative, spatial composition, and evoking sensory encounters due to the rapid advancements in virtual reality technology. This is revolutionizing the fundamental nature of artistic expression in the era of digital technology.

As a result of the proliferation of social media platforms, artists now have access to powerful tools that enable them to exhibit their work, achieve recognition, and establish connections with audiences all over the world. Artists are able to effortlessly exhibit their work on social media sites such as Instagram, Facebook, and Twitter, which allows them to instantly reach millions of individuals all over the world (Goodfellow, Bengio, Courville, 2017). Furthermore, social media has made it possible for artists from all over the world to work together, which has resulted in the development of a thriving sense of community and the spark that ignites the spark for creative endeavors that are both original and collaborative. When artists take advantage of the power of social media, they are able to transcend geographical barriers and start on a fascinating journey of artistic inquiry and shared inspiration.

The fact of the matter is that individuals who are creative have been able to find new ways of expressing themselves ever since the advent of technology. The major shifts, like the transition from the analogue to the digitally created expression, or to even go back further in time, the birth of Impressionism, the famous silkscreen prints of Andy Warhol, or the disturbing performance works by Stelarc would not be possible if technology and science, parallel to the creativities' road, did not push for original production and new frontiers. Creative people, like scientists, investigate different things, such as materials, people, cultures, histories, and religions; the information they discover is then transformed into something else. The well-known Leonardo da Vinci is considered to be one of the earliest figures involved with scientific inquiry (Goodfellow, Bengio, Courville, 2017). The invention of the microscope and the telescope can be attributed to the inquisitive minds of the 17th century. Nothing else has contributed to the transformation of activities such as painting, drawing, sculpting, and music more than the advent of the computer between the years 1936 and 1938. This is in addition to the examination of the eye's perception and the color theory, the birth of photography, and the moving images of Walt Disney. The result was the birth of an entirely new way of thinking about the creative production process as well as the connection between art and technology.

HISTORY FACING THE FUTURE

New media art is a term that has been around since the 1960s, and it is used to describe activities that include computer technology as an essential component of the creative process and output. As a result of placing the phrase under the expansive tent of new media, computer production, video art, computer-based installations, and eventually the Internet and Post Internet art, as well as the research of virtual reality, became recognized as creative disciplines. In the context of modern practice, the phrase alludes to the utilization of mass production as well as the manipulation of the virtual world, including its tools and programs. Many various computer applications, such as 3D modeling, Illustrator, and Photoshop, are utilized by designers and artists in order to produce commercial pieces or more sophisticated and creative works. This is the case because of the fact that these programs are utilized. The engagement of technology and science and the application of its language spread into space and many computer-based installations blend the conceptual and the new media. Many creatives who have chosen to create in the virtual arena of the Internet comment on the fusion of the virtual and the real, and they question the communication and accessibility of their works in the parallel world. This is because the constant technological developments have resulted in the formation of a freshly formed aesthetic. As a result of the revolutionary advances, a new playground was opened up, which allowed many authors to combine their various abilities and tools in order to provide us, as their audience, with a completely unique viewpoint on the present that we all share (Elgammal, Mazzone, Bingchen, Kim, Elhoseiny, 2018).

Digital art is the creation of art using technology in the presentation process to enhance art with computers, incorporating both new and traditional techniques. This results in a blending of mediums, blurring the boundaries between them. Contemporary artists currently utilize robots and algorithms to instruct machines in generating inventive visual compositions. They utilize computer programs that simulate the human mind to create distinctive artworks. Artificial Intelligence has become a sought-after partner in artistic creativity.

Artificial Intelligence (AI) is a field within computer science that develops systems capable of imitating human intelligence and simulating the functions of the human brain via the use of algorithms. Artists employ artificial intelligence as a creative instrument and cooperate with algorithms to establish precise criteria by which robots analyze numerous images in order to grasp a certain creative process, a distinct style, or an aesthetic. Subsequently, this approach might be employed to create novel creations.

Art has been revitalized by the implementation of artificial intelligence. It has beyond the lifespan of its creators and gained renewed importance in artificial environments. Art is traditionally regarded as a means of representing the era in which it was created. However, with the advent of artificial intelligence (AI), art may now also be interpreted from a science fiction standpoint, giving rise to futuristic ideas. The artistic output of artificial intelligence is contingent upon its learning process and the visual stimuli it encounters, similar to how human artistic creation relies on the artist's perception of their surroundings and existence (Elgammal, Mazzone, Bingchen, Kim, Elhoseiny, 2018). The artist assumes the role of training the AI and defining its environment and learning parameters, so rendering the AI reliant on the artist as a tool.

AI is not a substitute for human creativity; rather, it is a tool that can augment the creative process by providing inspiration and novel ideas. AI can assist artists by automating mundane and repetitive tasks, enabling them to work more efficiently and eliminating the need for time-consuming human labor. However, it can also function as a novel tool for artists to creatively investigate in distinctive and unexpected manners, such as emulating the methodologies of renowned painters from previous eras. This might be beneficial both in the inception and the refurbishment of a project. Engaging in artistic ways involves encouraging human cognition and logical thinking, especially in terms of creative ideas.

The convergence of digital and conventional methodologies has catalyzed the emergence of novel aesthetics and genres in the realm of art. Contemporary artists has the ability to seamlessly combine realistic and abstract aspects, skillfully integrate conventional artistic techniques with digital innovations, and venture into the realms of augmented reality and virtual reality. This integration has expanded the boundaries of traditional art, encouraging artists to venture into uncharted territories and challenge established norms. The integration of digital and traditional methods has also resulted in the development of interactive and immersive art encounters, enabling spectators to actively participate with the artwork and disrupting the conventional role of passive observers.

The integration of digital and traditional techniques has inaugurated a novel epoch of artistic expression, fundamentally transforming the art world. The convergence of these factors has amplified ingenuity, broadened availability, and challenged the limitations of conventional artistic expressions. Artists already possess a wide range of tools and platforms that they can use to effectively communicate, evoke emotions, and question established society standards. With the continuous advancement of technology, we can expect more innovation in the field of artistic expression. The integration of digital and traditional methods exemplifies the unwavering determination of artists and their persistent pursuit of new artistic boundaries (Elgammal, Mazzone, Bingchen, Kim, Elhoseiny, 2018).

With the ongoing advancement of technology, the outlook for the future of art appears to be increasingly thrilling and vibrant. As artificial intelligence and machine learning become more prevalent, it is possible that we will witness the emergence of novel art forms that challenge the distinction between human and machine creation. With the emergence of blockchain technology, we could witness novel ownership and distribution arrangements that empower both artists and collectors.

Furthermore, with the influence of digital technology on conventional art forms, we are observing the rise of wholly novel art forms generated through the utilization of artificial intelligence. Midjourney and similar platforms utilize machine learning algorithms to produce visually captivating artworks that push the boundaries of our perception of art. Through the utilization of extensive datasets of established art, Midjourney and other individuals are capable of generating wholly novel pieces that incorporate the stylistic and conceptual components of conventional art, while simultaneously exploring the limits of AI capabilities. The emergence of AI-generated art is not only broadening the horizons of artistic expression, but also prompting inquiries into the significance of human creativity and the concept of authorship in the era of digital technology. With the continuous advancement of AI, we can anticipate the emergence of more revolutionary artistic creations produced by machines, intensifying the fusion of human and machine creativity (Elgammal, Mazzone, Bingchen, Kim, Elhoseiny, 2018).

Considering the near future, it is certain that AI-generated art will have a progressively notable impact on the art industry. With the ongoing advancement of AI, we may anticipate the emergence of increasingly refined algorithms that possess the ability to generate artworks of greater intricacy and subtlety. In addition, it is possible that new platforms will arise that facilitate the collaboration between artists and AI systems throughout the creative process, leading to a further blurring of the distinction between human and machine creativity. With the increasing acceptance of AI-generated art, we might witness the emergence of novel ownership and distribution structures that give importance to the AI system's role in creating the artwork. The emergence of AI-generated art signifies a significant shift in the art industry, with the potential to completely reshape our perception of art and its possibilities..

CONCLUSION

The advent of the digital age has brought forward a significant transformation in the realm of creativity, as the realms of art and technology merge to determine the future of artistic representation. We are witnessing a significant shift in which traditional creative forms are using technology, while new mediums like VR, digital art and social media platforms are emerging. The advent of technology has undeniably expanded the boundaries of artistic potential, unveiling uncharted realms of perception and creativity. As technology advances, artists are ready to incorporate it into their artwork, creating meaningful and thought-provoking pieces that deeply engage with viewers. The convergence of art and technology opens up a thrilling path of discovery and limitless possibilities.

Although concerns have been raised about the potential influence of AI-generated art on the work of human artists, it is important to recognize that AI is unlikely to supplant the necessity for human creativity and artistic insight. Although AI systems are capable of producing impressive artistic creations, they are devoid of the subjective and emotional experiences that drive human creativity and result in truly innovative works of art. Furthermore, the creative process often relies on the personal and subjective nature of human artists, who utilize their distinctive experiences, perspectives, and emotions to create truly innovative works. In summary, artificial intelligence-generated art is undeniably a thrilling new avenue in the field of art. However, it is highly unlikely that it will ever supplant the role of human artists or diminish the importance of the artist's profession in the creative arena.

REFERENCES

Bakhshi, H., Downing, J. Michael A. Osborne, M. and Schneider, P. (2017). The Future of Skills: Employment in 2030. Nesta.

Bakhshi, H., Frey, C. and Osborne, M. (2015). Creativity vs Robots. The creative economy and the future of employment. Nesta.

Elgammal, A. and Saleh, B. (2015). Quantifying creativity in art networks. International conference on computational creativity.

Elgammal, A., Mazzone, M., Bingchen, L., Kim, D. and Elhoseiny, M. (2018). The Shape of Art History in the Eyes of the Machine.

Gatys, L., Ecker, A. and Bethge, M.(2016). Image Style Transfer Using Convolutional Neural Networks. Conference on Computer Vision and Pattern Recognition.

Goodfellow, I., Bengio, Y. and Courville, A. (2017). Deep Learning. MIT press.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243103 | Volume 9, No.1 (2024): April

CAN SCIENTIFIC APPROACH BE GENERALISED?

Ejup Rustemi[1*], *Mefail Tahiri*[2]
[1]*University of Tetova, North Macedonia*
[2]*University of Tetova, North Macedonia*
[*]*ejup.rustemi@yahoo.com*

ABSTRACT

When it comes to philosophy, assumptions about unification are helpful in determining the kinds of philosophical problems to pursue and the different areas of focus to investigate. In the case of fundamentalist assumptions, for instance, one is often led to discuss epistemological and metaphysical concerns in terms of solely the outcomes and interpretations of foundational levels of disciplines. Assumptions of this kind contribute to the definition of what constitutes scientific research and help form programs that are either naturalized or scientific in nature. In this sense, they decide, or at the very least strongly indicate, what scientific discourse is appropriate and authoritative in the context of philosophical debate. This paper will give an overview of how the generalisation approach can or cannot achieve what it strives to.

Keywords: *sytems, theory, approach, generalisation, scientific.*

INTRODUCTION

There have been many different arguments for adopting stances on problems of unification throughout history, ranging from the metaphysical and theological to the epistemic, sociological, and pragmatic. These justifications have been used from Greek philosophy to current disputes. Whether it is a matter of truth or consequence, perspectives on issues pertaining to unity and unification have an impact not only on the fields of science and philosophy, but also on society as a whole on account of their application. Not only do they offer robust heuristic or methodological direction, but they also provide justification for hypotheses, projects, and particular objectives in the scientific community. Various rallying cries and idioms, such as simplicity, unity, disunity, emergence, or interdisciplinarity, have acquired a normative connotation in this context.. The extent of their responsibility as evaluators is extensive. In social contexts, particularly in circumstances involving sources of finance and profit, they are utilized to establish legitimacy, even if it is only in a rhetorical sense. They are the ones who establish a benchmark for what constitutes the authority and legitimacy of what it means to be scientific. For this reason, they have a significant impact on the evaluation, management, and implementation of scientific knowledge, particularly in public domains such as the decision-making process in the healthcare and economic sectors (Greene, 2000). For example, bringing attention to the complexity of causal structures poses a challenge to the conventional deterministic or straightforward causal approaches to policy decision-making, which involve the identification of known hazards and the unknown impacts of known features. Not the least of the factors that have an impact on science education is the influence that implicit beliefs have regarding what unification is capable of doing.

When it comes down to it, it is imperative that one does not lose sight of the bigger context that is responsible for the maintenance of problems and projects in the majority of disciplines and professions. In the same way that Kant's dove is free to fly, we are also free to chase them; but, we cannot do so without the air resistance that surrounds us to flap our wings against and against our wings. It was long believed that philosophy represented the systematic unity of the various scientific disciplines. The fundamental nature of unity evolved into the specific project of philosophy, in which conceptual unity served as the benchmark for determining whether or not something is understandable. In addition, the concept of unity, which is typically portrayed as harmony, has been a benchmark of aesthetic excellence for a considerable amount of time. However, this notion has been passionately contested by individuals such as John Bailey and Iris Murdoch. We are able to meet the cognitive and practical demands that our lives place on us, as well as the cultural expectations that our self-images place on us, which are both cosmic and earthly, with the assistance of unities

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243103 | Volume 9, No.1 (2024): April

and unifications (Holman, 1983). It is unsurprising that conversations about the various interpretations and levels of unity, such as the basic level, consolidation, structure, complexity, arrangement, reduction, universality, simplicity, atomism, harmony, or entirety, can significantly and immediately impact our intellectual creativity..

THINKING INSIDE A SYSTEM

It is essential to keep in mind that the name "systems thinking" can have a variety of connotations depending on the individual understanding it. The domain of systems thinking encompasses not just a repertoire of tools and techniques, but also a fundamental philosophy that operates at a deeper level. Many inexperienced individuals are attracted to the tools, such as causal loop diagrams and management flight simulators, with the hope that these tools can help them solve ongoing problems that occur in their enterprises. However, systems thinking also encompasses an understanding of the interconnectedness and interdependence of the world we inhabit. It involves recognizing the influence of underlying structures in shaping the circumstances we face. Additionally, it acknowledges the existence of fundamental laws governing systems that may elude our awareness. Lastly, it emphasizes the importance of recognizing the repercussions of our actions, even if we are unaware of them.

Thinking about systems can also be used as a diagnostic technique. As is the case in the realm of medicine, effective treatment is preceded by a comprehensive diagnostic. When viewed in this light, systems thinking can be understood as a methodical technique that investigates issues in a more comprehensive and precise manner before taking action. Because of this, we are able to ask more insightful questions before making hasty judgments.

It is common for systems thinking to require moving from the observation of events or data to the identification of patterns of behavior across time, and then to the surfacing of the underlying structures that are responsible for those patterns and events. Increasing the number of options that are open to us and developing more gratifying, long-term solutions to chronic problems can be accomplished by gaining a knowledge of the structures that are not serving us well and making changes to those structures. This includes our mental models and perceptions (Friedman, 1994).

In general, a worldview that is based on systems thinking necessitates things like curiosity, clarity, compassion, choice, and courage. The willingness to understand a situation more completely, the recognition that we are interrelated, the acknowledgment that there are frequently multiple solutions to a problem, and the advocacy of solutions that may not be popular are all components of this approach.

In the field of inter-disciplinary research of systems in general, the general systems theory is the subject of study. The goal of the Goods and Services Tax (GST) is to investigate the principles that can be applied to the systems at any level of the systemic inquiry process.

The general theory of systems proper was first proposed by Ludwig von Bertalanffy in the year 1950. Later, in the seventies, Humberto Maturana introduced the notion of autopoiesis, which accounts for the structuring of living systems as closed networks of self-production of the components that make them. A. W. In the field of cybernetics, Ross Ashby and Norbert Wiener established a mathematical theory that is closely related to control theory. This theory is known as the mathematical theory of communication and control of systems through feedback regulation. The same decade saw the work of René Thom and E.C. In accordance with bifurcations in dynamic systems, Zeeman developed the theory of catastrophes, which is a field of mathematics that categorizes occurrences that are marked by rapid alterations in their behavior (Friedman, 1994).

Chaos theory is a mathematical theory of nonlinear dynamical systems that was first described in 1980 by David Ruelle, Edward Lorenz, Mitchell Feigenbaum, Steve Smale, and James A. Yorke. This theory describes bifurcations, unusual attractions, and chaotic motions. Complex adaptive system (CAS) is a new science of complexity that describes emergence, adaptation, and self-organization. It was proposed by John H. Holland, Murray Gell-Mann, Harold Morowitz, and W. Brian Arthur, together with ninety other individuals. A significant number of researchers at the Santa Fe Institute were the ones who initially developed it, and it is founded on computer simulations. It incorporates multiagent systems, which have emerged as an essential instrument in the field of research pertaining to social and complex systems. A lot of research is still being done in this area.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243103 | Volume 9, No.1 (2024): April

In the 20th century, the Goods and Services Tax (GST) originated as a fresh endeavor in the search for appropriate concepts and regulations for the description and interpretation of all different kinds of real or physical systems or systems. Although the GST was initially developed in the field of biology, it quickly became apparent that it had the potential to stimulate innovations in a variety of other fields, and its impact on the emergence of new fields was recognized and acknowledged. Systemics, often known as systems sciences, is a vast field that has been organized in this manner, with subfields such as cybernetics, information theory, game theory, chaos theory, and catastrophe theory. There are others, such as the most recent one, in which Biology has maintained its position as a key subject.

A parallel may be drawn between the transition from partial solutions for handling complex problems to the General Systems approach and the transition that occurred when businesses and organizations shifted their attention from individual departments to transversal processes, which were far more inclusive.

A framework for comprehending complex systems is provided by systems theories, which are a collection of principles and concepts from the field of systems theory. A wide variety of systems, including social, biological, and ecological systems, can fall under this category. Systems theory is based on the idea that different components of a system are interrelated and interdependent on one another. This is the fundamental principle of systems theory (Barker, 1995).

It indicates that complex systems are more than just the sum of their components, and that investigating the relationships between those elements can lead to a deeper understanding of the whole (Bertalanffy, 1968). This idea was proposed by Bertalanffy.

In contrast to simple, linear systems, complex systems are capable of displaying emergent features that cannot be predicted based on the behavior of individual components acting independently. Due to this, systems theorists frequently make use of interdisciplinary methodologies in order to investigate complex systems. These approaches draw from a variety of disciplines, including psychology, mathematics, physics, and sociology. Because of this, they are able to conduct an analysis of patterns of behavior and processes of regulation that are governed by feedback.

There are many other domains, including management, ecology, and social science, that can make use of systems theory in their respective applications. Researchers are able to obtain better understanding of not just the behaviors that occur at the individual level, but also those that occur at the macro and policy levels of organizations when they take a holistic approach to understanding systems.

In its most basic form, systems theory is a very useful instrument for gaining an understanding of the intricate and ever-changing systems that have an impact on our everyday lives (Bertalanffy, 1968).

The concept of feedback loops is highly significant in the field of systems theory, notably in the field of behavioral dynamics research. These loops are the recurrent flow of information that occurs between different components that are contained within a system. Positive feedback loops are a mechanism that amplifies the consequences of a specific behavior, which can result in the continuation or intensification of previously established patterns of behavior.

Negative feedback loops, on the other hand, provide the function of a regulatory mechanism, reducing the impact of behavior and fostering stability within the system. To modify behavioral patterns, it is beneficial to possess a comprehension of the mechanics of feedback loops. This comprehension can help discover opportunities for intervention, such as disrupting a positive feedback loop or strengthening a negative feedback loop..

This notion has demonstrated significant utility in fields such as social work and the investigation of mental illness and substance abuse. It offers a different method compared to conventional models that prioritize individual accountability more than bigger systems..

The field of systems theory places a strong emphasis on the interactions that occur between the various components that make up a system. This is particularly pertinent when considering behavioral systems. Individuals are reliant on one another and have an effect on the behaviors and consequences of one another within these systems. In the context of a behavioral system, the term "circularity" refers to the manner in which each component contributes to and is influenced by the others, resulting in a feedback loop that is continuous. The interplay between these factors give rise

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243103 | Volume 9, No.1 (2024): April

to patterns, and the identification of patterns can be of assistance in comprehending and forecasting behaviors and results.

Research in the social sciences frequently makes use of systems theories in order to investigate the intricate interactions that occur within behavioral systems. Social scientists are able to advance their understanding of the dynamics of human behavior by analyzing the circularity of components and the patterns that develop as a result of the interactions between those components (Lewin, 1976).

Various elements within a system, such as individuals, communities, and institutions, engage with each other and affect each other, and these theories provide a structure for comprehending how these interactions and influences take place. Social scientists employ systems theories to uncover fundamental patterns and processes that influence behavioral outcomes, thereby enhancing our comprehension of human behavior in social settings.

PROPER WAY OF INCORPORATION

The seven ideas that are presented below provide educational institution leaders with direction on how to incorporate systems theories into the operation of educational institutions such as schools and colleges. In order to improve the efficiency of educational institutions, the recommendations center on the utilization of scientific principles, the creation of systems-based methods, and the comprehension of concepts that are interconnected or interdependent.

It is possible to apply the Family Systems Theory in order to gain an understanding of the interconnection that exists between students, staff, and their families. The leaders of the school are able to make decisions that are better informed and take into consideration the wider impact on the school community when they acknowledge that a change in one component of the system affects the entire system.

Systems engineering is a field of study that focuses on the skills necessary to design and manage complex systems across their entire life cycles. It is possible for leaders to take advantage of the ideas of systems engineering in order to streamline operations, enhance efficiency, and guarantee that all components of the educational system work together without any problems.

Leaders can enhance their comprehension of the dynamic behavior of individuals in the school system by acquiring knowledge of the principles of systems psychology. This information can inform strategies that seek to enhance student engagement, boost staff morale, and improve the overall school climate.

The Social Systems Theory is a theory that may be utilized to gain an understanding of the intricate interactions that take place between various groups that are a part of the school community. A healthy school culture may be promoted and any social difficulties that may occur can be addressed with the help of this understanding by the leaders of the school.

Implementation of Science: The implementation of science to theories of systems can assist school administrators in the development of more efficient strategies for the management of their institutions. For example, this could mean applying scientific ideas in order to gain a better understanding of the intricate workings of the educational system or using data to guide decision-making.

Colleges and universities are examples of adaptive systems since they are required to change and develop in response to the environment in which they are located. Leaders must to acknowledge the dynamic character of their organizations and be ready to modify their plans as required in order to accommodate the ever-evolving requirements of their staff and pupils.

Leaders who possess knowledge of the ecological systems theory can effectively perceive the interrelated concepts that influence a student's development. This data can be utilized to shape policies and strategies that promote the comprehensive growth of students, while considering many impacts that extend from the classroom to the broader community..

In conclusion, systems theories provide a complete framework for understanding the complex dynamics of a variety of systems, including social and behavioral systems, organizational and educational systems, and other types of systems.

When we acknowledge the interdependence and interconnection of the numerous components that make up a system, we are able to acquire a more profound comprehension of the system collectively. This method has the potential to inform effective treatments and tactics in a variety of domains, including those pertaining to management and education, as well as psychology and social work.

New understandings and developments in these areas are something that we can anticipate as we go with our investigation and application of ideas pertaining to systems.

The belief that communication has a role in designing and maintaining a system is what led to the rise in popularity of systems theory as a communication theory. It is impossible for a system to maintain homeostasis if it does not have communication since the feedback loop or channel will not be operating as it should otherwise. In order to maintain the optimal functioning of an interpersonal system, communication is the most important factor. One of the most important roles that systems theory plays in communication theories is that it assists in the development of methods for effective communication. These strategies can be used to individual communication, group communication, or intercultural communication. When it comes to communication, we are always speaking with people who are a part of at least one system, and we are always communicating as someone who is a part of at least one system. We will be able to communicate more effectively once we have a better understanding of our contribution to the system as well as the ways in which our choices and actions influence the other systems in which we are involved. When someone becomes isolated within a system, the ways by which we are able to effectively interact with them are severely decreased. This is due to the fact that we are potentially addressing a symptom rather than treating the underlying problem.

CONCLUSION

A greater understanding of where a problem is located within an individual's life, within a group, or within an organization can be gained through the application of systems theory in communication. We frequently find ourselves chasing ghosts of problems when this principle is not put into practice because we never properly identify the issue. This is because we never really know what the problem is. The application of systems theory not only enables us to examine a problem more closely, but it also assists us in determining the reasons behind the existence of the problem. You and I would never be able to fully recover from a sickness if medical professionals were only able to treat the symptoms of patients and never the disease itself. We can become more effective communicators if we are able to identify not only the problem itself but also the factors that are contributing to the problem. Systems theory enables us to become more successful communicators because it broadens our perspective to encompass the entire situation, allowing us to shift from a more limited perspective on a problem to a more comprehensive one. When it comes to interpersonal communication, this approach offers a more comprehensive perspective.

REFERENCES AND BIBLIOGRAPHY

Anderson, R. E., Carter, I., & Lowe, G. R. (1999). Human behavior in the social environment (5th ed.). New York: Aldine de Gruyter.

Barker, R. L. (1995). The social work dictionary. Washington, DC: NASW Press.

Bateson, G. (1972). Steps to an ecology of mind. San Francisco: Chandler.

Bateson, G., Jackson, D. D., Haley, J., & Weakland, J. (1956). Toward a theory of schizophrenia. Behavioral Science.

Bertalanffy, L. von. (1968). General system theory: Foundation, development, application. New York: George Braziller.

Bowen, M. (1978). Family therapy in clinical practice. Northvale, NJ: Jason Aronson.

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press.

Dale, O., Smith, R., Chess, W. A., & Norlin, J. M. (2006). Human behavior in the social environment: A social systems model. Boston: Allyn & Bacon.

Friedman, B. D. (1994). No place like home: A study of two homeless shelters. Ann Arbor, MI: University Microfilms International.

Greene, R. R. (2000). Human behavior theory and social work practice (2nd ed.). Edison, NJ: Aldine Transactions.

Hearn, G. (1958). Theory-building in social work. Toronto, Ontario, Canada: University of Toronto Press.

Holman, A. M. (1983). Family assessment: Tools for understanding and intervention. Beverly Hills, CA: Sage.

Lewin, K. (1976). Field theory as human science. New York: Gardner Press.

Luhmann, N. (1995). Social systems. Stanford, CA: Stanford University Press.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM) DOI: 10.33807/monte.20243105
Volume 9, No.1 (2024): April

CHALLENGES AND THE IMPACT OF FOREIGN INVESTMENTS ON ECONOMIC DEVELOPMENT: EVIDENCE FROM SOUTHEAST EUROPEAN ECONOMIES

MSc. Milaim Mehmeti, PhD(s)[1]

[1] University "Isa Boletini" - Mitrovica, Faculty of Economics, Kosovo

Email: milaim.mehmeti@umib.net

Abstract

The main aim of this research is to assess the challenges and implications of foreign direct investment (FDI) on GDP growth in Southeast European countries (SEE) (Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro, and Serbia). Documents from various sources comprising official reports, scientific articles, and statistics of international institutions were employed to support this analysis. Specifically, panel data used as a secondary source, respectively from the World Bank, were extracted and then processed according to the required format. Panel data includes the period 2010-2022, which in total are 78 observation periods. The Generalized Method of Moments (GMM) is an econometric approach employed for analyzing whether FDI and various additional variables affect GDP growth. The GDP growth is specified as a dependent variable, while the independent variables are FDI, personal remittances (PR), and gross savings (GS). The econometric outcomes discovered that FDI and gross savings have a significant impact on economic growth for SEE, whereas personal remittances have turned out to have an insignificant positive effect. These discoveries can serve in some spheres, starting as a guide to identify the importance of each factor included in the research and the undertaking of concrete measures that can influence the improvement or redesign of policies. Likewise, it aims to provide a solid basis for opening discussions between scholars, students, and policy-making bodies.

Keywords

Impact, GDP growth, foreign direct investment (FDI), remittances, gross savings.

Introduction

Foreign direct investments have had different impacts on the GDP growth of South-Eastern European countries. One of the biggest impacts is the growth of the private sector and the creation of new jobs. FDI has brought new technologies, advanced management, and growth productivity. This has improved competition and helped integrate the local market into the global market. As well, foreign investments have helped in the evolution of certain economic sectors, improving the infrastructure and industrial capacities, depending on the stimulating policies of the state receiving the investments. According to, Moura & Forte (2013, p. 58) who researched the association between FDI and economic growth in some developing and developed countries argued that the effect of FDI depends on the internal situation of the host country.

One of the main factors related to the growth in the level of FDI is the improvement of international business cooperation and economic cooperation between countries. The decisions of developing states to articulate and implement policies that boost the attraction of FDI through the engagement of private capital in the economy are an expression of their strong orientation towards macroeconomic advancement. Another research done by KASTRATI (2013, p. 5) on the same topic, found that although FDI in general has a positive effect on GDP growth, they are not all good or all bad in the meantime the possible negative effect may exist.

The infusion of FDI in these countries has presented opportunities and challenges, shaping the path of their economic development. One of the main challenges is related to the structure of local economies, which may still be at an early stage of development. FDI, meanwhile, can bring challenges in managing risks and adapting to the demands of the international market. In addition, lack of transparency, political instability, and security issues are other challenges that make investors feel insecure about their investments. Policymakers as well as researchers frequently contend that obtaining FDI would help underdeveloped countries' GDP growth faster by giving local businesses access to capital and the advantageous externalities that correspond with increased productivity (Alfaro & Johnson, 2012).

Based on the discussions specified above, the research aims to examine how FDI, PR, and GS influence GDP growth. Starting from this, the research has presented the research question "What impact do FDI, PR, and GS have on the economies included in the analysis". The verification of the research question will be concluded based on the results of the GMM approach, in reality, the expectation is that all variables should have a significant positive effect.

The research is designed in several segments, starting with the introduction, literature review, methodology, and data processing, and finally, the discussions and conclusions of the research are reflected.

Literature Review

Foreign direct investment and its impact on economic growth has been an important and often attractive topic for consideration in the economy of Southeast Europe. This region has experienced great changes in the field of finance and economic development in recent years. The challenges and impact of FDI in this context have been part of an in-depth analysis by economists and researchers, shedding light on the advantages and challenges that accompany this process. Global companies (MNCs) perform a significant portion of the FDI in these countries. Both of these are marketed as possible drivers of continued development and are key parts of FDI. Abor & Harvey (2008) have examined according to the Stolper-Samuelson proposal the effect of FDI flows in countries that have comparative advantages in labor-intensive divisions. The results of the investigation demonstrated that foreign direct investment (FDI) inflows had a positive effect on employment by raising average incomes, which subsequently in turn lowers poverty rates. The dynamics of globalization, together with aspirations for integration into European and global markets, have led these countries to actively seek foreign investment as an accelerant for development. The overall hypothesis of the literature that observes the connection between FDI-s and economic growth and how they influence poverty improvement is that economic growth is an instrument to moderate poverty but its results can vary from country to country and its effectiveness can differ (Hanim, 2021).

However, attracting FDI has its own complexities that manifest in issues such as regulatory frameworks, political stability, and the ability to leverage foreign capital for inclusive growth. Sethi, Guisinger, Phelan, & Berg (2003, p. 34) advocate that multinational enterprise activity is higher in countries where the number of determinants that attract FDI inflow outweighs the number of determinants that discourage it.

On the other hand, according to Topalli, Papavangjeli, Ivanaj, & Ferra (2021), the countries of Southeast Europe began to attract FDI after the start of the process of privatization of state enterprises, where in the framework of these investments from foreigners, various economic sectors are included, such as the real estate sector, construction, and the financial sector, followed by from the transport and telecommunication sectors.

In addition to FDI, remittances or money transfers sent by immigrants to their countries of origin have a considerable impact on the economies of recipient nations of remittances. However, they are mainly oriented towards assistance to cover the needs of the family and to improve the level of consumption, respectively the reduction of poverty. This contributes to the growth of domestic demand, stimulating the economy through the distribution of money at the local level. Further, Mallick (2008) argued that if remittances are mainly spent on private consumption, then these represent a low impact on growth.

However, it is important to mention that remittances are not a long-term solution to economic challenges. Moreover, this can create a high level of dependence on these transactions and make it difficult to develop other economic sectors. To achieve long-term economic development, countries such as those in the Western Balkans must focus on diversifying the economy, improving infrastructure, increasing productivity sectors, and developing internal markets. In addition, Williams (2017, pp. 1-6) claimed that the positive effect of remittances on growth depends on the level of democracy in developing countries.

Southeastern European countries compete to attract FDI, which is a vital source of capital, given the large lack of domestic savings in these countries and the economic challenges they face. Saving or keeping a certain amount of money or assets instead of immediate spending can have a significant impact on the GDP growth of Southeast European countries. Some ways in which savings can affect the economic growth of these states are: if that money is kept in banks or invested, it affects the increase in the capacity of financial institutions to grant loans and support economic activity.

Similarly, the growth of personal investments, which include investments in the property market, shares, or other constructions can help create wealth and increase capital. According to Aghion, Comin, & Howitt (2006), average saving is related to FDI and equipment import intensity, especially in poor countries where both FDI and equipment imports enter positively and significantly in the panel growth regressions.

The increase in the standard of living and the improvement of the economic and geopolitical conditions, have been accompanied by other factors such as the liberalization of trade between countries, the free circulation of services, goods, and capital, the genuine processes of privatization, the improvement of the climate of doing business, as well as deeper economic ties with the EU, were the main reasons behind the increase in FDI.

However, saving in a country's economy is complex and influenced by many factors including domestic economic policies and changes in the international situation. Therefore, saving alone cannot constitute a sustainable model of economic development, but it can be an important element in this process.

On the one hand, the effects of gross savings can have different impacts depending on economic situations as well as fiscal and monetary policies, and some other factors. In difficult economic times, individuals and businesses tend to increase savings more due to uncertainty and the need for financial reserves, but this can affect demand and have adverse effects on economic growth. Furthermore, according to Rasmidatta (2011) more savings, especially in developing countries, will be followed by less consumption, but in a greater amount of capital investment and ultimately a higher rate of economic growth.

Methodology and results

The quantitative approach that is used is the Generalized Method of Moments as a dynamic approach, as more outcomes are dependable. This approach, grounded in an analysis of numerous empirical studies, is deemed suitable and yields sustainable outcomes, given that the utilized data are acknowledged dynamic. Therefore, first, in the framework of the quantitative analysis, some general statistics are presented, starting from the descriptive statistics. These statistics will provide general evidence of the movements of the variables starting from the mean value, minimum, maximum, and standard deviation. Then, continuing is the correlation analysis, to identify the relationship between the dependent and independent variables.

More specifically, this analysis will also serve to identify if the applied data has a problem with multicollinearity since the dynamic data has such a tendency. Also, the analysis performs the Fisher test for the stationarity of the data as a necessary step to identify if the data has a unit root. Then, this test will examine the data if they are integrated within the first level - first order I(1). Finally, the GMM approach is applied, as well as the diagnostic tests AR1 and the Sargan test for fitting the instruments within the model.

The general formula according to GMM is:

$$\mathbf{Y_{it} = \sum Y_{i,t-1} + X'_{i,t}\beta + \alpha_i + \varepsilon_{i,t}}$$

Meanwhile, substituting our concrete variables in the formula, we will obtain the following equation in the first difference:

$$\Delta \mathbf{GDP\ growth}_{\mathbf{i,t}} = \boldsymbol{\varphi} + \boldsymbol{\mu}\left(\Delta \mathbf{GDP\ Growth}_{\mathbf{i,t-1}}\right) + \boldsymbol{\beta}_{\mathbf{1}}\left(\Delta \mathbf{Foreign\ Direct\ Investment}_{\mathbf{i,t}}\right) + \boldsymbol{\beta}_{\mathbf{2}}\left(\Delta \mathbf{Remittances}_{\mathbf{i,t}}\right) + \boldsymbol{\beta}_{\mathbf{3}}\left(\Delta \mathbf{Gross\ Savings}_{\mathbf{i,t}}\right) + \Delta \boldsymbol{\alpha}_{\mathbf{i,t}} + \Delta \boldsymbol{\varepsilon}_{\mathbf{i,t}}$$

Where: GDP $\text{growth}_{i,t}$ - symbolize the dependent variable, β_1 to β_3- symbolizes the parameters used in the estimation, i - symbolizes the individual effects in the context of the economies, t - the period 2010-2022, α_i- symbolize unobserved captures of country-specific issues, and ε_{it}- symbolizes the expected error.

In this part of the research, the results will be discussed starting from the descriptive statistics.

Table 1. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
GDP Growth	78	2.734	3.662	-15.310	13.040
FDI	78	6.295	3.686	.060	18.300
PR	78	10.155	3.989	2.810	18.837
GS	78	18.623	7.543	1.170	32.720

Source: Author's calculations

All variables are expressed in percentages. Based on the results generated by the statistical model used, from 78 observations, the GDP Growth showed an average value of 2.73 percent, with a standard deviation of 3.66 percent, while the maximum value reached is 13.04 percent and the minimum value is -15.31 percent. The maximum value reached was in 2021 at 13.04% in Montenegro, while the minimum value was -15.31% also in Montenegro in 2020.

Foreign Direct Investment from 78 observations has an average value of 6.29% and, a standard deviation of 3.69%, while the minimum value is 0.06% and the maximum value is 18.30%. The minimum value was 0.06 in 2020 in North Macedonia, while the maximum value was 18.3 in Montenegro in 2010. Regarding the other variable, the personal remittances have an average value of 10.16, a standard deviation of 3.99%, a minimum value of 2.81 percent and a maximum value of 18.84 percent. The minimum value was 2.81 in North Macedonia in 2019, while the maximum in Kosovo in 2010. The Gross savings have an average value of 18.62 with a standard deviation of 7.54%, while the minimum value is 1.17 and the maximum value is 32.72. The minimum value is 1.17 in Montenegro, while the maximum was 32.72 in North Macedonia in 2018.

Table 2. Correlation analysis

	GDP Growth	FDI	PR	GS
GDP Growth	1.000			
FDI	0.074	1.000		
PR	0.151	0.243	1.000	
GS	0.257	-0.427	-0.215	1.000

Source: Author's calculations

Correlation analysis is employed to examine the association between the dependent variable, GDP Growth, and various independent variables. The findings suggest a positive correlation between GDP Growth and all independent variables. Detailed correlations are presented in Table 2, revealing a full correlation of 0.257 between GDP growth and GS. Additionally, the analysis indicates a moderate correlation between GDP growth and PS. Furthermore, there exists a low positive correlation between FDI and GDP growth, as per the results.

Among other things, this analysis is used to evaluate if the data have any problems with diversity (multicollinearity). From the result, we see that the coefficient does not have a value ≥ 0.75. Gujarati (2004) has underlined that if any coefficient has a value ≥ 0.75, then we have problems with the diversity of variables. Moreover, Nguyen (2020) offered mathematical and statistical arguments that show that a multicollinearity problem can lead to an unstable final result if the data from this analysis have a coefficient β ≥ 0.8.

Table 3. Levin-Lin-Chu and Pedroni test

Variables	GDP Growth	FDI	PR	GS
At level				
Statistic	-3.8503	-3.4746	-1.7910	-0.9727
ρ - value	0.0001	.0003	0.0366	0.1654
At first difference				
Statistic	-3.4422	-5.1251	-3.3163	-5.7499
ρ - value	.0003	0.0000	0.0005	0.0000
Kao test			*Statistic*	*ρ - value*
	Modified Dickey-Fuller t		-1.9749	0.0241
	Dickey-Fuller t		-5.9503	0.0000
	Augmented Dickey-Fuller t		-1.4355	0.0756
	Unadjusted modified Dickey-Fuller t		-8.4757	0.0000
	Unadjusted Dickey-Fuller t		-8.7746	0.0000

Source: Author's calculations

Finally, proceeding further to verify the data, we performed the Kao test, to analyze if each observation is properly integrated, and also to identify if there is a long-term correlation between GDP growth and other variables included in the research. Based on the value of the Kao test, the results give us indications that the data have been adequately integrated since the p-value is significant. This discovery shows us that the data included in the analysis have a relationship in the long term.

Table 4. Regression analysis-Arellano-Bover/Blundell Bond Estimation – GMM

	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
GDP Growth	-0.3438	0.0786	-4.37	0.000	-.4978	-.1897
FDI	0.4090	0.1872	2.18	0.029	.0421	.7760
PR	0.2811	0.2837	0.99	0.322	-.2750	.8373
GS	0.3979	0.0862	4.61	0.000	.2289	.5671
_cons	-9.2691	3.5591	-2.60	0.009	-16.2448	-2.2933
Wald chi2(4)			47.090	0.000		
Sargan test			68.922	0.227		
Obs						78

Source: Author's calculations

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM) DOI: 10.33807/monte.20243105
Volume 9, No.1 (2024): April

FDI, predicated on the results of the GMM model, respectively (β= 0.409; p=0.029), consists that the support of FDI positively affects GDP Growth. This conclusion is based on the confidence interval of 99.9%. In a study done by Zekarias (2016) on the impact of FDI on GDP growth with panel data, he confirmed a significant positive relationship between FDI and GDP growth in the long term.

Personal remittances, based on the results of the GMM model, respectively (β=0.281; p=0.322), consist that PR has positively affected GDP Growth, but in statistical terms, it turned out to be insignificant. According to Rao & Hssan (2011) who made a panel analysis of 40 countries, found that the effects of remittances on economic growth are insignificant.

Gross savings, predicated on the results of the GMM model, respectively (β=0.397; p=0.000), consist that GS positively affects GDP Growth. This conclusion is based on a confidence interval of 99.9%. The conclusions of our analysis also agree with the results of the study by Bayar (2014), the results of their research show a positive relationship between GDS and GDP Growth. Since $p \leq 0.05$, then the model is correctly defined and the instruments are adequately fitted.

Conclusions

The challenges and ramifications of foreign investments in economic development stand as significant subjects garnering the focus of policymakers, economists, and researchers in the Southeast European region. Challenges characterized by political instability, corruption, and security issues make investors feel insecure about their investments.

Nevertheless, from the study, we have observed that foreign investments have brought progress in several sectors, including the progress of the business sector, the modernization of technology, and the progress in employment. In this way, to achieve economic growth, the countries of Southeast Europe must address their challenges to improve the investment climate, taking steps to overcome these challenges.

In the framework of this research, we analyzed theoretically and empirically some of the factors that can influence GDP growth with the dependent variable: GDP growth (annual percentage growth), and the independent variables: foreign direct investment (FDI) as a percentage of GDP, remittances as a percentage of GDP and gross savings, covering the period 2010-2022. Based on the results of our research, it is concluded that FDI has a positive effect on GDP growth, a conclusion that is based on a confidence interval of 99.9%. Personal remittances, based on the results of our research consist of having a positive effect on GDP growth, but in statistical terms, it turned out to be insignificant.

Also, gross savings based on our results consist of having a positive impact on GDP growth, with a confidence interval of 99.9%.

As a general conclusion of this study, it turns out that other studies are needed in this field, including other potential factors that can have an impact on GDP growth. Correspondingly, in these countries, respectively, the decision-making authorities should take appropriate actions to overcome the challenges and implement sustainable policies that would affect economic growth, respectively, in attracting foreign investments.

Also, regional cooperation and the implementation of sustainable policies can be essential in this process, despite the challenges, foreign investments have the potential to contribute to the advancement of the economic structure of SEE countries.

References

Abor, J., & Harvey, S. K. (2008). Foreign direct investment and employment: host country experience. *Macroeconomics and Finance in Emerging Market Economies*, 1, 213-225.

Aghion, P., Comin, D., & Howitt, P. (2006). WHEN DOES DOMESTIC SAVING MATTER FOR ECONOMIC GROWTH? *NATIONAL BUREAU OF ECONOMIC RESEARCH, NBER Working Paper No. 12275*.

Alfaro, L., & Johnson, S. M. (2012). Foreign Direct Investment and Growth: The Evidence and Impact of Financial Globalization. *Harvard Business School*.

Bayar, Y. (2014). SAVINGS, FOREIGN DIRECT INVESTMENT INFLOWS AND ECONOMIC GROWTH IN EMERGING ASIAN ECONOMIES. *Asian Economic and Financial Review*.

Bucevska, V. (2022). IMPACT OF REMITTANCES ON ECONOMIC GROWTH: EMPIRICAL EVIDENCE FROM SOUTH-EAST EUROPEAN COUNTRIES. *Southeast European Journal of Economics and Business*, 85.

Gujarati, D. N. (2004). *Basic Econometrics, 4th Edition.* New York, NY. The USA.: McGraw-Hill Companies.

Hanim, W. (2021). How Does Foreign Direct Investment (FDI) Reduce Poverty? Application of the Triangular Hypothesis for the Indonesian Case. *Review of Integrative Business and Economics Research, Vol. 10, Supplementary Issue 1*.

KARAGÖZ, K. (2009). WORKERS' REMITTANCES AND ECONOMIC GROWTH: EVIDENCE FROM TURKEY. *Journal of Yasar University, 4(13), 1891-1908*.

KASTRATI, S. K. (2013). The Effects of Foreign Direct Investments on Host Country's Economy. *European Journal of Interdisciplinary Studies*.

Mallick, H. (2008). Do Remittances Impact the Economy? Some Empirical Evidence from A Developing Economy. *Centre for Development Studies, Trivendrum Working Papers 407*.

Moura, R., & Forte, R. (2013). The effects of foreign direct investment on the host country. *Submitted to the 11th ETSG Annual Conference.* Porto: The Singapore Economic Review.

Nguyen, C. V. (2020). Impact of Exchange Rate Shocks, Inward FDI and Import on Export Performance: A Cointegration Analysis. *The Journal of Asian Finance, Economics, and Business*.

Rasmidatta, P. (2011). THE RELATIONSHIP BETWEEN DOMESTIC SAVING AND ECONOMIC GROWTH AND CONVERGENCE HYPOTHESIS: CASE STUDY OF THAILAND.

Sethi, D., Guisinger, S., Phelan, S., & Berg, D. (2003). Trends in foreign direct investment flows: a theoretical and empirical analysis. *Journal of International Business Studies*, 34(4).

Topalli, M., Papavangjeli, M., Ivanaj, S., & Ferra, B. (2021). The Impact of Foreign Direct Investments on Poverty Reduction in the Western Balkans.

Turan , G., & Gjergji, O. (2014). What is the Impact of Savings on Growth? The Case of a Small Open Economy (Albania). *Mediterranean Journal of Social Sciences*.

Williams, K. (2017). Are remittances good for economic growth? The role of political institutions. *Applied Economic Letters*, 1-6.

Zekarias, S. M. (2016). The Impact of Foreign Direct Investment (FDI) on Economic Growth in Eastern Africa: Evidence from Panel Data Analysis. *Applied Economics and Finance*.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243107 | Volume 9, No.1 (2024): April

THE INFLUENCE OF COMMUNICATION AS AN INTERNAL MARKETING TOOL ON THE SATISFACTION OF EMPLOYEES IN THE HOTEL INDUSTRY OF MONTENEGRO

Mr Klara Đurović
University Mediterranean, Montenegro

ABSTRACT

The goal of this research is to establish the impact of communication as an internal marketing tool on job satisfaction in the hotel industry of Montenegro. The sample in this research is random and consists of 61 respondents, ie employees, in the hotel sector, who live and work in all three regions of Montenegro. The data collection technique, which was used in this research, is a questionnaire that contains socio-demographic questions as well as questions related to the quality of communication, questions related to material and non-material rewards as well as a scale that measures the level of job satisfaction.

The research indicated that the quality of internal communication, as an instrument of internal marketing, does not significantly affect job satisfaction in the hotel industry, Montenegro. Also, this research indicated that job satisfaction is related to receiving material rewards, as well as that the size of the salary is related to job satisfaction, among employees in the hotel industry, in Montenegro.

Keywords: *sample, internal communication, hotel indistry, job satisfaction, material rewards, monthly compensation.*

INTRODUCTION

With numerous contributions and the development of science and technology, there was a need to improve the business of companies in order to be competitive on the market.[1] Therefore, internal marketing is starting to develop as one of the ways in the fight for the competitive advantage of companies within companies.[2] This work was created as a result of the previous work and interest of the author in the field of internal marketing. In addition to being a current topic, internal marketing has an undeniably important role in organizations, and it also has the possibility of additional development. The aim of this paper is to examine the impact of communication as an internal marketing tool on the satisfaction of employees in the hotel industry, that is, whether internal communication significantly affects the level of job satisfaction among employees in the hotel industry in Montenegro. The purpose of writing the paper and research is to gain insight into the quality of communication in the hotel industry in order to improve it. If the staff is not satisfied with their work, they will transfer their dissatisfaction to the users, i.e. to the consumers, and the work tasks committed by the employees will not be fulfilled. There are two opposite extremes that arise as a problem of internal communication, namely a lack of information and too much information, which also represents a research problem as well as the fact that the dissatisfaction felt by employees is transferred to consumers. The structure of the work follows the funnel method; from general to more detailed. In the first part of the paper, the goal and subject of the research are presented, as well as the explanation of the content of the paper. In the first part of the paper, the author refers to previous research and theories related to the topic of this paper. The second part of the paper refers to

[1]Stanković, Lj., Đukić, S., *Marketing*, Ekonomski fakultet, Niš, 2009, str. 14.
[2] Knežević, M., Škorić, J., Mijatov, M.:Značaj intturizma i hotelijerstva, *Marketing*, Vol. 51, No.2, 2020, str. 131-140.

the methodology, that is, it describes the questionnaire technique and the sample that makes up the research. Based on the processing and analysis of the results of this research, it is possible to understand internal communication from the aspect of employee satisfaction in the hotel sector, in all three regions of Montenegro. The main hypothesis, which directs the research, is that good internal communication, as an instrument of internal marketing, significantly affects employee satisfaction in the hotel industry in Montenegro. After testing the hypothesis/s, the implications of the research follow. The third part of the paper deals with the perspectives of the application of internal communication in achieving employee satisfaction in the hotel industry. Then, the most significant conclusions of the research are presented. After the conclusion, the relevant literature that was used to write the paper itself was presented.

1. The role of internal marketing in the satisfaction of employees in the hotel industry

1.1 The concept of internal marketing

Internal marketing is defined as part of the holistic management of many functions in the company.[3] Employees at all levels are ensured to understand and experience the company's operations and all activities that encourage awareness of the importance of consumers. All employees are motivated and prepared for customer-oriented behavior. Internal marketing is a philosophy that focuses on and coordinates activities, including both internal and external relations, a network of interaction and cooperation - examining all activities used to satisfy consumer needs. The primary goal of internal marketing is that through employee job satisfaction and their commitment to the organization, they contribute to better performance, which positively affects the quality of the organization's services, which leads to consumer/client satisfaction. In order to achieve the stated goal, it is necessary for internal marketing to be moderated by quality two-way communication between employees and management. One of the key tasks of a manager is certainly encouraging employee loyalty and their effective retention.[4]

1.2 Elements of the internal marketing mix

The basic tool of company management, in the process of satisfying or motivating employees, and in order to achieve the best possible quality of service, consists of elements of the marketing mix, namely: strategic rewards, internal communication, internal coordination, education and training of employees, organizational structure, senior management, physical environment, selection of future employees, motivation system, strengthening, process changes.[5]Each of the mentioned elements of internal marketing is subject to control, and is also related to the performance of the organization. However, it is necessary to apply them correctly so that the desired results are not missing. Market orientation and employee satisfaction are also presented as instruments that mediate between the internal marketing mix and organizational performance.[6]Although the focus of internal marketing is on relationships within the company, or in this case the hotel industry, it is impossible to observe it in isolation from the external environment, because external factors affect the internal environment.[7] The internal marketing mix implies a combination of certain elements that are used to achieve organizational goals and satisfy the needs and desires of customers. The product of the internal marketing mix consists of: jobs, the environment in which the jobs take place

---

[3] Isto, str. 131-140.
[4] Štekl, R., Katavić, I., Vukić, D.:Uticaj interne komunikacije na zadovoljstvo zaposlenika na primjeru odbrane gradske uprave. *Obrazovanje za preduzetništvo,* Vol.12, No.1, 2022, str. 144-166.
[5] Milanović, V., Matić, A., Juričić, A.:Uticaj zelene interne komunikacije na zadovoljstvo zaposlenih, *Journal of Economics, Managament, and Informatics,* Vol.13, No.2, 2020, str. 83-90.
[6] Isto str. 83-90.
[7] Milanović, T., Cvijanović J., Lazić, J.:Organizaciona kultura i promene, *Industrija,* Vol.1, No.3, 2010, str. 59-77.

the authority, rights and responsibilities of the employee, the resources that the employees have at their disposal, shaping processes within the organization, operational aspects.[8]

1.3 Internal marketing activities

Developing criteria for choosing an internal marketing strategy includes three phases: creating a business environment that improves employee safety, designing the organizational structure and lines of communication, as well as a clear vision of the internal organization by top management.[9] The development of team spirit is of particular importance, because it creates a sense of unity and belonging to the group or the company where the employees work. By educating staff, certain skills and knowledge are acquired, performance is significantly better, education reduces the possibility of bad business and enables employees to be more prepared for changes that are inevitable in an age characterized by rapid changes. The use of technology is important because it achieves the set goals. Given that the work motivation of employees affects their productivity, one of the tasks of management is to control the motivation of employees to achieve organizational goals. Motivation can be achieved through material and non-material rewards. Managers play a crucial role in motivating employees, so it is very important for managers to be able to analyze the environment in which employees find themselves, but also to be emotionally intelligent enough to feel their employees and to know the right way to motivate different people, i.e. employees to work.[10]

1.4 The impact of internal communication on employee satisfaction

Understanding the issue of job satisfaction is also essential for designing the workplace, organizational culture and climate, reward system, advancement system, as well as leadership style, and measuring job satisfaction is also a key condition for achieving quality success goals and the path to business excellence.[11] Internal communication is expected to be effective. Effective internal communication encourages and improves performance and employee satisfaction, and increases consumer satisfaction.[12] Good internal communication makes it possible to achieve a competitive advantage. Internal communication means communication between higher and lower management positions, managers and employees, as well as between the employees themselves.[13] The results of the research on the impact of internal communication on employee job satisfaction conducted by Bolfek et al indicate that employees often lack feedback on the work performed. The results of research conducted earlier on this topic indicate that job satisfaction is influenced by feedback about one's personal success. The communication climate as a dimension is to the greatest extent related to overall job satisfaction and the communication climate was in the first place as a significant factor in the connection between job satisfaction and internal communication.[14] The problem in companies, as research has shown so far, is the amount of information to which employees are exposed on a daily basis, sometimes employees do not have feedback on their work, and sometimes they are exposed to too much information.[15] The results of previous research indicate that personal feedback is the strongest predictor of satisfaction with the nature of work.[16]The research that was conducted indicates that one of the key problems related to internal communication is imprecisely and vaguely

---

[8] Milanović, V., Radičević, T.:Odnosi između zadovoljstva komunikacijom, zadovoljstva poslom i postignuća na poslu – pregled važnijih empirijskih istraživanja od 1970. godine, *CM:Communication and Media*, Vol.14, No.46, 2019, str. 89-118.
[9]Milanović,V., Radičević, T., Odnos između zadovoljstva poslom i postignuća na poslu-pregled empirijskih istraživanja od 1970. godine..., op.cit. str. 89-118.

[10] Vrnašević, T.,*Upravljanje zadovoljstvom klijenata*, Golden marketing, Zagreb, 2000, str. 96.
[11] Tanasijević, Z.:Zadovoljstvo poslom- ključni pokazatelj motivacije zaposlenih, *Sociološka luča,*Vol.1, No.1, 2011, str. 116.
[12] Zavišić, Ž., *Osnove Marketinga*, Udžbenik Visoke poslovne škole, Zagreb, 2017, str. 322.
[13] Domazet, I.:*Uloga internog marketinga u unapređenju kvaliteta ljudskih resursa...,*op.cit. str. 260-279.
[14] Domazet, I.:*Uloga internog marketinga u unapređenju kvaliteta ljudskih resursa*..,op.cit. str. 260-279.
[15] Stojanović, J.:Uloga interne komunikacije u kompaniji, *Članci, rasprave, analize, prikazi,* Vol.1, No.2, 2015, str. 84-92.
[16] Nikolić, M., Vukonjanski, J., Nedeljković, M., Hadžić, O., & Terek, E.: The Impact of Internal Communication Satisfaction Dimensions on Job Satisfaction Dimensions and the Moderating Role of LMX. *Public Relations Review*, Vol. 39, No.5, 2013, str. 563–565.

defined corporate goals of the organization, the lack of a detailed job description, as well as the reward system itself.[17] The reward system is a very important element in motivating and pushing employees so that they feel satisfied with their workplace and encourage employees towards loyalty and dedication in the hotel industry.[18] According to experts, internal communication is more important than external communication, due to the achievement of the organization's goals. Communication within the company is undoubtedly far more important than its importance is generally recognized by outside employees.[19] The results of the aforementioned research indicate that there is a positive and statistically significant relationship between internal marketing and job satisfaction on the part of employees.[20]The results of previous research also indicate that the relationship between communication and achievement is characterized as above average, that is, in those companies where there is good internal communication, there is also a high degree of job satisfaction.[21] Research conducted in 2018 indicates that internal communication has a positive impact on employee participation. The research also established a positive relationship between internal communication and employee job satisfaction.[22]Employees in organizations with a higher level of satisfaction are those who have better communication within the organization, i.e. communication within the company has the role of an intervening variable.[23]The results of the previously conducted research indicate that organizational culture affects communication within the company.[24]

2. Application of communication as an internal marketing tool in the hotel industry

METHODOLOGICAL FRAMEWORK

The sample in this research consists of 61 respondents, who live and work in all three regions of Montenegro and are employed in the hotel sector. The sample, in this research, is random. The data collection technique is a questionnaire that is distributed online, via the GoogleDocs option. First, a pilot study was conducted on a sample of N=30, which consisted of employees in the hotel industry. After applying the control questionnaire, those questions related to the quality of internal communication were reformulated, while the job satisfaction scale, which has 36 items, was comprehensible to the respondents and there was no need to correct it. After forming the questionnaire for this research, the questionnaire was sent to the target group - employees in the hotel industry of Montenegro. In the description of the questionnaire, there are instructions for creating the questionnaire as well as an explanation of the purpose of the questionnaire. The time required to fill out the questionnaire was approximately 15 minutes. The job satisfaction scale that was used was translated from English to Montenegrin-Serbian, Bosnian, Croatian. It counts nine aspects for assessing employees' attitudes about work and aspects of work, that is, it counts 9 subscales. A summated rating scale format is used, ranging from "strongly disagree" to "strongly agree". The items are written in both directions, so about half have to be recoded for research results. The Job Satisfaction Scale (JSS) was standardized on

[17] Domazet, I.:*Uloga internog marketinga u unapređenju kvaliteta ljudskih resursa*..,op.cit. str. 260-279.
[18] Al-Makhadmah, I.:The Relationship between Internal Marketing Practices and Job Satisfaction in Four and Five-Star Hotels in Dead Sea,Jordan, *European Journal of Business and Management*, Vol.7, No.35, 2015, str. 117-124.
[19] Stojanović, J.,*Uloga interne komunikacije u kompaniji*,... op.cit. str. 84-92.
[20] Marques, C., Leal, C., Marques, C., Cabral, B.,:Internal markeitng and job satisfaction in hotels in Via Costeria, Natal, Brazil, *Tourism & Management Studies*, Vol.14, No.1, 2018, str. 36-42.
[21] Chen, N.: Internal/employee communication and organi- zational effectiveness: a study of Chinese corporations in transition. *Journal of Contemporary*, 2008, Vol.17, No.54, str. 167- 189.
[22] Kulacha W., Narkwatchara, P., Siripool, P. Vilailert, K.: Internal communication, employee participation, job satisfaction, and employee performance, *Antlantis press,*Vol.186, No.1, 2018, str. 124-128.
[23] Stojanović, J.,*Uloga interne komunikacije u kompaniji*,... op.cit. str. 84-92.
[24] Milanović, V., Radičević, T., *Odnos između zadovoljstva poslom i postignuća na poslu-pregled empirijskih istraživanja od 1970. godine*..., op.cit. str. 89-118.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243107 | Volume 9, No.1 (2024): April

a sample of 3,148 respondents, in 19 samples with a high Alpha quotient of 0.95,[25] while the reliability of individual subscales ranges from Alpha quotient = 0.60 to 0.82. In the questionnaire, it was necessary to recode the following variables. Items number 2, 4, 6, 8, 10, 12, 14, 16, 18, 19, 21, 23, 24, 26, 29, 31, 32, 34, 36 were recoded, therefore the values are on a Likert scale.

Table 1. Presentation of socio-demographic data from the survey of employees in the hotel industry, Montenegro

Gender(%)	Male	57,4%	**Job held by the employee (%)**	a waiter	18%
	Female	42,6%		receptionist	19,7%
Level of education of respondents (%)	completed three-year high school	1,6%		manager	29,5%
	completed four-year high school	14,8%		leadership	18%
	completed basic three-year studies	39,3%		other	14,8%
	completed master's studies	13,1%	**Godine radnoga staža**	minimum	1 godina
Working monthly salary	minimum	450eura		maxiumum	23 godine
	maximum	1500eura			
Region where employees work (%)	northern region of Montenegro	23%			
	southern region of Montenegro	19,7%			
	central region of Montenegro	57,3%			

Source: Own processing

[25] Spector, P.E.:Meansurment of human service staff satisfaction: Development of the Job Satisfaction Survey, *American Jourlan of Community Psychology*, Vol. 13, No 6, 1985, str. 91-98.

From the above results, it can be seen that the majority of the male population works in the hotel industry in Montenegro. The largest number of respondents, who made up the sample in this research, work in the central region of Montenegro, and the position of manager is the most represented position in terms of percentage. The most represented level of education in the Montenegrin hotel industry, in the sample that made up this research, was completed basic three-year studies. The average salary is 704 euros, while the average years of service of employees in the hotel industry in Montenegro is 5.5 years.

2.2 Research hypotheses

H0: Good internal communication, as an instrument of internal marketing, significantly affects the satisfaction of employees in the hotel industry in Montenegro

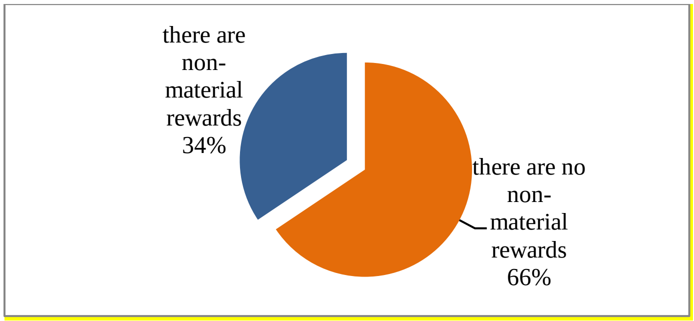
In addition to the basic hypothesis, the research focuses on two sub-hypotheses.

H1; Employees with fewer years of work experience have a higher degree of job satisfaction in the hotel industry in Montenegro

H2; The level of the employee's monthly financial compensation significantly determines the degree of job satisfaction of the employee in the hotel industry in Montenegro

2.3 Research results

Korbach's alpha coefficient of reliability for positively and negatively connoted items is high and amounts to 0.915.

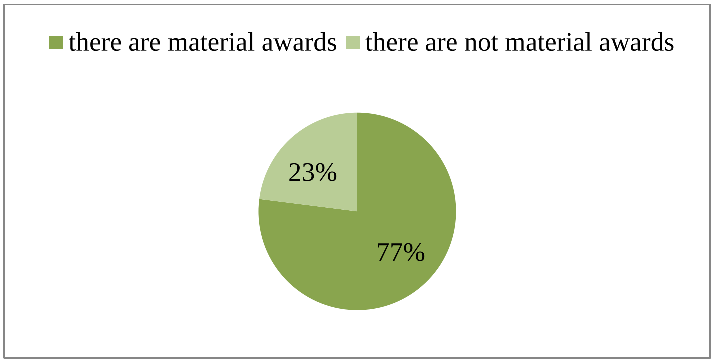


Graph 1. The percentage of non-material rewards in the hotel industry of Montenegro

Source: Own processing

The research results indicate that intangible rewards exist in the hotel industry of Montenegro. The results of the research indicate that the largest number of respondents working in the central region stated that in the hotels where they work, there are non-material rewards (praise, recognition, certificates, diplomas).

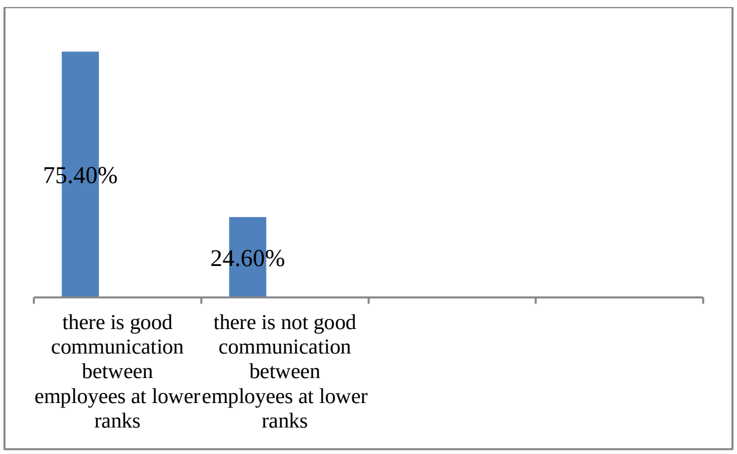
ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243107 | Volume 9, No.1 (2024): April



Graph 2. The percentage of material rewards in the hotel industry of Montenegro.

Source: Own processing

From the results of the research, it is concluded that material rewards exist in the hotel industry in all three regions of Montenegro. The disproportion in the percentage of material rewards is also visible, as the largest number of respondents from the central region state that rewards exist in the hotels where they are employed.



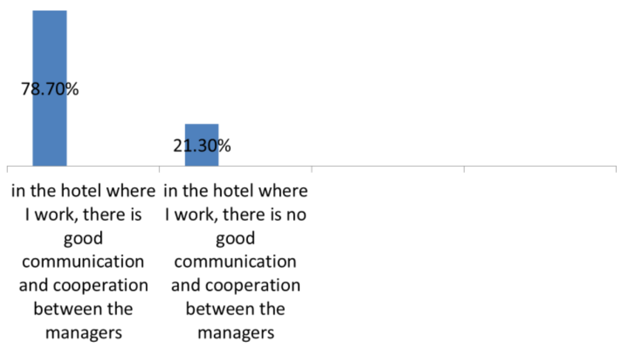
Graph 3. Quality of communication among employees at lower levels in the hotel industry of Montenegro.

Source: Own processing

From the results of the research, it can be seen that there is good mutual communication between employees at lower ranks in the hotel industry.

Sig.=0.000). This research indicated that material rewards significantly affect the level of job satisfaction in the hotel industry in Montenegro (N=61, F= 147.3, Sig.= 0.000).

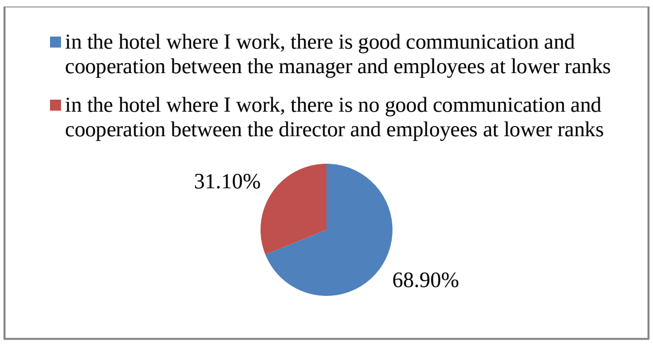
ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243107 | Volume 9, No.1 (2024): April



Graph 4. Quality of communication and cooperation among managers in the hotel industry of Montenegro

Source: Own processing

The research results indicate that there is good cooperation and communication in the Montenegrin hotel industry between managers at all levels.



Graph 5. Quality of communication and cooperation between managers and employees at lower levels

Source: Own processing

It can be seen that there is good communication and cooperation between managers and employees at lower ranks in the hotel industry of Montenegro.

When it comes to gender and the degree of job satisfaction, there is no statistically significant difference in relation to gender, when it comes to the level of job satisfaction (N=61, F= 0.735, Sig.=0.790). The significance is not significant. The research results indicate that there is no statistically significant difference between the level of education and the degree of job satisfaction (N=61, Sig.=0.658, F= 0.868). The significance is not significant. The research results indicate that there is no statistically significant difference between the workplace where the respondents are employed, whether it is a workplace at a higher or lower level, in relation to the level of job satisfaction (N=61, F=1,514, Sig.= 0.193). Significance is not significant. The research results indicate that there is no statistically significant difference between the perceived quality of communications within the hotel industry and the jobs performed by employees in the hotel industry (N=61, F=1.878, Sig.= 0.045). Significance is not significant.

2.4 Hypothesis testing

The following is the confirmation or rejection of the hypotheses and hypotheses that guided this research.

H0: Good internal communication, as an instrument of internal marketing, significantly affects the satisfaction of employees in the hotel industry in Montenegro, not confirmed. Based on the results of the research, the following can be observed. There is no statistically significant difference between the level of job satisfaction and the quality of internal communication (N=61, F=3.318, Sig.=0.007). Also, there is no statistically significant difference when it comes to the level of job satisfaction and the influence of good internal communication and cooperation among managers (N=61, F= 1.841, Sig.= 0.099). Based on the results of the research, it can be seen that there is no statistically significant difference when it comes to the impact of internal communication on job satisfaction between employees and management (N=61, F= 1,377, Sig.= 0, 255).

Table 3. Presentation of the quality of internal communication and job satisfaction

In the hotel where the respondents work, there is good communication and cooperation among the workers	3. 318	0,007
In the hotel where the respondents work, there is good communication and cooperation between the managers	1,841	0,099
In the hotel where the respondents work, there is good communication and cooperation between workers and managers/superiors	1,377	0,255

Source: Own processing

In addition to the basic hypothesis, the research was guided by two sub-hypotheses.

H1; Employees who have fewer years of work experience have a pronounced higher degree of job satisfaction in the hotel industry in Montenegro, not confirmed. There is no statistically significant difference when it comes to the level of job satisfaction and years of service of employees in the hotel industry of Montenegro (N=61, F=2.090, Sig.=0.061).

H2; The level of monthly financial compensation of the employee significantly determines the degree of job satisfaction in the hotel industry in Montenegro, it has been confirmed. That is, there is a statistically significant difference in the level of expression of job satisfaction and monthly monetary compensation for work (N=61, F=0.867,

IMPLICATIONS OF THE RESEARCH

In the research, a statistically significant difference was determined, based on the ANOVA method, between the degree of expression of job satisfaction and monthly compensation of employees in the hotel industry of Montenegro. If an employee is satisfied with the size of his salary, then this motivates him in his work, and a motivated employee gives his full potential when performing tasks that are defined by the workplace where he works. In the aforementioned research, a statistically significant difference was determined, based on the ANOVA method, between the degree of job satisfaction and receiving material rewards from the hotel where the employees work. Based on the results of the research, the results were obtained that there are both material and non-material rewards in the hotel industry of Montenegro. The findings of this research are consistent with the results of research that have been conducted, which indicate that the reward system is a very important element in motivating and pushing employees so that they feel satisfied with their workplace and encourage employees towards loyalty and commitment in the hotel industry.[26] By providing opportunities for employees to receive material rewards, hotel management strives to motivate their employees, as well as to encourage a sense of value among employees. The results of earlier research indicate that a relationship was found between faction satisfaction with job security and work performance among employees in a multicultural environment.[27]According to Maslow's hierarchy of motives, the need for esteem is one of the five groups of needs.[28]The respondents gave priority to material rewards as well as the salary level, which can be partly connected with the need for security, from the above hierarchy, which states that security also refers to a permanent job, that is, economic security. This research, using the ANOVA method, indicated that internal communication, as an instrument of internal marketing, does not significantly affect the level of job satisfaction in the Montenegrin hotel industry. Therefore, the dominant hypothesis in this research was not confirmed. The results of this research are not consistent with earlier research, which has been conducted on the same topic so far. The results of earlier research indicated that when an internal marketing system is properly implemented, it has a significant impact on organizational commitment. The results of earlier research indicate that there is a positive and statistically significant relationship between internal marketing and job satisfaction on the part of employees.[29]Although the sample is random and representative, it consists of only N=61 respondents. In addition to the above, we should also bear in mind the research findings that indicate that communication within the company is unquestionably far more important than its importance is generally recognized by the people involved.[30]Therefore, it could be assumed that the respondents in this research neglected the importance of internal communication by focusing on other items in the questionnaire.[31] The results of earlier research indicated that the communication climate as a dimension is most closely related to overall job satisfaction and that the communication climate is in the first place as a significant factor in the connection between job satisfaction and internal communication. The research results of this research indicated, using the ANOVA method, that the years of service do not significantly affect the level of job satisfaction, which can confirm the importance of the board size and the existence of material rewards. The results of the research, using the ANOVA method, indicate that there are no differences in relation to gender when it comes to the level of job satisfaction. Although the sample in this research consisted of more men than women. The results of the research indicated that the level of education does not significantly affect job satisfaction, using the ANOVA method. Caution is suggested here when drawing conclusions due to the sample size of N=61. The results of these studies indicated that the position held by the employee is not significantly related to job satisfaction. The respondents gave priority to material rewards and salaries, which has already been discussed. This research showed that socio-demographic characteristics are not predictors of job

[26] Al-Makhadmah, I.,*The Relationship between Internal Marketing Practices and Job Satisfaction in Four and Five-Star Hotels in Dead Sea,Jordan,* op.cit. str. 117-124.
[27]Milanović, V., Radičević, T., *Odnos između zadovoljstva poslom i postignuća na poslu-pregled empirijskih istraživanja od 1970. godine*..., op.cit. str. 89-118.
[28] Trebješanin, Ž., *Psihologija ličnosti,* Učiteljski fakultet Univerziteta u Beogradu, Beograd, 2010, str. 152.

[29] Marques, C., Leal, C., Marques, C., *Cabral, B.,:Internal markeitng and job satisfaction in hotels in Via Costeria, Natal, Brazil...,* op.cit, str. 36-42.
[30] Stojanović, J.,*Uloga interne komunikacije u kompaniji*...,op.cit. str. 84-92.
[31] Domazet, I.:*Uloga internog marketinga u unapređenju kvaliteta ljudskih resursa*..,op.cit. str. 260-279.

satisfaction. Taking into account the obtained results of this research and referring to research studies, it is supposed to be interesting to examine the influence of motivation and leadership styles of managers on job satisfaction in the hotel sector. It is suggested to examine the contribution of organizational culture in the hotel industry of Montenegro.

3. Perspectives on the application of internal communication in achieving employee satisfaction in the hotel industry

The improvement of internal communication, among other things, involves diagnosing the current situation in sectors, as well as the ability to identify disturbances. Possible problems could be diagnosed and solved more quickly if, for example, certain software were introduced where all employees could enter information, that is, difficulties they encountered while performing their work. A special emphasis is placed on the flow of information from superiors as well as feedback for the work done, because the previous research that was discussed pointed to the unfavorable impact of too much information on job satisfaction. It is clear that in general "disruptions" are a potential source of employee dissatisfaction, and if they were successfully and accurately resolved in a timely manner, they would not negatively affect the employees' sense of satisfaction. Anonymous online questionnaires would certainly have their application in an organization. They would examine attitudes and values at different levels within the organization. Technology can be applied almost everywhere in the hotel industry. And then when it refers to jobs of a lower rank and to jobs of a higher rank. When it comes to leadership and managerial positions, it is likely that in the foreseeable future there will be systems that will be able to coordinate the solving of some problems within the organization that would work on the principle of logarithms where data is entered and the result-solution of any type of problem is obtained. When it comes to performing waiter or reception jobs, there is also the question of these jobs being taken over by robots.

CONCLUSION

In the subject research, one dominant hypothesis and two sub-hypotheses were singled out at the beginning. It was assumed that there is a connection between specified socio-demographic variants and job satisfaction in the hotel industry in Montenegro. In order to better understand the quality of these connections, the following were used: ANOVA, cross-tabulations and frequencies. In this research, independent variables were used: gender, level of education, years of service, region in which the respondent is employed, level of monthly salary, position held by the respondent in the hotel industry. Although this research indicated that good internal communication in the hotel industry does not significantly affect the level of job satisfaction, we should also keep in mind the sample that made up this research, N=61. Regardless of the results of the research, good internal communication in companies is not only a reflection of successful policy and good interpersonal relations, but it is one of the conditions for good functioning and continuous development of the organization. Previous research has shown the undeniable importance of internal communication in employee job satisfaction, as well as its great importance in achieving organizational goals. The observed results, in this research, are as follows. Years of service are not related to job satisfaction, that is, years of service do not have a significant impact on the level of job satisfaction in the hotel industry. This research indicated that the level of monthly financial compensation of the employee, as well as material reward, significantly determines the degree of job satisfaction in the hotel industry in Montenegro. Implications for future research are for the sample size to be significantly larger. It is also suggested to examine the influence of managers' motivation and leadership styles on job satisfaction in the hotel sector. Taking into account the importance of organizational culture in organizations and its influence on job satisfaction, it is suggested to examine its contribution in the hotel industry of Montenegro.

REFERENCES

Stanković, Lj., Đukić, S., *Marketing*, Ekonomski fakultet, Niš, 2009., str. 14.

Trebješanin, Ž., *Psihologija ličnosti,* Učiteljski fakultet Univerzitet u Beogradu, Beograd, 2010, str. 152.

Vrnašević, T., *Upravljanje zadovoljstvom klijenata*, Golden marketing, Zagreb, 2000, str. 96.

Zavišić, Ž., *Osnove Marketinga*, Udžbenik Visoke poslovne škole, Zagreb, 2017, str. 322.

Al-Makhadmah, I.:The Relationship between Internal Marketing Practices and Job Satisfaction in Four and Five-Star Hotels in Dead Sea, Jordan, *European Journal of Business and Management*, Vol.7, No.35, 2015, str. 117-124.

Chen, N.: Internal/employee communication and organi- zational effectiveness: a study of Chinese corporations in transition. *Journal of Contemporary*,Vol.17, No. 54, 2008, str. 167- 189.

Domazet, I.:Uloga internog marketinga u unapređenju kvaliteta ljudskih resursaa. *Pregledni rad*, Vol 1., No. 14, 2011, str. 260-279.

Knežević, M., Škorić, J., Mijatov, M.: Značaj internog marketinga-motivacije za rad i zadovoljstva poslom zaposlenih u sektoru turizma i hotelijerstva, *Marketing*, Vol.5, No.2 , 2020, str. 131-140.

Kulacha W., Narkwatchara, P., Siripool, P. Vilailert, K.: Internal communication, employee participation, job satisfaction, and employee performance, *Antlantis press,*Vol.186, No.1, 2018, str. 124-128.

Milanović, V., Matić, A., Juričić, A.:Uticaj zelene interne komunikacije na zadovoljstvo zaposlenih, *Journal of Economics, Managament, and Informatics*, Vol.13, No.2, 2020, str. 83-90.

Milanović, T., Cvijanović J., Lazić, J.:Organizaciona kultura i promene, *Industrija*,2010, Vol.1, No.3, str. 59-77.

Milanović, V., Radičević, T.:Odnosi između zadovoljstva komunikacijom, zadovoljstva poslom i postignuća na poslu – pregled važnijih empirijskih istraživanja od 1970. godine, *CM:Communication and Media*, Vol.14, No.46, 2019,str. 89-118.

Marques, C., Leal, C., Marques, C., Cabral, B.:Internal markeitng and job satisfaction in hotels in Via Costeria, Natal, Brazil, *Tourism & Management Studies*, Vol.14, No.1,2018,str. 36-42.

Nikolić, M., Vukonjanski, J., Nedeljković, M., Hadžić, O., & Terek, E.: The Impact of Internal Communication Satisfaction Dimensions on Job Satisfaction Dimensions and the Moderating Role of LMX. *Public Relations Review*, Vol. 39, No.5, 2013, str. 563–565.

Spector, P.E.:Meansurment of human service staff satisfaction: Development of the Job Satisfaction Survey, *American Jourlan of Community Psychology*, Vol.13 No.6, 1985, str. 91-98.

12.Stojanović, J.:Uloga interne komunikacije u kompaniji, *Članci, rasprave, analize, prikazi,* Vol.1, No.2, 2015, str. 84-92.

Štekl, R., Katavić, I., Vukić, D.:Uticaj interne komunikacije na zadovoljstvo zaposlenika na primjeru odbrane gradske uprave. *Obrazovanje za preduzetništvo,* Vol.12, No.1, 2022, str. 144-166.

Tanasijević, Z.:Zadovoljstvo poslom- ključni pokazatelj motivacije zaposlenih, *Sociološka luča,* Vol.1, No.1, 2011,str. 116-123.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243109 | Volume 9, No.1 (2024): April

THE ROLE OF THE FINANCIAL AND MACROECONOMIC INDICATORS IN THE ECONOMY OF REPUBLIC OF NORTH MACEDONIA- PERIOD BEFORE, DURING AND AFTER COVID-19

M. Sc. Valbon Mehmedi[1]
Prof. Dr. Seadin Xhaferi[2]
Prof. Dr. Igor Zdravkoski[3]
Prof. Dr. Pece Nikolovski[4]
[1] University St. Kliment Ohridski Bitola, North Macedonia
[2] University of Tetova, North Macedonia
[3] University St. Kliment Ohridski Bitola, North Macedonia
[4] University St. Kliment Ohridski Bitola, North Macedonia
boni.mehmedi@uklo.edu.mk
seadin.xhaferi@unite.edu.mk
igor.zdravkoski@uklo.edu.mk
pece.nikolovski@uklo.edu.mk

ABSTRACT

Realizing the need for real research on the macroeconomic potentials and the need for further development of the international relations of a certain country, namely the Republic of North Macedonia, this paper aims to reflect the financial and macroeconomic situation of the RNM in the period 2013-2023, namely analyzing the movement of some financial and macroeconomic indicators, the period of major changes as a result of the COVID-19 pandemic, and the recovery of the RNM economy, post-COVID-19 period.

In this paper the importance of economic growth, the factors that influence economic growth, government policies and economic growth will become clearer. The subject of the balance of payments, the factors affecting it and its movement will be elaborated in the aforementioned period. Also, the connection between the inflation rate and the exchange rate with the net export will be elaborated, as it is an important factor in the country's international economic relations. As the last but not the least important goal is the interpretation of the results of the empirical and regression analysis on the connection of the exchange rate and the inflation rate with net exports, as well as giving recommendations in the future in terms of protection against large fluctuations in exchange rates, the possibilities for intervention of government policies in reducing inflation in order to improve the economic situation.

Through this analysis, it has been determined that the exchange rate has a positive effect on net exports, while the inflation rate has a negative effect on net exports. Fiscal and macroeconomic policies should be aimed at regulating the stability of the domestic currency, controlling the inflation rate and improving the balance of payments deficit.

Keywords: *Economic growth, Exchange rate, Inflation, Covid-19*

INTRODUCTION

It is known that the power of a state is seen in its economic strength, its financial stability, in the correct management of macroeconomic, fiscal and monetary policy as well as in its economic development.
One of the important factors that develops a country is undoubtedly the economic growth, the measure that expresses the differences in the Gross domestic product of the national economy from one year to the previous year.

From the theory we know that economic growth is directly related to the Gross domestic product, which is a measure that serves to express the general goods and services in monetary value, produced in the national economy during a period of one year (Mankiew, 2010) .

Naturally, every country and every government policy aims to increase living standards, increase GDP, reduce unemployment and have a significant level of economic growth. Each country achieves these steps through certain policies such as fiscal policies, monetary policies and trade policies.

The government can create and has mechanisms for managing fiscal policies. But what do we mean by fiscal policy? Fiscal policy is a government mechanism through public revenues and expenditures that can affect the economy of a country. In practice, fiscal policies change depending on the business cycle where the economy is.

While the monetary policy represents the protective mechanism that affects the regulation of the general monetary supply in the country. This role is performed by the central bank of the respective country. However, although with the help of these mechanisms the business cycles of an economy is influenced, trade policy, namely international relations with other countries undoubtedly has a significant impact on the development of the national economy. We can express this kind of international trade and connectivity numerically through export and import indicators.

It is theoretically argued that exports and imports can play a decisive role in economic development. Theoretical and empirical studies mainly focus on the relationship between exports and economic growth, between imports and economic growth, or on the relationship between exports, imports and economic growth.

The export of goods and services is considered an engine of economic and social development for a number of reasons, including the objective for companies to offer innovations to the market and maintain their market share. In parallel, exports provide increased sales and profits. Alternatively, exporting has the ability to minimize the impact of market volatility and companies entering global markets have the opportunity to adapt to economic changes by offering products and services to international markets.

And finally, regarding the advantages of exports, it can be summarized that the increase in exports leads to an increase in monetary circulation, which increases the national income and leads to an improvement in the standard of living. Despite these benefits, in some cases exports do not lead to profitable results and lead to results that do not contribute to the highest economic growth of the country and this happens for several reasons:

- The competition is greater than expected
- The products are not known for the foreign market
- Economic, financial and political instability of the country importing from ours
- Bad advertising in the media and some other shortcomings

In relation to imports, imports usually reflect the weakness of that country in meeting its own needs (production of goods and services) and make it dependent on the mercy of foreign countries. Imports, unlike exports, lead to a decrease in the circulation of the local currency and weaken the balance of payments, thereby weakening economic growth. However, in some cases imports are considered a source of economic growth, especially if they include the import of hardware and electronic equipment to aid and contribute to growth and improve investment, or if the production of products in the country will have higher costs than importing that substitute product.

In our analysis, by analyzing the movement of one of the significant elements of the balance of payments, which is the net export, we will have a clear picture of the movement of economic growth. Starting from the macroeconomic theory, economic growth is a percentage of the increase in the real Gross Domestic Product (GDP) for the last year compared to the previous year, while the balance of payments is a part of the GDP and consequently we can conclude that the increase or decrease in the value of the balance of payments affects economic growth through an increase/decrease in real GDP.

LITERATURE REVIEW

Economic growth

In economic sciences if we look at the aspect of youth employment, in most cases the experience of the labor force depends on the economic conditions in the country where the job is sought. In some years, companies expand their production of goods and services, where employment increases and full-time work is easier to find. In other years, companies cut production, the employment rate falls, and it takes longer to find a job. In general, any unemployed person actively seeking work would enter the labor market in years of economic expansion rather than years of economic contraction.

Through various publications we can see a lot of statistical data about the economy of one or more countries. Statistics can measure the income of everyone in the economy (Mankiew, 2007), ie. GDP, the rate at which general prices of goods are rising (inflation), the percentage of the workforce not working (unemployment), or an imbalance in international trade between a country and a third country (trade deficit). All these statistics are *macroeconomic statistics.*

According to Pollozhani (2015), the main goals of macroeconomics are the following:

1. Sustainable economic growth - means growth of goods and services (Gross Domestic Product) over a longer period of time
2. Opening of new jobs
3. Stabilization of prices of services and goods
4. Work productivity
5. Balancing the balance of payments

Taking into account the above-mentioned goals, the instruments we can use to improve the macroeconomic situation are: fiscal policy, monetary policy, income policy, supply increase policy and international exchange policy.

Government policies and economic growth

Savings and Investments - Considering that capital is significant factor in production, society can change the capital stock at its disposal. So, if the economy today produces more capital goods, then in the future there will be more capital assets and this will create conditions for the production of a greater number of goods and services. Investment policy measures can promote economic growth over long periods of time and improve the standard of living of the population. Countries that invest larger shares of GDP result in higher growth rates and vice versa.

Foreign Investment- Foreign investment can come in many forms. Daimler-Benz can build a car manufacturing plant in Mexico or the United States. Capital investments that are owned and managed by entities from abroad are called *foreign direct investments.* A Swiss citizen can buy shares in a Finnish corporation and invest the proceeds from the sale of the shares in a factory. Consequently, investments that are financed with money from abroad, but which are managed by a local resident (resident), are called *foreign portfolio investments* . When non-residents invest in a country, they do so in order to achieve the highest possible return on their investment. As in the examples above, the Daimler-Benz factory increases Mexico's capital, thereby increasing the productivity of the Mexican population and thereby increasing GDP. But the company repatriates some of its revenue to Germany in the form of profits for that enterprise. Similarly, when a Swiss investor buys shares in Finland, he is entitled to a share of the profits made by the Finnish company.

Education- Education or investment in human capital is as important as investment in physical capital in terms of economic growth and development of a country. In the US, annual statistics show a 10% difference in the wages of educated people compared to those with no/lower levels of education. In less developed countries this difference is even greater. According to the above, government policies can influence education awareness by building schools, funding studies or creating better educational conditions in all learning cycles.

Health - Although the term human capital is most often used in connection with education, the term can also be used to describe another type of investment in people: spending that leads to improvements in people's health. Simply put, a healthy person is more productive at work and thus contributes to an increase in the standard of living.

Economist Robert Fogel (Fogel, 1870) emphasized that the factor of particular importance in economic growth in long-term periods is the improvement of health as a result of quality food. In his study he points out that 1 in 5 people in the UK were malnourished which contributed to their inability to work. Vogel studied these trends by observing people's heights. The short height of people is an indicator of insufficient nutrition, especially during pregnancy and in the first years of life. He discovered that with the economic growth of countries, the population is fed and the average height of the population increases.

Population Growth- For years, economists have debated how population growth affects economic growth. A direct effect is an increase in the labor force - a larger population means a larger number of workers who will produce goods and services. Thomas Malthaus (1798) in his book "Essay on population and its effect on the quality of society" points out that the continuous growth of the population puts constant pressure on the ability of society to take care of itself. As a result, humanity is forever condemned to live in poverty.

Fortunately, Malthus' dire prediction was wrong. Although the world's population has increased by about 6 times in the last 2 centuries, the standard of living has increased rapidly. As a result of economic growth, chronic hunger and malnutrition are less prevalent today than in Malthus' time. But why was Malthus wrong? Pesticides, artificial fertilizers, mechanical farm equipment, innovations and new technologies were created that Malthus could never have imagined would allow farms and factories to feed such large numbers of the population.

International Trade- Some of the less developed countries have tried to follow the growing trend of the national economy by following policies oriented within the national borders. These policies are aimed at increasing productivity and living standards, ignoring interaction with the outside world. Today, most economists believe that it is better for less developed countries to establish international ties, through which they will be integrated into the international economy. So, if a country is not integrated in international trade, it is isolated and is forced to produce all the products and services that the population needs.

All these factors, with the help of macroeconomic policies, aim to contribute to the improvement of the overall financial and macroeconomic situation of the country, as well as to increase the standard of citizens and thereby increase the well-being of the population.

The economic growth of RNM, before, during and after Covid-19

The Republic of North Macedonia as a country is characterized by economic growth of about 2-3% on an annual basis, with the exception of the period 1991-1995. The economic growth of the Republic of North Macedonia in the period 2019-2023 varies from 3.4% in 2019 and maintains a steady growth of 2-3% with an upward trend in 2019.

The pandemic has negatively affected the economy of North Macedonia, where the stable trend of continuous economic growth is clearly visible from 2019 with a significant increase of 6% in the second quarter of 2019. At the beginning of 2020, that is, in the first quarter, a period that coincides with the beginning of the global pandemic, the effect of slowing down economic growth is noticeable, in other words, the economy is already starting to enter recession. The biggest recession and the biggest impact of the pandemic due to the increase in the number of infected globally and nationally, the closing of borders, the reduction of aggregate demand and supply, the quarantines proposed by the government happened in the second quarter of 2020 where the recession recorded a negative double-digit number, i.e. -16.4%. This drastic reduction comes as a result of the reduction of the Gross Domestic Product at the beginning of the year, that is, from 159,090 million denars in the first quarter to 141,610 million denars in the second quarter of 2020 (Xhaferi & Mehmedi, 2022) .

In the period after recovery from the pandemic and the consequences of Covid-19, economic growth is on the upswing, that is, we have an increase in GDP by 25.59% in the period from the first quarter of 2020 to the fourth quarter of 2023 (see table 1.) This is based on the increase in all categories that make up the GDP, and mostly as a result of the increase in the export of goods and services by 58.25%, mostly due to the liberating post-Covid-19 measures for the passage of goods and services across borders.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243109 | Volume 9, No.1 (2024): April

Table 1: GDP according to the cost method, period 2019-2023[1]

	current prices (million denars)				
	2019	**2020**	**2021**	**2022**	**2023**
Gross domestic product	692683	669280	729445	803141	840611
Final consumption	550683	554036	609909	681749	753662
Final household consumption, including NPISD	453726	442006	494433	558404	612556
Final public consumption	96958	112029	115476	123345	141106
Gross investments	237314	200232	235033	289312	200530
Export of goods and services	432290	386653	477377	593990	611913
Import of goods and services	527604	471640	592875	761912	725494

The balance of payments

According to the Balance of Payments Manual (1996), the balance of payments is a statistical report that systematically summarizes the economic transactions of an economy with the rest of the world for a certain period of time. Transactions, which mainly take place between residents and non-residents, include transactions in goods, services and income; those involving financial assets and liabilities to the rest of the world and gifts classified as transfers. The balance of payments deals with transactions and is more concerned with flows than goods. So, the balance of payments deals with economic events that occur over a period of time and does not deal with the value of economic assets and liabilities that exist at a particular point in time.
The standard components of the balance of payments are grouped into two main accounts: the current account, the capital and financial account. The current account is further divided into three broad categories: trade balance of goods, balance of services and balance of current transfers. The capital and financial account includes: capital transfers, direct investments, portfolio investments and official reserve funds.

The balance of payments of R.N.M

According to the table below, the balance of payments of RNM is in a downward trend, that is, we see that the current account is going downward, that is, we have increased imports over exports. In 2023 we have upward trend, thus the current and the financial account are positive, which means we have more inflow than we have outflow in the current account. Also, within the framework of the financial account, we have an increase of portfolio investments and other investments including foreign exchange reserves.

Table 2: The balance of payments of R.N.M

	million US dollars				
	2019	**2020**	**2021**	**2022**	**2023**
1. Current account	-376.49	-360.44	-374.85	-864.78	99.23
1.a. Inflow	10136.11	9188.66	11929.08	13048.79	14063.09
1.b. Outflow	10512.60	9549.10	12303.93	13913.57	13963.86
2. Capital account	9.11	13.07	8.40	0.04	-1.68

[1] State Statistical Office, Mak stat baza, Gross Domestic Product, Annual data

2. a. Inflow	11.80	13.16	9.50	3.87	1.23
2.b. Outflow	2.69	0.09	1.10	3.83	2.91
3. Financial account	-282.43	-352.07	-297.97	-817.99	170.90
3.1. Direct investments	-403.97	-172.91	-453.23	-683.83	-565.53
3.1.a. Net assets	145.53	-165.22	243.03	170.33	136.96
3.1.b. Net liabilities	549.50	7.69	696.26	854.15	702.49
3.2. Portfolio investments	168.92	-296.55	-143.99	-31.07	58.23
3.4. Other investments	-462.49	1.06	-67.29	-307.99	37.71
3.5. Foreign exchange reserves	415.10	116.34	366.54	204.89	640.49

The relationship between the balance of payments, inflation and the exchange rate

According to Ahmad et al., (2014) who used different methods to assess the relationship between two variables, i.e. the exchange rate and the balance of payments, the results show a significant and positive relationship. It came to the conclusion that the exchange rate is statistically significant and has a positive effect on the balance of payments, and with the corresponding result they accepted the hypothesis that there is a significant correlation between the exchange rate and the balance of payments.

In his study, Sinaga (2022) concluded through the research results that inflation, interest rates and trade balance affect economic growth by increasing the balance of payments, where these three macroeconomic indicators can stimulate economic growth. In this section, it can be stated that these variables indirectly influenced economic growth and directly influenced the balance of payments, which is the subject of our research.

Kabirdoss et al. (2014) conducted an analysis of the correlation between inflation and the trade balance, as a key element of the balance of payments. The analysis was started by taking the inflation rate for the last 10 years, starting from 2004 to 2014 with monthly data, and then the export and import data and trade balances were also taken to find the correlation. The empirical study found that when domestic prices rise faster than prices in foreign countries, exports tend to lag behind imports. The exchange rate also tends to depreciate due to both the decline in the purchasing power of the country's currency and the unfavorable balance of payments.

METHODOLOGY

The data from this research were taken from the official website of the National Bank of the Republic of North Macedonia and the State Statistical Office. Secondary data and time series data have been used in this research. Time series and data for the period 2013 - 2023, annual data are presented. The processed data and the results were made using the Microsoft Excel computer program. Exchange rate, inflation rate and net exports are the variables that will be used in this study where exchange rate and inflation rate are presented as independent variable and net export is used as dependent variable. In this research, the econometric model of linear regression was used, which aims to study the relationship between the dependent and independent variables, as well as the effect of the independent variables on the dependent variable.

The model can be expressed as a function:

NX= f(EXC,INF)

By means of regression analysis we can explain the connection and influence of the independent variables on the dependent variable .

$$NX = \beta 0 + \beta 1EXC + \beta 2INF + \varepsilon$$

Data analysis and results

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243109 | Volume 9, No.1 (2024): April

Table 3. Descriptive statistics

	Net export		*Inflation rate*		*Exchange rate*
Mean	-1893.01	Mean	3.045455	Mean	53.41182
Standard Error	116.0678	Standard Error	1.648876	Standard Error	1.185005
Median	-1805.08	Median	1.4	Median	54.65
Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviation	384.9533	Standard Deviation	5.468704	Standard Deviation	3.930218
Sample Variance	148189.1	Sample Variance	29.90673	Sample Variance	15.44662
Kurtosis	4.141914	Kurtosis	8.245988	Kurtosis	0.227791
Skewness	-1.86462	Skewness	2.757359	Skewness	-0.96147
Range	1299.5	Range	19.2	Range	12.2
Minimum	-2882.03	Minimum	-0.5	Minimum	46.4
Maximum	-1582.53	Maximum	18.7	Maximum	58.6
Sum	-20823.1	Sum	33.5	Sum	587.53
Count	11	Count	11	Count	11

Analyzing the data for the Skewness statistic, the result of the description of the variable implies that Net Export and Exchange Rates is symmetrical, therefore s is negatively skewed and the remaining variable - the inflation rate is not symmetrical because the value is greater than zero, it is positively skewed because the majority of the corresponding observations are higher than their average values.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.927125
R Square	0.859561
Adjusted R Square	0.824451
Standard Error	161.2897
Observations	11

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	1273776	636887.9	24.48215	0.000389
Residual	8	208115	26014.38		
Total	10	1481891			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	-3283.52	769.8001	-4.26542	0.002741	-5058.69
Inflation rate	-72.4396	10.53053	-6.87901	0.000127	-96.7231
Exchange rate	30.16427	14.65271	2.058614	0.073518	-3.62494

RESIDUAL OUTPUT

Observation	*Predicted Net export*	*Residuals*
1	-1985.32	8.887522
2	-1846.48	-116.584
3	-1580.43	-50.7987
4	-1589.19	-41.772
5	-1808.9	220.5319
6	-1776.56	164.2981
7	-1654.97	-150.107
8	-1817.34	234.8134
9	-2066.62	-87.2317
10	-2870.52	-11.5107
11	-1826.75	-170.527

Taking into account the above written results, the linear regression model is as follows:

$$NX = -3283.52 + 30.16427EXC - 72{,}4396INF + 161.2897$$

DISCUSIONS

Statistically, if p-value < 0.05 then the independent variable is of significant importance, if p-value > 0.05 then the variable is not of significant importance. Consequently:
The independent variable exchange rate hasn't statistical significance on the value of net exports because the p-value is greater than 0.05 (0.073> 0.05).
The independent variable inflation rate has statistical significance on the value of net exports because the p-value is less than 0.05 (0.000 < 0.05).
The independent variable Exchange rate shows the positive relationship (positive effect) on the dependent variable Net export. The value of the regression coefficient 30.16427 shows us that with the increase of the exchange rate by 1 denar, the Net export will increase by 30.16427 million dollars on average, if the other factors remain unchanged.
The independent variable Inflation Rate shows the negative relationship (negative effect) on the dependent variable Net Export. The value of the regression coefficient -72.4396 shows us that with an increase in the inflation rate by 1 percent, Net exports will decrease by 72.4396 million dollars on average, if other factors remain unchanged.
Noting that the coefficient of determination r^2 is 0.859561, this explains to us that about 85.95 % of the variation of the dependent variable (Net export) is explained by the independent variables included in the model, while only 14.05% of the variation is explained by other variables that are not included in a model.
In observations 1,5,6 and 8 the residual is positive, which means that the estimated regression line overestimates the true values of γ, while in observations 2,3,4,7,9 and 10 the residual is negative, which means that the estimated regression line underestimates the true values of γ.
The F-statistic test is used to determine the relationship between independent variables that jointly affect the dependent variable. The results obtained from our research have a significant value of 0.0003 < 0.05 which shows the significant

importance that the variables Exchange rate and Inflation rate convincingly and proven influence on the Net export of RNM. In this case the model is significant in explaining the variation of the dependent variable Net export.

CONCLUSIONS

Through this study we came to the following conclusions:

- Economic growth as an important indicator for the entire national economy, although it was at a stable level, during the Covid-19 pandemic, the situation took a turn, where the economy as a whole went into recession. In the post-Covid-19 period, we have an improvement and recovery of the national economy.
- The balance of payments, that is, the subject of our analysis, exports, was always in deficit, that is, imports exceeded exports. During the pandemic this deficit deepened, but in a short time after the pandemic we have the increase in the export of goods and services mainly due to the liberating post-Covid-19 measures for the passage of goods and services across the borders.
- With an increase in the USD/MKD exchange rate (decrease in the value of the domestic currency), we have an increase in net exports, because our products are cheaper to export abroad, and thus exports are stimulated, reducing imports.
- With an increase in the inflation rate, mostly due to global economic factors, we have a decrease in net exports, mainly due to an increase in imports and a decrease in exports with an upward trend in 2023.

Analyzing the paper, we see that the national economy is on a safe path to development only if there is continuous economic growth, GDP growth and the best possible state of the balance of payments. Foreign trade policies should be a function of growth in export before growth in import. With this, the net export should be as high as possible, so the gross domestic product will be high, and the rate of economic growth will be on the rise. Monetary policies should serve to regulate the value of the national currency, in order to increase the competitive power of the country on international markets through foreign trade. Fiscal policies should also aim to stabilize the inflation rate, by intervening in the level of interest rates or withdrawing money from circulation.

REFERENCES

Ahmad, N. & Ahmed, R. & Khoso, I. & Palwishah, R. & Raza, U. (2014). Impact of Exchange Rate on Balance of Payment: An Investigation from Pakistan. *Research Journal of Finance and Accounting. 5. 32-42.*

International Monetary Fund, (1996) , *Balance of payments textbook,* Washington DC, USA

Kabirdoss, D. & Praja P. (2015). A study on the impact of inflation on the balance of payments in India. *Intercontinental Journal of Banking, Insurance and Finance.* v. 2 (5)

Mankiew, G. (2007), *Principles of economics* , Chicago

Mankiew, G. (2010), *Macroeconomics,* Seventh edition, Harvard University

Pollozhani, Petrit (2015), *Makroekonomia* , Arberia design, Tetovë

Sinaga, A. (2022). Inflation, Foreign Exchange, Interest Rate, Trade Balance, Payment Balance on Growth In The Covid-19 Pandemic. *SocioEconomic Challenges* . 6. (52-59). Doi: 10.21272/sec.6(4).52-59

Xhaferi, S. & Mehmedi, V. (2022). Impact of the COVID-19 Pandemic on the Economy of North Macedonia. *International Scientific Journal Monte, 6(2),* 159-169 https://doi.org/10.33807/monte.20222580

DIGITALIZATION OF HIGHER EDUCATION IN THE CONTEXT OF ECONOMIC DEVELOPMENT OF THE REGION OF SOUTH EAST EUROPE, WITH REFERENCE TO MONTENEGRO AND BULGARIA

Dr. Slobodan Nešković
International Academy of Sciences, Arts and Security
University St. Cyril and St. Methodius Veliko Tarnovo, Bulgaria
University of Business Academy in Novi Sad, Serbia
Ukrainian Technologies Academy in Kiev, Ukraina
slobneskovic@gmail.com

ABSTRACT

This paper explores the impact of higher education on the digital economy's development. Employing methods such as analysis, synthesis, content analysis, scientific abstraction, and systematization, the authors conclude that enhancing dual education is crucial. This approach aims to supply the national economy with innovative thinkers and actors, thereby bolstering higher education's positive influence on the digital economy.
The economic system is undergoing significant transformations under the influence of information and communication technologies. Educational institutions offer training for highly qualified specialists aligned with employers' needs, fostering innovation and its transition to the economy. Enhancing higher education's constructive impact on digital economy development necessitates transforming universities into robust innovation and transfer hubs. The analysis is based on the latest data and research findings, highlighting the challenges and opportunities faced by these South East Europe countries in leveraging digital technologies for educational advancement and economic growth.

Key Words: Digitalization, Higher Education, Economic Development, Montenegro, Bulgaria;

INTRODUCTION

The aim of this paper is to examine the higher education system's role in shaping and advancing the digital economy. Key goals include identifying contemporary factors influencing digital economy development, exploring scholarly perspectives on education's role in societal and economic progress, analyzing higher education institutions' contributions to the digital economy's advancement based on their functions, and highlighting the significance of dual education in digital economy development processes.

Digital technologies are profoundly influencing economies across all sectors, reshaping how economic value is generated, the nature of jobs, the methods of work, and the requisite skills. This trend particularly underscores the growing demand for digital skills in the workforce. While digital technologies are automating certain "routine" tasks, they are also creating new job opportunities that necessitate diverse technological skills, not limited only to skilled ICT professionals (Kholiavko, N., et. al, 2022, The role of higher education in the digital economy development, p. 3).

The digital economy and society have experienced rapid growth since 2000, demanding an increasingly broad range of digital skills for both work and daily life. Digital knowledge, defined as acquiring information through learning about facts, rules, theory, and practice related to digital technologies, is essential. Digital skills, on the other hand, involve applying this knowledge to complete tasks or solve problems using technology. This can range from using social media to coding a website.

The national higher education system plays a pivotal role in advancing the information society and the digital economy. This paper argues that examining the operational intricacies and significance of higher education institutions in the digital economy's development is crucial.

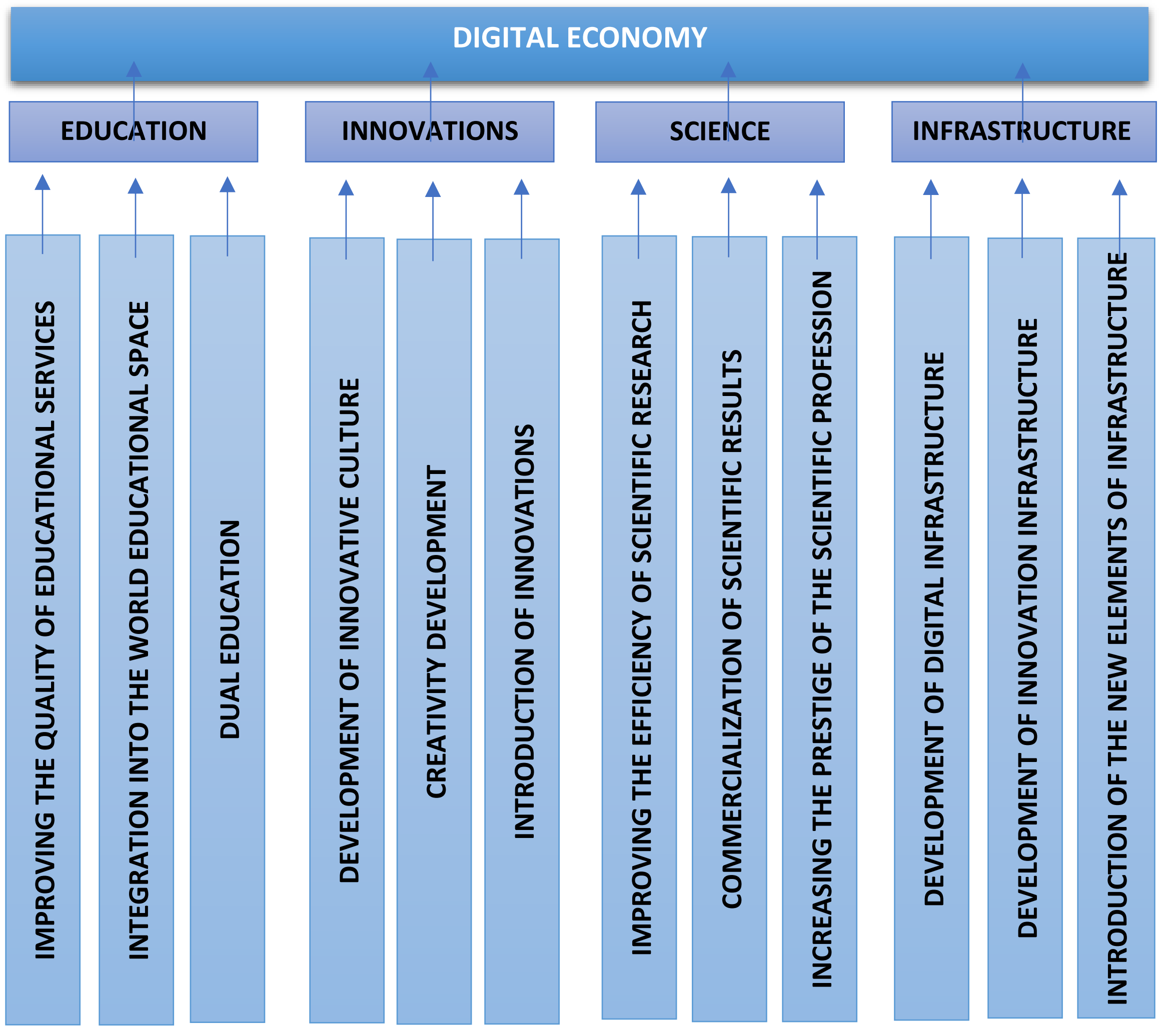
Educational institutions shape the digital economy's evolution not only through educational functions (such as training, retraining, in-service training, lifelong learning, and dual education) but also through research activities coupled with innovation endeavors. In a market economy, the research and innovation pursuits of universities enable them to fulfill their entrepreneurial role. The entrepreneurial engagement of universities actively aligns the higher education system with the entrepreneurial sphere, fostering mutual interests, pooling resources, and coordinating partnerships. Successful implementation of individual research projects by higher education institutions, funded by businesses, sets the stage for long-term, mutually beneficial collaborations (Regional Cooperation Council, 2018, p. 22).

In this context, universities play a crucial role in fostering innovative youth entrepreneurship. This involves not only educational initiatives (especially within dual education frameworks) but also the establishment of technology parks, innovation centers, research parks, business incubators, and start-up consulting centers.

Engineering developments, cutting-edge technical devices, computer, digital, information, and communication technologies are increasingly commercially attractive, alongside growing demands for biotechnology, nanotechnology, and medical inventions.

Facilitating effective communication between higher education and entrepreneurship expands, simplifies, and accelerates innovative businesses' access to modern scientific advancements, further enhancing dual education. Moreover, trends of globalization and higher education internationalization enhance access to leading global scientific achievements, facilitating international technology and information transfer. The digital economy's development processes are influenced by innovation factors (Figure 1), which encompass innovative capacity, the readiness and willingness of economic entities to adopt innovation.

Figure 1 The components of digital economy development



The capability of economic entities to establish adaptable organizational structures and foster innovation is crucial. This approach will facilitate the creation of efficient mechanisms for cross-sectoral collaboration in education, science, and innovation, thereby enhancing the effectiveness of dual education programs implemented through cooperative efforts between universities and businesses.

Among countries of South East Europe, Montenegro and Bulgaria have made significant advancements in digitalizing their higher education systems, as evidenced by increased investment in digital infrastructure, online resources, and e-learning platforms. The COVID-19 pandemic further accelerated this transformation, leading to a rapid expansion of digital tools for remote learning. Montenegro has modernized its educational infrastructure and witnessed a surge in online course offerings, although challenges like the digital divide persist. Similarly, Bulgaria prioritizes digital literacy, STEM education, and collaboration with the private sector to drive innovation and digital skills development. The digitalization of higher education in both countries has positively impacted economic development by preparing students for digital careers and attracting global talent, despite ongoing challenges that also present opportunities for growth and innovation.

METHODOLOGY OF SCIENTIFIC RESEARCH

Digitization of higher education represents the modern concept of implementing information and communication technologies in the teaching process, in the context of eliminating contradictions and improving the situation in society. The fact is that the region of Southeast Europe has enormous resources in all areas of public life, while innovative trends in the sphere of education and science contribute to the prosperity of each individual state. The subject of our research is the digitalization of higher education in the region of Southeast Europe with implications for the economic development of the countries of the observed territory, especially Montenegro and Bulgaria.

The goal of the work is the scientific consideration of the possibility of applying the concept of digitalization of the higher education system in the area of Southeastern Europe. Also, pointing out the importance of innovative trends for achieving stable economic development of countries. The basic hypothesis is: Digitization has a first-rate importance in the development of the higher education system and the economic progress of all countries in the region of Southeast Europe, including Montenegro and Bulgaria. Auxiliary hypotheses are: 1) The area of Southeast Europe has enormous resources in the sphere of higher education and improvement of the economic environment; 2) Existing human and material potentials with optimal use can ensure perspective development of individual countries of the region.

During the research, known scientific methods and techniques will be implemented. Methods of analysis and synthesis of relevant literature content, descriptive method, comparative method, specialization and generalization of selected materials will be used. The scientific justification of the work is reflected in the contribution to the academic community from an area that has not been sufficiently researched so far. The social justification of scientific work means analyzing the topics of application of innovative postulates for the purpose of higher education reforms and economic prosperity, which are of first-class importance for every community. This is particularly expressed in the current global constellation, burdened with numerous contradictions, which is reflected in all areas of human existence.

DISCUSSION AND RESULTS

Digitalization has transformed various aspects of modern society, including education. In the context of higher education, digital technologies offer new opportunities for teaching, learning, and research, leading to more efficient and effective educational outcomes. For countries like Montenegro and Bulgaria, which are striving to enhance their economic development and competitiveness, digitalization of higher education is crucial. It not only improves the quality of education but also prepares students for the digitalized workforce, thus contributing to overall economic growth.

The economic system is undergoing significant transformations under the influence of information and communication technologies. The implementation of modern technologies allows to optimize and accelerate the flow of business processes, thus reducing the period of

production and delivery of goods to consumers. The technological lag of producers from South East Europe in the new economic conditions causes a deepening of the technological gap between the national economy and the leading countries - world innovation leaders. Innovative information and communication technologies are increasingly integral to business operations. This is evidenced by the significant expansion of services, the extensive development of e-business, and the rise of virtual enterprises. In the higher education sector, this trend is manifested in the proliferation of dual education programs, while in the government sector, it is seen in the adoption of electronic document management systems (Kholiavko, N., 2022, p. 6).

Commercialization of research outcomes drives the diffusion of innovative developments, cutting-edge technologies, and modern information and communication technologies into the national economy's practical realm. Their integration into management practices aids in optimizing enterprise cost structures, transitioning to innovative and information-driven operational paradigms, expediting decision-making processes through ICT utilization, reducing production cycles, and meeting end-user needs by enhancing informatization, automation, and robotization of production processes.

Digitalization offers significant societal and economic benefits, yet its progress is often uneven. While new technologies create opportunities, they can also disrupt industries, displace workers, and exacerbate inequalities. Consequently, national digital strategies focus on creating favorable economic and social conditions to enhance countries' competitiveness, economic growth, and societal well-being. In South East Europe, Albania, Bosnia and Herzegovina, the North Macedonia, Kosovo*, Montenegro and Serbia have adopted a Multi-annual Action Plans that prioritizes digital integration as its fourth component. These plans emphasize the need for comprehensive interventions, including future-proof digitalization strategies, updated regulatory frameworks, improved broadband infrastructure, and initiatives for digital access and literacy. These efforts aim to expand the digital economy and integrate SEE economies into the broader European digital market (OECD, 2018, Digital Society in South East Europe, p. 389).

Serbia has continued to effectively implement their digital strategies, particularly focusing on supporting the ICT industry and promoting e-business development. In contrast, North Macedonia has experienced a slowdown in implementing certain activities since 2015. A positive development occurred in Bosnia and Herzegovina, which adopted electronic communications and information society policies in the first half of 2017, laying a foundation for improved performance in the future.

On average, South East European economies demonstrate strong performance in ICT access and usage, effectively facilitating broadband development. They also excel in digital security and privacy, driven by reforms in digital public administration and e-government development. However, they face challenges in e-business and e-commerce, particularly in consumer protection and fostering digital business. The weakest area is digital empowerment, particularly in e-inclusion. Overall, there is a need for SEE economies to improve the monitoring, evaluation, and adjustment of policies across all areas (Regional Cooperation Council, 2018, pp 25-26).

The availability of e-skills is crucial for the ICT sector, driving innovation in the digital economy and enabling individuals to benefit from digital services. Shortages and mismatches in e-skills, leading to a digital divide, can hinder economic growth and competitiveness. Comprehensive e-skills strategies ensure that education systems equip students and professionals with the necessary digital competencies. These strategies should also be closely linked to e-inclusion efforts to address challenges faced by groups at risk of exclusion from the digital economy due to factors such as age, disability, lack of skills, cultural background, income, or location.

In South East European economies, efforts to address e-skills development have begun, but resources and implementation remain limited. Implementation of these strategies is still in its early stages. Albania, Kosovo*, Montenegro, and Serbia have established policy frameworks to promote the integration of ICT into education, including IT infrastructure, connectivity, e-curricula, and teachers' training, as well as to provide lifelong learning opportunities for ICT professionals. Among these countries, Serbia has made the most progress, with its strategies covering e-skills development within its information society, education, and IT industry frameworks. The establishment of the inter-ministerial Joint Body for ICT Infrastructure in Education in Serbia aims to improve coordination of these strategies across relevant government bodies.

Several quantitative indicators reflect the status of e-skills development in SEE economies. For example, a significant percentage of households in some economies lack Internet access due to a lack of skills. In 2016, this percentage was as high as 36% in North Macedonia and Republika Srpska in Bosnia and Herzegovina, and 33% in Montenegro, while it was approximately 10% in Serbia. Although Internet access in schools is fair across the six economies, Albania has made notable progress in this area, scoring 5.2 on the World Economic Forum indicator for Internet access in schools in 2016, up from 4.1 in the previous assessment cycle. However, North Macedonia and Serbia saw a decrease in scores in 2016, dropping from 5.5 to 5.2 and from 4.2 to 3.9, respectively, while Montenegro's score remained almost unchanged (4.2 to 4.3). According to current data from SEE governments, all primary schools in Serbia have IT equipment and software, with the majority having ICT labs and over 65% having Internet connectivity. However, in other SEE economies, a large number of schools either lack installed or operational IT equipment and software (OECD, 2018, p. 350).

Montenegro has made significant strides in digitalizing its higher education sector. The country has invested in modernizing its educational infrastructure, including upgrading classrooms with digital technologies and providing students with access to online learning platforms. According to the latest data, Montenegro has seen an increase in the use of digital tools and platforms for teaching and learning, with a growing number of courses being offered online.

One of the key challenges facing Montenegro in its digitalization efforts is the digital divide, particularly in rural and remote areas where access to high-speed internet is limited. Addressing this challenge requires further investment in digital infrastructure and ensuring equitable access to digital resources for all students (Ministry of Public Administration, 2021, p. 9).

Similarly, Bulgaria has prioritized the digitalization of higher education as part of its economic development strategy. The country has focused on enhancing digital literacy among students and faculty, promoting the use of digital tools in teaching and learning, and fostering collaboration between universities and the private sector to drive innovation.

Bulgaria has also invested in developing digital skills among its workforce to meet the demands of the digital economy. The country has seen a rise in the number of students enrolled in STEM (science, technology, engineering, and mathematics) fields, indicating a growing interest in digital-related professions.

The digitalization of higher education in Montenegro and Bulgaria has had a positive impact on economic development. By equipping students with digital skills and knowledge, universities are preparing them for careers in the digital economy, thus contributing to the growth of the ICT sector and other digital industries. Moreover, digitalization has enabled universities to offer new and innovative programs that meet the needs of the digital economy, attracting students and researchers from around the world.

Despite the progress made, both Montenegro and Bulgaria face challenges in fully realizing the potential of digitalization in higher education. These include the need for additional investment in digital infrastructure, ensuring the quality of online education, and addressing the digital skills gap among students and faculty. However, these challenges also present opportunities for growth and innovation. By leveraging digital technologies, universities in Montenegro and Bulgaria can enhance their global competitiveness, attract international students and researchers, and contribute to the development of a knowledge-based economy.

DIGITALIZATION PROJECTS IN MONTENEGRO AND BULGARIA

As society and the business world undergo rapid changes driven by technological advancements and the onset of the Fourth Industrial Revolution, the education sector is also experiencing significant transformation. This transformation is evident in the adoption of technological trends that are shaping the world of education. To keep students motivated, teachers must stay abreast of the latest changes and key factors influencing education. Understanding these trends helps create more effective learning environments by incorporating technologies such as interactive lessons, artificial intelligence, robotics, 3D platforms, repositories, virtual simulators, and collaboration platforms (Kholiavko, N., 2022, p. 8).

In any information system, there are five critical components that must be considered by those planning its activities or seeking changes in its operation: people, hardware, data, network, and processes. The digitalization of education is no exception, requiring attention to these components for successful implementation.

The first priority in this regard is to promote the development of a highly efficient digital education ecosystem. This involves establishing the right infrastructure in schools, planning and enhancing digital capacity, and increasing the digital competence of teachers and staff to effectively manage processes. Another key objective is to improve the quality of educational content and use convenient, secure platforms that adhere to ethical standards in the digital environment.

The second priority focuses on enhancing digital skills and competencies for digital transformation. To address this, the plan emphasizes the need for individuals in the education system to possess computer knowledge, basic digital skills, and digital literacy to combat misinformation. Additionally, to advance digital education and engage learners in technological developments, advanced digital skills, knowledge of artificial intelligence, and equal opportunities for all learners are essential.

Incorporating technologies like automated workflows, educational social networks, learning management systems integrated with academic administration systems, and virtual communities can further enhance the teaching and learning process. Providing fast internet in every lecture hall, offering free use of tablets, smartphones, and computers in the learning process, and utilizing electronic textbooks are some of the potential solutions to increase student interest in education in the future (Dimitrova, 2018, p. 34).
Montenegro's Digital Transformation Strategy for 2022-2026 places a strong emphasis on developing digital skills in education, starting from early schooling and continuing through secondary and tertiary education. One of the key goals of the strategy is to increase the proportion of graduates from IT programs compared to total graduates from all universities by 15% by the end of 2024 (According to https://www.gov.me/clanak/strategija-digitalne-transformacije-za-razvoj-digitalne-crne-gore, Accessed on: 3/18/2024).

The Higher Education Development Strategy highlights the need for continuous teacher training in educational technology and e-learning. It aims to ensure that at least 30% of teaching staff are trained in computer operation and 20% have specialized knowledge in cybersecurity.

The Ministry of Education, Science, Culture, and Sports is responsible for educational policies and implementing digital education agendas. The Bureau for Educational Services proposes measures for education development and new educational technologies. The 2014 Law on Higher Education allows public institutions to establish technology innovation centers, while the Institute of Education improves education quality through advisory, research, and development.

Established in 2017, the National Council for Information or Cyber Security advises the Montenegrin government on cyber security issues. The Montenegrin Research and Education Network (MREN) supports local connectivity and ICT development, benefiting educational and research institutions. Connecting to MREN would enhance Montenegro's ICT sector's scientific, research, and innovation capabilities.

To achieve this, the strategy recommends making informatics and computer science mandatory subjects starting from the fifth grade of primary school. Currently, informatics is only an optional subject in the first year of secondary school. The curriculum would cover information and communication technologies, digital literacy, and basic computing concepts. Additionally, preschoolers would be exposed to visual programming languages to enhance their digital and problem-solving skills (Ministry of Public Administration, 2021, p. 20).

The DigNest project in Montenegro aims to modernize Higher education institutions by fostering collaboration with leading businesses. The project's main goal is to leverage digital technologies in key sectors such as agriculture and health, ensuring that graduates and the workforce can effectively adapt to the digital era.

The project emphasizes collaboration and networking to ensure that best practices are shared across regions (According to data from: https://dignest.me/, Accessed on: 3/19/2024). By importing expertise and stimulating the growth of an efficient innovation ecosystem, the project aims to drive positive growth and development in Montenegro. DigNest project aims to achieve several specific objectives:

Strengthening the relationship between Higher education institutions and the national economy in Montenegro: This will be achieved through the creation of the MNE Academic Hub, which will serve as a platform for collaboration and knowledge exchange between academia and industry.

Enhancing the level of competencies and skills of Higher education institutions' staff members: The project will focus on providing training and professional development opportunities for staff members to enhance their digital skills and competencies.

Increasing the quality of higher education: This will be done through the introduction of new forms of practical training schemes and the study of the digitized labor market, ensuring that students are equipped with the skills and knowledge needed for the digital economy.

Improving internationalization of HEI: This includes networking with other digital innovation hubs and competency centers, sharing knowledge, and complementing expertise. This will help Montenegrin Higher education institutions stay abreast of international trends and best practices in the field of digital innovations.

The CBHE Erasmus+ project aimed to enhance the reform efforts in Higher education institutions in Montenegro, aligning them with European standards and practices. This project focused on improving the quality and relevance of higher education, enhancing its governance and management, and increasing its inclusiveness and accessibility. Through collaborative efforts with European partners, the project sought to strengthen the capacity of Montenegrin HEIs to meet the challenges of the modern educational landscape (More on the subject: https://www.erasmusplus.ac.me/capacity-building/?lang=en, Accessed on: 3/19/2024).

The Erasmus+ project on HEI reform in Montenegro was launched in response to the need for comprehensive reforms in the country's higher education sector (Table 1). Montenegro, as a candidate country for EU accession, recognized the importance of aligning its higher education system with European standards to ensure its competitiveness and relevance in the global arena. The project aimed to address key areas of reform, including curriculum development, quality assurance, student mobility, and staff training.

Table 1 CBHE Erasmus+ priorities for Montenegro

Curriculum development	**Improving management and operation of High Education Institutions**	**Developing the Higher Education sector within society**
Education; Languages; Social and behavioral science; Business and administration; Law; Environment; Information and Communication Technologies; Engineering and engineering trades; Agriculture, forestry, fisheries and veterinary; Health;	Governance, strategic planning and management of HEIS; University services; Internalization of HEI; Quality assurance processes and mechanisms;	Development of school and vocational education at post-secondary non-tertiary level; University-enterprise cooperation;

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243113 | Volume 9, No.1 (2024): April

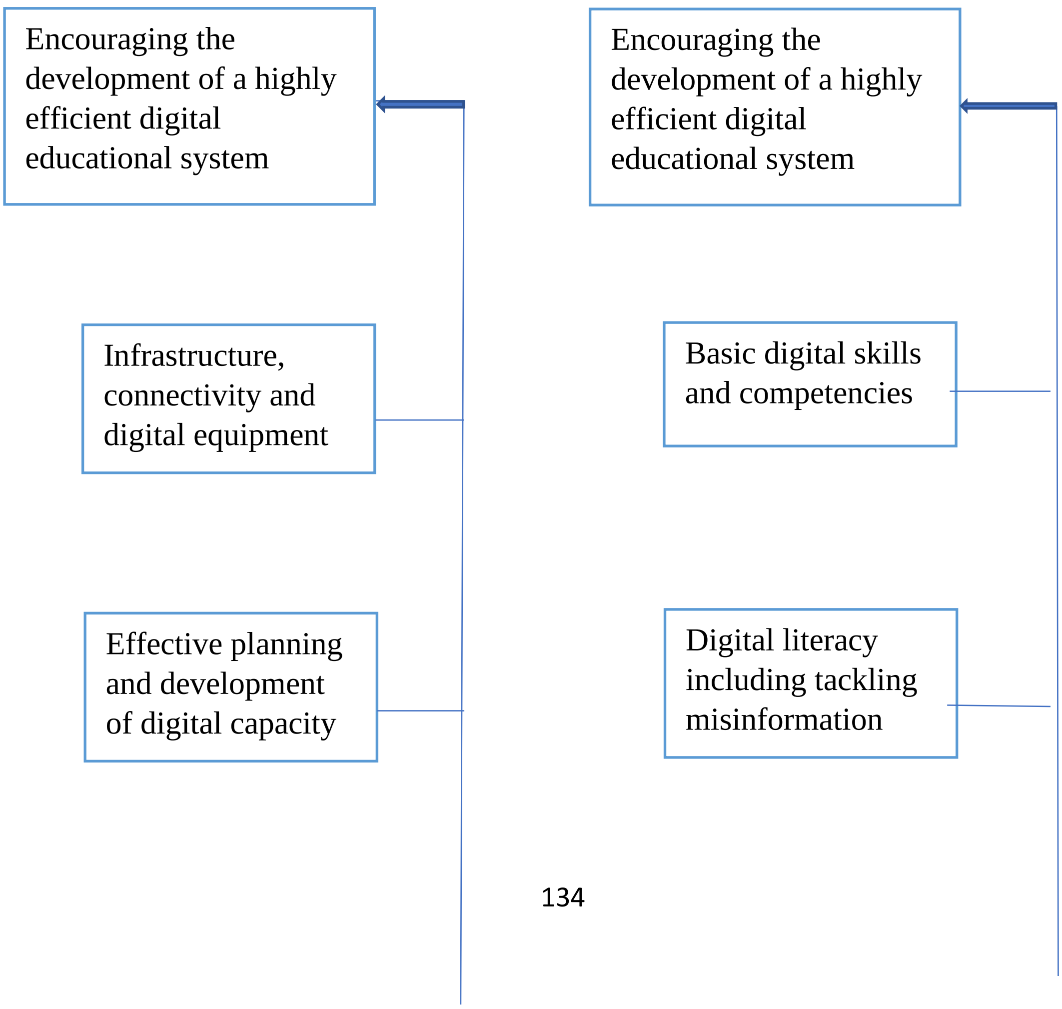
Higher education curricula would be aligned with market demands, incorporating aspects like dual education and lifelong learning. Collaboration among universities, high schools, IT companies, and other industries would help tailor curricula to meet job market needs, especially in areas identified in the Smart Specialization Strategy.

The Erasmus+ project on HEI reform in Montenegro has been instrumental in advancing the country's higher education sector. By aligning with European standards and practices, Montenegro has improved the quality, relevance, and accessibility of its higher education system. The project's success demonstrates the value of international cooperation and collaboration in driving meaningful reforms in higher education. The Bulgarian Higher education system started its reform a bit later than all the European countries and still needs some time to complete the process. Every country that is part of the European Union tries to adapt all the policies and programs that are produced by the institutions in the Union, but some countries can do it faster than others. Universities and colleges are very often big institutions, and the processes of digitalization could be split up in three main spheres: Campus, Teaching and Learning. Each of these processes includes many people who either work, study or teach and have an integral part in the digital transformation.

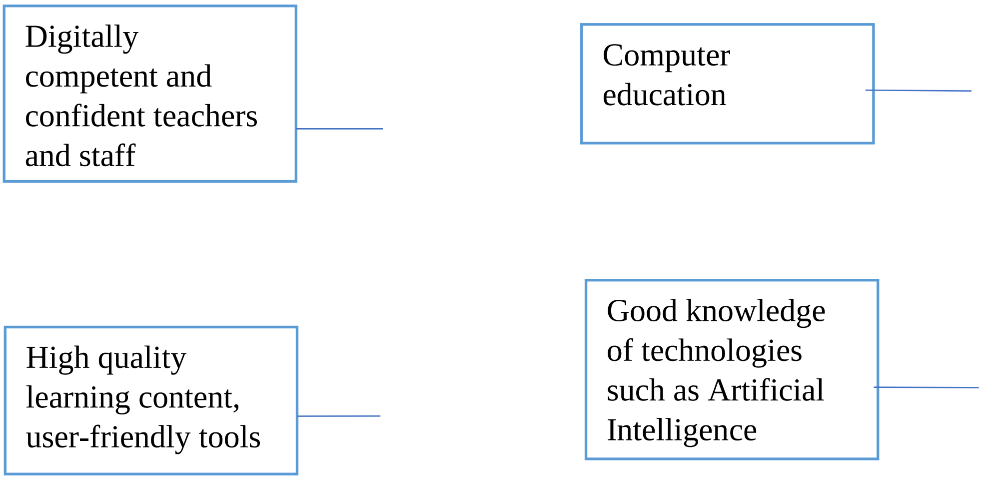
The Bulgarian national education system comprises over 2,600 educational institutions, including schools, colleges, and universities, with a collective teaching force of more than 85,000 teachers and lecturers. Within the higher education sector, Bulgaria boasts 51 institutions, comprising 37 public and 14 private establishments. Among these are 44 universities and specialized high schools, along with 7 independent colleges. Each institution exhibits varying levels of technological competencies and infrastructure, but the COVID-19 pandemic has underscored the urgent need for comprehensive digitalization and transformation across all facets of education, encompassing administration, teaching, learning, and assessment (Kovacheva, Velkova, 2021, p. 6).

A public consultation led by the European Commission took place from June to September, revealing surprising insights. The consultation highlighted significant disparities in the digital literacy of schools and the digital skills of teachers across Europe, with many being deemed unsatisfactory in their current state of development. The action plan resulting from this consultation focuses on two key priority areas, as outlined in Figure 2.

Figure 2 Priority areas



ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243113 | Volume 9, No.1 (2024): April



The DIGI-HE project, implemented with the support of European universities and the Erasmus+ program, aims to enhance digitalization strategies by sharing best practices and fostering peer-to-peer learning and experiences among institutional management in higher education institutions across Europe. The project utilizes various surveys to assess digital self-awareness in participating countries and partner groups, along with reports, seminars, and learner groups to develop and showcase best practices. The ultimate goal is to create and launch an independent digital training resource through these seminars.

The primary national program, Digital Bulgaria 2025, builds upon its predecessor, Digital Bulgaria 2015. The foremost objective, particularly relevant to our paper, is the modernization of school and higher education in the ICT field. This involves enhancing the ICT infrastructure at schools and higher education institutions, improving digital competencies, and modernizing teaching methods for high school teachers and university lecturers.

The second objective aims to increase the number of highly qualified ICT specialists through two key activities: expanding the pool of young people trained for ICT professions and promoting the development of these specialists. The third objective focuses on enhancing the digital and ICT skills of the workforce.

The Bulgarian education system, particularly the methods of student learning and teaching practices, must adapt to the era of digital transformation. This adaptation is crucial because, in addition to traditional skills like reading, writing, and arithmetic, digital skills have become essential for success in education and the workforce. To make digital education a reality, teacher training must be modernized. Educators need to be well-trained in using digital media to effectively impart knowledge to students. This can include utilizing digital platforms, virtual or augmented reality, online libraries, and webinars. Urgent measures are needed in the Bulgarian education system to enhance the digital skills of young people in practical settings. This can be achieved with the support of businesses and the civil sector, as the development of these skills is crucial for employees in all sectors of the economy.

CONCLUSION

The South East European countries have undergone significant transitional processes. Currently, with increased investments in education, research, institution-building, and reform, these countries, as members or candidates, aim to accelerate economic growth. Most countries in Southeast Europe, sharing similarities in economics, education, geography, culture, and tradition, are reforming their education systems, enhancing educational institutions, and aligning standards and legislation with the EU. However, despite these efforts, the SEE region has not yet demonstrated clear indicators of dynamic and stable economic growth rates.

Modern social development is acknowledged as complex and multidisciplinary, incorporating economic, technical, and educational factors. Education is increasingly recognized as a crucial element in economic development, often linked to technical progress. Additionally, institutional factors such as intellectual property rights protection, anti-corruption measures, and budgetary and fiscal stability are vital for economic development. These factors interact closely and play significant roles in shaping the region's economic future.

Strengthening higher education's positive impact on digital economy development requires transforming universities into robust innovation and knowledge transfer hubs. Universities should act as agents of change, adapting their activities to meet both traditional and modern demands. Specifically, they should ensure that their traditional functions educational, methodological, and research are as adaptable as possible to current and future societal demands.

The national higher education system plays a central role in the information society's development and the advancement of the digital economy. Educational institutions shape the digital economy through various activities, including training, retraining, in-service training, lifelong learning, and dual education. Additionally, their research and innovation activities contribute significantly. The higher education system's contributions include laying the foundation for technological breakthroughs through fundamental research, addressing current economic challenges through applied research, disseminating knowledge, popularizing science, patenting inventions, and ensuring the practical and commercial value of research results.

Montenegro's efforts in digitizing its higher education sector are particularly noteworthy. The country has embarked on a path of modernization, upgrading classrooms with digital technologies and providing students with access to a plethora of online learning platforms. Recent data suggests a notable increase in the use of digital tools and platforms for teaching and learning, with an expanding array of courses now available online. Despite these advancements, Montenegro faces a significant challenge in bridging the digital divide, especially in rural and remote areas where access to high-speed internet remains limited. Addressing this challenge will require further investment in digital infrastructure and ensuring equitable access to digital resources for all students (Ministry of Public Administration, 2021, p. 23).

Similarly, Bulgaria has placed a high priority on the digitalization of higher education as part of its broader economic development strategy. The country has taken steps to enhance digital literacy among students and faculty, promote the use of digital tools in teaching and learning, and foster collaboration between universities and the private sector to drive innovation. These efforts have been reflected in the rising enrollment in STEM fields, indicating a growing interest in digital-related professions among Bulgarian students (Kovacheva, Velkova, 2021, p.11)

The digitalization of higher education in Montenegro and Bulgaria has yielded positive outcomes for economic development in the region. By equipping students with digital skills and knowledge, universities are preparing them for careers in the digital economy, thereby contributing to the growth of the ICT sector and other digital industries. Moreover, digitalization has enabled universities to offer new and innovative programs that meet the needs of the digital economy, attracting students and researchers from around the world.

Despite the progress made, both Montenegro and Bulgaria face challenges in fully realizing the potential of digitalization in higher education. These challenges include the need for additional investment in digital infrastructure, ensuring the quality of online education, and addressing the digital skills gap among students and faculty. However, these challenges also present opportunities for growth and innovation. By leveraging digital technologies, universities in Montenegro and Bulgaria can enhance their global competitiveness, attract international students and researchers, and contribute to the development of a knowledge-based economy in the region.

Looking ahead, it is clear that the digitalization of higher education will continue to play a crucial role in the economic development of Montenegro, Bulgaria, and the broader SEE region. As digital technologies continue to evolve and reshape the global economy, universities must remain agile and adaptable, embracing innovation and collaboration to drive economic growth and societal progress. Through strategic investments in digital infrastructure, education, and research, SEE countries can position themselves as leaders in the digital economy, driving innovation, economic growth, and prosperity for years to come.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243113 | Volume 9, No.1 (2024): April

REFERENCES

Kholiavko, N., et. al, (2022) The role of higher education in the digital economy development, *Revista Tempos Espacos em Educao*, Universidade Federal de Sergipe Brasil.

Regional Cooperation Council, (2018) *Report: Regional Approach for Improving Digital Skills in WB6 Economies*, CID Balkans Development.

OECD, (2018) Digital Society in South East Europe in: *Competitiveness in South East Europe: A Policy Outlook.*

Ministry of Public Administration, (2021) *Digital Society and Media, Montenegro Digital Transformation Strategy 2022-2026 with Action Plan 2022-2023*.

Dimitrova, V., (2018) Digitization of Education in the Field of Security. 1-3. 10.1109/HiTech.2018.8566554. https://www.researchgate.net/publication/329564190_Digitization_of_Education_in_the_Field_of_Security

https://www.erasmusplus.ac.me/capacity-building/?lang=en

Kovacheva, M., Velkova, I., (2021) Digitalization in Bulgarian Higher Education – Present and Future Opportunities, *IAC Education 4th International Academic Conference on Education*, Barcelona.

European Commission, Digital Education Action Plan 2021-2027, (2021) https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en

EHL Insights, Top 8 digital transformation trends in education, (2022) https://hospitalityinsights.ehl.edu/digital-transformation-trends

Gaebel, M., Zhang, T., Stoeber, H., Morrisroe, A., (2021) Digitally enhanced learning and teaching in European higher education institutions. European University Association absl.

Stiglitz, J., E., (2017) The coming great transformation, *Science Direct*.

Union, I., T., (2018) Digital Innovation Profile Serbia - ICT centric innovation ecosystem snapshot, *ITU*, Geneva.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243117 | Volume 9, No.1 (2024): April

MACROECONOMICAL ANALYSIS OF THE BANKING SECTOR AS KEY PART OF FINANCIAL SYSTEM OF MONTENEGRO DURING COVID CRYSIS 2020 - 2022

Vojin Vlahovic, Deposit Protection fund, Montenegro

vojinv2@gmail.com

ABSTRACT

Financial markets have a great influence on the functioning of the economy as a whole. During the last decade, the economic environment has become extremely dynamic and risky, and the financial institutions exposed to risk are constantly working on the application of mechanisms of protection and preservation of stability. The post-Covid period and the looming energy crisis have influenced main financial institutions to seriously deal with the protection of the financial system of Montenegro. The dominant part of the financial market, over 90%, is made up of banks, through which most of the financial intermediation takes place. In this paper, we will deal with the analysis of the importance of the role of the financial system of Montenegro, with a special focus on the banking sector.

***Keywords**: financial system, financial markets, banking system in Montenegro*

INTRODUCTION

The central bank has a significant role in preserving financial stability, which includes the healthy functioning of the financial system - financial intermediaries, financial markets and financial infrastructure, in order to facilitate not only the efficient allocation of financial resources and the normal functioning of the economy, but also special action in conditions of crises and imbalance in the market.

The development of the financial system has a great impact on economic activity, especially in the period of crisis, which requires greater control and regulation, strengthening of trust in the financial system, unhindered provision of financial services and risk protection. Therefore, it is important to continuously analyze and assess the impact of the macroeconomic environment on financial stability and analyze the functioning of key financial institutions, and act correctively and preventively by adjusting the financial framework, all with the aim of reducing the harmful consequences of crises.

Globalization is one of the most significant factors in the development of financial market and it has brought the integration and exchange of ideas, goods, capital, people, money, etc. Also, financial innovations and the appearance of new financial products have led to an increase in interest and a simpler way of accessing new markets, supported by the development of information technologies. The two most recent crises, Covid-19 and the Ukrainian crisis, hit Montenegro as a small economy

and reminded us that we must always be ready for new challenges in international markets. The global crisis of 2008-2009 (started on the US mortgage market), the public debt crisis in certain EU countries in 2010-2011 (Greece, Ireland, Portugal, Italy, Spain), as well as the latest crisis from the first half of 2020 caused by the pandemic of the Covid-19 virus, warn us how modern the world is and how small disruptions in one market segment or part of the world can have a big impact and implications on all others. Therefore, the role of financial institutions is significant in terms of preventive action and preservation of financial stability.

According to world's reports, EMDE growth is projected to roughly halve this year, slowing from 6.6 percent in 2021 to 3.4 percent in 2022—well below its annual average of 4.8 percent over 2011-19, despite a partial recovery from the pandemic1. The slowdown in part reflects the spillovers from the war in Ukraine, which have led to commodity price volatility, higher input costs, trade disruptions, and weaker confidence.

Financial stress could spread across countries. The production and shipping of food and fertilizer could be further disrupted, leading to widespread food shortages, pushing millions of people into food insecurity and extreme poverty. The pandemic could worsen due to the appearance of new, more virulent variants and lead to the reintroduction of disruptive control measures2.

External disturbances, such as the pandemic caused by the corona virus, have affected the measures taken by European leaders. In July 2020 EU announced that they had approved a €750 billion(about $859 billion) pandemic relief package and a multi-year EU budget, referred to as the Multiannual Financial Framework (MFF), with a combined value of over €2 trillion. The pandemic plan was developed to direct funding to post-pandemic economic recovery efforts with the European Commission set to borrow an unprecedented amount of funds on European capital markets3. A central bank's main objective during a financial crisis is to contain the damage and limit the impact on the real economy. The first imperative is to restore calm in financial markets. Market panics create the equivalent of a financial heart attack by cutting off the flow of credit even to healthy institutions. This amplifies the damage in the financial system and is one of the main transmission channels through which a panic affects the real economy. Central banks must therefore reduce uncertainty, ensure that markets for short-term credit function properly, and prevent the collapse of financial institutions due to liquidity restrictions4.

The impact of economic crises influenced policy makers to focus on the resistance of the financial and banking system to external shocks and to be as stable and secure as possible. More stable financial systems can assure better market competitiveness of banks. More competitive banking systems have a positive effect on the creation of companies. (addopted according to Dell'Ariccia, Giovanni and Emilia Bonaccorsi di Patti, 2004)

Deposit Protection Fund of Montenegro plays a significant role in preserving financial stability and improving depositors' trust in the Montenegrin banking system. The Fund's mission is to ensure the security of deposits in banks and thus contribute to the stability of the financial system, based on trust and protection of depositors.

Banking sector as a key part of financial system of Montenegro

The financial system has been a key contributor to the overall macroeconomic stability of Montenegro for many years through its position as one of the most important factors of economic system. In this context, in addition to the inert capital market and the lack of a money market on the one hand, or the stable insurance sector on the other, the banking sector plays a dominant role in the multi-year stability of the financial system of Montenegro and it is therefore the subject of this analysis. Today, 11 banks are successfully operating in Montenegro, 9 of which are majority-owned by non-residents, while 12 banks were operating at the end of 2020. The most significant indicators at the sector level for the years 2018 - 2022 are as follows:5

	2018	2019	2020	2021	2022
Total assets					
In total, in 000 euro	4.407.089	4.603.933	4.586.507	5.328.584	6.404.252

[1] Global Economic Prospects, June 2022, available on: https://openknowledge.worldbank.org/bitstream/handle/10986/37224/Global-Economic-Prospects-June-2022-Global-Outlook.pdf
[2] Ibid
[3] Global Economic Effects Report, 2021, CRS, available on: https://sgp.fas.org/crs/row/R46270.pdf
[4] Vittorio Corbo, "Financial stability in a crisis: What is the role of the central bank?", available on: https://www.bis.org/publ/bppdf/bispap51f.pdf
[5] Council for Financial Stability, Annual Report for 2020, Annex 1: Overview of the financial market in Montenegro, p.1

Annual change in %	5,38	4,47	-0,39	16,18	20,19
Total credits					
In total, in 000 euro	2.929.239	3.061.751	3.159.161	3.360.303	3.660.118
Annual change in %	8,47	4,52	3,18	6,37	8,92
Total deposits					
In total, in 000 euro	3.459.222	3.475.778	3.372.852	4.201.242	5.224.315
Annual change in %	5,88	0,48	-2,96	24,56	24,35
Solvency ratio					
In total in %	15,63	17,73	18,52	18,50	19,32
Liquidity ratio (liquid assets / total bank assets)					
In total in %	22,57	20,79	22,15	26,36	31,04
Financial result					
Profit/loss, in 000 euros	24.809	48.654	22.335	27.500	83.305

Year 2020:

The structure of the balance sheet of banks during the crisis year of 2020 did not change significantly. Deposits have been the dominant source of bank financing for many years and made 73,5% of liabilities at the end of the year. Under the influence of the crisis, during 2020 deposits were the lowest in May, when their decline compared to the end of 2019 amounted to 5,1% or 176,6 million €, while at the end of 2020 they were lower compared to the end of 2019 by 3% or 102,9 million, amounting to 3,37 billion €.[6] Most of the new loans, which were one of the ways of improvement liquidity of banks, had a maturity of up to one year and were mostly loans from parent banks.

The credit activity of banks was, as expected, significantly lower in the first wave of the pandemic, but it recovered towards the end of the year, reaching its maximum value in November. The measures taken by Central Bank of Montenegro (CBCG) contributed to stability and confidence in the system and cash was at a satisfactory level throughout the year, so the banks were able to meet the needs of the population and the economy.

The largest part of the portfolio of securities consisted of government securities (79,1%). With a favorable interest rate, the regulatory risk weight for this form of investment is 0%, which means that banks generate income on that part of assets without a regulatory requirement to allocate capital on that basis.

[6] Central Bank of Montenegro, Report on the Stability of the Financial System 2020, p.28

The exposure of banks towards state decreased to 14,7% of total assets at the end of 2020, from 16,1% at the end of 2019. The total exposure of banks towards state amounted to 673,3 million €.7.

Credit growth had a slower pace compared to several previous years. Total loans increased by 3,2% on an annual basis and amounted to 3,16 billion € at the end of 2020.

The largest share of banks' loan portfolio refers to household loans (44,1%), while loans from resident non-financial institutions make up 35% of total loans, and they increased by 2,9% on an annual basis.

As maturity structure of loans is concerned, according to the initial maturity, long-term loans at the end of 2020 accounted for almost 90%.

At the end of 2020, nine banks had higher, while three banks had a lower share of non-performing loans compared to the end of the previous year. The share of non-performing loans was significant among certain banks with a larger market share. In the first three quarters of this year, banks recorded an increase in total non-performing loans, while that increase was slower in the last quarter. At the aggregate level, the share of non-performing loans in total loans increased by 0,8 p.p. compared to the end of the previous year, so at the end of 2020 it was 5,5%. The sum of non-performing loans increased by 19,6% on an annual basis and amounted to 172,9 million euros. At the end of 2020, the amount of loans overdue for more than 30 days (168.7 million euros, or 5.3% of total loans) was 45,5% higher than at the end of 20198.

A different and possibly more realistic picture of the development of credit risk can be seen by observing how banks perceive the movement of risk according to expected credit losses, i.e. in accordance with the application of IFRS 9. Many banks reacted promptly by applying a conservative approach in assessing the newly created situation and its future development. Thus, in the credit portfolio, according to the so-called phases, it is very clear that throughout the year banks intensively moved loans to phase 2 and slightly less to phase 3. The annual growth of loans from phase 2 amounted to 126,4% and their share in total loans increased in one year from 6,8% to 14,9% at the end of 2020. The annual growth of loans from phase 3 was 24,7%. Finally, loans from phase 1 decreased during 2020, so their share in total loans at the end of the year was 78,3%. At the end of 2019, that share was 87,6%9. (phase 1 consists of financial instruments which show no significant deterioration of credit risk or have a low credit risk; phase 2 consists of financial instruments which show a significant increase in credit risk, but there is no evidence of credit losses; phase 3 consists of financial instruments with objectively proven existence of credit losses) At the same time, banks carried out value adjustments, which showed the biggest increase (over 100%) for loans in phase 2, similar to the above mentioned migrations. At the end of 2020, the coverage of non-performing loans by value adjustments was 36,9%, which is significantly less than at the end of the previous year, when it was 48%. A larger amount of capital was exposed to credit risk, given that the ratio of net non-performing loans ("uncovered") to capital increased annually from 13,8% to 20,2%10.

Banks successfully managed liquidity during the crisis year, which they entered with a high level of liquid assets. Measured by the ratio of liquid to total assets in the time frame 2015 - 2020, liquid assets amounted to over 20%. At the end of 2020, banks' liquid assets made up 22.2% of total assets, reaching the level of 1.016,1 million €. In absolute terms, it was higher by 6,2% compared to the end of 201911.

For liquidity needs, all banks were able to use the deposits they hold in settlement accounts with the CBCG (in addition to the mandatory reserve), which at the end of 2020 amounted to 505,6 million € or almost 50% of liquid assets. Banks could also use demand deposits with financial institutions abroad and at the end of 2020 those deposits amounted to 217,9 million € or 21,4% of liquid assets. Additionally, at the end of 2020, banks held a cash amount of 198,4 million. euros in their vaults.

[7] Central Bank of Montenegro, Report on the Stability of the Financial System 2020, p.30
[8] Central Bank of Montenegro, Report on the Stability of the Financial System 2020, p.33
[9] Central Bank of Montenegro, Report on the Stability of the Financial System 2020, p.34
[10] Central Bank of Montenegro, Report on the Stability of the Financial System 2020, pp. 36 and 37
[11] Central Bank of Montenegro, Report on the Stability of the Financial System 2020, p.39

Demand deposits prevailed in the deposit structure this year as well, and for the sixth year in a row they were higher than term deposits. At the end of 2020, they made 71,4% of total deposits, as well as at the end of the previous year. For the sake of comparison, at the end of 2013 their participation was 42%. This can be primarily explained by the tendency of passive interest rates to fall, so term deposits have become less attractive[12].

Considered remaining contractual maturity, the ratio of liquid assets to short-term financial liabilities (up to one year) amounted to 29,45% and was higher than at the end of 2019. If we look at the ratio of liquid assets to short-term liabilities with terms up to three months, then the ratio is 35,1%. Both indicators were higher at the end of 2020 due to the growth of liquid assets, but also due to decrease of short-term financial obligations for both mentioned maturities.

To support the liquidity of the system, the CBCG reduced the mandatory reserve rates by two percentage points each, which contributed to the increase of banks' assets on giro accounts with the CBCG by around EUR 70 million. In addition, when calculating the liquidity ratio for liabilities due to payment, banks are allowed to include 20% instead of 30% of demand deposits, which, among other things, enables them to manage funds more efficiently[13].

In 2020, Deposit Protection Fund was a strong support to the stability of the financial system, guaranteeing deposits of Montenegrin citizens and businesses in the amount of up to €50,000 through the collection of regular premiums from banks. In addition, the Fund provided a stand-by arrangement with the European Bank for Reconstruction and Development, in the amount of 50 million euros. If a protected case were to occur, the Fund's assets at the end of 2020, increased by this potential €50 million, would be sufficient for the payment of guaranteed deposits at any of the 8 credit institutions[14]. (out of 12 that operated during most of 2020 in Montenegro)

The capital solvency ratio at the system level at the end of the year was 18,5% and was above the legal minimum for all banks. The ratio of core capital (Tier 1) to risk-weighted assets was 17,4%. The total capital of banks was higher throughout the year than at the end of 2019, but at the end of 2020 it was down by 1,9% and amounted to 586,7 million €. The drop in total capital was also influenced by a significantly lower profit this year[15].

The net profit of banks in 2020 was 22,3 million €, which is around 50% less than the previous year. The four largest banks, which individually exceed 10% market share by assets, had a profit of 13,7 million €[16]. The decrease in profit for this year was mainly due to the increase in impairment costs, because some of the banks applied a conservative approach in assessing the newly created situation[17].

Year 2021:

The macroeconomic picture in Montenegro changed in 2021 compared to 2020, as a dominant pandemic year. There was a gradual recovery of economic growth (primarily in tourism) and real GDP growth was 12,4% according to preliminary data from Montstat. Considering this, we should consider the significant drop in GDP in the previous year (15,3%) due to the pandemic-induced slowdown in economic activity, primarily in tourism.

During 2021, banks are still the most significant part of the financial system of Montenegro, with high capitalization, liquidity and profitability achieved at the sector level. The high aggregate solvency ratio (18,5%) is noteworthy, which is particularly significant, bearing in mind that corrections during the Asset Quality Review (AQR) project are included in this ratio. During 2021, the issue of non-performing loans (NPLs) will become relevant again, and their share in total loans has increased to 6,2%[18]. The impact of this indicator on credit activity is lower than forecast, but it is undoubtedly negative.

[12] Central Bank of Montenegro, Report on the Stability of the Financial System 2020, pp. 39 and 40
[13] Central Bank of Montenegro, Report on the Stability of the Financial System 2020, p.40
[14] Deposit Protection Fund, Annual Report for 2020, p. 29 and 31
[15] Central Bank of Montenegro, Report on the Stability of the Financial System 2020, p.41
[16] Central Bank of Montenegro, Report on the Stability of the Financial System 2020, p.41, www.bankar.me
[17] Council for Financial Stability, Annual Report for 2020, p.31
[18] Council for Financial Stability, Annual Report for 2021, p. 16

Profit at the level of the banking system at the end of 2021 amounted to € 31,4 million, generated by higher income from interest and fees/commissions[19]. It should be noted that the increased provisioning costs had a limiting effect on the growth of net profit. Impairment costs increased slightly[20], but far less than in 2020, when they were almost three times higher than in 2019 due to the emergency situation.

At the end of 2021, total assets of the financial sector were 5,7 billion €, or 116,3% of GDP, which is the result of a significant increase in bank assets, as well as an incomplete recovery of GDP compared to the pre-crisis level. The banking sector continues to be the backbone of financial intermediation in Montenegro and occupies a dominant position in the assets of the financial system (93,3%)[21]. The insurance sector is the second most important group of institutions (4,5%), as it was in previous period. The remaining segments of the financial sector - microcredit financial institutions (MFIs), leasing companies and factoring companies - have a collective participation of 2,2% in the structure of the financial system.

In the last few years, the number of banks on the Montenegrin banking market has been decreasing, as a result of bank mergers and the introduction of bankruptcy in two banks. At the end of 2021, the merger of Komercijalna banka AD Podgorica with NLB banka was completed, and accordingly eleven banks were operating in the system at the end of the year. The concentration of the banking sector, measured by the Hirschman-Herfindahl (HH) index[22] according to assets, slightly decreased from 1.460 to 1.397 points. Measured by the same indicator, the market concentration of loans was significantly higher (1.720 points), while deposits at the end of this year were more evenly distributed, given that the mentioned index was 1.355 points. In terms of assets, the participation of the three largest banks in the market was 52,8%, while the participation of the five largest banks was 74%. Banks with majority foreign ownership have a share of around 80% in assets.

During 2021 nine insurance companies operated in Montenegro, four of them offered life insurance, and five companies offered non-life insurance. The insurance market is generally characterized by stability, but also by high market concentration[23]. Compulsory traffic insurance continues to have the most significant presence on the insurance market. This market has significant potential for further growth and development, which, among other things, is confirmed by the fact that in 2020 the insurance premium fell by only 1,1% and in 2021 achieved growth of 5,5%, exceeding pre-crisis premium level.

In 2021, there were eight microcredit financial institutions, two leasing companies, two factoring companies and two receivables redemption companies.

Similar to 2020, in 2021 changes in the balance sheet sum of banks were related to the method of financing. In this year, the share of loans in liabilities decreased, while the share of deposits increased, so at the end of the year deposits were at a historical maximum of €4,2 billion[24]. Part of the significant inflow of deposits was invested in securities. In the second half of the year, banks intensified investments in these instruments, whose annual position was 55,9% higher than the previous year and amounted to 734,4 million €, or 13,8% of the balance sheet. Historically, this is the highest level and share of these instruments in the balance sheet[25]. The largest part of these investments belongs to government securities, government bonds of Montenegro, which were very convenient for Montenegrin banks due to the security of placement and favorable interest rates. Likewise, since the regulatory weighting for these investments is 0%, banks generate income unencumbered by the regulatory requirement for allocation of capital on this basis.

[19] Council for Financial Stability, Annual Report for 2021, p. 16
[20] Council for Financial Stability, Annual Report for 2021, p. 23
[21] Council for Financial Stability, Annual Report for 2021, pages 19 and 20

[22] The Herfindahl-Hirschman Index (HHI) is used to determine market competitiveness. A market with an HHI of less than 1,500 is considered a competitive marketplace, an HHI of 1,500 to 2,500 is moderately concentrated, and an HHI of 2,500 or greater is highly concentrated.
[23] Council for Financial Stability, Annual Report for 2021, p.20
[24] Deposit Protection Fund, Annual Report for 2021, p.14
[25] Council for Financial Stability, Annual Report for 2021, p.20

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243117 | Volume 9, No.1 (2024): April

In 2021, the lending activity of banks increased slightly. Total loans were at an all-time high in August, 3,53 billion €, although by the end of the year they decreased to 3,36 billion €. Newly approved loans increased to 1,11 billion € and growth annualy by 22,6%. In general, credit activity was not at the level of the pre-crisis period, but in the circumstances of the ongoing pandemic, its volume was satisfactory26.

As for the loan portfolio, according to the so-called phases, which were discussed in the analysis of 2020, banks also moved loans to phase 2 in 2021. At the end of 2021, the annual growth of loans from phase 2 amounted to 9,2% and their share in total loans in one year period increased from 14,9% to 15,3%. The coverage of NPLs by value corrections has slightly increased compared to last year (amounts to slightly below 40%). Liquid assets have increased by 4,2% compared to 2020 and with the amount of €1,4 billion, they made 26,4% of total assets.27 This is also due to the fact that the banks showed satisfactory daily and decadal indicators of liquidity throughout the year. For cases of urgent need for liquidity, funds were available to banks in a very short period of time, in settlement accounts with the CBCG (in addition to mandatory reserves), as well as with financial institutions abroad. Banks kept significant funds (around €200 million) in their vaults.

As already mentioned, the solvency ratio at the level of the banking system was more than satisfactory and amounted to 18,5%, while the legal minimum is 10%. Also at the system level, the ratio of core capital (Tier 1) to risk-weighted assets was 17,4%.

The total capital of banks at the end of 2021 was higher by 3,4% than at the end of 2020 and amounted to 609,5 million. euros. The share of total capital in the balance sheet sum was 11,4%, while the share of basic capital in the balance sheet sum was 9,3%28.

The downward tendency of the average weighted active interest rate (for the entire credit portfolio of banks, i.e. on unpaid principal/debt) continued in 2021, and the decline amounted to -0,18 pp. Weighted average passive interest rate annualy declined by -0,05 pp. At the end of December this year, the average weighted active interest rate was 5,66%, while the average weighted passive interest rate was 0,35%. The interest spread thereby further decreased, and at the end of the year it amounted to 5.31 pp29.

Year 2022:

During 2022, there was a new wave of the Covid 19 pandemic, as well as an escalation of the war conflict caused by Russia's aggression against Ukraine. Disruptions in the supply chains caused by the pandemic were partially remedied at the end of 2021 and the beginning of 2022, but were compromised again in the rest of the year due to acts of war. As a consequence of these factors, there was a significant general increase in prices at the world level, mostly caused by the rapid increase in energy prices. The macroeconomic situation in Montenegro followed the European panorama and in such conditions there was a further gradual recovery of the economy and a real GDP growth of 6.4% according to Montstat data, accompanied by significant inflationary pressure - the annual inflation rate at the end of 2022 was 17 .2% (Montstat data).

The balance sheet of banks also grew in 2022 and the growth amounted to 20.2%, primarily due to a significant increase in deposits. During 2022, deposits achieved an annual growth of 1.02 billion. euros or 24.4% and at the end of 2022 reached a historical maximum of 5.22 billion. euros30. The net profit of banks in 2022 was 85.7 million. euros, which is almost three times more compared to the previous year, for the well-known reasons of the dominant impact of the pandemic. If we look at the four largest banks together, each of which individually exceeds 10% market share, we see that they had a profit of 77.8 million. euros. No bank reported a loss. The most significant factor that caused such a difference compared to the profit in 2021 was provisioning costs. In 2022, they amounted to -21.4

[26] Council for Financial Stability, Annual Report for 2021, p.21
[27] Council for Financial Stability, Annual Report for 2021, p.22
[28] Council for Financial Stability, Annual Report for 2021, p. 23
[29] Council for Financial Stability, Annual Report for 2021, p. 23
[30] Council for Financial Stability, Annual Report for 2022, p. 16

million. EUR (a negative cost has a positive effect on the result), and in 2021, 23.2 million. EUR, which makes a difference of close to 45 million. euros. Impairment costs decreased by 10.9% compared to 2021.31

Banks were adequately capitalized. At the system level, the total capital adequacy ratio was 19.3%, while the basic capital adequacy ratio was 18.4%. At the four largest banks, the total capital adequacy ratio was in the range of 13.2% to 28.7%. During the year, all banks in the system had capital ratios above the prescribed regulatory minimums. The banks' liquidity was at satisfactory daily and weekly levels throughout the year, and the banks' liquid assets amounted to two billion euros, achieving a strong annual growth of 41.5%. Liquid assets made up 31% of total assets, which is an increase of 4.7 pp compared to the end of the previous year.32

During 2022, three banks implemented recapitalization. At two banks, the share capital was increased by issuing shares, and one bank increased the share capital by converting subordinated debt into additional share capital.33

The total capital of banks amounted to 677.9 million. Euro and increased by almost 12% in relation to 2021. Its share in the balance sheet total was 10.6%, while the share of fixed capital in the balance sheet total was 8.3%.34

On the Montenegrin insurance market in 2022, nine companies performed insurance operations, of which four companies performed life insurance operations, and five companies performed non-life insurance operations. The insurance sector was characterized by moderate market concentration, however, individually considered, life and non-life insurance is characterized by high market concentration, especially in the life insurance segment. The share of gross invoiced insurance premiums in GDP at the end of 2022 was 1.9%, which is at a significantly lower level compared to developed European markets.35

In 2022, there were eight microcredit financial institutions operating in Montenegro, one leasing company, two factoring companies and three receivables purchase companies, 11 brokers/dealers and 6 investment funds.36

CONCLUSION

In conclusion, without diminishing the importance of other segments (insurance sector, microfinance institutions and capital market), we can firmly reiterate that the banking sector, led by the Central Bank of Montenegro, represents the dominant part of the financial system of Montenegro. Through a series of indicators and information mentioned above, it can be concluded that the banking system strongly contributes to the overall macroeconomic stability in Montenegro. Bankruptcy of two banks at the beginning of 2019 and the possible negative implications for overall trust in the banking system were successfully neutralized by the Deposit Protection Fund. Deposit Protection Fund timely undertaked all necessary actions and payment of guaranteed deposits began within the legally stipulated period. Already in the first few months, ending in July 2019, more than 80% of the obligation to the owners of guaranteed deposits in both banks was paid. This pace of payment strengthened the stability of the system and provided guarantees to clients, so that the so-called "bank run", which was one of the possible consequences of bankruptcy, was avoided.

The new international circumstances, strongly influented by war in Ukraine, impose the need for increased caution when it comes to macroeconomic issues in Europe, and thus in Montenegro, as a small and open economy, very susceptible to external influences. Growth of inflation, which in 2022 reached a double-digit level on an annual basis, as well as the reactions of key global and European central banks (FED, ECB) that raised reference interest rates, implied growth of reference interest rates on the Montenegrin market as well. Growth of Euribor also lead to the increase of interest rates for loans with a variable interest rate both in the EU and in Montenegro. In Montenegro, inflation was in large part imported, due to the rise in prices of imported goods, but there was also a strong influence

[31] Council for Financial Stability, Annual Report for 2022, p. 18
[32] Council for Financial Stability, Annual Report for 2022, p. 18
[33] Council for Financial Stability, Annual Report for 2022, p. 18
[34] Council for Financial Stability, Annual Report for 2022, p. 18
[35] Council for Financial Stability, Annual Report for 2022, p. 16
[36] Council for Financial Stability, Annual Report for 2022, p. 16

of the "domestic" component by inflatory expectations during last qurter of 2021. That was caused by the announcement of the introduction of new economic program, which predicted an increase in net earnings after abolition of health insurance contribution. Here we should also add certain number of unjustified increase in retail prices which further accelerated inflation.

With caution, always necessary when making forecasts for future periods, it can be stated that banking sector will continue to be a dominant factor in Montenegrin financial system in the years to come. The capitalization of banks will remain very good, with a high amount of liquid assets at the system level and total deposits at record levels. There are no indications of threats for the stability of individual banks, with Central Bank of Montenegro which continuosly keep monitoring the system.

REFERENCES

Council for Financial Stability, Annual Report for 2020, Appendix 1: Overview of the Financial Market in Montenegro"

Central Bank of Montenegro, "Report on the Stability of the Financial System for 2020", 28 - 41

Deposit Protection Fund, Annual Report for 2020, 29-31, 35

Deposit Protection Fund, Annual Report for 2021, 14

Council for Financial Stability, Annual Report for 2020, 31

Council for Financial Stability, Annual Report for 2021, 16, 20 – 23

Council for Financial Stability, Annual Report for 2022, 16, 18

Vittorio Corbo, "Financial stability in a crisis: What is the role of the central bank?", avalilable on: https://www.bis.org/publ/bppdf/bispap51f.pdf

Eric D., Djukic M., Bodroza D. (2021), „ Financial markets X.O.", Data Status, Belgrade.

Global Economic Prospects, June 2022, available on: https://openknowledge.worldbank.org/bitstream/handle/10986/37224/Global-Economic-Prospects-June-2022-Global-Outlook.pdf

Global Economic Effects Report, 2021, CRS, available on: https://sgp.fas.org/crs/row/R46270.pdf

Dell'Ariccia, Giovanni and Emilia Bonaccorsi di Patti (2004). "Bank Competition and Firm

Creation." Journal of Money, Credit and Banking, 36, 225-252.

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243119 | Volume 9, No.1 (2024): April

TRENDS AND NEW TECHNOLOGIES IN COMPUTER NETWORKS IN MONTENEGRO

Prof dr Mersad Mujević, B.Sc.
College of Professional Studies for Criminology and Security in Niš, R Serbia
ORCID ID: 0000-0003-4510-9926
mersadm@t-com.me
LLM Belma Mujević, law graduate
The University of Szeged, Faculty of Law and Political Sciences, Hungary,
mujevic5@gmail.com
Dina Mujević, Bachelor of Culture and Tourism
Dina Mujević, University of Donja Gorica - Podgorica, Montenegro,
dinamujevicc@gmail.com

ABSTRACT

In this paper, I will describe the current technological trends that appear in computer networks. I will talk about technologies that were created to improve current computer networks, but also build the foundation for the future of computer networks. It's about technologies: automation, software-defined wide-area networks, machine learning, and artificial intelligence. In the areas of network access and wireless networks, I will describe the 5G and Wi-Fi 6 technologies. The mentioned technologies improve business continuity, i.e. high availability of network devices and systems, as well as their behavior in case of disaster recovery. An important part of any business is prediction, which involves looking ahead and identifying the most important future trends in business and technology. Highlighting key technology trends is especially important to companies and business leaders who must address digital transformation today to remain competitive in the marketplace. Technological trends will have a significant impact on the world we live in. It will create a way of life, jobs, and human interaction. From virtual and augmented reality to artificial intelligence and quantum computing, these technologies will provide new opportunities and thus new challenges. That is why it is important to be aware of new trends and consider the potential consequences and implications of their widespread use.

Keywords: computer networks, 5G, Wi-Fi 6, machine learning, artificial intelligence

1. INTRODUCTION

In the business world, numerous trends determine the role of the network. Understanding these trends can help the IT sector better prepare for the ever-increasing expectations that business demands in various areas expect from networks. The development, growth, and maintenance of these processes can be facilitated with the help of automated processes that will enable the rapid development, deployment, and maintenance of various applications and processes whose role is to facilitate the operation of new business requirements. Developments in telecommunications and wireless technologies are already changing the world today, through fifth-generation data room connection technologies and sixth-generation wireless technologies, better known as 5G and Wi-Fi 6. The use of machine learning, artificial intelligence, robotics, and Blockchain technology is relatively new to the field. network technologies, but their potential is already very important.

„Computers, apart from being a key part of the business world, are becoming an increasingly important part for the individual as well. The continuous development of technologies must be accompanied by the comparative development of computer networks that started with sending data over wires, and we have come to the point where today it seems to us that everything is connected and that network technologies are all around us"[1].

Network technology can be separated into two simple terms: communication and sharing.

Communication is a medium that helps in both business and private environments, and thus computer networks are the basis for the development of important IT solutions. Information is a key part of effective communication. The importance of the development of new technologies, material and human resources in computer networks has never been greater than today, because they enable the functioning of the business world, and increasingly enter the sphere of private life.

In the ICT system, the concept of Disaster Recovery (DR) is different from the concept of High Availability (HA). Both DR and HA are related to Business Continuity (BC), high availability deals with the continuity of operations without interruption, while disaster recovery includes a period of downtime, which can range from a few seconds to several days.

In this paper, I will briefly describe the current technological trends that appear in computer networks. All the technologies listed in this paper improve business continuity, i.e. the high availability of devices and systems and their behavior in the event of disaster recovery.

This paper will include a brief description of trends in the field of computer networks. It was created on the basis of parts of my earlier research as well as lessons learned from lectures, which dealt with the latest trends in computer networks in the Computer Networks and Operating Systems courses at the International University in Novi Pazar, Department of Computer Sciences.

Figure 1. The future of network technologies in smart cities, Source: Sensoworks

[1] *Arend C. et al, (2017) IDC FutureScape: Worldwide Enterprise Infrastructure - https:// www.idc. com/getdoc. jsp?containerId=US43137417*

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243119 | Volume 9, No.1 (2024): April

2. NETWORK ACCESS AND WIRELESS NETWORKS

The flow of information in today's world is made possible by the existence of two types of network technologies. „One type is Wi-Fi technology, a type of local wireless network that is used indoors, such as an office or home. The second type is broadband mobile network technology, which is primarily intended for communication over long distances, and can also be used indoors“[2].

In order to ensure the future of both network technologies, it is important to continue developing the current versions. Local wireless networks are developing a technology called Wi-Fi 6. While broadband mobile networks are developing 5G mobile technology, which is already present today.

„Wi-Fi 6 and 5G are complementary technologies that will provide higher capacities and higher speeds and lower latency compared to their previous technologies. This alone will ensure the necessary infrastructure for the future needs of the ever-increasing volume of devices on the network and the exchange of information between them“[3].

By 2050, 68% of the total global population will live in cities, according to UN data. By then, the world population will be 9.7 billion and 11.2 billion by 2100.

China, India, and Nigeria together will account for 35% of the projected urban population growth between 2018 and 2050. Over 700 cities from all over the world presented their smart city projects at the Smart City Congress in Barcelona this year.

A smart city is a city in which urban planning is conceived with the ultimate goal of connecting all segments using the most modern technologies. This connection, which frankly collects a large amount of data, is used for the efficiency of city services, the improvement of the environment, and the convenience of the population's life.

Since smart and sustainable urban planning affects everyone, it is crucial that we know and understand what technologies are involved in building smart cities and how they can help achieve the ultimate goal of urban transformation into smart cities of the future.

2.1 5G TECHNOLOGY

5G technology is the fifth generation of the technological standard of broadband mobile networks that, while encouraging investment in innovation in various areas, brings changes to everyday life. 5G technology began to be introduced at the beginning of 2019 and has been introduced to date in a large number of countries, mostly in large cities where there is a need for a large number of devices in a small space. It was conceived to respond to the ever-increasing growth in the number of devices and enable the rapid transfer of the large amount of data they generate.

---

[2] *Andra U., (2019) Connecting the Unconnected: 5G and Wi-Fi 6 Will Play a Pivotal Role in Bridging the Digital Divide - https://blogs.Cisco.com /sp/5g-and-wi-fi-6-bridging-the digital divide*

[3] *Andra U., (2019) Connecting the Unconnected: 5G and Wi-Fi 6 Will Play a Pivotal Role in Bridging the Digital Divide - https://blogs.Cisco.com /sp/5g-and-wi-fi-6-bridging-the digital divide*

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243119 | Volume 9, No.1 (2024): April

Figure 2. The impact of 5G technology on today's world,
Source: https://www.emfexplained.info/?ID=25916

The fifth generation brings higher speeds, lower latency and better connectivity compared to its predecessors and enables the development of a new generation of applications and services that can change the world.

5G technology has three main advantages compared to previous technologies:

- Improved broadband mobile access that will provide higher data transfer speeds between devices in addition to higher data capacity.
- Great increase in communications between devices or in other words the Internet.
- Great reduction in latency when communicating between devices that enables real-time remote control of devices. This opens up the possibility of technological advancement in the fields of robotics, communications, security systems, medicine the auto industry, etc.

5G technology will impact human communities by enabling billions of devices to be connected and creating smart cities, schools, homes, and vehicles. Healthcare and education will be greatly improved and thus a better and safer life will be made possible. In the industry itself and the business world, the flow of a larger amount of data will be enabled, which will help the business and thus accelerate its development. It will open up space for innovation, better user experience, savings, and long-term growth.

„Also, new technologies such as virtual and augmented reality will become available to a large number of people“[4].

[4] *Anderson N., (2019) Are You Prepared for the Coming 5G and Wi-Fi 6 Disruption? https://www.wwt.com / article/are-you-prepared-5g-wifi-6-disruption*

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243119 | Volume 9, No.1 (2024): April

2.2 WI-FI 6

„Wi-Fi 6, like earlier Wi-Fi 5 and Wi-Fi 4 technologies, is based on IEEE 802.11 network standards and comes with improvements that will help process more and more data from various devices,- while paying special attention to the safety of users who use it“[5].

The main advantage of Wi-Fi 6 technology is a speed increase of up to 40% compared to Wi-Fi 5 technology. This is achieved by better coding of data, which increases the bandwidth of the wireless network. Compared to the previous standard, due to constant advances in technology, chips that encode and decode signals are becoming more and more powerful and can store ever larger amounts of data.

„Because of this progress, the amount of data packed into the same radio waves has also increased. Likewise, there have been major improvements in speed on networks using the 2.4 GHz frequency. Although the industry has switched to networks that use the 5 GHz frequency in recent years, with this progress it is possible to use the 2.4 GHz frequency in addition to the 5 GHz frequency, which is better in closed spaces because it passes through the walls themselves better“[6].

One of the new features brought by Wi-Fi 6 is that smart devices such as laptops, tablets, mobile phones and others that have Wi-Fi 6 technology enabled have a longer battery life.. This contributes to saving on the device's battery itself - because Wi-Fi will spend more time in idle mode, thus saving energy“[7].

„One of the main problems with the current Wi-Fi 5 network technology is a large number of users connected to the same access point, and it often happens that the network itself slows down traffic or even stops working due to an excessive number of devices connected to it. Wi-Fi 6, with its advanced technologies and the development of new chips, eliminates the problem of network downtime and, in the case of a large number of users connected to the network, improves the speed up to 4 times compared to the previous technology“[8].

This progress will be most evident in public places where we have a large number of people, such as sports and cultural events at airports, hotels, large shopping centers, and large offices.

2.3 WI-FI 6 AND 5G TOGETHER IN THE FUTURE

„WI-FI 6 and 5G technologies meet the basic conditions that future applications require, which are requirements for high speeds and very low latency“[9].

As Wi-Fi technology has much lower costs of reflection, deployment, and scaling compared to mobile technologies, especially in places where there are large numbers of people, it will continue to be dominant for business and home environments, i.e. for devices such as desktop computers, tablets, smart TVs and printers. The fifth-generation mobile technology will be oriented toward mobile devices, smart cars, and smart cities because it enables a greater range compared to Wi-Fi wireless technologies.

[5] *Hoffman C., (2020) Wi-Fi 6: What's Different, and Why it Matters - https://www. howtogeek.com/368332/wi-fi-6 what%E2%80% 99 s-different-and-why-itmatters/ IDC, (2018) Multicloud is the New Normal - https://www.cisco.com/c/dam/ global/en uk/solutions/cloud/overview cloud_business_cloud_advisor_infobrief_eng_ FY18Q3. pdf*

[6] *Hoffman C., (2020) Wi-Fi 6: What's Different, and Why it Matters - https://www. howtogeek.com/368332/wi-fi-6 what%E2%80% 99 s-different-and-why-itmatters/ IDC, (2018) Multicloud is the New Normal - https://www.cisco.com/c/dam/ global/en uk/solutions/cloud/overview cloud_business_cloud_advisor_infobrief_eng_FY18Q3. pdf*

[7] *Hoffman C., (2020) Wi-Fi 6: What's Different, and Why it Matters - https://www. howtogeek.com/368332/wi-fi-6 what%E2%80% 99 s-different-and-why-itmatters/ IDC, (2018) Multicloud is the New Normal - https://www.cisco.com/c/dam/global/en uk/solutions/cloud/overview cloud_business_cloud_advisor_infobrief_eng_FY18Q3. pdf*

[8] *Hoffman C., (2020) Wi-Fi 6: What's Different, and Why it Matters - https://www. howtogeek.com/368332/wi-fi-6 what%E2%80% 99 s-different-and-why-itmatters/ IDC, (2018) Multicloud is the New Normal - https://www.cisco.com/c/dam/ global/en uk/solutions/cloud/overview cloud_business_cloud_advisor_infobrief_eng_FY18Q3. pdf*

[9] *Anderson N., (2019) Are You Prepared for the Coming 5G and Wi-Fi 6 Disruption? https:// www.wwt.com/article/are-you-prepared-5g-wifi-6-disruption*

„The difference between WI-FI 6 and 5G technology is in network management. Wi-Fi technology uses the so-called unlicensed frequency spectrum for data transmission, which means that every house can have its own Wi-Fi network without obtaining a license for its use. However, as "neighboring" networks use the same frequency spectrum, there may be interference in data transmission“[10].

„5G technology uses a licensed frequency spectrum, licensed by mobile network operators. Performance such as speed and latency on devices will depend on the proximity of 5G base stations. While there will be no interference due to multiple devices in the same place because the spectrum of frequencies is large and each mobile operator has its spectrum“[11].

Due to the advantages and disadvantages of both technologies, they cannot function independently on a global level, but will cooperate and provide the basis for the development of new technologies, applications, and business solutions.

Figure 3. Application of 5G and Wi-Fi 6 technology,
Source: https://medux.com/blog/next-generation-wifi-6

3. AUTOMATION IN COMPUTER NETWORKS

„Network automation is the process of automating the configuration, management, testing, deployment, and operation of physical and virtual devices within the computer network itself“[12].

Innovations in the fields of virtualization, open-platform controllers, Software Defined Networks (SDN), Intent-Based Networking (IBN), and programmability contribute to automation.

3.1 SOFTWARE-DEFINED NETWORKS

[10] *Andra U., (2019) Connecting the Unconnected: 5G and Wi-Fi 6 Will Play a Pivotal Role in Bridging the Digital Divide - https://blogs. cisco.com /sp/5g-and-wi-fi-6-bridging-the digital divide*

[11] *Anderson N., (2019) Are You Prepared for the Coming 5G and Wi-Fi 6 Disruption? https:// www.wwt.com /article/are-you-prepared-5g-wifi-6-disruption*

[12] *Buvat J. et al, (2018) Reshaping the Future Unlocking Automation's Untapped Value - https://www.capgemini.com /wpcontent/uploads/ 2018/10/Report-%E2%80%93 Reshaping the –Future – Unlocking - Automation%E2%80%99s – Untapped - Value.pdf*

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243119 | Volume 9, No.1 (2024): April

„Due to the increasing demand for new applications with as little maintenance costs as possible, IT companies face the problem of maintaining so many new applications and devices in a the classic way - by opening new departments and hiring more people. They are turning to a new trend that increasingly accepts IT as a service, leaving some services such as network functionalities and devices to be managed by external companies or, if possible, by internal business users“[13]

Therefore, looking at the ever-increasing number of network devices, the complexity of networks, and the increasingly difficult management and control of networks and monitoring of new security requirements, led to the creation of a new technology called software-defined network management (Software Defined Networks - SDN). „The very definition of a software-defined network is that it "physically separates the control from the data room layer in such a way that the central controllers have an abstract view of the network". The architecture of software-defined networks consists of infrastructure, control, and application layers that serve to redirect traffic, manage and control devices and applications that send requests to network devices“[14].

The main advantages of software-defined networks are the possibility of automating network functionalities, the possibility of implementing the network as a service, better management of server load, and better and safer access to private networks. In addition, better monitoring of network systems and visibility of applications in the network is enabled.

3.2 VIRTUALIZATION

The virtualization model, which has already radically changed computer services in the world, has also been adopted in computer networks in the form of network functions virtualization (Network Functions Virtualization - NFV). Virtualizing network functions is a way to reduce costs and speed up the deployment process for network engineers by separating functions like encryption from dedicated devices or moving them to virtual servers. (IDC, 2018).

Internet Service Providers (ISPs), instead of using or buying expensive traditional hardware solutions, can now buy and use cheaper servers, switches, and storage to run virtual machines that are used to perform network functions. In this way, a large number of functions are collected in one physical server, which enables the reduction of costs, energy, and the space itself that would be occupied by traditional hardware solutions. If there is a need to add new network functions, in this case, a new virtual server is simply added to the existing infrastructure.

3.3 INTENT-BASED NETWORKING

The core goal of network teams is to continuously deliver applications, services, and protection. While software-defined networks offer important advances in automation, they are only part of the solution. Organizations also need continuous network monitoring and optimization to support increasingly dynamic and digitally driven business models. To achieve this, networks must understand the purpose of the business change itself and monitor the dynamic conditions in the network, so that they can continuously adapt to that purpose. Because of these changes, the online world is turning in the direction of Intent-Based Networking (IBN).

---

[13] *Rosencrance L., (2021) Software-defined networking (SDN) https://www.techtarget. com/ search networking /definition/software-defined-networking-SDN*

[14] *Rosencrance L., (2021) Software-defined networking (SDN) https://www.techtarget. com/ search networking /definition/software-defined-networking-SDN*

3.4 CONTROLLERS WITH OPEN PLATFORMS

Interfaces for programming applications (Application Programming Interface - API) on the controllers allow the controller to integrate and exchange information with the neighboring network, information services, heterogeneous infrastructures, and other domains in the line of business. „This turns the network into an open platform that can accept policies from applications and devices, take advantage of the automation of centralized higher domain policies, and verify that the system itself meets the needs of the business“[15].

3.5 PROGRAMMABILITY AS A NETWORK FOUNDATION

In order for Intent-Based Network Controllers (IBN Controllers) and systems to scale and realize their full potential, they must be built on a programmed physical or virtual network infrastructure. Programmed devices, interfaces, and programmable integrated circuits form the basis for an intelligent network. In order to adopt more effective automated systems, IT teams are moving away from traditional command line interface (CLI) based technologies to access network management. Instead, data room interface models that provide consistency, openness, structure, and efficiency are increasingly being adopted.

4. SOFTWARE-DEFINED WIDE AREA NETWORKS (SD-WAN)

„As today's trends lead to an increasing number of services in the cloud, and IT systems become more and more distributed, there is a problem of maintaining such large systems that are constantly increasing. This creates the need for software management of networks in a large geographical area (Wide Area Networks - WAN), which consist of many local area networks (LAN), and this management is called Software Defined Wide Area Networks (SD-WAN)“[16].

SD-WAN networks work on the principle of centralized management of the broadband network using a central management application, which in most cases is located in the cloud. By doing so, the system control is separated from the hardware components of the system, and because of this, network management is simplified and service provision is improved. „As the number of cloud services increases, and thus the number of devices and applications increases, traditional methods of maintaining wide area networks, e.g. individually manually configuring routers and gateways with the help of scripts, I can no longer keep up with that growth and additional complexity of the system. The aforementioned challenges are successfully solved by the SD-WAN network and offer simpler management of large and complex networks“.[17]

Equipment using SD-WAN technology is managed in such a way that network administrators write business-aligned rules and run them on a specific part of the system. Operational rules are automatically generated and downloaded to all SD-WAN devices at the time of system policy creation or modification.

„The advantages of SD-WAN network technology are“[18]:

- cost savings,
- agility,
- performance monitoring,

[15] Arend C. et al, (2017) IDC FutureScape: Worldwide Enterprise Infrastructure - https:// www.idc.com/getdoc .jsp?containerId=US43137417
[16] Sturt R., (2021) What is SD - WAN? - https://www.netify.co.uk/learning/what-is-sd-wan .
[17] Sturt R., (2021) What is SD - WAN? - https://www.netify.co.uk/learning/what-is-sd-wan.
[18] Sturt R., (2021) What is SD - WAN? - https://www.netify.co.uk/learning/what-is-sd-wan.

- speed of implementation.

Cost savings are achieved by the fact that SD-WAN technology makes it easier to move a non-critical part of the traffic to a much cheaper broadband part of the Internet. „Likewise, centralized management based on business policies allows network engineers to place more or less traffic on broadband networks at any time without having to reconfigure routers and gateways. Another area of cost savings is that network engineers will no longer need to travel to remote locations to configure new devices since management is centralized“[19].

SD-WAN improves the performance of cloud-based applications by making it easier to deploy access points in remote offices. It eliminates the need for round-trip traffic through a central Internet access point and can reduce latency and improve user experience for cloud-based applications.

„Deploying network technology and equipment in a new location is much easier with SD-WAN technology than with the traditional approach of deploying and configuring routers and gateways. A network engineer designs a network node on a central management application and then the SD-WAN device is sent to a remote location and connected by someone with little or no IT skills. After switching on, the device joins the network and connects to the central SD-WAN controller, which secures and configures the new devices and then places them on the network“[20].

5. MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

„A large number of devices and the arrival of new technologies make it difficult for network engineers to design, monitor and manage the network, so today more and more attention is being paid to the development of machine learning and artificial intelligence (AI) technologies“[21].

The role of artificial intelligence is; to mediate real-time communication between computer networks and ensure that all interactions between them receive the best possible quality of service from available connections. „And if machine learning and artificial intelligence will create a new approach to the design of computer networks, the human element itself will not disappear, but artificial intelligence will show us new ways of designing faster and more profitable networks, but still the construction of the network must be done by people. The combination of human intellect and creativity with the great computing power of artificial intelligence will create a situation where new design and management techniques can emerge“[22].

In addition to the simpler design of computer networks, artificial intelligence will also help in the management, maintenance, and protection of computer networks. „Today, networks are monitored with algorithms that look for irregular accumulations of traffic and activity that may be the result of malicious activity, such as distributed denial of service attacks. As the artificial intelligence driving these algorithms becomes more intelligent, it will find increasingly faster and safer methods of predicting future threats and cleaning the network itself of unwanted traffic“[23].

Because of all these possibilities provided by artificial intelligence for computer networks, it actually represents a revolution in the world of networks and network technologies. Especially if you consider that the world today is at a turning point in which it will be decided how we use the networks. It will change forever thanks to technologies like the Internet,

---

[19] *Sturt R., (2021) What is SD - WAN? - https://www.netify.co.uk/learning/what-is-sd-wan.*
[20] *Sturt R., (2021) What is SD - WAN? - https://www.netify.co.uk/learning/what-is-sd-wan.*
[21] *Apostolopous J., (2019) Improving Networks with Artificial Intelligence - https://blogs. cisco.com/networking /improving-networks-with-ai*
[22] *Apostolopous J., (2019) Improving Networks with Artificial Intelligence - https://blogs. cisco.com/networking /improving-networks-with-ai*
[23] *Apostolopous J., (2019) Improving Networks with Artificial Intelligence - https://blogs. cisco.com/networking /improving-networks-with-ai*

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM)
DOI: 10.33807/monte.20243119 | Volume 9, No.1 (2024): April

autonomous vehicles, and increasingly connected smart city systems. Artificial intelligence is causing and will continue to cause a complete rethinking of whether current business models and services are conducive to providing the best possible user experience and the very profitability of those models.

6. BLOCKCHAIN TECHNOLOGY

Blockchain technology is transforming the entire global digital economy. It is a completely new concept. Integrating Blockchain technology into smart cities will play a major role in connecting all smart city services in the future. The mentioned technology can be used in smart contracts. Smart contracts enable transparent and integrity transactions without the need for an intermediary. Which makes the process easier, cheaper, safer, and faster. Blockchain technology will help in processing invoices and various types of transactions, managing facilities, or facilitating and sharing energy through a smart grid.

7. CONCLUSION

„As today's world becomes increasingly driven by exponential growth in the technological needs of the business and private worlds, it becomes increasingly digitized, distributed, connected and diverse“[24].

Also, due to this inexorable growth, IT teams are finding themselves reaching a point where the complexity of networks exceeds the ability to effectively manage and secure the networks themselves. What has already become a need today are new systems that combine technologies such as automation and machine learning, (Buvat et al., 2018) that help simplify technological operations in various systems. Now we are coming to the threshold of a new era of networking in the technological world, in which the traditional outdated ways of building and managing the network will be broken and the future will be embraced more. That future will be driven by technologies that can solve all the challenges required by the new world in completely new ways. By using them in crisis management, we can change the approach from reactive to proactive management and thereby increase the efficiency of procedures, i.e. reduce losses.

By doing so, these technologies will support the growing needs of the market for increased scale of use, agility, and security, and thus will enable the continuation of new trends that will further change the digital world. By increasing the security of network systems, business continuity is improved and improved, with its two basic components: high availability and disaster recovery.

LITERATURE

[1] Anderson N., (2019) Are You Prepared for the Coming 5G and Wi-Fi 6 Disruption? - https://www.wwt.com/article/are-you-prepared-5g-wifi-6-disruption
[2] Andra U., (2019) Connecting the Unconnected: 5G and Wi-Fi 6 Will Play a Pivotal Role in Bridging the Digital Divide - https://blogs.Cisco.com /sp/5g-and-wi-fi-6-bridging-the digital divide
[3] Apostolopous J., (2019) Improving Networks with Artificial Intelligence - https://blogs. cisco.com /networking/improving-networks-with-ai
[4] Arend C. et al, (2017) IDC FutureScape: Worldwide Enterprise Infrastructure - https://www.idc.com/getdoc.jsp? containerId=US43137417

[24] *Arend C. et al, (2017) IDC FutureScape: Worldwide Enterprise Infrastructure - https:// www.idc.com /getdoc.jsp ?containerId=US43137417*

[5] Buvat J. et al. (2018) Reshaping the Future Unlocking Automation's Untapped Value - https://www.capgemini.com/wpcontent/uploads/2018/10/Report-%E2%80%93 Reshaping the –Future – Unlocking - Automation%E2%80%99s – Untapped – Value pdf

[6] Hoffman C., (2020) Wi-Fi 6: What's Different, and Why it Matters - https://www. howtogeek.com/368332/wi-fi-6 what%E2%80% 99 s-different-and-why-itmatters/ IDC, (2018) Multicloud is the New Normal - https://www.cisco.com/c/dam/ global/en uk/solutions/cloud/overview cloud_business_cloud_advisor_infobrief_eng _FY18Q3. pdf

[7] Miholjek M., (2020), Industrial certificates for computer networks (graduate thesis on Information Systems, mentor D. Valenčić). University of Velika Gorica.

[8] Miholjek M., Valenčić, D., Ćavar, S., (2021) Trends and new technologies in computer Networks (14th Scientific and professional conference "Crisis management days 2021"). Conference proceedings, Zagreb Velika Gorica, https://dku. hr/wp-content/ uploads /2022 /05/ DKU-2021-final.pdf

[9] Rosencrance L., (2021) Software-defined networking (SDN) https://www. techtarget. com/search networking / definition /software-defined-networking-SDN

[10] Sturt R., (2021) What is SD - WAN? - https://www.netify.co.uk/learning/what-is-sd-wan.