

INSTITUTE OF ECONOMIC SCIENCES



Editors

Aleksandar Zdravković Iskra Stancheva-Gigov Milena Lazić Katerina Hadži Naumova-Mihajlovska

# EUROPEAN ECONOMIES AFTER COVID-19: CHALLENGES AND IMPLICATIONS FOR THE MACROECONOMIC POLICY

**BOOK OF ABSTRACTS** 



# EUROPEAN ECONOMIES AFTER COVID-19: CHALLENGES AND IMPLICATIONS FOR THE MACROECONOMIC POLICY

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Aleksandar Zdravković Iskra Stancheva-Gigov Milena Lazić Katerina Hadži Naumova-Mihajlovska



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# PREFACE

Dear colleagues,

It is with great pleasure that we present you the Book of Abstracts from 14th International Scientific Conference "European economies after COVID-19: Challenges and implications for the macroeconomic policy"

This Book of Abstracts presents studies dealing with the challenges and implications of the ongoing global disruptions for the macroeconomic policy of European countries. The Book contains a total of 34 extended abstracts written by 66 authors from Croatia, Hungary, India, Lithuania, North Macedonia, Portugal, Romania, Turkey and Serbia. The conference is a product of long-term fruitful cooperation between the Institute of Economic Sciences and its regional partners – the members of the international association SEEA (The Institute of Economics Sarajevo; The Institute for Development and International Relations, Zagreb; The University of Montenegro, Faculty of Economics Podgorica; The Institute for Economics – Skopje, University "SS. Cyril and Methodius"; The Institute for Economic Research, Ljubljana).

The Conference aimed to encourage research and discussion about macroeconomic conditions caused by the COVID-19 pandemic and follow-up global disturbances regarding fiscal and monetary policy, growth and unemployment, international trade, and finance and economic and financial crisis. We believe that the exchange of thoughts between researchers is crucial to get insight into this unique episode in economic history and hope that the Conference output will serve as a source of new ideas and an inspiration for future research in the field of macroeconomics and economic crisis. Also, the editors are confident that the research studies presented in the Book of abstracts will be useful to policymakers in identifying opportunities for improving the competitiveness and economic development of European countries.

We thank all authors, reviewers, program committee and organizing committee members, and technical staff for contributing to this Book of Abstracts to fulfill our common goal – the publication of high-quality scientific results.

EDITORS

# MACROECONOMIC IMPACTS OF THE COVID-19 PANDEMIC IN SOME EUROPEAN UNION COUNTRIES: A COUNTERFACTUAL ANALYSIS

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# MOTIVATION

The Covid-19 pandemic forced countries to lock down borders, preventing normal flows of goods, capital, and services. Moreover, businesses and production shut down temporarily, causing enormous endogenous negative shocks on both supply and demand. Under such circumstances, the aim of this research is to provide an overall understanding of the macroeconomic effects of the Covid-19 pandemic in some European Union (EU) countries – Germany, Spain, Italy, and Portugal – as well as in the EU (27 countries).

# **RESEARCH QUESTION**

The Covid-19 pandemic generated disruptions in economic activity, output loss, and unemployment which are important to assess. However, this is a new type of shock, and the economies have different economic features from the past. Therefore, the question that arises is how to measure the macroeconomic impacts of something (the Covid-19 pandemic) that now hypothetically we assume has not occurred, when in reality it did happen? We do this under a counterfactual analysis.

# METHODOLOGY

The counterfactual analysis was conducted based on an ARIMA forecasting model through which the behavior of a set of macroeconomic variables (Gross Domestic Product, public debt, inflation rate, public deficit, and unemployment rate) is

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examined in the context of the Covid-19 pandemic against a hypothetical scenario without the pandemic.

# RESULTS

In general, the results point to a better performance of all variables in the four countries and in the EU if the Covid-19 pandemic had not existed. In this scenario, all countries would have achieved higher product levels and lower unemployment rates, showing, however, weaker economic growth rates when compared to the pandemic situation. The results also point to budget surpluses in Germany and Portugal, as well as a sharp reduction in Spanish public debt. In 2021 and 2022, there is also lower inflationary pressure for the EU, Germany, Spain, and Italy, after a sharp rise in prices in 2020.

## CONTRIBUTION

To the best of our knowledge, a counterfactual analysis based on autoregressive methods and focused on macroeconomic variables has never been carried out before, for such a large sample of EU countries, and the EU-27. We believe that this study is an important contribution to the literature on the subject, namely from the perspective point of view of the economic policies to be adopted in a pandemic and non-pandemic context, since both scenarios are considered in our study.

#### **KEY WORDS**

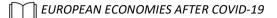
ARIMA, Counterfactual, Covid-19 pandemic, macroeconomic impacts

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C15, E63, F47, F62

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# AN ANALYSIS OF THE EFFECTS OF ECONOMIC GROWTH, FINANCIAL DEVELOPMENT AND GLOBALIZATION ON THE ENVIRONMENTAL QUALITY: PANEL EVIDENCE FROM G-20 COUNTRIES

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# MOTIVATION

Industrialization and fostering economic growth along with population growth have caused an increase in energy demand and environmental degradation, endangering sustainable development (Bertinelli et al., 2012). Also, climate change is linked to energy consumption and greenhouse gas emissions (GHGs). However, many environmental studies have emphasized the importance of reducing GHGs, particularly carbon dioxide (CO2) emissions. As a result, understanding the causes of growing CO2 emissions and choosing appropriate mitigation strategies is very critical, since such understanding would help policymakers pursue more realistic environmental policies. The goal of our study is to examine the effects of economic growth, financial development and globalization on environmental quality in G-20 countries.

# **RESEARCH QUESTION**

- 1. Do Financial development and economic growth positively contribute the quality of the environment?
- 2. Is there a relationship between globalization and the quality of the environment?
- 3. Is there a difference in their effects across countries?

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# METHODOLOGY

We use newly developed panel time series econometric techniques, such as Crosssectionally augmented ARDL (CS-ARDL), Westerlund (2008) cointegration Test, CCE and AMG methods, and Emirmahmutoğlu-Köse Granger causality test. With the help of these methods, we will not only short-and-long-run effects but also countryspecific effects as well.

# RESULTS

The major findings of the study show that while there is no effect of globalization on environmental quality, both financial development and economic growth contribute to the increase the environmental quality. These results show that financial development can be an important policy tool in the struggle against global warming and climate change. Therefore, governments should also consider financial factors in designing policies to reduce greenhouse gas emissions in the long run.

## **CONTRIBUTION**

We believe that our study has two major contributions to the current literature. First, it explores the effect of financial development, economic globalization, and economic growth on environmental quality proxied by CO2 emissions in G20 countries. Second, this research employs advanced panel data estimation methods to mitigate the problem of cross-sectional dependence (CD) and heterogeneity. Traditional panel data techniques like fully modified ordinary least squares (FMOLS) and dynamic ordinary least squares (DOLS), assume no dependence among panel cross-sections such that a shock in one country or section does not impact other countries or cross-sections. However, because of globalization, economies are closely connected socially, culturally, politically, and economically. Therefore, this paper makes a methodological contribution by applying a novel cross-sectionally augmented autoregressive distributed lags (CS-ARDL) model to address the CD and heterogeneity issue of panel data, which is ignored in earlier studies.

#### **KEY WORDS**

CS-ARDL, CCE, AMG, Panel unit root tests, Panel Granger Causality

#### JEL CLASSIFICATION

044, Q53, Q54

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# QUALITY OF LIFE THROUGH THE LENS OF MATERIAL DEPRIVATION, HOUSING CONDITIONS AND ECONOMIC SECURITY IN SELECTED SEE-6 COUNTRIES

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#### MOTIVATION

The great differences in the wealth of the states and the well-being of their citizens, the considerable social segregation, as well as the significant differences in individual's quality of life, especially during and after the global pandemic crisis, imposes the need to evaluate the quality of life using a wider set of indicators than just economic-financial ones. Considering that socio-economic inequality is a major problem for developing countries and is one of the main priorities for increasing economic development and human potential in the coming years, it even more justifies the assessment of the quality of life in the countries of South-Eastern Europe, including North Macedonia.

#### **RESEARCH QUESTION**

In recent decades, the measurement of the citizens' quality of life in a country has changed through the application of a more comprehensive scope of indicators that cover the whole life, namely the objective and subjective individual's perception about the quality of life. Among other indicators, the material living conditions

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expressed through material deprivation and housing conditions play a significant role in determining the individual's subjective well-being. Furthermore, the risks that may unexpectedly and negatively affect the material security of the individual or the household are also particularly important, determining their economic security. These different ways of measuring the quality of life in certain SEE-6 countries are the subject of analysis in this paper.

# METHODOLOGY

The methodological approach is mainly quantitative, which results from the very nature of the research question. More precisely, using the statistical method when reviewing certain dimensions of the quality of life, shown through some of the indicators, proposed and defined by the EU, a more realistic picture of the quality of life is obtained in certain countries of the SEE-6 for which data is available (Serbia, Montenegro, Croatia, Slovenia, and North Macedonia). The obtained data are analyzed in detail, compared and synthesized conclusions are drawn from them, which point to the required changes and measures. The latter indicates the qualitative approach in the research.

# RESULTS

The SEE-6 countries, especially those that are non-EU members lag behind the quality of life in the other EU member countries. In certain indicators, the differences are not so noticeable, but in most of them they are significantly worse. With the emergence of the pandemic, there is a tendency for their further deterioration or eventual maintenance at the same level. All this points to the need for socio-economic changes and the introduction of specific measures to improve the circumstances and overall living conditions in these countries, in the direction of their sound and progressive development in the upcoming years.

# CONTRIBUTION

Considering that the period since the emergence of the Covid-19 pandemic is relatively short and there has not been much research on this topic so far, the contribution of this research is precisely in the perception of the changes that the pandemic caused in the quality of life in the analyzed economies, especially through the prism of the selected indicators.

The practical contribution of the paper is that new findings about the quality of life in these countries can help policy makers in creating appropriate policies for its

improvement, incorporating the necessary socioeconomic changes and concrete measures.

# **KEY WORDS**

Quality of life, material deprivation, housing conditions, economic security, SEE-6 countries

## JEL CLASSIFICATION

I3, D6

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# THE EFFECT OF INCOME SUPPORT MEASURES DURING THE COVID-19 PANDEMIC ON POVERTY AND INCOME INEQUALITY IN SERBIA<sup>1</sup>

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#### MOTIVATION

The COVID-19 pandemic can deepen existing economic inequalities in Serbia and worsen the position of those who are already most vulnerable. Before the pandemic, children and the unemployed had the highest poverty rates. Although the Government of Serbia adopted generous support measures to mitigate the economic consequences of COVID-19, these measures were not directed toward these groups.

## **RESEARCH QUESTION**

This paper aims to understand how income inequality changed after the first year of the COVID-19 pandemic and which groups experienced the most significant changes in their relative income position in 2020. Additionally, the paper explores the role of two main income support measures: universal cash transfer to the adult population (UCT) and one-off transfer to pensioners and social assistance recipients (TPS), in the overall changes in poverty and income inequality and proposes alternatives to implemented measures.

#### METHODOLOGY

We utilise the data from Survey on Income and Living Conditions for 2020, and the methodology of so-called flesh estimates to nowcast income inequality indicators during the pandemic (max 500 characters with space). The methodology includes

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using LFS data from 2019 and 2020 to assess the changes in the labour market income, administrative data sources and the microsimulation tool INEQ-RS-COVID-19 to assess the changes in the social transfers and other non-labour income sources in Serbia.

# RESULTS

Results indicate that household disposable income in 2020 is more evenly distributed than in 2019, with the at-risk-of-poverty rate decreasing from 21.7% in 2019 to 20.2%. However, between-group inequality increased for age groups and education levels. The lowest decrease in poverty was for children because they were the only group not receiving direct income support in this period. While UCT and TPS undoubtedly helped to decrease poverty and lower regional differences in poverty rates, they were poorly targeted.

## CONTRIBUTION

We contribute to the literature in several ways. Firstly, our projections are the first attempt to provide more timely poverty and income inequality indicators for Serbia in case of future similar events. Second, we analyze the impact of the main income support measures implemented by the government from the perspective of targeting, poverty, income inequality and cost-efficiency. Thirdly, we propose alternative policies that address the needs of those who were left behind during the COVID-19 pandemic: children and the unemployed.

#### **KEYWORDS**

Nowcasting, universal transfers, income inequality, cost-benefit analysis, COVID-19, Serbia

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C15, D31, I32, I38

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# THE IMPACT OF THE COVID-19 PANDEMIC ON ENTREPRENEURSHIP IN THE EUROPEAN UNION

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# MOTIVATION

The COVID-19 pandemic, which started rapidly spreading across the globe in early 2020, has caused a global economic recession, described by a significant slowdown in total economic activity, a rise in unemployment, and a rapid increase of global inflation afterwards. This paper analyses the impact of the COVID-19 pandemic on entrepreneurship, and it discusses some of the key challenges and opportunities for entrepreneurial activity that emerged during the crisis.

# **RESEARCH QUESTION**

The research question of the paper is: "What is the impact of the COVID-19 pandemic on entrepreneurship?" First of all, this paper attempts to explore the way in which the COVID-19 pandemic affected entrepreneurship, highlighting the main negative effects on entrepreneurship that arose during the crisis. Then, this paper

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identifies the main opportunities for entrepreneurial activity that emerged during the crisis.

# METHODOLOGY

This paper relies on identifying the impact of the pandemic on entrepreneurial activity and small businesses. In order to achieve this, we perform a thorough literature review, examining some of the most relevant research papers and articles that explore this area. Also, to better understand entrepreneurship trends during the crisis, we analyze the ratio of youth self-employment as an indicator of entrepreneurial activity and the total population in the European Union. The data series for both youth self-employment and total population are obtained from Eurostat. We then create a framework which clearly describes how the pandemic affected entrepreneurship, and we give recommendations in terms of how entrepreneurs should respond to the crisis.

# RESULTS

The pandemic had various negative effects on small businesses and entrepreneurial activity, such as closed business activities or reduced operating hours leading to layoffs, supply chain disruptions, loss of important customers, inability to perform R&D etc. Additionally, entrepreneurs are faced with increased stress and mental health issues. Also, youth self-employment, as a percentage of the total population, decreases not only during the pandemic but even in the period before the crisis. However, digital technologies open new opportunities for entrepreneurs and small businesses.

# CONTRIBUTION

The main contribution of this paper is that it gives a clear overview of the impact that the COVID-19 pandemic had on entrepreneurial activity. Moreover, it focuses not only on identifying the negative effects but also on exploring emerging opportunities for entrepreneurs and small businesses during the crisis caused by the pandemic.

# **KEY WORDS**

Entrepreneurship, small businesses, COVID-19, economic crisis, digital economy

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# MACROECONOMIC IMPACT OF TOBACCO TAXATION IN SERBIA

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## MOTIVATION

The macroeconomic impact of tobacco taxation has been the subject of an ongoing debate between the tobacco manufacturing industry and tobacco control policymakers. The previous project studies on tobacco control in Serbia provide valuable insights into the effects of changes in tobacco prices and taxation on consumer demand, government revenue, illicit trade, etc. Nevertheless, no study attempts to build a macroeconomic model that captures inter-sectoral linkages between the tobacco industry and other sectors in Serbia, aiming to provide a full-scale estimation of the macroeconomic impact of tobacco taxation.

# **RESEARCH QUESTION**

The main research question is how an increase in tobacco taxation affects output, income, and employment at the national level. More specifically, the study estimates the net economic impact of tobacco taxation coming from reduced cigarette demand, change in the structure of household spending (crowding out effect) and additional government spending funded by additional tax revenues.

# METHODOLOGY

The methodological framework consists of two building blocks: i) development of the I-O model that captures linkages between the tobacco industry and other sectors in Serbia; ii) scenario analysis of the increase in tobacco taxation. The I-O model captures the transmission of the changes in demand for tobacco products on the output, income, and employment of the other sectors, which is quantified using respective multipliers. The scenario analysis of the increase in tobacco

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taxation encompasses three steps: an appraisal of the increase in tax revenues, an assessment of the change in the structure of household expenditure, and simulations of the macroeconomic impact on output, income, and employment.

# RESULTS

Two scenarios of increase in tobacco taxation relative to the 2019 baseline price are regarded: i) an arbitrary increase in specific tax for 25%, and ii) an increase in specific tax for 43.6% to reach EU standards. In both cases, the government yields additional tax revenues due to inelastic price demand for cigarettes. Simulations show that even if only 80% of additional tax revenues are reallocated into spending on those goods and services that reduce poverty and improve the welfare of society, the net macroeconomic impact on output, income, and employment will be positive.

# CONTRIBUTION

In this paper, we develop a macroeconomic model to run simulations of the tax policy reforms to quantify the effects that changes in the activity of the tobacco industry will impose on the key aspects of the other sectors (output, income, employment). The policymakers can utilize findings from the research in fine-tuning taxation policies in such a way as to maximize the public revenues and economic benefit of the country.

#### **KEY WORDS**

Tobacco taxation, Input-output analysis, macroeconomic impact, scenario analysis, Serbia

#### JEL CLASSIFICATION

E16, E17, H21

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# IMPACT OF COVID-19 ON FINANCIAL PERFORMANCE OF BANKING SECTOR IN THE REPUBLIC OF NORTH MACEDONIA

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# MOTIVATION

The current crisis caused by the Covid-19 pandemic has damaged the global economy, causing significant changes to every aspect of the global banking system (International Monetary Fund, 2020), and the Republic of North Macedonia is no exception. Since the banks are the main source of liquidity insurance for economies and they perform a very important intermediation role it is very important to study the impact of the Covid-19 pandemic on the financial performance of the banking sector in the RNM.

# **RESEARCH QUESTION**

The first research question in this paper is: Has the Covid-19 pandemic affected the financial performance of the banks in the Republic of North Macedonia?

The second research question in this paper is: What is the effect of bank-specific variables on a bank's profitability in a period of crisis?

# METHODOLOGY

The sample used for the analysis in this paper consisted of all commercial banks in the RNM. The period of study was divided into two segments, the pre-pandemic period (2015-2019) and the pandemic period (years 2020 and 2021) of Covid-19. We calculated the financial performance index (FPI) through the standardized CAMELS model for each bank and for each period. Additionally, we used different

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regression models to investigate the effect of bank-specific variables on banks' profitability and compared the effect for the two periods of study.

# RESULTS

From the results obtained, we concluded that although the banks in the RNM faced a lot of challenges caused by the Covid-19 pandemic, they managed to maintain their profitability and stability and even contribute to the process of mitigation of the consequences of the pandemic in the RNM. Some of the banks made a higher profit during the pandemic period compared to the years before the Covid-19, whereas almost all the banks had a solid and stable liquidity position after the year 2019 (Народна Банка на Република Северна Македониja,2020).

## CONTRIBUTION

This paper contributes to the existing literature in many ways. This is one of the few studies which examines the impact of Covid-19 on the bank's financial performance in the Macedonian context. The outcome of this study will help bank authorities to measure the efficiency of the preventive measures undertaken so far (Organization for economic co-operation and development, 2021) and potentially improve them during a crisis period. The results presented have important policy implications as the Central Bank of RNM tries to fight the pandemic and support the economy (The World Bank, 2021).

# **KEY WORDS**

Covid-19, FPI, CAMELS, bank performance, profitability

# JEL CLASSIFICATION

G210

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# ARTIFICIAL INTELLIGENCE IN CULTURE AND CORRUPTION ANALYSES AS INFLUENTAL FACTORS ON ECONOMIC DEVELOPMENT

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#### MOTIVATION

Causality between the influential effects of culture and corruption by means of incorporating economic growth and human development is an important topic in economic development. Determination of causality between the influential effects of culture and corruption on economic development by means of incorporating economic growth and human development. Despite the fact that culture and corruption in addition to development were substantially tested in current years, evaluating these variables and detecting how they could affect each other is of particular interest.

#### **RESEARCH QUESTION**

Cultural components of corruption may be explored. On account that there's no incorporation of those variables and cultural factors, the paper may even make contributions to existing economic development works. Figuring out the extent these variables influence the economic development of emerging economies may likewise be a benefit to official representatives and policymakers. Besides that, the awareness of the interrelation of culture and corruption can have a beneficial effect on putting the right legislations into place to foster the quality of good institutions.

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# METHODOLOGY

In overall it can be noticed that Economic Development, as the dependent variable, was sub-divided into Economic growth and Human Development. The present research made use of the economic data published on an annual base by the World Bank (2017c) as well as the Human Development Index (UNDP, 2017). The Cultural dimensions found by Hofstede (2010) including Power Distance, Individualism, Maskulinity, Uncertainty Avoidance, Long-term orientation as well as Indulgence are besides corruption the independent variables within this study. Corruption is measured by the Corruption Perception Index (Transparency International, 2016b). The upcoming sub-chapter will elucidate the variables and measures more precisely. Thereof ANN analysis and correlation matrixes are used within this study. The gathered secondary data, retrieved from public organizations comprising the World Bank, the United Nations Development Program, Transparency International as well as well as Well as Hofstede's Research Centre has been used.

# RESULTS

In regard to economic growth and prosperity within the panel, dataset has shown a mean annual per capita GDP (PPP) of about 11.486 \$. This seems to be pretty high for emerging economies, but when considering the standard deviation (SD = 9024), a different picture is presented. The average GDP growth of all emerging countries circle around the 3 % mark, but also deviating in about the same height (SD = 3,01). The rate of HDI averages on the 67,5 unit level (out of 100), also showing a divergence of about 11 % (SD = 11,57).

#### CONTRIBUTION

Figuring out the extent these variables influence the economic development of emerging economies may likewise be a benefit to official representatives and policymakers. It needs to be pointed out that significant correlations are existent among the cultural variables itself, but just on a moderate level (r=0,12<0,5). This is especially important to be aware of possible multi-collinearity issues.

#### **KEY WORDS**

Culture, corruption, economic development, artificial intelligence

#### JEL CLASSIFICATION

012, R53

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# THE IMPACT OF COVID-19 ON THE INFLOW OF FDI: EVIDENCE FROM WESTERN BALKAN COUNTRIES

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## MOTIVATION

Foreign direct investment is considered one of the key elements of the transition process. Also, they represent a very important instrument in every national economy's economic growth and development. In the last 20 years, there has been a dynamic growth of these investments, which has positively impacted the economic development of many countries. However, the pandemic of COVID-19 virus significantly contributed to the decline of economic activities in almost all countries, which also affected the fluctuation of FDI in the global framework.

## **RESEARCH QUESTION**

The main goal of this paper is to determine whether the COVID-19 pandemic has affected the inflow of foreign direct investments in Western Balkans countries. The task was to show FDI inflows before the onset of the pandemic (2018-2019) and the first two years of the pandemic (2020-2021). After that, a detailed analysis and comparison of the economies of these countries were carried out to determine the degree of changes in FDI flows.

## METHODOLOGY

The methodology applied in this work was based on a quantitative approach, while the data on the investigated phenomena was obtained through desk research. The analysis was based on secondary data available in the UNCTAD international database. The empirical research covered the countries of the Western Balkans, while the analysis used data for the period 2018-2021.

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 $\square$ 

EUROPEAN ECONOMIES AFTER COVID-19

## RESULTS

According to the results obtained, the total inflow of FDI in the Western Balkans countries decreased by 15% in 2020 compared to 2019, indicating that the COVID-19 pandemic affected the flow of FDI. However, viewed individually, a decline in FDI was recorded in the case of North Macedonia (-48%), Serbia (-19%), and Albania (-14%), while growth was recorded in BiH (+16%) and Montenegro (+26 %). The results for 2021 show that all Western Balkans countries have an upward trend in FDI inflows.

## CONTRIBUTION

The COVID-19 pandemic has led to disruptions in the world market, which was also reflected in the fluctuation of FDI in the global framework. The main contribution of this work is reflected through a systematic presentation and analysis of FDI inflows in the countries of the Western Balkans. The obtained results can be important to economic policymakers to discover problems and then find solutions to increase the inflow of FDI in the Western Balkans countries.

## **KEY WORDS**

Foreign direct investment, COVID-19, competitiveness, crisis, WB countries

## JEL CLASSIFICATION

F21, E22

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# THE IMPACT OF COVID-19 CRISIS ON THE EUROPEAN AIRLINES' STRATEGIC PRIORITIES AND DECISION MAKING PROCESS

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## MOTIVATION

The purpose of the present paper is to investigate the European airlines' reactions to the COVID-19 crisis, during 2020 and 2021, by taking into account the typical crisis response strategies: retrenchment, persevering, innovating and exit. Meanwhile, the study analyses the implications of government support of the air transport industry during this downturn period.

## **RESEARCH QUESTIONS**

- Q1. Had the government support an influence on the major European carriers' strategic decision process?
- Q2. Did the strategic responses of the low-cost airlines differ from those of the traditional carriers?
- Q3. Will the consolidation process continue among the continental European aviation market in the context of the pandemic?

## METHODOLOGY

The methods used in the analysis consist of an empirical investigation and a comparative analysis. Firstly, we screened the weekly Air Transport Digest newsletter of the *Aviation Week Network* during the period March 2020 – December 2021, the European airlines newsletters and reports and also some official statistics of the European Union. Secondly, the identified actions taken by carriers were subsequently included in one of the four general crisis response strategies mentioned in the literature.

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#### RESULTS

Our results suggest that the increase of government influence on many major European carriers changed the strategic priorities and decision-making process. Yet, the strategic responses were different for the low-cost airlines than for the traditional carriers. Another finding of the study underlines that the consolidation process that took place at the beginning of the 21<sup>st</sup> century among the continental European aviation market was significantly altered in the context of a pandemic.

#### CONTRIBUTION

Despite the major concern of the analysts related to the time that would be necessary for the airlines market to regain the pre-pandemic performances, the specific effects of airlines' strategic responses are not deeply analyzed. Therefore, the current study aims to cover this gap in the literature.

#### **KEY WORDS**

Coronavirus pandemic, aviation market, strategic responses, government support

#### JEL CLASSIFICATION

D22, L10

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# TOURISM AND ECONOMY SURVIVING COVID-19 - TIME FOR TRANSFORMATION

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#### MOTIVATION

Significantly contributing to the economy, the travel and tourism (T&T) sector accounted for 10.3% of global GDP and supported 330 million jobs in 2019 (WTTC, 2020). In 2020, the COVID-19 pandemic nearly brought the global tourism industry to a halt (Sharma et al., 2021), resulting in economic indicators. Tourism got at a crossroads where the actions today shape the tourism of tomorrow (OECD, 2020). It is important to evaluate whether the pandemic, which led to the recession, could be the basis for sustainable transformation.

#### **RESEARCH QUESTION**

As the T&T sector, which significantly contributes to global economic development, was the first to feel the effects of the COVID-19 pandemic, it has got under scientific discussion analyzing the effects and looking for ways to revive tourism and the economy. The research question is whether this crisis situation, besides the negative effects, at the same time could be the time for the long-needed change to transform tourism, moving to more sustainable tourism and economic development.

#### METHODOLOGY

The research methods of scientific literature analysis and synthesis are applied to disclose and justify the scientific problem and research question. Logical analysis, data analysis, and situation modeling are performed to analyze scientific

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theoretical, and statistical information answering the research question. To formulate the conclusions, the logical conclusion method is applied.

## RESULTS

The COVID-19 pandemic has had wide effects on the tourism sector. Tourism numbers have dropped sharply, touching the economy as well. The analysis of tourism and economic trends clarified that the transformation of the T&T sector is essential to survive. It was revealed that the COVID-19 pandemic could be scope to re-evaluate a transformation of the overall tourism system for sustainability (Gossling et al., 2020). The tourism industry may transform into a new global economic order (Sharma et al., 2021).

## CONTRIBUTION

Scientific authors and international organizations investigate tourism and economic trends in the face of the COVID-19 pandemic and after. Numerous studies highlight the losses and negative COVID-19 consequences. There is just a few research claiming that a pandemic could be an opportunity for transformation to build back better. This research fills the gap by evaluating whether this crisis could be the time to transform tourism, moving to a more sustainable future of tourism and the economy.

## **KEY WORDS**

Tourism, economy, COVID-19, transformation, responsible tourism

## JEL CLASSIFICATION

Z30, Z32, O10, L83

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# THE DYNAMICS OF PUBLIC DEBT IN SERBIA - A NONLINEAR PERSPECTIVE

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#### MOTIVATION

In the second half of fiscal 2012, the public debt of the Republic of Serbia breached its 45% of GDP upper limit defined in fiscal rules of the Republic of Serbia. Moreover, in the second half of fiscal 2014, the public debt of the Republic of Serbia breached yet another limit of 60% of GDP defined in Maastricht convergence criteria. Given the aforementioned fiscal trends, this research tests for nonlinear mean reversion in the public debt to GDP ratio dynamics after 2001Q1.

#### **RESEARCH QUESTION**

The research questions are as follows: 1) Is there a nonlinear mean reversion behaviour in the dynamics of public debt to GDP ratio in Serbia after 2001Q1? 2) Does the public debt to GDP ratio exhibit nonlinear mean reversion after breaching its 45% upper limit defined in fiscal rules? 3) Does the public debt to GDP ratio exhibit nonlinear mean reversion after breaching its 60% upper limit defined in Maastricht convergence criteria?

## METHODOLOGY

In testing for the presence of nonlinear mean reversion in public debt dynamics, this research will employ: 1) Tsay's (1989) threshold nonlinearity test; 2) Hansen's (1996) self-exciting threshold autoregressive (SETAR) estimation methodology, and 3) Bai & Perron's (2003) methodology for computing and analyzing multiple endogenously determined thresholds.

## RESULTS

Tsay's (1989) nonlinearity test implies a single threshold with a delay parameter of one quarter in public debt dynamics. The methodology of Bai & Perron (2003)

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detects relatively stronger mean reversion after the Maastricht criterion breach compared to the 45% of GDP fiscal rule upper bound. Finally, the estimation of Hansen's (1996) SETAR specification implies a nonlinear mean reversion after the breach of an endogenously determined threshold of approximately 70% of GDP.

## CONTRIBUTION

Bohn (1998, 2007) formulated a fiscal reaction function (FRF) in which a positive response of primary fiscal balance to a unit increase in sovereign debt implies sustainable fiscal policy. Leeper & Li (2016) question whether such univariate FRFs can represent an actual fiscal behaviour prone to regime changes. The estimation of SETAR models can be a helpful alternative until policymakers do not estimate DSGE cross-equation restrictions which can credibly recover the government's fiscal behaviour.

## **KEYWORDS**

Public debt, Serbia, fiscal rules, Maastricht convergence criteria, a debt threshold

## JEL CLASSIFICATION

C22, C54, H63

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# THE RESPONSE OF THE EUROPEAN CENTRAL BANK TO THE ECONOMIC CRISIS CAUSED BY THE COVID-19 PANDEMIC

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#### MOTIVATION

The COVID-19 pandemic, which started rapidly spreading across the globe in early 2020, has caused a global economic recession, characterised by a significant slowdown in total economic activity, an increase in unemployment, and a rapid increase of global inflation afterwards. The economic crisis necessitated an immediate response by both fiscal and monetary policy authorities. The goal of this paper is to analyse the response of the European Central Bank (ECB) to the economic crisis.

#### **RESEARCH QUESTION**

The paper's research question is: "What was the response of the ECB to the economic crisis caused by the COVID-19 pandemic?" More specifically, this paper attempts to explore the main measures that the ECB took in order to cope with the economic crisis in the euro area. This research describes how the ECB's policy changed over time to respond to the different challenges at different stages of the economic crisis.

## METHODOLOGY

This paper examines various datasets that describe the most important economic indicators in the euro area countries. Concerning the policy measures that the ECB

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has taken in order to mitigate the negative effects of the crisis, we primarily rely on the statements given by the ECB.

#### RESULTS

At the beginning of the crisis, the ECB launched the pandemic emergency purchase programme (PEPP), kept the interest rates low, and increased the amount of money that banks could borrow from the ECB. The goal was to stimulate economic activity by providing funds to households and businesses. However, as inflation started to rise significantly, the ECB decided to end the programmes for quantitative easing, and it intends to raise the key ECB interest rates in July and September 2022.

#### CONTRIBUTION

The main contribution of this paper is that it gives a clear overview of the measures that the ECB took in order to cope with the economic crisis caused by the COVID-19 pandemic. Moreover, this research clearly shows how the policy of the ECB has changed over time in order to tackle the major economic issues that arose during the crisis. This paper adds to the growing body of literature dealing with the activities that major central banks have taken during the pandemic.

#### **KEY WORDS**

Recession, COVID-19, monetary policy, ECB, price stability

## JEL CLASSIFICATION

G01, E52, E58

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# GREEN BOND MARKETS' DYNAMICS: THE COVID-19 AND THE AFTERMATH ERA

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#### MOTIVATION

By virtue of the trailblazing securities' issuance in 2007, the world welcomed a greener financial regime and endorsed ecological footprint's minimization longings. Green bond markets' growth momentum began in 2014, dominating over the other sustainable financial instruments' issuance volumes, and evolving to record USD 517.4 billion annual issuing value in 2021 (OECD, 2022; Climate Bonds Initiative, 2022). This vigorous expansion, however, was not volatility free, since the COVID-19 crisis and its remnants altered the global green bond markets' dynamics. Identifying the absence of studies dealing with this issue imposed an influence on this research's emergence.

#### **RESEARCH QUESTION**

The main research questions that arise from observations made are as follows:

- Q1: Has the green bond markets' dynamics been adversely disrupted by pandemic-related ongoings during the COVID-19 era or not?
- Q2: Has the green bond markets' dynamics been adversely disrupted by pandemic-related ongoings during the COVID-19 aftermath era or not?

#### METHODOLOGY

From a limited literature foundation (Liu, 2022; Rao et al., 2022; Keliuotytė-Staniulėnien & Daunaravičiūtė, 2021; Yi et al., 2021; Jolović & Jolović, 2021; Taghizadeh-Hesary et al., 2021), green bond markets' dynamics knowledge was

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extracted using the content analysis and thematic analysis method. Regarding the empirical research segment, a relevant, pioneering index - S&P Green Bond Index, originating from Standard & Poor's Dow Jones Indices' family was engaged, whilst its data (market values data) and pandemic-related indicators data (growth rates of recorded cases/fatalities data), originating from Worldometer's database, served in quantifying the global green bond market's dynamics during the COVID-19 and the aftermath era (S&P Dow Jones Indices, 2022; Worldometer, 2022). The research model was based on the data from January 2014-January 2022 interval, given the fact that the global green bond market entered its mature stage of development at the beginning of 2014, experienced a crisis-driven downturn amidst 2020, and found itself at the dawn of a new era (Russian-Ukrainian war era) in February 2022. The research encompassed correlation and regression analysis, videlicet a series of statistical procedures conducted using IBM SPSS Statistics 25.0 software.

## RESULTS

The obtained research results revealed the existence of a strong adversely influence of infection cases/fatalities on the S&P Green Bond Index's performance, i.e., on the global green bond markets' growth trend (which started back in 2014) during the first few months of the COVID-19 crisis' outbreak. The augmentation trend regarding the aforementioned index, however, followed shortly after and endured throughout the COVID-19 aftermath era, up until January 2022. Additionally, highlighting-worthy research's result indicated that green bond markets' response to fatalities resulting from COVID-19 emergence was more tumultuous compared to the response to cases resulting from this health phenomenon emergence.

## CONTRIBUTION

Since scientific-professional literature records a scarcity of studies apropos global green bond markets' dynamics during the COVID-19 and the aftermath era, this research results' contribution emanates from "harvesting" new knowledge through addressing the current and undetected issue. Finally, given the fact that green bonds are used as funds for environmentally friendly projects' financing, with a strong potential of reshaping the future investment landscape, the research results that describe this market's dynamics in (post)crisis times can serve in constructing future development patterns and increasing the resistance to succeeding (un)expected situations.

## **KEY WORDS**

Green finance, Green bonds, S&P Green Bond Index, COVID-19 cases and deaths

#### JEL CLASSIFICATION

G10, G41, Q56

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# POST-COVID ECONOMIC REFLECTIONS IN CENTRAL EUROPE AND/OR THE NEW ECONOMICS OF SUSTAINABILITY

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#### MOTIVATION

"Change is needed in the next generation of economists" (Coyle, 2021)

The study aims to examine the world economic and geopolitical trends that heavily influence the 21<sup>st</sup> century. Due to the complexity of the present situation, one aspect of the intellectual challenge is that the Covid-19 pandemic has intensified and accelerated these trends. Another is that only by taking these effects into consideration will the post-covid effect be able to be handled. Economist (2020) In this regard, we look at sustainable economics and economic policy; how economic policy can focus on both balancing and the challenges of growth (Matolcsy, 2020).

## **RESEARCH QUESTION**

The study's central question is how to restore economic equilibrium in the postcovid era. How can an economy whose external environment has changed completely - partly as a consequence of the Covid-19 pandemic - be put on a sustainable track again? What are the megatrends of the 21<sup>st</sup> century, and how can we harness these new winds? (Rodrik &Stephen, 2021) What opportunities does a Central-European country have in this climate? How can the risk of a durable increase of inflation with rapid recovery be minimised and handled? (Hodgson, 2019): How do the new types of money overwrite the functioning of financial systems and the process of creating money? (Orrell, 2018; ECB, 2021)

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#### METHODOLOGY

The relevant international references will be introduced in the study from a multidisciplinary – descriptive-interpretative – approach. (Werner, 2016) In this sense, special emphasis is placed on the analysis of Hungarian National Bank (MNB) practices, which can be interpreted as a doctrinal starting point. (Matolcsy&Palotai, 2018) The practices of the Hungarian National Bank will be presented with resource analyses, with special attention to digital finances. The MNB introduced the instant payment system in March 2020, which is a remarkable example. In recognition of the successful implementation of the system and for the fact that it is an internationally unique Hungarian model, the MNB received a highly prestigious award from the Central Banking Institution on May 22, 2021. (MNB, 2021/b)

## RESULTS

The study concludes that the pandemic has accelerated a number of processes that started after 2000 and a turn in the given field was only expected by 2030. The idea of sustainability has become a leading aspect in the fields of employment, financial balances, growth, inflation and in global, regional and local commerce. (Blanchard & Summers, 2019):

In the post-covid era 'balance and growth' have become synchronous aspects, and in this respect, the Hungarian economic policy, which has already successfully applied this formula before the pandemic, might be of high importance. (MNB, 2019/a)

In a new paradigm of sustainability, for the first time in the last hundred years, growth and balance can be seen as both a preference. (MNB, 2019/b):

## CONTRIBUTION

This study attempts to examine how, alongside an economic balance, the ecological sustainability of the economy can be created, with which a real, sustainable growth can be ensured.

The main challenge for economics is a new understanding of sustainability (MNB, 2022; MNB 2021/a). Not only because of climate change and the challenges posed by large corporations but also because economics does not examine several factors of balanced growth, such as geography, geopolitics, new technologies, culture-based economic growth, sustainable budgeting (public debt) and balance of payments, total employment, the post-covid effect, etc. (Boar & Wehrli, 2021)

"Since these challenges are interlinked, a kind of "holistic" approach should be taken in the "sustainable economics" of the future." (Matolcsy, 2021)

The study analyses the role of the central banks in this process, emphasizing that they may significantly contribute to the reinterpretation and the reshaping of the economic ecosystem. (BIS, 2020)

## **KEY WORDS**

Sustainability, economic balance, Covid-19 pandemic, digitalization, central bank digital currency

#### JEL CLASSIFICATION

E42, E52, E60, E61, G01, H12, O23 G28, O16, Q54

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# FEATURES OF CHINA-WESTERN BALKANS TRADE AND PROSPECTS FOR ITS DEVELOPMENT IN THE POST-COVID-19 ERA<sup>1</sup>

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#### MOTIVATION

The economic growth and development of the Western Balkan region in the post-Covid-19 period largely depends on the integration of national economies into international trade flows. Bearing in mind the expanding presence of China in the Western Balkan countries and the considerable increase in bilateral trade over the previous decade, it is of great importance to focus on the strategies for overcoming main challenges and fostering more balanced trade in the forthcoming period.

#### **RESEARCH QUESTION**

The main aim of the research was to analyze trade flows and patterns and investigate the trade intensity between the Western Balkan countries and China. Furthermore, the research attempted to determine the main challenges and to consider the strategic approach to their overwhelming including better exploiting the opportunities provided by trade cooperation with China in the rapidly changing global environment.

#### METHODOLOGY

The paper used desk research - a descriptive analysis of data on merchandise trade between six countries of the Western Balkans (Albania, Bosnia and Herzegovina,

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Montenegro, Croatia, North Macedonia and Serbia) and China. The analysis was based on the data available in the UN Comtrade and Trade Map statistical databases for the period 2016-2021. For the sake of a more coherent approach, the data was collected so that China was observed as a reporting country on merchandise exports and imports (Reporter), while the countries of the Western Balkans were considered partner countries (Partner).

In addition, the Trade intensity index (TTI) was also used in the paper in order to discover how intensively the Western Balkan countries were trading with China. TTI is defined as the share of one country's exports going to a partner divided by the share of world exports going to the partner (World Bank, 2010).

## RESULTS

According to the analysis, the total merchandise trade of all Western Balkan countries amounted to \$7.3 billion in 2021, which represents a more than threefold increase compared to 2016. However, despite the rapid growth of trade with China, its share in the total trade of the WB countries still remains at a rather low level of about 7%. The trade deficit also increased significantly, indicating a deepening of the asymmetry in the economic relations of the observed countries. Although the trade intensity index (TII) confirms the deepening of trade relations, the TII value of 0.24 in 2021 indicates that trade between the Western Balkans and China is still under-represented and there is considerable room for improvement.

## CONTRIBUTION

The research outcomes contribute to widening existing knowledge by providing a comprehensive insight into the trade flows dynamics and patterns between the Western Balkan countries and China, including the trade intensity assessment. Identification of the major obstacles and measures for its overcoming would potentially help decision-makers to develop a more appropriate and effective strategic approach based on the adequate support of the Western Balkans' exporters while entering the Chines market and encouraging their inclusion in the global value chains led by Chinese companies.

## **KEY WORDS**

China, Western Balkan countries, trade, trade intensity index

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F10, F14

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# ECONOMIC GROWTH AND ENVIRONMENTAL DEGRADATION: EVIDENCE FROM WESTERN BALKAN COUNTRIES

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#### MOTIVATION

A growing desire for prosperity and economic growth worldwide has led to the rising use of natural resources and increased pollutant emissions, especially carbon dioxide. As a result, the global community is faced with reduced energy security, resource depletion, and, most critically, climate change and global warming. Generally, well-being must be pursued without using more natural resources or harming the environment.

## **RESEARCH QUESTION**

The increased use of non-renewable resources, higher pollution levels, global warming, and the potential loss of environmental ecosystems are some of the environmental effects of economic expansion. But not all types of economic development harm the environment. Therefore, the main research question of this study is how well Western Balkan countries reconcile economic growth attainment with environmental quality. This paper aims to study the relationship between GDP per capita and  $CO_2$  emissions in five Western Balkan countries.

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#### METHODOLOGY

To investigate the relationships between the variables, this study's methodology includes cross-section dependence tests (Breusch-Pagan LM; Pesaran scaled LM; Bias-corrected scaled LM; Pesaran CD), panel unit root tests (Levin, Lin & Chu; Breitung; Im, Pesaran, and Shin; ADF-Fisher; PP-Fisher), Johansen Fisher panel cointegration, and panel short- and long-run causality tests.

#### RESULTS

The results show no cross-sectional dependency between time series. Furthermore, all unit-root tests reveal that all variables are non-stationary at level but stationary when converted to the first difference. Panel Cointegration test indicates a long-run cointegration relationship among the variables. The results further demonstrate the existence of a short-run bidirectional panel causality between CO<sub>2</sub> emissions and GDP. In the long run, the GDP coefficient is negative and statistically significant, meaning that GDP causes CO<sub>2</sub> emissions in the long run.

#### CONTRIBUTION

For the first time, we used historical data for all Western Balkan countries separately from 1960 to 2018. As economic growth contributes to higher CO<sub>2</sub> emissions, it is evident that Western Balkan countries have a long way to go to balance pollution levels and satisfactory economic growth rates. Policies should lean toward investing in pollution-reducing industrial and agricultural technologies. Furthermore, enacting and modifying environmental taxes, participating in emissions trading systems, and researching and investing in renewable energy sources can all help to make this a lot easier.

#### **KEY WORDS**

Economic growth,  $CO_2$  emissions, Western Balkans, Panel cointegration, Panel causality

#### JEL CLASSIFICATION

C33, O13, Q56

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# AIRLINES' CUSTOMER LOYALTY IN TIMES OF COVID-19 PANDEMIC: FACTS AND PERSPECTIVES

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## MOTIVATION

Customer satisfaction has a great impact on consumers' behavioral loyalty. If a client is satisfied, he will offer a favorable feedback, will repeat the purchase and recommend the service to others. Therefore, the purpose of the present study is to investigate the differences in customers' satisfaction and loyalty between the European low-cost and traditional carriers during the COVID-19 period, as well as the factors that influence them.

## **RESEARCH QUESTION**

- Q1. Did the COVID-19 pandemic change the satisfaction and loyalty of European airlines' customers?
- Q2. Are there any differences between the European low-cost and traditional carriers' passengers in terms of satisfaction and loyalty during the pandemic?

## METHODOLOGY

The empirical analysis was conducted on secondary data, consisting of reviews written by passengers on well-known airline reviews websites. The final sample included 3125 reviews, which were analyzed with a sentiment analysis tool that was specially calibrated for the aviation industry to be more accurate.

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## RESULTS

Our findings showed that, in the context of COVID-19, there were no significant changes in passengers' satisfaction, except the fact that the clients of both lowcost and traditional carriers were much more pleased by the cleanliness inside the aircraft and by the attitude of the on-board staff regarding hygiene measures. However, the passengers of the low-cost carriers expressed their confidence in the airline they have chosen and their intention to fly again with it in future.

#### CONTRIBUTION

Since there is no previous comprehensive study that analyses the impact of the pandemic on the satisfaction and loyalty of the airlines' passengers, this research fills this gap by showing that, nowadays, the travellers value more the cleanliness and the attitude of the on-board staff than they used to do it before the pandemic. Moreover, the low-cost carriers' passengers seem to be more loyal than those of the traditional airlines.

#### **KEY WORDS**

Coronavirus pandemic, passengers' satisfaction, customers' loyalty, low-cost carriers, traditional airlines

#### JEL CLASSIFICATION

L93, D12

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# DIGITISATION OF THE SALE OF AGRICULTURAL PRODUCTS WITH SPECIAL REFERENCE TO MARKETPLACES IN THE REPUBLIC OF SERBIA

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## MOTIVATION

Given the fact from the survey of the attitudes of agricultural producers regarding the acceptance of digital transformation in sales, the motivation was to educate sellers and present them with the importance of transformation and adaptation to the market. We also wanted to combine the sellers' own experiences in the very process of selling at the marketplaces, with the aim of achieving a recognisable profile of selling agricultural products.

#### **RESEARCH QUESTION**

Life in urban areas is complex and requires changes in the supply of agricultural products. Digital transformation represents a challenge and an opportunity for producers, who must be ready for changes in business, which is the subject of research in this work. The goal of the work is to initiate changes among agricultural producers who sell in the marketplace, by realising their market position, readiness for digital transformation, taking concrete measures, and measuring their sales efficiency.

## METHODOLOGY

The conducted research is based on the application of special knowledge and marketing research methods. The theoretical part is based on the research of scientific literature in the field of digital transformation in sales and marketing. The research was conducted through a survey of sellers of agricultural products in the period of 15-31 May 2022 with a personal interview at the Zeleni Venac and Blok 44 Markets in Belgrade, as well as the Fish Market in Novi Sad in the period 1-10 June 2022.

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#### RESULTS

The majority of surveyed agricultural producers have positive attitudes towards sales digitisation. 61% of them believe there is no successful sale without the application of digitisation and innovation. The research found that the obstacles to the application of digitisation are the low expertise and knowledge of producers who believe it is necessary to adopt a medium-term information strategy on the application of innovation and digitalisation for driving growth and competitiveness.

#### CONTRIBUTION

There is a lack of objective analysis of sales in marketplaces, especially from the aspect of supplying urban areas. The Covid-19 pandemic initiated new aspects of sales in the form of digital marketing. In this sense, new ideas in sales in the form of digital transformation represent a challenge and an opportunity for agricultural producers. Digitisation of sales helps market transformation and recognition of market sellers.

#### **KEY WORDS**

Digitisation of sales, agricultural products, marketplaces, urban environments, consumers

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Q3, R3, M5

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# GROWTH AND DEVELOPMENT CHALLENGES FOLLOWING COVID-19 IN NORTH MACEDONIA

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#### MOTIVATION

The present global situation calls into question the functioning of economies. Economies continue to address the impacts of the COVID-19 pandemic, first to protect people's health but also to ensure the economy recovers. This current process has been interrupted by the war in Ukraine, and all countries must find ways to secure macroeconomic stability. Therefore, ensuring economic growth and finding ways to do that is critical.

#### **RESEARCH QUESTION**

The subject of this paper is an analysis of the key macroeconomic indicators (real GDP growth, Inflation, Employment and Unemployment rate) in North Macedonia. Through this, the objectives of this paper are to assess their relationship and position, and draw adequate conclusions and recommendations for policymakers

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EUROPEAN ECONOMIES AFTER COVID-19
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accordingly, which is particularly important for the growth and development challenges following Covid-19.

# METHODOLOGY

The analysis focuses on the secondary data from the national statistical offices (State Statistical Office, Ministry of Finance, National Bank) and Eurostat and World Bank Data. The research includes quarterly and annual data of the macroeconomic indicators for the period 2017-2022 for North Macedonia. Also, a comparative analysis of the selected countries from the region is conducted.

# RESULTS

According to a comparative analysis of selected macroeconomic indicators, the COVID-19 pandemic and the global slowdown have had a severe impact in North Macedonia. Macroeconomic stability is the main objective, considering the problem of inflation, the increase in public debt and political instability. Economic growth has hanged positively, but its sustainability and impact on the quality of life in North Macedonia are important objectives to reach. Policy and measures that increase productivity are one way to meet these objectives.

# CONTRIBUTION

The research results outline the impact of COVID-19 on the economy of North Macedonia. This paper's contribution is visible in identifying the main challenges of economic growth in the North of Macedonia. Despite the continued presence of the Covid-19 pandemic, the energy crisis, the lack of food, disrupted supply chains, and the uncertainty of the military conflict in Ukraine are also problems that the economy has to face.

# **KEY WORDS**

Macroeconomic stability, Economic growth, Inflation, quality of life, total factor productivity (TFP)

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E00, O4, E3

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# RISE OF THE ONLINE GIG ECONOMY - OPPORTUNITY FOR DEVELOPMENT OF THE DEVELOPING ECONOMIES

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# MOTIVATION

The growth of digital technology is changing the way people work. Internet and digital technologies have been transforming the economy and labor market into the online gig economy. Digital labor has been becoming an essential factor in the global economic environment. The phenomenon of the online gig economy is arising as a space where a growing number of workers start their first job or abandon traditional employment in favor of working on a task basis for various employers.

# **RESEARCH QUESTION**

The online gig economy is getting play an important role in economic development equally for the developed and developing economies. The relevance is getting higher especially in the period of the global Covid-19 crisis. In such circumstances, the research is focused on the analysis of the growth of online freelancing before and the period after the Covid-19 crisis. The rise of the online gig economy is a reality, and the opportunity for development is a legitimate topic for this research.

# METHODOLOGY

Research is focused on the analysis of the supply side of the online gig economy comparatively before and during the period after the Covid-19 crisis. Purposely it is made a clustering analysis focusing on the European countries grouping them into four clusters according to their share in the supply of labor in the online gig

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economy. The research is tracking the shift of the countries across the clusters based on their share in the supply of online freelancing labor and accordingly the growth of the online gig economy.

# RESULTS

The analysis reveals changes in the share of the supply of online freelancing labor in the period after the Covid-19 crisis compared to the period before. The shift is more obvious, especially in the case of developing European countries. If Cluster 4 which represents the highest share of labor supply in the online gig economy is represented only by one developed economy in 2017, the same cluster in 2022 is represented by four economies among three developing countries.

# CONTRIBUTION

The research provides additional value to the entire research of the gig economy. It suggests that the rise of the online gig economy lead to a transformation of the labor market and opened opportunities for developing economies. Promotion of the online gig economy and provision of equal treatment as the regular modes of employment are the main challenges that the policymakers are encountering in the future period.

### **KEY WORDS**

Online gig economy, digitalization, freelancing, cluster analysis, development

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J21, J24, O33

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# ENTREPRENEURIAL EDUCATION AND ENTREPRENEURIAL INTENTIONS AS DRIVER FOR ECONOMIC GROWTH IN REPUBLIC OF NORTH MACEDONIA: EVIDENCE FROM GUESSS RESEARCH 2021

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### MOTIVATION

Entrepreneurship in the last decade has become a national priority for many governments around the World (Mamun and Rajennd, 2018). It can be presumed as a process that yields changes in the economic environment through innovations. Entrepreneurs are individuals who respond to economic opportunities, generating value and growth for both individuals and society (Li and Jia, 2015).

Entrepreneurial education can be utilized as a tool for supporting a country's economic growth by accelerating new business generation opportunities and expanding human capital employment. It aims to educate graduates, regardless of their areas of academic specialization, with a specific set of skills and knowledge to give them the power to self-employ and employ others as well, transforming graduates from job seekers to job creators (Gyamfi, 2014), decreasing unemployment and increasing economic growth.

In the post-Covid-19 era, entrepreneurship comes out as an attractive career choice due to downscaling of big companies facing the negative effects of the pandemic. Entrepreneurship has once again proven itself to be an important factor in economic development and growth, but also in economic crisis recovery, by

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generating enterprising graduates, promoting critical and innovative thinking in solving unique problems in the post-pandemic times, and securing new jobs in the markets (Dzingirai and Ndava, 2022).

Starting a new business is in fact not a reflex decision; rather it is a conscious process, i.e. becoming an entrepreneur takes time and needs considerable planning, analyzing, and much more. Hence, entrepreneurship is evidently an example of planned behavior (Bird, 1988). Different scholars use distinct psychological models to predict entrepreneurial intentions, such as Ajzen's Theory of Planned Behavior (1991). He argues that intentions in general are dependent on perceptions of personal attractiveness, social norms, and feasibility. Intentions can be utilized as a predictor of any form of planned behavior, like entrepreneurship. Understanding the origins of the intention broadens our understanding of the intended behavior.

# **RESEARCH QUESTION**

The main research question is whether entrepreneurial education stimulates economic growth in the Republic of North Macedonia by boosting entrepreneurial intentions. Moreover, we will try to identify the relationship between education and the two constructs—perceived behavioral control and attitude towards behavior. The two constructs used in this research paper are derived from Ajzen's Theory of Planned Behavior-(TPB). (1) Perceived behavior control represents the level of respondents' agreement on starting their own business and their perception of becoming entrepreneurs, while (2) Attitude toward the behavior is the favorable or unfavorable assessment toward the achievement of the planned behavior and it depends on behavioral beliefs (Ajzen, 1991).

Further on, the respondents will be classified into two groups: (1) participants, those who were exposed to entrepreneurship programs or attended at least one entrepreneurship course as a compulsory or elective part of their study program, and (2) the second set of respondents will be classified as non-participants i.e., those who did not participate in any entrepreneurial programs or courses during their university studies.

# METHODOLOGY

For the purpose of the research paper, quantitative data is provided by the Global University Entrepreneurial Spirit Students Survey (GUESSS) from the year 2021. The population targets university students in the Republic of North Macedonia and the sample size is 175 students among whom are undergraduates, graduates, and doctoral students from both public and private Macedonian universities (Sieger et al., 2022; Tomovska-Misoska et al., 2022). GUESSS is an international research initiative that started in 2003, under the leadership of the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen, Switzerland. It is being implemented every 2-3 years and collects global data. In general, GUESSS addresses different stakeholders, such as researchers, students, policymakers, entrepreneurs, universities, and others. Since 2016, the project is organized by the University of St. Gallen (Switzerland) and the University of Bern (Switzerland). The research is generally conducted via online distribution of the questionnaire through the country teams participating in the project.

This research utilizes the framework of Ajzen's Theory of Planned Behavior (1991), which is based on two factors: perceived behavior control and attitude toward the behavior. For advanced analysis of the phenomena, respondents are classified into participants and non-participants. Further on, entrepreneurial education will be included in the study as an independent construct variable, to test the two constructs in question.

# RESULTS

The results of this study show that entrepreneurial education has an impact on the two dimensions of the Theory of Planned Behavior: perceived behavior control and attitude toward the behavior (Pop Kostova et al., 2019). The strongest impact of the educational environment is observed on the attitude toward behavior (Temova et al., 2021). This is in line with the findings of previous studies, which conclude that educational programs in entrepreneurship positively affect entrepreneurial intention in general (Souitaris et al., 2007), and therefore support economic growth and reduce unemployment. Sexton and Bowman (1985) concluded that entrepreneurship education is in fact an extension of entrepreneurship itself.

Entrepreneurial education and university environment have a positive effect on promoting and fostering entrepreneurial activity. The amount of impact on entrepreneurial education, however, depends on three factors, including the course itself, the educator, and the learner; all of which can have an influence on the change of attitude toward self-employment (Potishuk and Kratzer, 2017). There is a general consensus that entrepreneurial education has a positive impact on entrepreneurial intention, but the impact level is dependent on the form of education. Moreover, entrepreneurial education and training can influence both-current behavior and future intentions. Accordingly, the entrepreneurial intention among the participants in entrepreneurial education courses is more evident than among non-participants.

### CONTRIBUTION

A strong entrepreneurial lobby and a positive entrepreneurship climate are crucial in any economy, especially in developing countries such as the Republic of North Macedonia. Entrepreneurial education has been provenly effective in increasing entrepreneurial intentions, and with it generating more entrepreneurs in the economy. In the long run, entrepreneurial education produces a positive influence on the whole economy, supporting economic growth and decreasing unemployment. Hence, this study covers many relevant matters, that are still not sufficiently researched in the Republic of North Macedonia.

Entrepreneurship has a positive and significant influence on gross domestic product, while there is a negative link between entrepreneurship and unemployment. Nowadays, there is a tendency by some governments or private entities to pursue innovation via utilizing modern technology and high-growth companies. Although this might accelerate production, it can lead to intensified unemployment by replacing labor with technology. Thus, entrepreneurship is possibly a more sustainable way to promote innovation, stimulate economic growth, and at the same time decrease unemployment (Reyes, 2018). From there, by boosting entrepreneurial intention in students, the education system is able to produce more entrepreneurs, and in the long-term has a significant and sustainable influence on economic growth and unemployment.

### **KEY WORDS**

Entrepreneurship, Economic growth, Theory of planned behavior, Republic of North Macedonia, GUESSS

### JEL CLASSIFICATION

I25, L26, M51

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# ECONOMIC WELFARE AND INDICES TO MEASURE IT-CALCULATION OF GPI FOR THE REPUBLIC OF NORTH MACEDONIA

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# MOTIVATION

In the global framework, the need for new indicators for economic development that measure the well-being of people, and not only the productive capacities of society, is evident, and the recent COVID-19 pandemic has exacerbated this need. At the same time, the Gross Domestic Product (GDP) as an indicator of economic growth has numerous recognized weaknesses and shortcomings that do not measure the true well-being of a country. Even in the Republic of North Macedonia GDP, although it is constantly increasing and an imperative of the economic policies of numerous governments, it is evident that it does not reflect the real situation in society, especially in terms of environmental and social aspects of well-being. That is why there is a great need for the development and systematic calculation and perception of alternative indicators of human well-being.

# **RESEARCH QUESTION**

The aim of the paper is to capture the inadequacy of GDP as a parameter for wellbeing and to analyze the need to introduce an alternative indicator for assessing economic well-being. It will analyze the weaknesses of GDP, theories and definitions of well-being, and possible alternative indicators that can replace GDP. Also, this paper will try to make an approximation of the Real Well-Being Index – Genuine Progress Indicator (GPI) as one of the most developed and methodologically supported alternative indicators of GDP. At the same time, this paper will try to capture the inadequacy of the current concept of economic development in North Macedonia and the need to apply the new indicator together

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with the GDP calculation. By achieving the goals of the research, this paper will also contribute to the measurement of well-being from a methodological point of view.

# METHODOLOGY

The methodological approach of the research is determined by the set goals of the paper, the specificity of the problem being investigated, as well as by the need to use one of the data collection methods. During the research, special attention will be paid to the collection, sorting, and processing of the literature related to the characteristics and weaknesses of GDP as a measure of economic progress from various sources, domestic and foreign, and integrating the knowledge gained into the content of the paper. Also, through a review of the literature and previous research, the prevailing theories about well-being and definitions of the concept of well-being in North Macedonia will be studied. With this approach, it will be possible to describe all the causal relationships of the variables, and then, through the process of logical connection, induction, and presentation of the real conditions, conclusions and new insights will be developed for the paradigm of development and well-being in North Macedonia.

# RESULTS

Implications of new knowledge are useful both for policymakers and researchers and scientists. A large number of countries in the world, in parallel with the calculation of GDP, also calculate GPI systematically as part of their efforts to address the human well-being of their populations due to its methodological sophistication. From a practical point of view, the contribution of the paper will be the approximation of the GPI for North Macedonia in the period from 2000 to today and its comparison with the country's GDP in the same period to draw conclusions on the mismatch between the GDP and the wellbeing indicators and to propose how to measure and fill in the gaps in data required for systematic measurement of GPI.

# CONTRIBUTION

The originality of this research is reflected in the lack of research of a similar character in the domestic economic body of work. A review of the relevant literature noted that relatively few papers focus on economic wellbeing well-being indicators, with particular emphasis on investing in the mismatch between the official GDP growth and the real economic wellbeing well-being of the county.

#### **KEY WORDS**

Gross domestic product, genuine progress indicator, alternatives to GDP, economic well-being

### JEL CLASSIFICATION

O44, O47, P28

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# FINANCIAL SUPPORT IN AGRICULTURE DURING PANDEMIC IN REPUBLIC OF NORTH MACEDONIA

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### MOTIVATION

COVID-19 has a considerable impact on the agricultural sector and potential for a food crisis. While the financing sources in North Macedonia's agriculture are already poor, the global pandemic impact would result in a sort of collapse for the current trend. Thus, this paper highlights the issue and seeks to answer how the impact of pandemic should be used as an opportunity to boost agricultural financing and make the sector more resilient.

### **RESEARCH QUESTION**

Main research question of this paper aims to assess how Covid-19 affected on financing in agriculture in the Republic of North Macedonia. Considering the overview of the agricultural financing and the perceived effects of COVID-19 on the sector, this paper seeks to answer how the impact of pandemic could be carried out for the development of the agricultural sector during and after Covid-19 in the Republic of North Macedonia.

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### METHODOLOGY

This paper is based on qualitative analyses of agricultural financing and the perceived effects of COVID-19 on the sector and discusses policy implication of the recent trend, and proposes strategies to increase agricultural financing in North Macedonia. The analysis is based on official data from the State Statistical Office, Annual reports of the Ministry of Agriculture, Forestry and Water Management and data from the Agency for Financial Support of Agriculture and Rural Development.

### RESULTS

The analysis shows the importance of the need for a multidimensional approach and financial instruments to reinforce resilience in the agricultural sector. That means: facilitating access to financing sources, expanding their scope, and especially important is the strategic approach in financing the production of agricultural crops that are crucial in crisis conditions, such as the pandemic and the war in Ukraine.

### CONTRIBUTION

The analysis in the paper aims to determine present end possible future influences on the agriculture sector, especially in the part of food supply and demand. It's important to predict measures and recommendations that should be carried out for future development of the agriculture sector in order to relieve possible food shortages.

### **KEY WORDS**

Agriculture development, financial support, pandemic crises, Republic of North Macedonia

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H1, H2, Q14, Q18

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# BEHAVIOURAL ASSESSMENT OF YOUTH TOWARD URBAN AGRICULTURE IN POST-COVID ERA: A CASE STUDY OF BELGIUM AND POLAND

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### MOTIVATION

It is difficult to do only commercial farming activities in the urban outskirts of highly dense cities. Therefore, urban agriculture is emerging in the form of kitchen gardening, rooftop farming, and backyard farming. Urban agriculture has multiple benefits and is crucial to achieving urban sustainability. Food security and sustainable agriculture, healthy lives and well-being, and the Development of sustainable cities and communities are one of the SDGs (Sustainable development Goals) (SDG 2,3,12) recognised by the United Nations (UN) (THE 17 GOALS | Sustainable Development, n.d.). This gives the need for urban food policies based on social and cultural analysis. In addition, in the changing global scenario, mainly post the pandemic of Covid-19, the necessity for implementing a more strong local food system has increased, acquiring much relevance for food gardening practices (Béné, 2020), (Chenarides et al., 2021). Consequently, much attention is needed to analyse the potential and contribution of urban agriculture to people's social, economic and environmental aspects. To assess the role of urban agriculture, the youth's socio-demographic characteristics and behavioural intentions can be utilised effectively.

This will also ensure the cultural acceptability of alternative and sustainable food production and consumption strategies. This study suggests a model to better understand youths' attitudes toward urban agriculture and to help develop participation measures to assure involvement and cultural acceptability of urban food policy.

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# **RESEARCH QUESTION**

What factors affect the behavioural intention of youth participating in urban agriculture in Europe?

# METHODOLOGY

In this study, the conventional "Theory of Planned Behaviour" and "Extended Theory of Planned Behaviour" is used analytically to examine how youth perceive their engagement in Urban Agriculture. We used factors such as Attitude, Subjective Norms, and Perceived Behavioral control to study their behavioural intentions toward urban agriculture practice.

The model was adopted from Carzedda et al. (2020) to demonstrate the link and interaction between all of the components mentioned above in accordance with the Theory of Planned Behavior. The postulated causal link between attitude (AT), subjective norms (SB), perceived behavioural control (PBC), and behavioural intention (BI) is presented in Fig. 1, which summarises the theoretical framework.

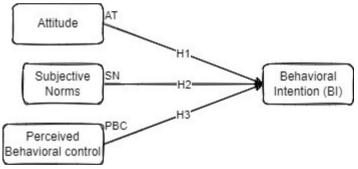


Fig. 1

- Hypothesis 1 (H<sub>01</sub>): Attitude toward urban farming (AT) does not affect the Behavioural Intention (BI) to practice urban agriculture;
- Hypothesis 2 (H<sub>02</sub>): Subjective Norms (SB) do not have a significant impact on Behavioural Intentions (BI) to practice urban agriculture;
- Hypothesis 3 ( $H_{03}$ ): Perceived Behavioural Control (PBC) does not have a positive impact on Behavioural Intention (BI) to practice urban agriculture.

In December 2021, a questionnaire was circulated to youngsters in the area of Poland and Belgium. Five sections of the questionnaire were used to collect data on each section's content and extra sociodemographic information. To test respondents' agreement with each suggested item, 5-point Likert-like scales were

used to measure each aspect. The literature on environmentalist behaviour inspired this verified measure (Kumar et al., 2017). All 215 of the returned surveys were complete and usable.

The data analysis process was split into two steps: first, we examine the measurement scales using confirmatory factor analysis (CFA), which enables us to test the claim that there is a link between the observed variables and their underlying latent construct(s). The association pattern is postulated a priori using theoretical knowledge, empirical study, or both, and then the hypothesis is statistically tested. The reliability of each concept was evaluated favourably using the AVE (Average Variance Extracted) for components that revealed convergent validity and Chronbach's  $\alpha$  coefficients. Then, using SPSS, a simple regression model (SRM) was used to test the suggested models' hypotheses.

# RESULTS

The study demonstrates that although personal attitudes regarding urban agriculture have a somewhat less impact on behavioural intention than other dimensions, they are still substantial. Views on product quality or environmental effect are thus sufficient motivation to engage in this practice. The prior findings, which showed no clear association between these two notions, do not support this, though.

Surprisingly, social pressure and norms seem to be the primary predictors of behavioural intention; this indicates that family, friends, and the larger group of individuals the respondents felt to be important tend to support and promote the respondents' ultimate goal of self-production of food. This is consistent with past research indicating that young people link urban food production to the social incentive for urban agricultureand sustainability.

Perceived behavioural control has the most and most advantageous effect. To put it another way, perceptions of internal or external impediments to action significantly impact young people's propensity to engage in urban farming, as per recent research by Carzedda et al. (2020).

# CONTRIBUTION

The findings show that perceived behavioural control is the main factor influencing participants' behavioural intention to engage in urban agricultural initiatives. The participants rated the perception of what other people would think about their plan to produce their food as less relevant than the impression of internal and external constraints and the availability of resources. Promoters of urban agriculture

projects may give them the resources needed for self-production if they consider the impact of perceived behavioural control on the behavioural intention to engage in urban agriculture. Additionally, using socially and emotionally relevant recommendations to the target audience might make communication more alluring and powerful. Earlier studies suggest that working with advocates is essential to raising youth's understanding of sustainability.

# **KEY WORDS**

Attitude, behavioural intention, perception, urban agriculture, youth

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# THE COVID-19 AND DIGITAL SKILLS OF PERSONS EMPLOYED IN TOURISM

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### MOTIVATION

Dynamic but volatile and time-sensitive sectors such as tourism are constantly urged to employ a flexible and agile business paradigm to cope with risks and uncertainty smoothly. Advanced digital technologies and gradual digital transformation of the industry may have played a major role in facilitating this process while the COVID-19 pandemic accelerated the trend. Accordingly, the level of digital skills of those employed in tourism has naturally emerged. The scope of the paper is limited to EU countries, Serbia and North Macedonia.

### **RESEARCH QUESTION**

The paper aims to answer the following research questions:

- (1) What is the level of digital development (ICT usage) in the tourism sector in EU countries, Serbia and North Macedonia?
- (2) What is the level of digital skills of persons employed in the tourism sector in EU countries, Serbia and North Macedonia?
- (3) What post-COVID-19 skills of employed in the tourism sector are needed for a sustainable sector's development in the future?

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### METHODOLOGY

Descriptive analysis (summaries, frequencies, and cross-tabulation tables) and correlation of secondary data publicly available at Eurostat will be applied to answer the research question. The following data sets covering 2010-2019 will be used: Internet usage, ICT skills, online booking and Internet purchases in the tourism sector.

#### RESULTS

The research results indicate that the level of ICT usage in the tourism sector can be considered high, but with room for improvement in most of the EU countries. Moreover, the progress should be inclined to increase the ICT skills of those employed in tourism. This goes for most EU countries, including Serbia and North Macedonia. Finally, the high correlation between Internet usage by individuals and Internet purchases in tourism shows the potential of ICT skills advancements of persons employed in tourism to create more sustainable sector growth in the future.

### CONTRIBUTION

The research results obtained in this paper contribute to the growing body of literature in the field of tourism and hospitality by providing deeper insights into the employees' level of digital skills while at the same time identifying the most critical digital skills required in the post-COVID-19 period. The COVID-19 pandemic, as an impetus for behavior change, represents the chance for tourism to rebuild on a more resilient and sustainable basis.

### **KEYWORDS**

Digital competencies, tourism, COVID-19, EU, Serbia, North Macedonia

### JEL CLASSIFICATION

J24, Z30, Z32, Z33

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# EUROPEAN EMERGING MARKET ECONOMIES: GROWTH PROSPECTS AND CHALLENGES IN POST-COVID ERA

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### MOTIVATION

The economic performance of the European Emerging Economies (EEEs) was severely affected by the crisis of Covid -19, mainly due to the severe restrictions imposed on economic activities. EEEs witnessed steady recovery in 2021 after waning the damaging effects of lockdowns in 2020 [1]. A positive growth rate was registered by these economies in the year 2021 [2]. In 2022, when the EEEs were showing some signs of recovery, Russia-Ukraine war magnified the headwinds. The large influx of refugees, inflation, disruption of oil and gas supply along with the trade activities of entire Europe are expected to further dampen the growth can pave the way for accelerating the convergence process of these economies with the developed EU nations. With this background, the study seeks to examine the prospects and challenges of EEE and propose policy prescription.

# **RESEARCH QUESTIONS**

The research questions addressed are: (1) How did the Covid pandemic affect European Emerging Economies? (2) What were the main macroeconomic factors instrumental in shaping the EEEs during the Covid period (3) What are the growth prospects of EEEs?

# METHODOLOGY

This study analyses the economic situation of the six European emerging market economies identified by the International Monetary Fund (IMF), during the Covid-

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19 period. The economies considered for the study are Croatia, Hungary, Poland, Romania, Serbia and Turkey [4]. This analysis is of interest in wake of the disruptions caused by COVID-19. For the analysis quarterly data from January 2019 to December 2021 were collected from IMF elibrary, ILO (International labor organization) and OECD data center. Firstly, a descriptive analysis was conducted on the collected data. To determine the trend in the real GDP growth rate over the study period, panel regression model [5] was used with real GDP growth rate as the dependent variable. The limited sample size of cross-section units restricts the large number of explanatory variables. Therefore, small selection of macroeconomic variables, gross fixed capital formation (GFCF), unemployment rate, inflation, and lag (GDP, 1) was considered from the existing literature, [6-8] as the explanatory variables. The Panel regression was run using the software EViews.

# RESULTS

The random effect model (REM) of panel regression is being considered due to the insignificant value of Hausman test with a p-value of 0.37. The REM results confer that, coefficient values of Inflation and Unemployment establish an intuitive positive and negative relation respectively, with the real GDP growth rate. The negative coefficient of lag (GDP,1) establishes an inverse but significant relation with a p-value of GFCF corroborates the positive relation with the dependent variable. Whereas coefficient value of GFCF corroborates the positive relation with the dependent variable with a p-value of 0.00. Results indicate that gross fixed capital formation and GDP growth of previous period played significant role in determination of the real GDP growth of the EEEs for the present period. The higher p-values of unemployment, and inflation variables depict the insignificant role of these variables in the real GDP growth of EEEs for the selected time period.

# CONTRIBUTION

This study attempted to analyze the impact of macroeconomic variables on the GDP growth of EEEs during the crisis of Covid-19. This negative growth will have declining effect on the purchasing power and the businesses sentiments of EEEs, ringing alarming bells for future GDP growth. The regression results highlight the importance of gross fixed capital formation in the GDP growth of EEEs. This requires more focused attention of policy makers towards lifting the public or private investment in these EEEs for a smooth growth rate in future. The post crisis recovery of EEEs was hard hit with the rising instability in Europe due to Russia-Ukraine war. This work will contribute significantly to quantify the impacts of Covid-

19 on the GDP growth of EEEs and will assist the policy makers to prepare for future havoc in these EEEs.

### **KEY WORDS**

Economic growth, European Emerging Economies, Covid-19, Russia-Ukraine war

# JEL CLASSIFICATION

O20, O40, C12

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# THE VOLATILITY OF CAPITAL FLOWS IN CESEE ECONOMIES

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# MOTIVATION

The volatile capital flows pose a significant challenge to macroeconomic performance and financial stability. The Central, Eastern, and Southeastern European (CESEE) countries are vulnerable to external shocks due to the structural and institutional characteristics of their relatively small, open, and less diversified economies. The global financial crisis (GFC) exemplifies one such episode of substantial boom and bust of capital flows in the CESEE, resulting in capital flow reversals and output decline.

# **RESEARCH QUESTION**

This paper investigates the gross and net capital flows in seven CESEE countries and estimates the level of their volatility, as well as their longer-term dynamics. By structurally decomposing the capital flows into separate instruments, the most volatile categories are identified. A cross-country comparison is made to determine the resemblance of the capital flow reaction to common external shocks affecting CESEE countries in the period under review.

# METHODOLOGY

The capital flow volatility is measured following the method applied in the works by Pagliari and Hannan (2017) and by Wang (2019). The volatility measure is based on estimating the moving standard deviation of the residuals of an ARIMA (1,1,0) model for gross and net capital inflows. This methodology is applied to a sample of

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seven CESEE countries from 2000 to 2021, using balance of payments quarterly data.

# RESULTS

The group average results show that despite not reaching the pre-GFC spike in terms of the amount of gross capital inflows, their volatility has sharply risen in response to the recent external shocks (the COVID-19 crisis-induced uncertainty). The structural decomposition points to portfolio and other investments being the drivers of the pronounced volatility, unlike FDI. Cross-country heterogeneity is observed, with capital inflows to the Macedonian economy and Albania showing higher volatility compared to the others in the sample<sup>3</sup>.

# CONTRIBUTION

This study provides the most recent estimates of the capital flow volatility, both for total flows and different instruments, for seven CESEE countries. The individual country estimates may provide valuable insights to policymakers dealing with the design of the capital flow management framework, which enables harnessing the associated benefits and mitigating the inevitable risks.

# **KEYWORDS**

Capital flows volatility, CESEE, ARIMA

# JEL CLASSIFICATION

F21, F30, F32

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# DIFFERENCES IN CONSUMERS' BRAND AWARENESS BASED ON LEVEL OF INVOLVEMENT IN INFLUENCER FOLLOWING

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### MOTIVATION

Companies use influencer marketing by targeting key individuals, i.e., "influencers" with similar values as the brands they collaborate with and that help companies in reaching their potential consumers (More & Lingam, 2017). Influencers significantly influence consumer attitudes and behavior (Liu et al., 2015; Grafström et al., 2018). This study is based on the Consumer Involvement Theory, proposed by O'Cass (2000) which explains the existence of different types of consumer involvement.

# **RESEARCH QUESTION**

Having in mind the value of influencers as opinion leaders and shapers of consumers' perceptions and behavior related to brands (Castillo & Fernández, 2019), the purpose of this study is to determine whether Instagram users differ in brand awareness based on their level of involvement in Instagram influencer following. We base our study on the assumption that the level of involvement influences consumers' brand awareness.

# METHODOLOGY

An online questionnaire was sent on a purposive sample of active Instagram users in North Macedonia, and we analyzed the responses from 76 respondents that follow influencers. ANOVA test was used to prove that social media users with different level of involvement differ regarding their awareness of the brand being

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advertised by influencers. To assess construct validity, we used EFA. Principal component analysis with Varimax rotation confirmed factors as conceptualized in the literature.

### RESULTS

The p-value less than the significance level p<0.05 proves that there are statistically significant differences in consumers' brand awareness between Instagram users with different level of involvement in influencer following.

### CONTRIBUTION

We add great value to the scientific community and marketing practitioners since this study is the first, as known by the authors, to focus on consumers' involvement in influencer following as a cause for differences in consumers' brand awareness, with a focus on a single social network, Instagram. Most of the previous studies have focused on the effect of consumers' involvement on advertising effectiveness (Petty & Schumann, 1983) or consumers' brand trust (Delgado-Ballester & Munuera-Alemán, 1999).

### **KEY WORDS**

Influencer marketing, involvement, brand awareness, social media

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M31, M37

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# COVID-19 IMPACT ON THE MACEDONIAN FOREIGN TRADE

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## MOTIVATION

Taking into consideration the immense decline of global trade caused by Covid-19, this article aims to explore the impact of the pandemic on Macedonian foreign trade and to provide recommendations for trade policymakers.

## **RESEARCH QUESTION**

What was the effect of the changes in the international trade flows during Covid-19 on the foreign trade of North Macedonia? What was the role of the Macedonian foreign trade policymakers in addressing the most relevant issues? How strong is the volatility of the Macedonian foreign trade in terms of import and export dependence on FDIs plants in the country, particularly those operating in the automotive industry?

## METHODOLOGY

The article provides an analysis of the Macedonian foreign trade data for the period 2015-2019 by volume, structure, and trade partners, as well as a comparison with the trade data during/post-Covid-19. The State Statistical Office of North Macedonia and the UNCTAD trade database served as the main sources of the data.

## RESULTS

North Macedonia has a very narrow structure of traded commodities and trade partners. Few automotive FDI plants have an immense share in the Macedonian exports and imports. These FDIs are part of the international supply chains, implying that Covid-19 had a significant impact on their trade performance. National foreign trade policymakers had rather an unassertive role in addressing the Covid-19 issues. Most of the challenges have been met by private companies.

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The high trade volatility requires the attention of the policymakers and risk-resilience actions.

#### CONTRIBUTION

The article contributes to a better understanding of the impact of Covid-19 on Macedonian foreign trade. It provides recommendations to the policymakers regarding the possibilities of reducing trade volatility in line with the risk-resilience approaches. The recommendations mostly refer to the increase of the competitiveness of the domestic companies and their integration into the supply chains, increase of the innovation capacities, as well FDI attraction following an active trade policy approach ensuring advanced cooperation among FDIs and domestic companies.

## **KEY WORDS**

International trade; Covid-19; North Macedonia

#### JEL CLASSIFICATION

F1

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# CONTEMPORARY TRENDS IN MICROFINANCE: IS COMMERCIALIZATION SHIFTING SOCIAL MISSION IN MICROFINANCE?

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#### MOTIVATION

Microfinance is constantly evolving in the track of developing contemporary products and services aimed at improving the living standard of the poor. The modern aspects of microfinance, driven by dynamic changes in the economy, accompanied by digitalization, are drastically changing the role of microfinance, shifting from social to commercial aspects. Hence the paper aims to question if microfinance is still holding its social mission regardless of the process of commercialization.

## **RESEARCH QUESTION**

The commercialization of microfinance versus the social mission has been vastly debated. Hence the paper raises fundamental research questions about whether the dual social and financial missions of microfinance can coexist or whether microfinance is shifting social mission due to the upcoming process of commercialization. It is assumed that not only these two priorities can persist, but when done right, they are amplified, creating a viable long-term business model for both customers and investors.

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#### METHODOLOGY

The research is conducted through the empirical analysis of microfinance performance and used panel VAR (vector autoregression models) or VECM (vector autoregression models with error correction) which were precisely selected and defined depending on the characteristics of the available data from the Global Findex and Mix Market database. The basic idea in this model approach is the modeling of microfinance factors in relation to the level of microfinance in certain regions.

#### RESULTS

The research is expected to emphasize the contemporary challenges that exist for modern microfinance, especially in relation to the trends in microfinance of gradually abandoning the social mission and giving more attention to commercialization. This is especially significant at the level of different regions of the world, which have different levels of income, different levels of poverty, different levels of riskiness when approving loans, different sizes of loans, etc.

#### CONTRIBUTION

The research is expected to make a scientific contribution in determining the impact of social and commercial aspects of microfinance by region. Through analysis, insights is gained about the trends and challenges of microfinance in different regions of the world through the prism of social aspects and commercialization in order to provide an answer to the research question posed in the paper.

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Microfinance, social mission, commercial mission

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G21, E51

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# COVID-19 EFFECTS ON UNIT PRICES OF SELECTED MEDICAL GOOD IN INTERNATIONAL TRADE

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#### MOTIVATION

COVID-19 presents a perfect stochastic shock that caused severe economic disruptions all over the world. Due to the vast number of measures and restrictions that the national government introduced as a response to the COVID-19 pandemic, international trade was particularly negatively affected in the first couple of months of the pandemic. This paper investigates the impact of COVID-19 on unit prices of COVID-19 related medical good, i.e., facemasks.

#### **RESEARCH QUESTION**

The paper investigates the effects of COVID-19 on unit prices of selected, COVID-19 related medical good - facemasks. The question is how much of the covid-19 effects can be attributed to supply determinants, like the share of imports from China in total imports of facemasks, and how much can be attributed to demand determinants like the population size of the particular country.

## METHODOLOGY

Our analysis is based on a monthly trade data for the year 2020 and includes 107 countries. Data comes from UN-Comtrade and Our World in Data COVID-19 dataset. We develop an econometric model with import unit values as the dependent variable and the share of imports from China in total imports of facemasks, the number of total trading partners, the interaction between two variables, and the number of COVID-19 cases in the population as independent

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variables. We estimate the model using Poisson Pseudo Maximum Likelihood (PPML) estimator.

#### RESULTS

Our results show that both supply and demand variables have a strong and statistically significant effect on the rise of import unit values of facemasks. The coefficient of the interaction variable between the share of imports from China in total imports of facemasks and the number of total trading partners is the only negative, which shows the importance of diversified imports on unit values in the case of significant spikes in demand.

#### CONTRIBUTION

Our paper adds to the empirical research of the demand and supply conditions on the value of goods in international trade. Using the COVID-19 pandemic as a backdrop, we quantified the effects of a supply glut on the price of a particular good and compared them to demand-side effects. The results can serve policymakers to consider channeling investments toward strategically important goods.

#### **KEY WORDS**

Unit values, facemasks, supply, demand

## JEL CLASSIFICATION

F14

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# KEY CHALLENGES FOR INTERNATIONAL TRADE LOGISTICS AFTER COVID-19

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## MOTIVATION

The COVID-19 pandemic has highlighted disruptions in global supply chains and international trade logistics, which provides a motive for examining the key challenges in this area, which has enormous potential for intensifying international trade, especially exports, as well as in the domain of improving national competitiveness and creating conditions for economic growth and development.

## **RESEARCH QUESTION**

The importance of logistics was additionally emphasized due to the consequences of the crisis, which indicates the need to consider the logistics system as an important segment within the macroeconomic environment and a potential instrument for future development policies. The question that arises in the current circumstances is which dimensions of logistics show particular importance in the period of crisis in order to indicate the development tendencies and crucial points.

## METHODOLOGY

The research was conducted based on a survey of 298 companies from various industries in the Republic of Serbia that are actively involved in international trade operations. Testing the importance of individual segments of the international logistics system in crisis conditions is focused on evaluating the physical infrastructure, as well as the dimensions in the domain of logistics services, which include the application of modern technologies in logistics operations before and after the crisis.

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#### RESULTS

The survey indicates that dimensions of the logistics system, which consider the application of modern technologies, are particularly emphasized as an essential factor due to the consequences of the crisis. The results particularly show the growth of ICT technologies in logistics operations and B2B trading platforms. Other international logistics components, the efficiency of customs procedures and the quality of physical infrastructure do not show a significant difference before and after the crisis.

#### CONTRIBUTION

The results can serve in constructing future development patterns to increase the resistance of national economies to the consequences of the crisis, especially in open economies that are dominantly dependent on the efficiency of global supply chains and the realization of international activities. Based on the analysis of primary data, it is possible to give guidelines at the macroeconomic level, which would indirectly have an impact on various sectors of the economy that are closely related to logistics operations.

#### **KEY WORDS**

International trade, logistics, crisis, COVID-19

#### JEL CLASSIFICATION

F10, F6, H12

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# EMIGRATION PROCESSES IN THE COUNTRIES OF THE WESTERN BALKANS AS A RESULT OF DEMOTIVATION OF EMPLOYEES BY NON-PROFESSIONAL MANAGEMENT STAFF

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#### MOTIVATION

The inefficient human resource management system has led to a brain drain from the countries of the Western Balkans in the past decade, and this process, unfortunately, is still ongoing. The tendency for the emigration of qualified human resources to developed countries is growing more and more, in search of better education, working conditions, higher wages, better living standards, as well as better living conditions and developing professional competencies. The reasons for this are: low wages, insecurity in the quality of education, health services, services from institutions, employment with nepotism or political merit, absenteeism or unenforceable career system and compensation policy, etc.

The research done for the purpose of this paper is to prove that the hiring of professional management staff in organizations in the Western Balkan countries is an important prerequisite that will provide confidence and greater security to young people for their retention and employment in their home countries. By building solid strategies for paying salaries, appropriate to the increase in living costs, introducing and implementing an efficient reward system, continuous training and advancement of employees, building a favorable organizational

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climate, as well as respecting and protecting the rights of employees, in it will greatly contribute to the retention of professional staff in these countries.

The paper will review the positive and negative aspects of the profile of managerial staff in organizations and to what extent their professionalism affects the decision of employees to leave their jobs and move out of the country. The implementation of trainings for managers on modern trends in organization management, trainings for managing different types of conflicts, trainings for professional negotiation, trainings for managers in a fair, transparent and efficient way increases the motivation of employees to stay at work in their home countries.

## **RESEARCH QUESTION**

The research in this paper is initiated by the questions:

- What are the effects of the implementation of professional managerial staff in organizations in correlation with the reducing employee fluctuation and emigration of employees and young people from Western Balkans countries?
- How will be improved the quality of management to build a new organizational climate that will provide motivated people who will want to stay and work in their native countries and companies?
- What makes companies successful and how it reduces the emigration of young people from the Western Balkans?
- What abilities should managers possess in order to cope with professionally motivating the employees? How will managers create an organizational climate that will positively respond to the needs of employees in organizations?
- What is the new profile of a professional modern manager who creates a new organizational image?
- Which strategy is the most effective for reducing fluctuation and emigration in the country from the Western Balkans?

## METHODOLOGY

The research that will be done for the purposes of this paper is based on the study of already existing literary works, issues and research. In that direction, the methods and models of analysis and synthesis of the collected information will be used in order to determine the importance of hiring professional management personnel to reduce emigration processes in the countries of the Western Balkans. The use of the comparative method will allow us to get acquainted with the difference between not professional management practices and the modern way of managing organizations in this paper is assumed to be a strategic and key factor for the professional operation of companies in Western Balkan countries and retention of employees.

In order to conduct the research and prove the hypotheses in this paper, an interview will be conducted with company managers and employees in the countries of the Western Balkans. The questionnaire will be based on a scale of views.

## RESULTS

Expected results of the research:

- To prove the relationship between the level of professionalism of managers and the fluctuation of employees in organizations
- To prove the connection between the modern way of management, emphasizing the professionalism of managers and the level of efficiency of employees,
- To show to what extent companies from the Western Balkans follow and implement the new management strategies, to build professional staff capable of managing employees in a modern way.
- To demonstrate and initiate the need to create quality managerial staff through integrated processes in the educational system following the example of developed modern economies in order to overcome emigration from the home countries.

## CONTRIBUTION

The benefits of raising awareness of the need to profile professional management personnel in organizations in the Western Balkan countries and creating a new organizational reality and thereby creating motivated employees are directly related to the success of organizations and reducing turnover. All this leads to significant financial effects on the company's operations. And all this leads to a change in the previous "traditional" ways of management with the new modern management where the satisfaction of working in the home countries is seen as an advantage, not a failure. Therefore, the modern way of managing organizations actually increases the value of the organization itself.

#### **KEY WORDS**

Managers, professional staff, emigration, human resources

#### JEL CLASSIFICATION

015

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