HUNGARIAN UNIVERSITY OF AGRICULTURE AND LIFE SCIENCES

# *Economics, Politics and Management in times of change*

Conference Proceedings of the 2nd Online International Scientific Conference

**November 19, 2021**

Conference Proceedings of the 2nd Online International Scientific Conference
*Economics, Politics and Management in times of change* (November 19, 2021)

Online conference (CISCO Webex Meetings) 2021
November 19th 2021, Hungary

Instructions for the connection:
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**Publishing House:**
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ISBN 978-80-89654-83-3

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## Suggested citation:

AUTHOR, A. (2021). Title of the paper. In: Magda, R. Ed. Economics, Politics and Management in times of change. *Proceedings of the 2nd Online International Scientific Conference*, Hungary: MATE, 2021, pp. xx-xx. ISBN 978-80-89654-83-3

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# UNEMPLOYMENT AND THE FOLLOWED POLICIES OF MIGRATION TO MANAGE THE LABOR MARKET IN EU COUNTRIES

*Rahaf Alayan*

## Abstract

In host countries where there are severe labor shortages, the surge of young immigrants is seen as an incentive to address such shortages – at least temporarily that Spending increases serve, as a macroeconomic demand stimulator. In the short run, increased government spending can be beneficial because it acts as a demand boost, resulting in a small increase in GDP growth. Initial effects on aggregate EU: GDP expected to be positive, but weak, with a greater impact on countries where refugee inflows are concentrated. For 2017, the amount of GDP raised by around 0.05, 0.09, and 0.13 %, respectively, compared to the baseline. The compatibility of this paper with the conference's focus Politics of the European Union and unemployment economics impacts on regional level. Finding a prediction that if spending on migrants does not increase there will be a slight difference in the increase in GDP, when conditions do not change, But when spending increase from GDP on migrants to enter them to labor market that study found the GDP changes will increase over the years with employments from immigrants and the projections were made by determining the percentage change in the GDP based on the integration values of the immigrants in the European Union as a whole from 2016 To the year 2040.The integration of refugees and immigrants allows more of them to access the labor market, so an increase in the supply of labor will fill vacancies, push wages down, and thus lower the prices of basic commodities.

***Keywords:*** *Policies, labor migration, unemployment, EU Countries.*

**JEL Classification**: A13, B22, J61

**1 INTRODUCTION:** Like many concepts in the field of social sciences, the concept of migration has a long historical background, and migration can be summarized as a long-term movement of individuals from relatively poor regions to geographically rich geographical areas. Migrants now account 3.5 % of the global population, up from 2.8% in 2000. The Arab Spring, as a result, mostly motivated the majority of the rise between 2012 and 2015 recent or reignited wars such as those in Syria, Iraq, and Libya, as well as older crises such as Afghanistan or South Sudan, which have comparatively high fertility rates. Migration is not a static phenomenon but rather has a dynamic effect over time and has a complex structure in terms of cause and effect relationships. Consequently, there are many issues caused by migration in recent years, and among these topics: Unemployment has become a global problem, not only a problem in underdeveloped and developing countries, but also in developed countries. The effects of migration on existing jobs are dependent on considerations such as whether immigrants' skills supplement or compensate for current workers' skills, as well as distributional

effects, with some workers doing better than others do. Such as schooling, commerce, outsourcing, population transition, and technical change, have a much greater impact on incomes and employment than immigration. The economy, in particular, responds to migration by rising labor demand. Immigrant competition is likely to concentrate on positions that refugees can easily fill, especially those that do not need fluency in a foreign language, cultural expertise, or prior local experience. Migrants add to increased labor demand by increasing demand for the goods and services they use. Migrants and refugees help to ensure a productive work market and long-term economic development. Since many of the main problems in the immigration reform debate are economic in nature, the latter is often fueled by fears that immigrants will take jobs away from the local population, leading to a rise in unemployment, or by concerns that immigrants will waste public services. These negative views have the potential to threaten attempts to adapt migration policies to the current economic and social problems that European countries are experiencing. The aim of immigration policy is to strike a balance between various and often opposing priorities and goals. Admission of highly qualified foreign workers may be a legal requirement to sustain global competitiveness in certain sectors or a means to spur productivity, but domestic workers may protest because their salaries may be reduced. Since measures have long-term consequences that go beyond their expected outcomes, the course taken is critical. Germany, and Japan, for example, experienced sudden labor shortages in the 1950s because of accelerated economic recovery, but they preferred different strategies. Japan chose not to open its doors to foreign labor, instead using public policy instruments to compel Japanese firms to implement labor saving operations, with the possibility of transferring manufacturing sites to lower-income countries through foreign direct investment. West Germany was seeing strong economic growth and full employment at the time, but its population was shrinking. And, unlike Japanese planners, West German planners were wary of pinning their expectations on comparative machines and rationalization, assuming that doing so would negatively impact the delicate economic recovery People are abandoning their geographic regions for various reasons, such as war, disease, famine and climate change. From the nineteenth century on, the definition of immigration became clearer, and it could be measured and monitored as a variable. With these developments, many national and international organizations have begun to develop policies around migration and its impacts. This means that residents are more likely to be affected by unemployment measures. The importance of "quality," that is, relatively better among immigrants (e.g. age, education, human capital, and ability to work) is important, and this quality may lead to improvement in re-employment. In addition to the migration allocation mechanism to reduce individual unemployment as well. There is also very little research on the economic dynamics of migration, but there are many models of decisions for skilled, regionally mobile workers that analyze the stability of the situation for a system enlightened by the new economic geography. The number of the unemployed, the number of workers, and the number of job vacancies created through government intervention. Moreover, entry into the labor market program may act as an alternative to immigration for the unemployed. Those who also benefit from creating job vacancies taking into account the detailed stability analysis and from a macroeconomic perspective and the interaction between unemployment and politics. With the increasing number and effectiveness of international economic and social institutions, the sensitivity to unemployment increased due to the socio-economic impacts of unemployment. Anthropologists, sociologists, historians, geographers, closely examine the subject of migration and economists, and economics thinkers examine its effects on economic growth and employment closely. As for the economic contributions made by immigrants to help families

meet basic living needs such as food, shelter and poverty alleviation. The money that migrants send back to their home countries would be important buffers against unforeseen costs, support household financial stability and the ability to invest in businesses, property and other assets in their home country. Recently, it has allowed the inclusion and expansion of "mobile money" applications, known as "mobile cash services," which reduce the risk of exploitative practices. However, the rates of access to these applications and their use differ socially, economically and demographically within local communities, especially in developing societies. Therefore, the effects of migration on the labor market must be studied and explained, given that the changes that have occurred in the labor market in the countries of receiving and sending immigration directly affect the unemployment figures, and the necessity to determine the relationship between immigration and unemployment. In general there is no accepted opinion about the direction and degree of the impact of internal migration. In addition, international migration to unemployment. While some studies argue that immigration has a negative impact on unemployment, some argue the exact opposite, and some even express that there is no significant relationship between migration and unemployment. Positive but not statistically significant. In much reality, immigration is sometimes the engine in which migrants may be better off in their home region in the short term. Most European countries experienced a severe economic recession at the beginning of the 1990s, as the mobility of the labor force was very low. Therefore, it is natural that there will be fewer job opportunities, and this reduces the incentives to search for jobs. However, after the mid-1990s, inter-regional migration reached its highest levels ever, and there was an abundance of jobs, especially in growth centers, it must also be mentioned that the information technology industry has a role in thinking about immigration, especially the workforce, where unemployment was the driver of migration, Immigration can improve employment prospects. In several studies, immigration has emerged as a major adjustment mechanism in equalizing regional disparities in the labor market at the macro level and in improving employment prospects as well. As countries with low rates of immigration, or where the manual labor force is immobile suffer from persistent disparities in unemployment, yet the results obtained were and are still relative and somewhat uneven until now. The early first decade of the twenty-first century was harsh as the unemployment rate rose even ten years after the start of the recession, and the number of unemployed was still more than the labor force and these results were on the aggregate level, and this does not necessarily mean that individuals migrate easily in search of a job . Therefore, many studies fail to either find any effect or find a negative impact of migration. It played an indirect role in enhancing opportunities to the labor markets with low unemployment rates. What is the unemployment rate then?

The unemployment rate is the share of the unemployed between the ages of 15 and 64 in the total labor force (according to ILO standards), the number of unemployed people outside (divided by the population), as expected. This indicates that the unemployed are already moving from high unemployment areas. The best measure of the extent of unemployment in an economy is the unemployment rate and the number of people looking for work (unemployed) is expressed as a percentage of the total workforce. Immigration is often thought to increase the unemployment rate, as newcomers are assumed to add to the number of people who are already looking for jobs. However, there is likewise a negative correlation (if less clear) between the unemployment rate and the influx of unemployed persons, indicating that migration is not determined by local labor market conditions only, as internal and external migration rates are strongly correlated. No significant and lasting impact of immigration on the unemployment rate

of the indigenous population was revealed, but the results indicate a temporary and delayed positive effect that may fade after several years. It was also found that the magnitude and persistence of this impact depends on the framework's policies. Especially approved by the country concerned. It is also clear that the policy settings that hinder competition in the product market have inflated and consequently prolonged the impact of immigration on the citizens' labor market.Weak evidence of employment protection legislation was also found, which increases both the persistence of the overall effect and the rate of unemployment benefit replacement.

**2 THEORETICAL BACKGROUND**: Migration and unemployment: These perceptions are a source of concern for policymakers and the public in general that fear of the harmful impact of globalization and migration on unemployment remains, in addition to the possible internal homogeneity of migration flows and the continued rise of unemployment, and consequently does migration lead to higher unemployment rates in and around the country? There is no evidence that would support the causation of the link between the rise in immigration and unemployment, but the effects of globalization have been found to be more influential on unemployment, which has appeared more prominent in recent times. It could reduce the impact of unemployment on immigration. That is, the high response to labor demand in wages is likely to limit the impact on unemployment. A higher unemployment benefit replacement rate is also likely to widen the wage differential between natives and immigrants, thus increasing the relative impact of migration on unemployment among indigenous populations. Therefore, it is necessary to take into account these effects, which are likely to disappear in the long term. (Blau & Mackie, 2017). Based on the relative changes of immigration and unemployment observed across the classification of skill classes, identification can be made in two ways. First, it limits the internal homogeneity bias that arises from the attractiveness of burgeoning labor markets for migrants: the link between labor market outcomes and immigration is likely to be more flexible across skill classes than across countries. Second, it sharply increases degrees of freedom, as the variability of immigration and labor market outcomes across skill levels (plus country and time) becomes completely excluded. Economic specifications aim to define the temporal features of the impact of unemployment on immigration, as well as its interaction with labor market policies and products. , The economic impact of changes in migration is considered an "impulsive response". (Jean & Jiménez, 2011) (Castles, 2011).

2.1 Direct affects: These may indicate that the proportion of immigrants in the workforce does not have a lasting impact on unemployment. If this is the case, then the influx of immigrants that keeps their proportion of the labor force constant over time (for example, a net influx with the same rate of growth of the domestic workforce) will have no effect whatsoever on unemployment of citizens.
However, unemployment and vacancies are closely related to net migration, as net migration expresses the difference between the number of migrants and the number of arrivals throughout the year, as this relationship may affect levels of net migration as well. It should also be noted that the years in which net migration was high tend to have the unemployment rate low and the years in which net emigration was low tend to have high unemployment rates, i.e. net migration and unemployment are negatively related to each other. Only changes in the percentage of immigrants in the workforce have a significant impact on citizens' unemployment, and their impact is temporary. Indeed, initial time-bound responses can be exacerbated by persistent unemployment. Because business cycle-related fluctuations in net migration flows and the

critical role of unemployment differences give a negative relationship of net migration with both unemployment and wages. (Realities et al., 2018).

Migration has different negative effects on regional unemployment in the short and long term. For example, in the short term, migration can reduce unemployment through positive effects on regional unemployment. For example, in the long term, the negative impact on employment for immigrants in Europe is greater than in the United States.

It was also found that the product market regulation index appears in the overall level, which greatly magnifies the effect of unemployment on immigration, and thus the effect of unemployment on migration is stronger and more permanent at the same time. In addition, to amplifying the direct impact of changes in the immigrants 'share on indigenous unemployment. Therefore, the total size of the impact of unemployment on immigration depends strongly on the rigor of product market reorganization, that is, in response to supply, particularly through the establishment of firms, which is the key to adjusting the economy where net migration is positively correlated with production difference (Pekkala & Tervo, 2002a).

2.2 The relationship between migration, unemployment and economy: Immigrants' demands for goods and services increase the size of the economy, and as the economy expands, so does the jobs needed to produce additional goods and services. As immigrants add to the labor supply (i.e. the number of people available for work), their presence also generates more jobs. Which affects the unemployment rate, once the effects of supply and demand are taken into account. Some studies show that immigration leads to a slight decrease in the unemployment rate, because the effects of demand outweigh the effects of supply, while others show the opposite. However, all studies show that the effect in both cases is very small and insignificant. The relationship between immigrants and unemployment, inflation and economic growth is a two-way causal relationship between external migration and economic growth, and it is an individual causal relationship from economic growth to inflation, from inflation to unemployment and from unemployment to economic growth. How much there is no causal relationship between external migration and unemployment. It was found that there is a strong and positive relationship between immigration and general unemployment and youth unemployment in particular, but when the results related to migration and unemployment in general are evaluated, the results appear different. The causal relationship between immigration and unemployment is long-term, however, and in the end, as per capita GDP was positively related to immigration, as the results indicate that, in the short term, immigration had a statistically significant negative effect on unemployment. Some studies argue that immigration negatively affects unemployment, while some argue that it positively affects some of them, and some confirm that there is no significant relationship between immigration and unemployment. For this reason, it is not possible to arrive at a generally accepted relationship between immigration and unemployment. The unemployment rate also depends less on the place of birth. Some groups, such as immigrant youth, women or elderly immigrants, have more difficulty finding a job. In addition, migration did not have a strong effect on unemployment, but the effect of migration on young people and less educated people was stronger (Jean & Jiménez, 2011).

2.3 Jobs and inclusion in the labor market: The majority of immigrants are working, with 28 million in the EU. In both countries, foreign-born people make up 12% of the working workforce. In countries where immigration is largely labor-driven and highly educated, such as settlement destinations and long-established European destination countries with many recent labor immigrants, immigrant job rates surpass 70%.e.g. Switzerland: their job rate has fallen by

three Percentage points in the last decade, while the EU's has increased by the same number. (OECD and European Union, 2018b).

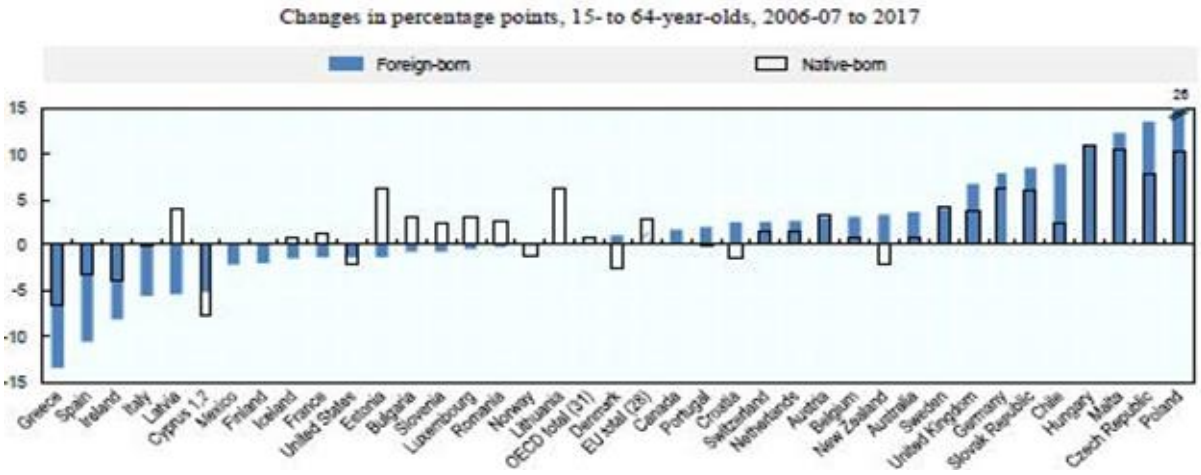


Fig. 1 - How employment rates have evolved .Source: (OECD and European Union, 2018a)

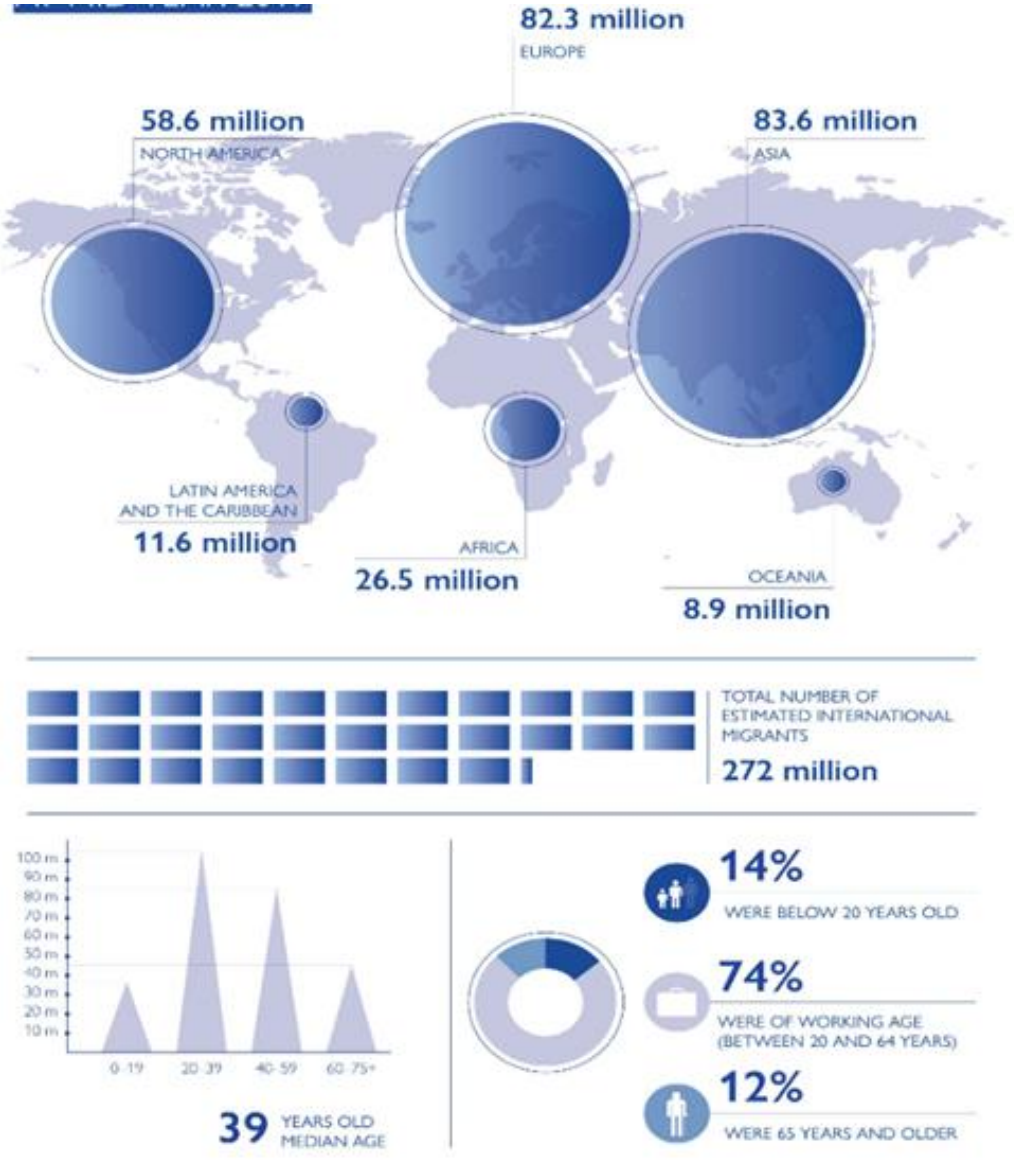

Fig. 2 - The proportion of international migrants around the world. Source: United Nations, Department of Economic and Social Affairs, Population Divisionism's GMDAC (2019)

**3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA:** This part of the paper states Economic variables and the effects of migration: There are several economic variables that give a clue or indication of the state of the economy, and they include:

Unemployment rate (reflects the percentage of individuals in the labor force who cannot find jobs). Inflation rate (or how fast and rising prices are :

- Average income.
- Budget deficit (which reflects how much the government spends more on services than it gets in revenue or taxes);
- External debt (or the amount of money countries borrowed from abroad);
- GDP (representing the amount of goods and services produced within the receiving countries);
- GDP per capita.

All these indicators tell something about the state of the economy in a particular country, and they are all affected in different ways through immigration. People's perspectives on the most important economic indicators differ, and therefore the judgment on the economic impacts of immigration may differ as a result. These indicators aim to assess the effects of immigration at the macroeconomic level, that is, the economy as a whole, or at the micro-economic level (individual).In general, macroeconomic theory considers immigration a balancing factor in regional labor markets. Consequently, those unable to find a job. They move towards low-unemployment areas where the chances of finding work are more favorable. There are three alternative strategies: to remain unemployed in the original region and search for a new job, and to move to another area in search of a job or because of finding a job there, or drop out from Manpower, the choice in such a situation will depend on many personal and family characteristics. For example, people who are older, less educated or manual workers may be more likely to drop out of the workforce, because the opportunity cost of doing so is not very high. On the contrary, educated young people who are more motivated to look for a new job. Moreover, entering the labor market program may be an alternative to immigration for the unemployed if the wages provided by the state or the private sector are good. (Williams, 1995) (Realities et al., 2018).

3.1 Impact on migration on the labor market: This enables the evaluation of the effects of different elasticities of labor supply, rate, unemployment rate, labor force and wages, and their combined effect on macroeconomic aggregates, and thus on GDP, real consumption, real wages, inflation rate and inflation wages that are extracted from annual data from the database and from National accounts which give differences to potential key determinants such as output and real wages. (AboElsoud et al., 2020) .Migrants are also attracted to a particular labor market because of a combination of economic and non-economic factors and their employability, which depends on the available jobs in the future country's economy. On the other hand, return migration often represents a large proportion of the first immigrants, the decrease in the number of immigrants has created unemployed workers who occupy the market and vacancies supported by government intervention, and thus the total employment decreases. The same is the case in the case of retirement or natural loss, such as the circumstances of death, which leads

to a number of workers losing jobs, or moving to unemployment. Therefore, the government's role appears in noticing the numbers of unemployment and immigrants in the jobs provided by the market. In addition, wage pressures associated with declining unemployment over time. Although policymakers are increasingly moving to protect domestic labor markets - and with a long recovery in unemployment expected, the situation for migrants is unlikely to improve in the near term. (Harding & Neamţu, 2018) (Paas et al., 2005)

3.2 The impact of unemployment on the social life of immigrants and policy scenarios for integration High unemployment rates and their potential to cause social unrest is a concern because the repatriation of rural migrant workers is one of the most severe employment challenges associated with the economic downturn, along with the prospects for unemployed university graduates. When designing government policies, the following must be taken into consideration to reduce social, behavioral and economic burdens:

1. Promote rural employment (by encouraging short-term and long-term training), financial support (through training and education vouchers for workers to return to school), and videoconferencing training in occupations less affected by the recession;
2. Promote vocational training and education for migrant workers.
3. Encouraging migrant workers to start their own businesses or become entrepreneurs (by granting loans and tax exemptions);
4. Directing migrant workers, especially rural ones, to work in new rural development projects, especially those in the inner provinces;
5. Ensure that workers get their salaries on time.
6. Providing benefits of social safety nets and public services to migrant workers;
7. helping migrants secure their rights upon their return;
8. Redistribution and export of migrant labor abroad, which has a large surplus of rural workers, a practice that has grown with the increase in unemployment (Pekkala & Tervo, 2002b)

3.2 Policy scenarios for refugee integration:

1. Full integration scenario: assuming existing government spending (per refugee) on refugee integration into labor markets, as well as refugee participation and job rates for low, medium, and high-skill workers.
2. In the advanced integration scenario: assuming a two-fold rise in new integration costs, resulting in higher jobs and participation rates for admitted refugees than currently exist.

Assuming a substantial rise in refugee resettlement spending to obtain equal technical and language capabilities to locals, as well as the same inclusion and job rates as the local population in the full integration scenario.

3. Scenario-specific costs of the refugee integration: Another part of the budgetary costs to the public budget associated with refugee admission, education, and labor market inclusion is dependent on integration reform efforts – reaching greater rate of refugee integration is more expensive for the public budget by Simulating two forms of integration costs: (i) language acquisition costs, and (ii) upper secondary, vocational, and/or tertiary education costs. For migrants to effectively begin their integration journey into the host country's culture, learning the destination country's language is necessary. Schooling and vocational training costs vary by Member State and ability, ranging from 1120 EUR per person per year in Bulgaria to 26410 EUR per person per year in Denmark. Total education / training costs are determined depending on the number of people in education / training and the cost per person to achieve scenario-specific labor market results for each integration scenario and Member State. The actions (and expenditures) of the refugee integration program decide the outcomes of the labor market in terms of refugee enrollment, jobs, and wage rate. Higher integration costs are linked to increased enrollment, more skilled workers, and wages rates. (Jarman, 2018). As a result, the

disparities in enrollment and job rates between the three cases are attributed to higher spending on refugee integration. The baseline case is compared to all three scenarios. Asylum seekers' costs in general. The resettlement scheme is not responsible for a portion of the budgetary costs to the public sector associated with asylum seeker admission in EU Member States. For e.g., according to estimates from the German Council of Economic Experts, the public expense of refugees is 800 EUR per asylum seeker plus 6600 EUR in annual welfare benefits for qualified applicants. Additional public administration charges, such as those associated with handling asylum petitions, are not included in these calculations. (Aiyar et al., 2016)

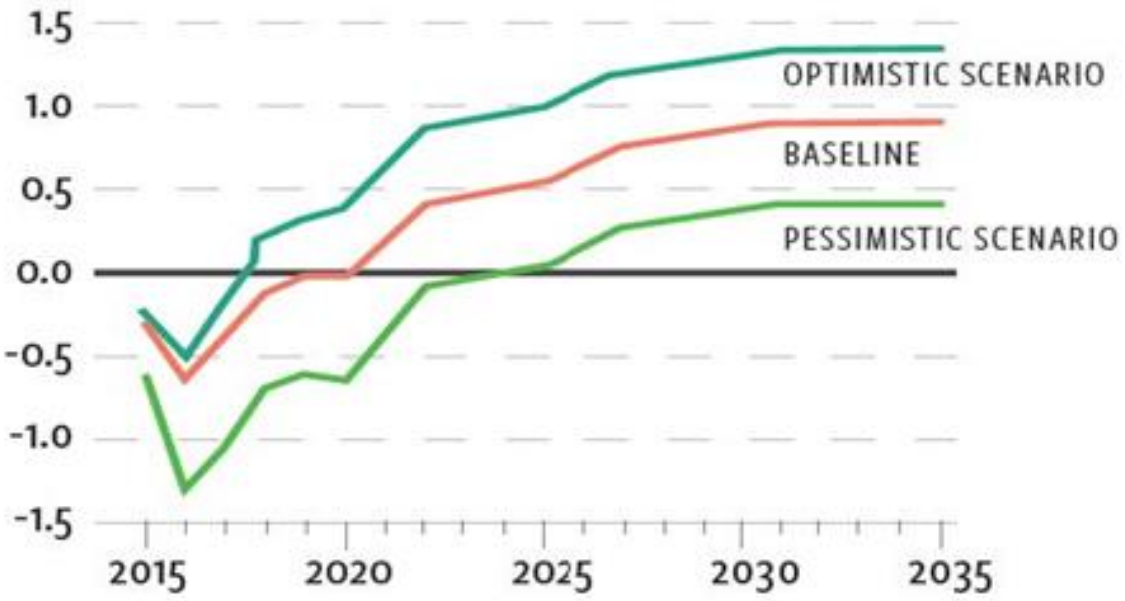


Fig. 3 - Integrating Refugees into a Country –possible scenarios for economic growth.Source:(Marcel Fratzscher and Simon Junker , 2018)

3.3 The impact of migration on unemployment rate: Increased immigration can lead to lower unemployment. Immigrants may tend to enter the secondary market, as local employees are preferred to be employed in the primary market. Although the repercussions effect is small, the replacement effect for citizens in the primary market will be very limited. Regardless, it is worth distinguishing between immigrants and temporary workers or guests who can affect unemployment differently in the short and long term. Migrants also tend to be less skilled, less educated, relatively young, and recent entrants into the labor market. Many migrants work in economic sectors such as construction and manufacturing industries with low benefit, which have been hardest hit by the recession. As unemployment, rates for immigrants rise at a faster rate than unemployment rates for workers born in many developed countries and exceed them. Structural unemployment arises because of changes in the economic situation because the wages and skills of workers exceed the required effective equilibrium level, in addition to the calculation of other sources of unemployment such as the real frictions in the labor market. Local employment. Besides, most immigrants are of active ages at work and during their employment period, they pay taxes that can be distributed to the natives. Therefore, the impact of migrants on the labor market is still unclear (Fix et al., 2009) .The immigration rate also displays a strong negative relationship with the unemployment rate difference, which is

reflected through a positive relationship with work. In the event of a decrease in production and an increase in both unemployment and household income, unemployment and wage differences become important for understanding cyclical migration patterns (M. Clemensa, 2018).


Fig.4 - Civilian unemployment rate, seasonally adjusted.Source:U.S.Bureau of Labor Statistics(2020)

3.4 Effects of migration and unemployment on the economy: Immigration and unemployment are two major factors in population growth. The rapid population growth rate stimulates the level of economic activity and reduces the level of unemployment, and as a result increases the population, as well as affecting the rate of growth in output per capita in other tangible ways. Moreover, they increase the rate of growth in the overall output. The relationship between immigration and unemployment is often more influential in labor markets. The effects of migration appear on employment, while unemployment is on the level of wages and productivity. (Nevile, 2016).In addition, migration in rural areas is lower than in urban areas and that urban unemployment has a positive relationship with migration. As there is no causal relationship of statistical significance between immigration, GDP per capita and unemployment, and there is also controversy as to whether accelerating the rate of GDP growth will increase the rate of adoption of new technology and thus increase productivity growth and growth in the production of each individual. (Jean & Jiménez, 2011).

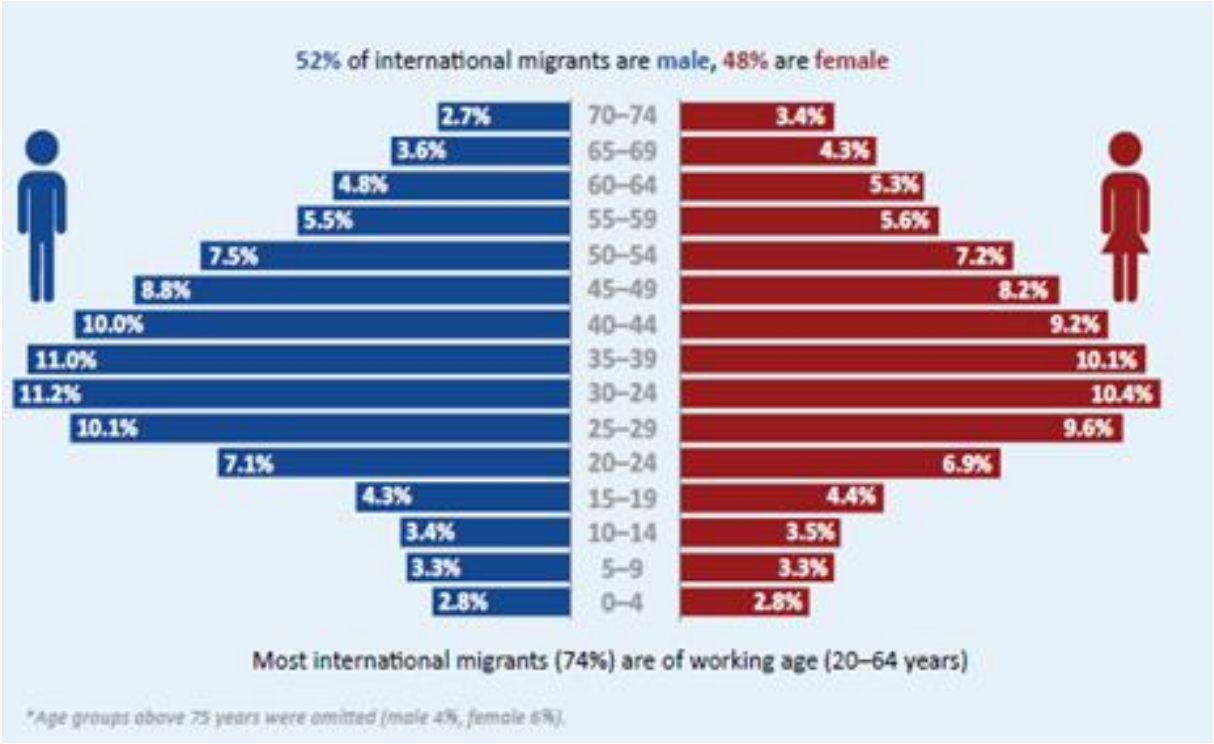


Fig.5-International migrant numbers by age and gender. Source: IOM, UN Migration, World Migration Report (2020)

**4 RESULTS AND DISCUSSION:** From the mentioned above, it shows the general pattern of unemployed individuals moving from areas with high unemployment rates, as expected, but it do not necessarily move to areas with low unemployment rates, and after moving, immigrants are likely to find a job or start studying. However, the probability approach may imply that other characteristics of migrants are to some extent on the way to improvement, in terms of their employability, that means migration has a minimal impact on employment.In addition, encouraging migration in general may not improve the geographic match between jobs and the unemployed, at least in the short term. Because migrants may not be aware of the negative consequences of the move, or they may not be optimized in terms of long-term employment opportunities. Hence, the relocation by itself may not improve the chances of re-employment, while the quality of immigrants can improve them. Immigration also appears to work to iron out local unemployment inequalities by mixing the unemployed with work, not by helping them find work. Therefore, more research must be done to confirm the reasons behind the original impact of migration, for example the human capital of the region. Moreover, choosing between relocation and mobility as spatial strategies for job search would also provide further insight into the adjustment of the labor market.

**5 CONCLUSION**: Most of the evidence indicates that immigration gives the economy slight positive effects or in the worst case, neutral: at the macroeconomic level, but some studies show slight negative effects on some of the main macroeconomic variables, so it is important for policymakers to define their priorities through the question: Should we look To the effect of migration on the unemployment rate for immigrants only, or only non-migrants, or the population as a whole? If the impacts of migration differ for these different groups, as is very likely, then determining whether migration is beneficial or unfavorable can depend on whether immigrants, non-immigrants, or both are the focus of attention. Consequently, the negative effects of migration must be mitigated as much as possible on the host countries. To fulfill the desired results of migration as following:

- Immigration does not lead to an increase in the unemployment rate.
- Immigration has relatively little impact on both prices and wages.
- Migration has relatively little impact on the long-term balance of payments;
- Long-term migrants are net contributors to revenue and local government.

The use of immigration as a tool of macroeconomic policy is ineffective and inappropriate because it does not affect major economic variables such as unemployment rate, inflation, balance of payments, etc. Focusing on the stability of economic activity around the world by strengthening the local economy, promoting youth employment and entrepreneurship, and helping workers move quickly to new opportunities through which active labor market policies are implemented to provide more vocational training and incentives to prevent mismatch in professional skills. There is a strong inverse relationship and statistical significance between the unemployment and the costs spent on the refugees, which means that the increase in expenditures for the introduction of Immigrants into the labor market leads to a decrease in unemployment rates. The correlation indicates a strong direct relationship between Immigrants employment and the GDP , the Pearson correlation 0.99%, which indicates the strength of the relationship between the two variables, meaning that an increase Immigrants employees leads to an increase in the GDP, but an increase over the long time and with future results.
Prediction that if spending on migrants does not increase There will be a slight difference in the increase in GDP, when conditions do not change, starting in 2015, that is, the number of immigrants to Europe will not increase. But when spending increase from GDP on migrants to enter them to labor market that study found the GDP changes will increase over the years with employments from immigrants and the projections were made by determining the percentage change in the GDP based on the integration values of the immigrants in the European Union as a whole from 2016 To the year 2040 .The integration of refugees and immigrants allows more of them to access the labor market, so an increase in the supply of labor will fill vacancies, push wages down, and thus lower the prices of basic commodities.

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# ECONOMIC CHANGE AND FINANCIAL PERFORMANCE A LESSON FROM ETHIOPIAN FINANCIAL INSTITUTIONS

*Goshu Desalegn, Anita Tangl*

**Abstract**

The study investigates the impact of macroeconomic variables on the financial performance of Ethiopian financial institutions for both depository and non-depository financial institutions. The study employed an explanatory research design and a quantitative research approach, as well as a secondary source of data (2013-2020) were used. Purposive sampling techniques were used in the study to select financial institutions. For data analysis, the study employs a pooled ordinary least square regression model. The study's findings show that economic growth, exchange rate volatility, current account balance, unemployment rate, and broad money all have the same effect on the financial performance of the banking and insurance sectors. The variable government debt, on the other hand, has a different effect on the financial performance of both the banking and insurance sectors. As a result of the study's findings, the study contends that macroeconomic variables affect the financial performance of the banking and insurance sectors in the same direction, except for the level of government debt.

**Keywords:** *Macroeconomic variables; Financial Performance; Ethiopian Financial Institutions.*

**JEL Classification:** E44, G23.

**1 INTRODUCTION:** Financial markets are critical for generating an efficient allocation of capital, which contributes to increased output and efficiency for the overall economy (Mishkin, F. S., & Eakins, 2009). Several empirical studies show that the overall function of the economy is highly dependent on the well-functioning of its financial institutions (Ongore & Kusa, 2013). In this case, financial institutions include both depository and non-depository institutions that act as financial intermediaries. When compared to non-depository institutions, the contribution of depository institutions to economic development is greater (Nurlaily et al., 2010).

It is argued that several factors influence a financial institution's financial performance; those factors can be either internal or external (Prastuti & Setianingrum, 2019). Internal factors that affect the profitability of the organization and have an impact on the management of the board of directors are referred to as financial institution-specific variables (Prastuti & Setianingrum, 2019).

Other external factors, on the other hand, are not as dependent on financial institution management efficiency but have a significant impact on financial performance. These external factors influencing financial institutions' performance are commonly referred to as macroeconomic variables (Athanasoglou, Panayiotis and Delis & Staikouras, 2006). This can be evidenced from the studies conducted by (Ongore & Kusa, 2013), (Athanasoglou, Panayiotis and Delis & Staikouras, 2006), (Javaid & Alalawi, 2018; Keswani & Wadhwa, 2019; Kronen & Belke, 2017; Mbilla et al., 2021; Venkatamuni Reddy et al., 2019; Zheng et al., 2019; Zhou & Tewari, 2019) which provides an excellent lesson on the impact of macroeconomic variables on firm financial performance from various perspectives in various countries. A lesson learned from the studies is that in an environment of volatile macroeconomic variables, such as

exchange rate volatility or inflationary pressure, the returns growing to businesses and firms include fluctuated returns, resulting in higher risk.

In the context of Ethiopia, there has been observed inconsistency of financial performance among and between financial institutions in the market, implying up and down movement in the pursuit of a return to stockholders. However, this up and down movement in performance is not solely due to ineffective management; other external factors also make it difficult for financial institutions to perform better (Kishor & Temesgen, 2020). Many studies have been conducted to examine the financial performance of Ethiopian financial institutions from various perspectives. However, no research has been conducted to demonstrate the relationship between financial performance and macroeconomic variables for the same industry but different sector. As a result, this study attempted to investigate the effects of macroeconomic variables on the financial performance of Ethiopian financial institutions, primarily commercial banks (depository institutions) and insurance companies (non-depository institutions) and provided empirical evidence that can help to bridge the gap in empirical evidence in specific to the study area. As a result, the selected macroeconomic variables are deemed relevant and appropriate as potential explanatory variables for macroeconomic measurements.

The variables listed aim to capture various types of risks that can emerge in various segments of the financial system. These macroeconomic variables are classified as (macroeconomic risk, addressed by indicators such as inflation rate, GDP growth, money supply, and unemployment rate), (macroeconomic imbalances, addressed by the indicator of current account balance), (sovereign risk, addressed by the indicator of government debt), and (Competitiveness risk, addressed by the indicator of exchange rate volatility). Considering the significance of the study, the following section of the study summarizes some literature reviews involved in previous and current research. Section three describes the research methodology used in the study, while Section four discusses the findings. The final section, number five, provided the conclusion and policy recommendations.

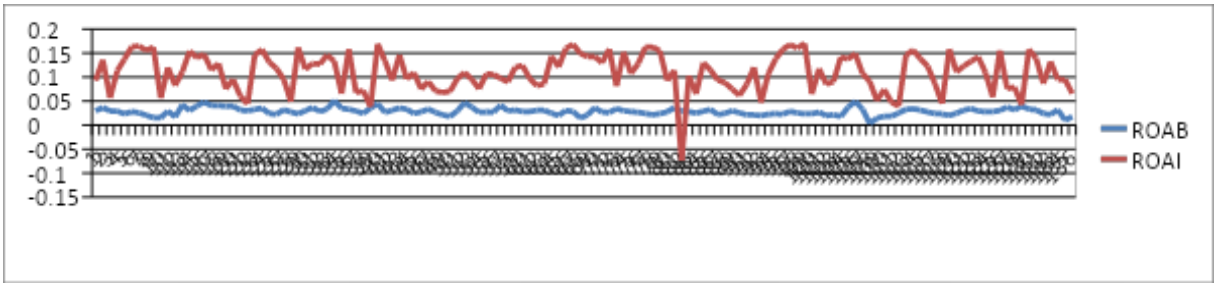


Fig. 1 - Financial Performance of Ethiopian financial institutions. Source: (NBE, 2020)

**2 THEORETICAL BACKGROUND:** Macroeconomic variables are used to evaluate an economy's economic performance. These are important economic factors because they have a large impact on the economy's welfare (Keswani & Wadhwa, 2019). As a result, many policymakers at both the micro and macro levels hope that these variables will remain stable to foster business growth (Kronen & Belke, 2017). Various studies have been conducted to identify potential macroeconomic factors that will influence the financial performance of financial institutions in Africa and elsewhere in the developing worlds of Asia and South America (Gutu et al., 2015). The factors identified as mostly inflation, interest rates, exchange rates, and Real Gross Domestic Product are among them.

Inflation has an impact on a firm financial performance because an increase in the rate of inflation can harm financial sector performance (Fallanca et al., 2020). If inflation is volatile, lenders will face higher interest rate risk than if they lend at a fixed rate (Issah & Antwi, 2017). According to the study, a low-inflationary macroeconomic environment is a critical component of successful financial institutions because it leads to low and stable interest rates. Furthermore, the trend of GDP affects financial performance; when GDP growth slows, demand for credit falls, which has a negative impact on firm profitability (Issah & Antwi, 2017).
The interest rate is another factor that influences a company's performance. This is the cost borne by the borrower to consume resources now (Hull, 1990). The study identifies interest rate risk as a major threat to the growth of financial institutions. According to the study, long-term loans are unlikely when interest rates are high and volatile, and there is also a general lack of economic stability. In this case, the study suggests that the ideal borrowing rate would be three to four percent above the cost of funds, but in most emerging markets, the actual spread is five to eight percent, and in developed markets, it is less than two percent. The exchange rate is another macroeconomic factor that influences performance (Zhou & Tewari, 2019). A stable currency is a success, according to (Boamah, 2014), because stable exchange rates attract long-term foreign capital. Furthermore, current account balances, government bonds, government debts, and the unemployment rate all play an important role in influencing the performance of financial institutions. Furthermore, (Ibrahim, 1999) stated that because macroeconomic variables are interconnected, the effect of any economic element has a ripple effect throughout the economy. As a result, it is understood that macroeconomic variables are expected to influence the business environment via various channels. To support this, the study conducted by (Milhem & Abadeh, 2018) implies that inflation has a positive and significant effect on banks' liquidity. The study conducted by (Cyril & Okechukwu, 2014), and (Alfadli & Rjoub, 2020) demonstrates a negative relationship between the exchange rate, inflation, and company returns. (Berk et al., 2006) conducted a study to determine the effect of macroeconomic variables on the financial performance of commercial banks in Kenya. The study's findings show that the financial performance (as measured by the return on assets ratio) of Kenyan commercial banks has a strong positive correlation with changes in macroeconomic variables. The empirical studies' conclusion implies that there is inconsistency in the findings regarding the effect of macroeconomic variables on firm financial performance. Hence the results from the literature review were used to establish expectations for the relationship between variables. Hence, the present study seeks to test the following hypotheses:

H1: The unemployment rate has a negative and significant effect on financial performance.

H2: Inflation rate has a negative and significant effect on financial performance.

H3: Economic growth rate has a positive and significant effect on financial performance.

H4: Exchange rate volatility has a negative and significant effect on financial performance.

H5: Government debt has a negative and significant effect on financial performance.

H6: Current account balance has a negative and significant effect on financial performance.

H7: Broad money supply has a positive and significant effect on financial performance.

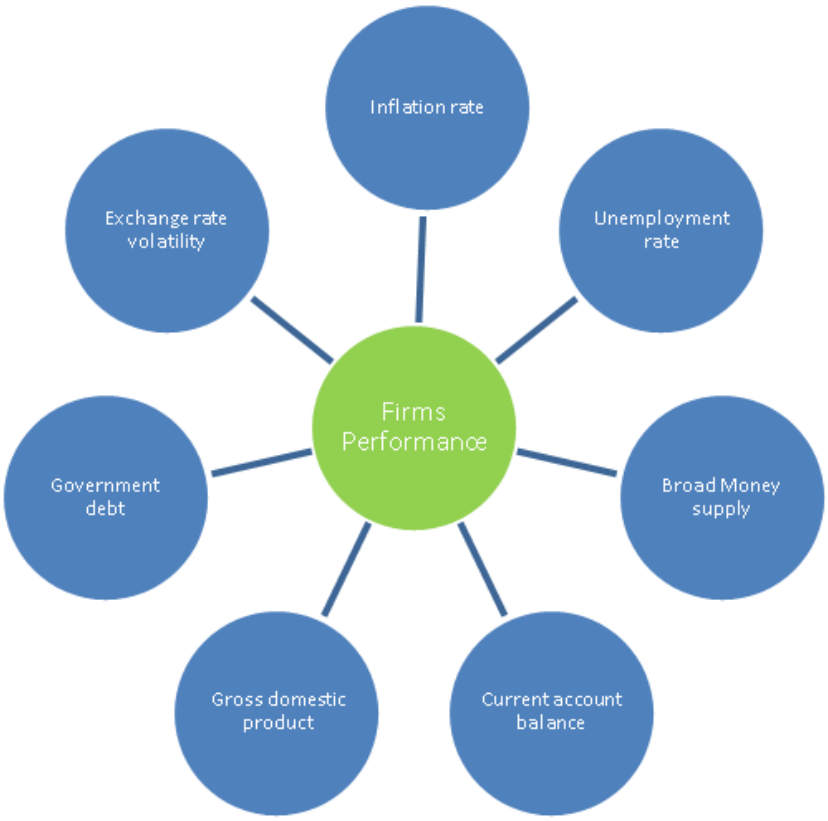


Fig 2 - Conceptual framework of the study. Source: own research

**3 RESEARCH OBJECTIVE, METHODOLOGY, AND DATA:** The overall objective of this study is to investigate the impact of macroeconomic variables on the financial performance of Ethiopian financial institutions in general, as well as depository and non-depository financial institutions in particular. The study used an explanatory research design and a quantitative research approach to determine the effect of macroeconomic variables on the financial performance of financial institutions. The study's target population included all financial institutions in Ethiopia. Purposive sampling techniques were used to select the financial institutions for this study. As a result, the study chose depository (commercial banks) and non-depository (insurance companies) financial institutions. The reason for choosing both sectors is to see if depository institutions' financial performance responds differently to macroeconomic variables than non-depository financial institutions. Furthermore, the availability of data was considered when selecting financial institutions. The study was carried out using secondary data sources; for this study, eight years of financial data (2013-2020 G.C) were used. The reasoning behind selecting 8 years of data was to include some newer banks established after 2013. For the dependent variable, data were collected from financial institution financial statements, and data for independent variables were extracted from World Bank Country Data websites. The study used the statistical software E-views 10 to analyze the data. The study also ran diagnostic tests to see if the OLS assumptions were violated, as well as other related tests.

3.1 Model specification and Description of Variables: In the specified regression model, the explanatory variables were the unemployment rate, inflation rate, economic growth rate, exchange rate volatility, government debt, current account balance, and broad money supply. The variable representing the financial performance of both insurance and banks was measured by ROA used as the dependent variable specified in the regression models.

ROAB = f(UER, INF, GDP,ERV,GD,CAB,BMS)

ROAI = f(UER, INF, GDP,ERV,GD,CAB,BMS)
Whereas, ROAB (Financial performance of Banks) = measured as net income after tax/total asset
ROAI = (Financial performance of insurance) = measured as net income after tax/total asset UER = level of the unemployment rate as a percentage of the total labor force in the country.
INF = level of inflation rate in the country
ERV = exchange rate volatility against the USD dollar measured by the standard deviation of the level exchange rate (USD/ETB).
GDP = economic growth rate measured as yearly economic growth of the country.
GD = government debt measured as the percent of gross domestic product.
CAB = current account balance measured as the percent of gross domestic product.
BMS = broad money supply measured as the percent of gross domestic product.

*The regression equation for the model is:*

Model One: $ROAB_{it} = \beta_0 + \beta_1 (UER)_{it} + \beta_2 (INF)_{it} + \beta_3 (GDP)_{it} + \beta_4 (ERV)_{it} + \beta_s (GD)_{it} + \beta_6 (CAB)_{it} + \beta_7 (BMS)_{it} + U_{it}$

Model Two: $ROAI_{it} = \beta_0 + \beta_1 (UER)_{it} + \beta_2 (INF)_{it} + \beta_3 (GDP)_{it} + \beta_4 (ERV)_{it} + \beta_s (GD)_{it} + \beta_6 (CAB)_{it} + \beta_7 (BMS)_{it} + U_{it}$

**4 RESULTS AND DISCUSSION:** The independent variables used in this study to investigate the effect of macroeconomic variables on the financial performance of financial institutions (banks and insurance companies) are similar. To that end, the researcher conducted two separate regression analyses to determine whether macroeconomic factors that influence banking sector performance will also influence insurance company financial performance. As a result, the section that follows discusses the regression results of both models.

**4.1 Depository institutions Performance and Macroeconomic Variables**

Tab. 4.1 - Result of regression output for the financial performance of the banking sector. Source: Compiled by the author through help of E-views 10

Dependent Variable: ROAB

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| UER | -0.004405 | 0.003911 | -1.126237 | 0.2622 |
| INF | 0.072358 | 0.002535 | 28.53913 | 0.0000*** |
| GDP | -0.108451 | 0.003190 | -33.99975 | 0.0000*** |
| ERV | -0.048202 | 0.007898 | -6.102814 | 0.0000*** |
| GDEBT | -0.070237 | 0.004325 | -16.23995 | 0.0000*** |
| CAB | -0.058597 | 0.004481 | -13.07714 | 0.0000*** |
| BMS | 0.028129 | 0.002916 | 9.645781 | 0.0000*** |
| C | 4.903478 | 0.346941 | 14.13345 | 0.0000*** |

| | | | |
|---|---|---|---|
| R-squared | 0.979242 | Mean dependent var | 2.237500 |
| Adjusted R-squared | 0.978107 | S.D. dependent var | 0.229633 |

ROAB = 4.903 - 0.004405(UER) + 0.072358(INF) - 0.108451(GDP) - 0.048202(ERV) -0.070237 (GD) -0.058597(CAB) +0.028129(BMS)

The unemployment rate is the first determinant of financial performance used in this study. According to the results of the regression analysis, the unemployment rate and the financial performance of the banking sector have a negative relationship, but it is not statistically significant. Variable inflation, on the other hand, has a positive and significant relationship with the financial performance of Ethiopia's banking sector. The result implies that a one-unit increase in the level of inflation causes a 0.07-unit increase in financial performance, which is statistically significant at a one-percentage-point level of significance. Inflation has a positive effect because it keeps nominal interest rates rising at the same rate. As a result, commercial banks/lenders will demand a high-interest rate to compensate for the future decrease in purchasing power of the money they are paid. Furthermore, Ethiopia's banking sector's financial performance is negatively impacted by the country's variable economic growth. According to the results of the regression analysis, a one-unit increase in economic growth causes a 0.10-unit decrease in financial performance in the banking sector, which is statistically significant at a one-percentage-point significance level. The negative relationship between the two variables is observed due to the slow growth of the financial sector in comparison to the country's economic growth. A negative relationship can be observed in such an inverse relationship between the variables.

Variable exchange rate volatility has a negative and significant impact on Ethiopia's banking sector's financial performance. According to the results of the regression analysis, a one-unit increase in the volatility of the exchange rate causes a 0.048-unit decrease in financial performance, which is statistically significant at a one-percentage-point level. The negative relationship is the result of exchange rate fluctuations, which can affect both exporters and importers. As a result, the flow of transactions by exporters and importers is influenced by the volatility of the exchange rate, which reduces the profit gained from these transactions.

Furthermore, variable government debt has been found to have a negative impact on the financial performance of Ethiopia's banking sector. The regression output implies that a one-unit increase in government debt reduces financial performance by 0.070 units and is statistically significant at a one-percent significance level. The negative relationship between the two variables implies that while public debt stimulates aggregate demand and growth in the short term, it promotes capital and national income reduction in the long term. As a result, a decrease in capital and national income reduces the financial performance of financial institutions.

Besides, the variable current account balance has a negative relationship with the financial performance of the banking sector in Ethiopia. As depicted on the regression output result (table 4.1), a 1 unit increase in current account balance causes the financial performance of the firm to decrease by 0.058 units and is statistically significant at a 1 percent significant level. The implication of a negative relationship is noticed because of increase in current account balance increases the level of net export in the country. However, in the context of Ethiopia import is where greater than export hence current account balance is negative. For that, the relationship

between the two variables is negative. Finally, the variable board money supply has a positive relationship with the financial performance of the banking sector in Ethiopia. The result of regression analysis implies that a 1 unit increase in broad money supply will cause the financial performance to increase 0.028 units and statically significant at a 1 percent significant level. An increase in the supply of money typically generates more investment and puts more money in the hands of customers. Hence more investment will generate more savings which stimulates more financial performance.

### 4.2 Non-depository institutions Performance and Macroeconomic Variables

Tab 4.2 - Result of regression output for the financial performance of insurance companies. Source: Compiled by the author through help of E-views 10

Dependent Variable: ROAI

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| UER | -9.552902 | 0.589693 | -16.19979 | 0.0000*** |
| INF | 0.844820 | 0.029610 | 28.53171 | 0.0000*** |
| GDP | -1.157297 | 0.058675 | -19.72402 | 0.0000*** |
| GDEBT | 0.002342 | 0.008858 | 0.264420 | 0.7919 |
| ERV | -1.035346 | 0.051681 | -20.03336 | 0.0000*** |
| CAB | -0.834614 | 0.031090 | -26.84503 | 0.0000*** |
| BMS | 0.077327 | 0.044114 | 1.752875 | 0.0820* |
| C | 72.41120 | 1.018378 | 71.10442 | 0.0000*** |
| R-squared | 0.992623 | Mean dependent var | | 54.53750 |
| Adjusted R-squared | 0.992219 | S.D. dependent var | | 4.508805 |

ROAI = 72.41 - 9.552902UER+ 0.844820INF- 1.157297GDP- 1.035346ERV+ 0.002342(GD) - 0.834614(CAB) +0.077327(BMS)

The result of regression analysis implies that the direction and sign of all variables are similar to the regression analysis conducted for banking sector financial performance except the variable government debt. The following section discusses the regression result on the financial performance of insurance companies.

The unemployment rate has been found to have a negative impact on the financial performance of insurance companies, and it is statistically significant at a 1% significance level. Because of

the rising unemployment rate, the labor force is becoming more reliant on other family members. As a result, there is no income or wealth to pay for insurance premiums. Variable inflation has a positive and significant relationship with the financial performance of Ethiopian insurance companies, and it is statistically significant at a 1% level. Inflation has a positive effect because it raises the price of goods and services, which prompts an investor to purchase an insurance premium for his or her assets to receive financial assistance from insurance companies.

Furthermore, variable economic growth is found to have a negative impact on the financial performance of Ethiopian insurance companies, which is statistically significant at a 1% significance level. The two variables have a negative relationship because slow economic growth causes GDP per capita to fall. As a result, a decrease in GDP per capita reduces the financial performance of insurance companies.

Variable exchange rate volatility has a negative and significant impact on the financial performance of Ethiopian insurance companies. The negative relationship is an implication of foreign companies in Ethiopia becoming unwilling to purchase insurance premiums from Ethiopian insurance companies due to exchange rate fluctuation; primarily, the Ethiopian exchange rate fluctuation is only in one direction (devaluation), which reduces the value of assets in comparison to the dollar. Variable government debt, on the other hand, is found to positively affect the financial performance of Ethiopian insurance companies but is statistically insignificant. Furthermore, at a 1% significance level, the variable current account balance has a negative relationship with the financial performance of Ethiopian insurance companies. Finally, the variable board money supply has a positive relationship with the financial performance of Ethiopian insurance companies, and this relationship is statistically significant at the 1% significance level. An increase in the supply of money usually leads to increased investment and more money in the hands of customers. As a result, an investor with a larger investment is more likely to purchase more insurance premiums from insurance companies.

**5 CONCLUSION:** Several tests were carried out in the study to determine whether the model is visible and useful for policy recommendations. To begin, a multicollinearity test was performed using a correlation matrix to determine whether or not there was a problem with the variables. Other tests such as (the normality and heteroscedasticity tests) were then used to confirm that the model is feasible.

The study's findings show that economic growth, exchange rate volatility, current account balance, unemployment rate, and broad money all have the same effect on the financial performance of the banking and insurance sectors. The variable government debt, on the other hand, has a different effect on the financial performance of both the banking and insurance sectors. As a result of the study's findings, the study contends that macroeconomic variables affect the financial performance of the banking and insurance sectors in the same direction, except for the level of government debt. The study recommends that all financial institutions adjust their policies and strategies in response to changes in economic policies and economic variables.

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# ANALYTICAL VIEW ON LEGALIZATION OF CRIME PROCEEDS IN CONTEXT OF EUROPEAN UNION

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**Abstract**

Revenue from crime tends to be legalized, which is often referred to as "money laundering". This concept is associated with the proceeds of illegal activities and organization of criminal offenses, which are often implemented through various mechanisms. This is usually a serious anti-social crime that is closely linked to another crime. It is immediately followed by other illegal trade, e.g. arms or drug trades. These illegal activities often reach the international level. In general, money laundering is considered to be one of the most serious organized forms of illegal activity. The paper deals with analysis of the impact of global indices and indicators on the change in the value of the AML index, which defines the risk of money laundering and terrorist financing, in selected 24 EU countries during the years 2012 to 2020 using a panel analysis of time data. The aim of the paper is to identify significant indicators that significantly affect the variability of the key AML index.

***Keywords:*** *money laundering, illegal activities, AML index, significant indicators, panel analysis of time data*

**JEL Classification**: K40, G10

**1 INTRODUCTION:** Given the central role of money in enabling and even motivating crime (Byrne, 2011), there is a need to take enormous initiative in activities that prevent the movement of such money from individuals involved in illegal activities. Such an initiative is one of the key tools in the international fight against crime (Ball et al., 2015). The main entry point is financial services organizations providing cash in the financial system. Although they contribute to facilitating this type of money movement around the world, the movement of cash through the financial system generates records that can be analysed in order to understand, resp. prove or even predict how money is being used or generated (De Goede, 2012). Therefore, governments around the world have approved legislation that requires financial service providers to analyse how their customers use companies' financial products and services. The goal is to develop clients' intelligence and financial literacy that can help reduce crime (Ball et al., 2015). Developing information about money laundering is a challenge mainly due to the nature of the phenomenon being modelled. Strictly speaking, money laundering does not correspond to one particular behaviour; rather, it can relate to any kind of predicate offense: from small tax evasion to the trade in weapons of mass destruction (Canhoto, 2021). This may also include cases where the money has a legitimate origin (e.g. salary) but is used to finance crime (Kaufmann, 2002, Chapter 10), as is the case with charitable donations to organizations that support terrorism. Anyone who launders dirty money can also commit several crimes at the same time. For example, traffickers are also involved in the implementation of bribes and tax evasions (FATF, 2018). In addition, a variety of actors can be involved in money laundering, from sole proprietors to highly sophisticated organized crime groups with their own CFO (Bell, 2002). This means that, unlike other knowledge-based decision-making scenarios (systems modelling specific behaviours with well-defined boundaries and participants), AML modelling

systems have to take into account a very broad phenomenon, with many possible behavioural manifestations and participant combinations. Not only is it difficult to develop money laundering models, but it is also very difficult to test their performance. The expected outputs generated by the model would need to be compared with the confirmation of money laundering cases, in order to fine-tune the model and improve its accuracy (Zimiles & Mueller, 2019). However, it takes a long time (several months, maybe years) for a financial service provider's suspicion of a possible money laundering case to be formally identified and investigated by law enforcement and finally convicted. The situation is also exacerbated by the fact that money launderers very often change their ways of working. For example, the closure of state borders and restrictions on movement caused by the COVID-19 pandemic have led to a decline in street drug sales and a reorientation towards online sales by courier or mail (Coyne, 2020). It is also likely that criminals are trying to take advantage of new financial products or business strategies, such as using mobile payments (Whisker & Lokanan, 2019) or virtual currencies (Vandezande, 2017).

Based on the above, it is clear that any available evidence to guide this modelling becomes obsolete very quickly. Financial service providers face another challenge, which is concerns about the large amount and type of data that needs to be analysed. A typical financial organization will produce a large number of transaction records on a daily basis, in addition to structured and unstructured data generated by many of the organization's customer contact points - from login to biometric, information, or chat conversations (Fernandez, 2019). Therefore, in order to combat money laundering, financial services organizations are currently required to invest in strong technical systems to help process and make sense of such data. In the United Kingdom alone, around £ 5 billion a year is invested in customer profiling and to technologies monitoring transaction, to help fight money laundering, as estimated by the regulator (Arnold, 2018). It should be noted that there are also views that the cost of investing in AML technologies plus the operating costs of maintaining AML outweigh any related benefits, such as improved processes or customer perspective (Balani, 2019).

**2 THEORETICAL BACKGROUND:** The legalization of crime proceeds is generally assessed by the Basel AML global index. The AML index is an independent tool for assessing countries with regard to the risk of money laundering and terrorist financing. The AML Index has been compiled annually by the Basel Institute for Management since 2012 and provides holistic crime risk and money laundering risk scores based on data from 17 publicly available sources, such as Financial Action Task Force (FATF), Transparency International, the World Bank and the World Economic Forum. The AML index is developed on a composite methodology, which is based on components from a wide range of data generated by third-party sources. In order to determine the existence and quality of procedures and rules, as well as to put them into practice in the financial and public sectors, the AML index resorts to various types of data, such as expert opinions, surveys and various other data based on perception and observation.

The FATF assessment is an important part of using reports whose recommendations are considered to reflect country compliance and the implementation of the AML and CTF (Counter-Terrorist Financing) laws. Other related aspects include banking, corruption, financial regulations, civil rights and the judiciary to ensure a comprehensive picture of the risks of money laundering and terrorist financing. The Basel Anti-Money Laundering Agreement and the Index Score represent the overall level of country risk associated with money laundering and terrorist financing.

The AML index does not measure the actual existence of money laundering in a given country; instead, it provides a basis for assessing the level of risk, which is the likelihood of money laundering activities originating in a given country, based on compliance with certain AML / CTF standards and other risk categories. We must not forget that money laundering and terrorist financing cannot be quantified because no resources are available.

The AML index itself consists of 5 basic evaluated domains:

1. Quality of AML/CFT Framework (65% of the total value of the AML index)

2. Corruption and Bribery Risk (10%)

3. Financial Transparency and Standards (10%)

4. Public Transparency and Accountability (5%)

5. Political and Legal Risk (10%)

**3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA:** In this study, the AML index represents a dependent variable. The basic time analysis is shown in Fig.1. During the years 2012 to 2021, the average values of the evaluated index ranged from 4.732 ± 0.338 in 2012 to 4.052 ± 0.269 in 2020. The second lowest value of the AML index was achieved by the evaluated EU countries, including the United Kingdom in the current year 2021, while the average value index is at the level of 4.080 ± 0.271. At the level of significance $\alpha = 0.05$, the values of the index show a normal Gaussian distribution within each examined year 2012 - 2021, while the normality was evaluated by the Shapiro-Wilks test. Within these years, we mainly observe the occurrence of extreme values, specifically for Finland in the given year 2015 with a value of 3.040. We observe other significant extreme values of the AML index also in 2018, specifically for Finland (2.570) and Estonia (2.730). Among the first five countries whose average values fall below three percent in terms of the considered years, we can include EU member states such as Finland, Estonia, Slovenia, Bulgaria, Sweden. The limit of the coefficient with a value of about four percent was also occupied by Slovakia, which is in the sixteenth place with the average value of the coefficient 4.574 ± 0.331 from 2012 to 2021. Into this limit of about four percent fall Denmark, Portugal, Belgium, France. Also Croatia, Ireland, the United Kingdom, Romania, Spain, the Netherlands, but also neighbouring Poland, the Czech Republic and Hungary. The countries with the highest degree of risk are Luxembourg, Greece and Italy, while the countries with border values include Germany (5.045 ± 0.420) and Austria with an average AML index of 5.031 ± 0.404.
From the point of view of countries, 2020 is the least risky year in the average assessment, as the AML index in the given year fell to almost four percent compared to 2012. Of the total number of all EU member states, 2012 had the highest level of risk (AML 4.733 ± 0.338). In 2020, the AML index reached 4.053 ± 0.269, which means that the value of the AML coefficient decreases over time and the situation in the area of money laundering is gradually improving. We observe a minimal increase in the value of the AML index in the current year 2021, where the average value is 4.080 ± 0.271. The difference between the values of the AML index in 2020 and 2021 is at the level of -0.0275 and at the level of significance $\alpha = 0.05$ is not significant ($p = 0.8832$). The year 2012 is the most critical year for EU Member States, as it had the highest risk of money laundering and terrorist financing between 2012 and 2021. Greece had the highest

risk value in 2012 with an index value of 6.780 and Luxembourg (6.170). By contrast, Estonia (3.280), Slovenia (3.370) and Sweden (3.500) had the lowest AML values. This year, Slovakia ranked 17th among the evaluated countries with the achieved value of the AML index at the level of 5.470. For 2013, Greece is again in first place with an index value of 6.390. The lowest value of the AML index in 2013 was achieved by Slovenia (3.300), closely followed by Estonia (3.310) and Finland (3.740). The lowest value of the AML index among the evaluated EU Member States in 2014 was achieved by Finland (2.510), which improved by 1.230 points compared to the previous year. On the other hand, the country with the highest value of the AML index in 2014 is also Greece (6.330), followed by Luxembourg (5.960). The change in the worst score of the assessed AML index occurs in 2015, when Greece (5.830) overtook Luxembourg (5.930). However, the analysis so far shows that in the evaluated years 2012 to 2015, the worst result belongs to these two countries. On the contrary, the least risky country in terms of the risk of money laundering and terrorist financing in 2015 is Finland (2.530), followed by Estonia (3.190). The Slovak Republic, with an overall rating of 4.660, took 17th place in the ranking. However, compared to 2012, Slovakia achieved a decrease in the value of AML by more than 15%. The year 2016 continued the trend of 2015, where the lowest value of the monitored index was again reached by Finland (3.050). Compared to 2015, however, the value of the AML index increased by more than 20%. On the other hand, the most risky country in 2016 is again Luxembourg with an AML index of 5.890, followed by Greece (5.530). From the point of view of the least risky country, 2017 copies the year 2016. The least risky country is again Finland (3,040), followed by Lithuania (3.620). Estonia is in third place compared to previous years. The worst country in terms of AML is Hungary (5.410) and Italy (5.410) for the first time in the year under review, followed closely by Luxembourg (5.400). Countries such as Greece and Luxembourg were ranked first in the AML rankings. The change again takes place in the following year 2018, where Luxembourg again becomes the most risky country with an AML index of 5.110. The least risky country in a given year is Finland (2.570), followed by Estonia (2.730). For the first time in Cyprus (5.010), 2019 occupies the place of the most risky country in terms of money laundering. In the penultimate assessed year 2020, Malta is the country with the highest risk in terms of money laundering and terrorist financing (5.480), followed by Hungary (4.990).


Fig. 1 - Development of the Basel AML value in 2012 - 2021 for EU countries

The best countries are Estonia (2.360) and Finland (2.970). The last evaluated year 2021 copies the previous year in terms of the order of the best and worst countries. Malta (5.450) and Hungary (5.040) are again at the highest risk of money laundering, and Estonia (2.340) and Finland (3.060) have the best results.

**4 RESULTS AND DISCUSSION:** Within the implemented analysis of the risk of legalization of crime proceeds and terrorist financing (AML), the following global indices and indicators are considered as predictors:

1. World Competitiveness Index – WCI
2. Corruption Perception Index – CPI
3. Economic Freedom Index– EFI
4. Global Innovation Index- GII
5. Index of Sustainable Economic Development– SEDA
6. Doing Business Index– DBI
7. Global Sustainable Competitiveness Index – GSCI
8. Value of GDP per capita – GDP per capita

Due to the fact that, as in the observed period from 2012 to 2020, the value of the monitored indicator of the risk of money laundering and terrorist financing also changes through the evaluated countries, there are also changes in independent variables - individual global indices and indicators, within the evaluation we chose panel data analysis. Greene considers the basic regression model of panel data (GREENE, W. H.: Econometric Analysis, 4th ed. New Jersey: Prentice-Hall, 2003) a model in the form of:

$$y_{it} = \beta_1 x_{it1} + \beta_2 x_{it2} + \ldots + \beta_k x_{itk} + \alpha_1 z_{i1} + \alpha_2 z_{i2} + \ldots + \alpha_q z_{iq} + u_{it} \quad (1)$$

where the *i* index denotes the cross-sectional dimension $i = 1, 2, \ldots n$, the index *t*, the time dimension $t = 1, 2, \ldots T$, the variables $x_1$ to $x_k$ are explanatory variables not including the vector of units and the variables $z_1$ to $z_k$ represent individual effects – diversity that can be distinguish an individual or a whole group from other entities – a possible vector of units is included here. Individual effects do not change over time. Based on the above framework, we will distinguish and show how three cases are estimated:

1) Pooled Regression Model (PRM) – if the individual effect is only a vector of units, which means that a single parameter α is a common constant:

$$y_{it} = \alpha + \beta_1 x_{it1} + \beta_2 x_{it2} + \ldots + \beta_k x_{itk} + u_{it} \quad (2)$$

2) Fixed Effects Model (FEM) – if individual effects $z_1$ to $z_k$ are unobservable but correlated with explanatory variables, then the solution is to include all effects in the estimable conditional average using the formula and the FEM model has the form:

$$y_{it} = \alpha_i + \beta_1 x_{it1} + \beta_2 x_{it2} + \ldots + \beta_k x_{itk} + u_{it} \quad (3)$$

where the fixed effect means a specific constant for each cross-sectional unit.

3) Random Effects Model (REM) – if individual effects $z_1$ to $z_k$ to are unobservable but not correlated with the explanatory variables, then the solution is a random component , which in addition to the original assumes a specific random component for each cross-sectional unit and the REM model has the form:

$$y_{it} = \beta_1 x_{it1} + \beta_2 x_{it2} + \ldots + \beta_k x_{itk} + (\alpha + \varepsilon_i) + u_{it} \quad (4)$$

The simplest case, which is a pooled regression model (PRM), is a naive approach in which it is assumed that the absolute term and all the parameters of the explanatory variables are the same for all cross-sectional units. The combined model has a general shape:

$$\mathbf{y} = \begin{bmatrix} y_1 \\ y_2 \\ \cdot \\ y_n \end{bmatrix} = \alpha + \begin{bmatrix} x_1 \\ x_2 \\ \cdot \\ x_n \end{bmatrix} \cdot \boldsymbol{\beta} + \begin{bmatrix} u_1 \\ u_2 \\ \cdot \\ u_n \end{bmatrix} = \alpha + \mathbf{x}\boldsymbol{\beta} + \mathbf{u} \quad (5)$$

The basic indicators that affect the change in the value of AML are: WCI (World Competitiveness Index), CPI (Corruption Perception Index), EFI (Economic Freedom Index),

GII (Global Innovation Index), SEDA (Sustainable Economic Development Assessment), DBI (Doing Business Index), GSCI (Global Sustainable Competitiveness Index), HDI (Human Development Index), GDP per capita per capita).

Tab. 1 – Pooled regression model for Basel AML index of EU countries. Source: own research

| Variable | Coefficient | 95 % CI for coefficient | Std. error | t-ratio | p-value |
|---|---|---|---|---|---|
| *const* | 8.8797 | (6.6270, 11.1324) | 1.1426 | 7.771 | 0.0001* |
| *WCI* | 0.0113 | (-0.0025, 0.0251) | 0.0070 | 1.611 | 0.1087 |
| *CPI* | −0.0409 | (-0.0589, -0.0229) | 0.0091 | −4.482 | 0.0001* |
| *EFI* | −0.0228 | (-0.0472, 0.0016) | 0.0124 | −1.842 | 0.0669 |
| *GII* | 0.0301 | (0.0042, 0.0560) | 0.0131 | 2.291 | 0.0229* |
| *SEDA* | 0.0365 | (0.0035, 0.0694) | 0.0167 | 2.183 | 0.0302 |
| *DBI* | −0.0368 | (-0.0694, -0.0042) | 0.0165 | −2.223 | 0.0273* |
| *GSCI* | −0.0556 | (-0.0832, -0.0280) | 0.0140 | −3.971 | 0.0001* |
| *GDP per Capita* | 1.640e-05 | (7.351e-06, 2.55-05) | 4.59e-06 | 3.573 | 0.0004* |

** - significant at significance level α = 5 %, CI – confidence interval, Std.error – standard error*

Based on Table 1, it is possible to write the pooled regression model for regressors significant at the significance level $\alpha = 0.05$ in the form:

$$AML_{2012-2020} = 8.8797 - 0.0409 \cdot CPI + 0.0301 \cdot GII - 0.0368 \cdot DBI - 0.0556 \cdot GSCI + 1.64 \cdot 10^{-5} \cdot GDP_{per\_cap} \quad (6)$$

The average value of the dependent variable, ie the AML index, is 4.4453 with a standard deviation of 0.7658. The value of the determination index of the model (6) represents the value 0.4014, the adjusted determination index as the ability of the model to explain the variability of the dependent variable is at the level of 0.3783. Based on the achieved level of significance of the Fisher-Snedecor test criterion $p = 0.000$ at the value of Fisher's test statistic $F(8.207) = 17.3515$ it can be stated that model (6) is adequate, so there is at least one regression coefficient of the applied factor, which is different from zero. The individual values of the information criteria are as follows: Bayesian-Schwwarz information criterion 434.2246, Akaik information criterion 403.8470, Hannan-Quinn information criterion 416.1196.

The fixed effects model (FEM), in contrast to the pooled regression model, assumes a diversity of cross-sectional units in absolute terms. The basic model with fixed effects (FEM) has the form:

$$\mathbf{y} = \begin{bmatrix} y_1 \\ y_2 \\ . \\ y_n \end{bmatrix} = \begin{bmatrix} i & 0 & \dots & 0 \\ 0 & i & \dots & 0 \\ . & . & \dots & . \\ 0 & 0 & \dots & i \end{bmatrix} \begin{bmatrix} \alpha_1 \\ \alpha_2 \\ . \\ \alpha_n \end{bmatrix} + \begin{bmatrix} x_1 \\ x_2 \\ . \\ x_n \end{bmatrix} \cdot \boldsymbol{\beta} + \begin{bmatrix} u_1 \\ u_2 \\ . \\ u_n \end{bmatrix} = \mathbf{D}\boldsymbol{\alpha} + \mathbf{x}\boldsymbol{\beta} + \mathbf{u} \quad (7)$$

We see that the columns of the matrix **D** represent in the model the artificial variables $D_1$ to $D_n$, which take the value $d_{it} = 1$ for the *i-th* cross-sectional unit, and the value $d_{it} = 0$ for all other cross-sectional units. The basic form of this model with the indication of significant factors for the change of the value of the investigated variable, the parameter of which is the AML index, is given in Table 2.

Tab. 2 – FEM model for Basel AML index of EU countries. Source: own research

| Variable | Coefficient | 95 % CI for coefficent | Std. error | t-ratio | p-value |
|---|---|---|---|---|---|
| const | 6.2916 | (-0.3327, 12.9160) | 3.3576 | 1.874 | 0.0625 |
| WCI | 0.0025 | (-0.0086, 0.0136) | 0.0056 | 0.4442 | 0.6574 |
| CPI | −0.0639 | (-0.091, -0.0368) | 0.0137 | −4.649 | 0.0001* |
| EFI | −0.038 | (-0.0844, 0.0076) | 0.0233 | −1.649 | 0.1009 |
| GII | 0.0815 | (0.0292, 0.1338) | 0.0265 | 3.077 | 0.0024* |
| SEDA | 0.0571 | (-0.0172, 0.1314) | 0.0376 | 1.517 | 0.1309 |
| DBI | −0.0322 | (-0.0689, 0.0047) | 0.0187 | −1.722 | 0.0867 |
| GSCI | −0.0132 | (-0.0398, 0.0135) | 0.0135 | −0.9751 | 0.3308 |
| GDPperCapita | −1.06e-05 | (-3.15e-05, 1.04e-05) | 1.06e-05 | −0.9956 | 0.3207 |

** - significant at significance level α = 5 %, CI – confidence interval, Std.error – standard error*

Based on Table 2, it is possible to write the fixed model effect (FEM) model in the form:

$$AML_{2012-2020} = -0.0639 \cdot CPI + 0.0815 \cdot GII \tag{8}$$

The average value of the examined AML parameter in the data set considered by us (EU countries excluding Cyprus, Malta, Lithuania and Latvia due to missing data) and in the observed period 2012-2020 acquires a value of 4.4453 with a standard deviation of 0.7658. Based on the achieved level of significance of the Fisher-Snedecor test criterion $p = 0.0000$ at the value of Fisher's test statistic F (31,184) = 20.4125, it can be said that model (8) is adequate, so there is at least one regression coefficient of the applied factor, which is different from zero. Adjusted determination index Adjustet R2 = 28.7538 %. The individual values of the information criteria are as follows: Bayesian-Schwwarz information criterion 346.7665, Akaik information criterion 238.7576, Hannan-Quinn information criterion 282.3935.

The difference between the individual cross-sectional units is tested using an F-test comparing the FEM model and the pooled model. The test statistic has the form:

$$F = \frac{\frac{RSS_{POL} - RSS_{FEM}}{n-1}}{\frac{RSS_{FEM}}{nT-k-n}} \tag{9}$$

and compare it with the table value *F (n-1, T-1)* at the selected level of significance α. If the value of the statistic is greater than the table value, we reject the null hypothesis stating that the cross-sectional units have the same absolute terms. Based on the value of the achieved significance level at the value of Fisher's test statistic *F* (23.184) = 13.2575, we can reject the null hypothesis that the cross-sectional units have the same absolute terms.

The random effects model (REM) can be written as follow:

$$y_{it} = \alpha + \beta_1 x_{it1} + \beta_2 x_{it2} + \ldots + \beta_k x_{itk} + \varepsilon_i + u_{it} = \alpha + \beta_1 x_{it1} + \ldots + \beta_k x_{itk} + v_{it} \quad (10)$$

where by combining the random component of a particular observation in the cross-sectional unit $u_{it}$ and the random component specific for the cross-sectional unit $\varepsilon_i$, we obtain the composite random component $v_{it}$. The absolute term represents the average of the cross-sectional absolute terms in the model and the random component specific to the cross-sectional unit is a random deviation from this average.

Tab. 3 – REM model for Basel AML index of EU countries. Source: own research

| Variable | Coefficient | 95 % CI for coefficent | Std. error | z | p-value |
|---|---|---|---|---|---|
| const | 7.0657 | (3.8564, 10.2751) | 1.6279 | 4.3400 | 0.0001* |
| WCI | 0.0029 | (-0.0079, 0.0138) | 0.0055 | 0.5357 | 0.5922 |
| CPI | −0.0536 | (-0.0765, -0.0307) | 0.0116 | −4.6080 | 0.0001* |
| EFI | −0.0374 | (-0.0714, -0.0035) | 0.0172 | −2.1760 | 0.0295* |
| GII | 0.0817 | (0.0482, 0.1152) | 0.0169 | 4.8110 | 0.0001* |
| SEDA | 0.0428 | (-0.0074, 0.0929) | 0.0255 | 1.6800 | 0.0929 |
| DBI | −0.0440 | (-0.0770, -0.0110) | 0.0167 | −2.6320 | 0.0085* |
| GDPperCapita | −0.0149 | (-0.0396, 0.0097) | 0.0125 | −1.1920 | 0.2331 |

** - significant at significance level α = 5 %, CI – confidence interval, Std.error – standard error*

The pooled regression model (PRM) can be written based on the Table 3 as follow:

$$AML_{2012-2020} = 7.0657 - 0.0536 \cdot CPI - 0.0374 \cdot EFI + 0.0817 \cdot GII - 0.0440 \cdot DBI \quad (11)$$

The average value of the examined AML parameter in the data set of EU countries (excluding Cyprus, Malta, Lithuania and Latvia due to missing data) and in the observed period 2012-2020 represents 4.4453 with a standard deviation of 0.7658. Adjusted determination index Adjustet R2 = 65.1893 %. The individual values of the information criteria are as follows: Bayesian-Schwwarz information criterion 168.3650, Akaik information criterion 137.9875, Hannan-Quinn information criterion 150.2601.

The Hausman specification test is used to choose between the FEM and REM models, the test statistics of which are displayed below the model estimate at the end of the report. The null hypothesis assumes that the parameter estimates of the generalized least squares method in the REM model and the least squares methods in the FEM model are consistent, and thus the least

squares estimation is not efficient. In the alternative hypothesis, only the least squares method is consistent. If the value of the statistic , then we can reject the null hypothesis about the consistency of both estimators and the FEM model is more appropriate. If the value of the statistic is , we cannot reject the null hypothesis and the REM model will be recommended. For our data set, the value of the achieved significance level is p = 0.0617 and therefore a model with random effects is more suitable for describing the change in the value of the AML index (11). A graphical representation of the real and predicted values of the Basel AML index using the selected model (11) is shown in Fig.2.

Within the model (11), i.e. the combined regression model, which can be considered as a model suitably describing the change in the AML index, the most significant independent variable that significantly describes the change in the AML index is the CPI (Corruption Perception Index). The total CPI score ranges from 0 to 100. Each of the resources included in the CPI is standardized to allow aggregation into a CPI score. Standardization converts all data points to a scale of 0 – 100, where 0 represents the highest level of perceived corruption, and 100 the lowest level of perceived corruption. Regarding the CPI values, it should be noted that the method of calculating the CPI index changed in 2012, therefore, according to Transparency International, the values from 2012 are not comparable with the values from 2011 and with earlier values. In general, however, they measure the same thing: the perception of corruption and on the same, resp. transferable scale (up to and including 2011 on a scale of 0-10 to two decimal places, from 2012 on a scale of 0 – 100). The CPI (Corruption Perceptions Index) is an index that focuses on the perception of corruption among government officials and politicians and defines corruption as an abuse of public power for personal gain. Due to the definition of the CPI as an independent variable, a close link between this index and the AML index is assumed. It can be stated that increasing the value of the CPI index decreases the value of the examined AML index. Due to the nature of the indices themselves, this dependence seems natural. By increasing its value, the CPI declares a lower value of the perception of corruption and, conversely, lower values of the AML index declare a lower risk of money laundering and terrorist financing. This logical relationship declares a negative sign at the regression coefficient of the model (11). The effect of the CPI on the change in the value of the examined variable of the AML index is 20.2483%.

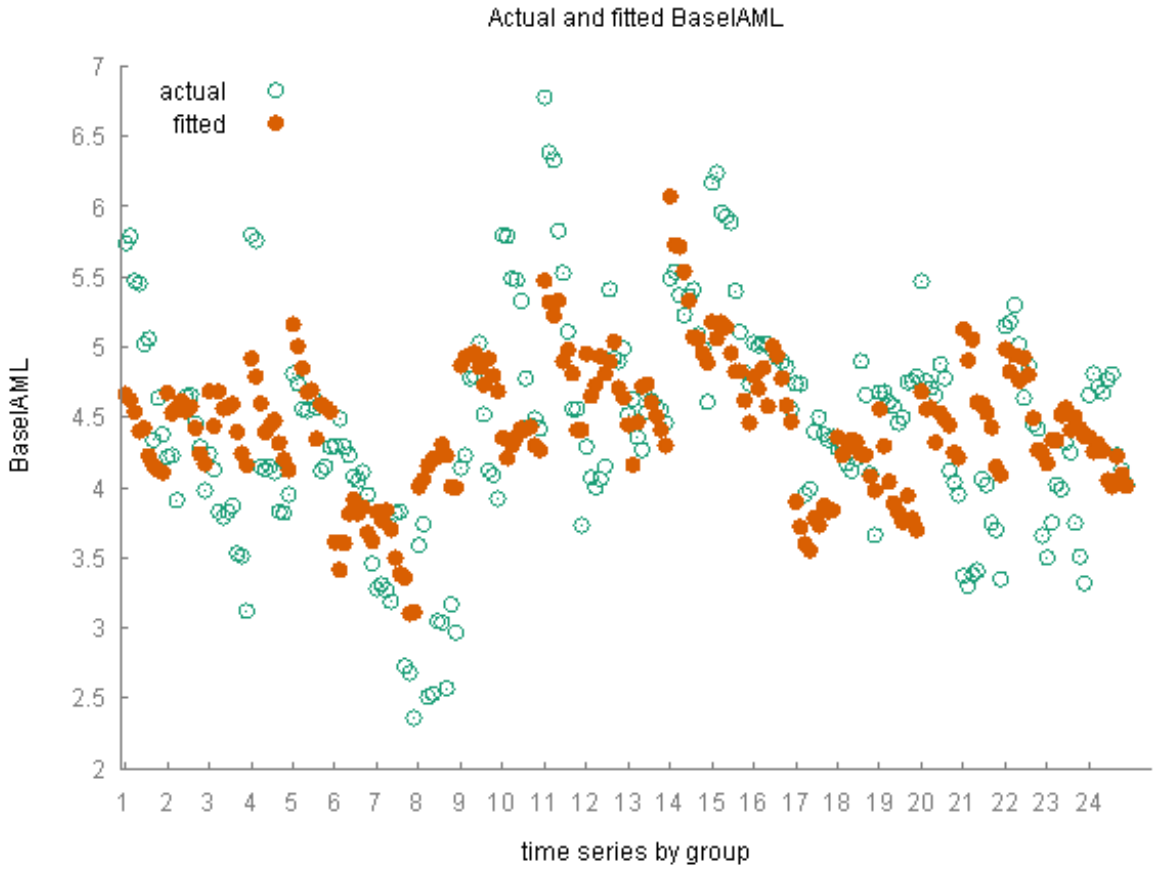


Fig. 2 – Real and predicted values of the Basel AML index using model (11). Source: own research

Another significant factor that contributes to the change in the value of the AML index (by 7.639%) is the GII index, or the Global Innovation Index. The Global Innovation Index is scaled on a scale from 0 to 100 as the arithmetic average of 80 indicators. The Doing Business index or the DBI index as another significant factor that influences the change in the value of the examined AML index at the level of 11.5654%. The DBI index is scaled on a scale from 0 to 100 and contains a total of 10 evaluation dimensions. The methodology for quantifying the score is set so that for each indicator, the percentile in which the economy is located is first calculated. The arithmetic mean is then calculated from the results, thus obtaining information about the average percentile for each monitored dimension of the business environment. The resulting ranking of countries is determined by re-averaging these average percentiles of the observed dimensions for each economy and ranking them mathematically from the smallest to the largest percentile.

**5 CONCLUSION:** From real practice we perceive that in connection with the measures taken by the police forces, whether law enforcement agencies or operational parts of the Police Force, attention is often focused only on the detection of the crime itself and the person (perpetrator), respectively. to clarify and investigate this crime.

However, the effort should also be focused on the implementation of measures to identify and document the actions by which the perpetrators legalize the property obtained by the predicate crime (profit-generating crime). This is both in the pre-trial phase or in the detection of the crime itself. We can only fight organized crime if we can convict perpetrators of crime (in organized and criminal groups), if we resort to illegally acquired property that is acquired through crime. If we do not fight crime, perpetrators can use the proceeds of crime to corrupt

and ensure their impunity. If we do not allow the perpetrators to use the proceeds of crime, we will also eliminate their possible corrupt activities as well as their further investment in criminal activities. Each of the countries of the European Union has its own specifics in detecting organized crime, as well as money laundering. There is a need for more effective coordination and supervision of compliance with existing rules within the Member States of the European Union.

In conclusion, it should be noted that there are a large number of approaches to analyzing the problem of money laundering. One of the ways is the analysis of panel data, which allows the capture of time changes in the monitored predictors. However, it is possible to assume that these effects on the evaluated indicators are not linear and interact in interactions. Therefore, it is necessary to focus on these aspects in further analyzes.

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**Acknowledgments**

This publication has been written thanks to the support of the "VEGA1/0194/19—Research on process-oriented management of financial management focusing on detection of tax evasion in terms of international business".

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# FOREIGN DIRECT INVESTMENTS IN TIMES OF SARS-COV-2 PANDEMIC

*Michal Fabuš*

**Abstract**

Foreign direct investment (FDI) is investment that an investor from one country makes into either a company or a start a business abroad. Not only do they have a positive effect on labor productivity, technological and innovation development, and export growth, but their contribution can also be seen in the context of structural changes in the host country's economy. Those who recognize FDI financing see the benefits primarily in the benefits of know-how and new technologies. All countries are looking for foreign investors, especially those that do not have enough of their own resources needed for financing.

The aim of the paper is to characterize and analyze the development FDI during COVID-19 pandemic.

***Keywords:*** *FDI, pandemic, COVID-19, investments flows*

**JEL Classification**: E22, F21

**1 INTRODUCTION:** There are several opinions and definitions of foreign direct investment (FDI) in the literature. Foreign direct investment refers to the purchase of foreign assets for control purposes. Under control, we understand the management of the company whose assets have been purchased (Dudas, 2010).

Foreign direct investment can also be defined as the longer-term interest of a resident entity in one country by a company located in another country. Longer-term interest is the existence of longer-term relationships and the significant influence of the investor on the management of the company. Direct investment represents both initial investment and all subsequent capital flows within companies. These features distinguish FDI from portfolio investment.

Portfolio investments are investments in a company where the investor does not interfere with the management of the company, but his interest is merely the appreciation of his share. In determining the existence of a direct investment relationship, the 10% share capital or enterprise voting power criterion is used in accordance with international standards (Dudas, 2010).

FDI can be interpreted as the purchase of foreign assets with the intention of control. We can understand the term control as control of the economic company whose assets were purchased. Therefore, FDI can be distinguish from portfolio investment with an emphasis on performing control of management tasks, which is a crucial aspect in this case. Passive holdings of securities and other financial assets of a foreign company that do not involve control and managerial intervention in a particular company are called portfolio investments. (Balaz, 2010)

In addition to the above definitions, FDI is seen as an effective tool needed to boost the economy's performance. FDI inflows into countries have a positive impact on GDP developments, unemployment rates, labor productivity, the contribution of new technologies and production processes, know-how and increased domestic human capital skills.

**2 THEORETICAL BACKGROUND:** In the past, goods exchange played a major role in the development of business activities, with changes in capital movements later. The international movement of capital has reached a rapid pace, globalization has facilitated this process of growth and expansion. It has brought simplification and acceleration of processes. International capital flows into different economies in different economies, including foreign direct investment (FDI). FDI plays a very important role in international business - it represents international capital movements and external sources of economic and economic growth of the economy (Dudas, 2010).

The issue of investment attractiveness determinants, which is very live at present, is being dealt with in numerous publications of Slovak and foreign authors. The importance of several determinants of investment attractiveness is stressed by A. Bevan (2001, 2004), S. Estrin (2001, 2004) and K. Meyer (2004), who divided them into two basic groups (of political and economic factors) and distinguished between the factors influencing the hosting and domestic economies. The attention of T. Dudas (2010) and M. Fabus (2017, 2018, 2019) is paid to individual determinants and their influence upon the economy's development, the motivation of investors, economic and political conditions creating in the hosting country. Theoretical background of the investment attractiveness investigating and the theories of FDI creation were made by prominent foreign scholars. The most comprehensive is J. H. Dunning's (1977, 1979, 2001) eclectic theory based on three categories of factors, which determine decision-making of investors. In the theory of FDI motivation of multinational corporations, Dunning creatively divides FDI into resource motive, efficiency seeking, market seeking and strategic asset seeking four motives (Dunning, 2001), which becomes the basic paradigm for studying OFDI motivation and behavior. It is well-known OLI paradigm and the motives which prerequisite investment decision-making are the benefits resulting from the ownership and ownership rights, advantages from having information about the human resources and new information, and the specific benefits resulting from the locality.

FDI is defined as a long-term investment of a foreign direct investor in an enterprise resident in another country's economy, not in a foreign investor's home country. The relationship of foreign direct investment consists of a parent company and foreign affiliates, which together form a multinational corporation (Fabus, 2017). Under the constant share we understand the existence of the long-term nature of the direct investor and the direct investment enterprise, its significant contribution to the management of the business. The criterion that is in line with international standards to determine the existence of a direct investment is a 10% share of the core capital or voting rights in an enterprise.

FDI can have a significant impact on regional development. On the one hand, FDI tends to focus on advanced regions and thus increase regional disparities, on the other hand, it can be a significant exogenous impulse for the development of regions. FDI inflows alone do not provide for any equalization of regional disparities, but for developing countries it is one of the basic instruments for achieving economic growth. It is economic growth that is one of the basic conditions for improving equality and convergence of regional disparities (Blanc-Brude, et.al. 2014).

Among other things, foreign direct investment also supports the development of national economies, increases employment in the regions and has a positive impact on the trade balance. Foreign investors are entering new markets because of sales diversification. Similarly, due to a skilled and cheap labor force, either because of increased turnover or the opportunities of new markets. In terms of employment, FDI entering the host country has a significant impact on maintaining or increasing domestic employment, growth in labor skills and wage growth.

The wage level is considered by several authors to be one of the most important factors influencing the decision to invest in a large number of economic sectors in transition economies. Dunning (1979) argues that labor costs are a significant variable for foreign direct investment investors in 1970, and remains a significant variable over the 1990s, along with the existence of a skilled and skilled workforce. (Paul, et al., 2014)
Bobenič Hintošová, A., Bruothová, M., Kubíková, Z., & Ručinský R. (2018) have identified the level of gross wages and the share of labour force with achieved at least secondary education, as the most significant determinants with the positive effect on FDI inflows.

**3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA:** The main research goal of the presented study is the analysis of the foreign direct investment for the selected observed period and the impact of the SARS-CoV-2 pandemic. As part of the analysis of the development of FDI, we limited the research set from the period from 2017 to 2020, in order to have a sufficient period of time to evaluate the analysis of time series. Within the application part, we used several research methods, which we implemented with a quantitative approach. The application part of the paper follows the theoretical analysis and synthesis of available foreign and domestic literature and foreign and domestic statistical data. One of the used mathematical-statistical methods is the analysis of time series. It is a gradual and chronological arrangement of values that are spatially, temporally, or factually comparable and recorded over time. The basic premise to create time series analysis is the use of the decomposition method. This is the composition of the basic components, which we quantify in the case of regular developments by analytical adjustment or in the case of irregular developments by moving averages.
The data of the research set (global data) were obtained from internationally publicly available databases, such as the United Nations databases - from the UNCTAD as well as the European Statistical Office (EUROSTAT). The data of the research set (national data for the Slovak Republic) were analyzed based on data from the Statistical Office of the Slovak Republic and the National Bank of Slovakia.

**4 RESULTS AND DISCUSSION:** The general claim in relation to foreign direct investment is that they affect the growth and performance of the economy. The impact of foreign direct investment on the economy can be direct and indirect. On the one hand, it is the supply of capital to the domestic market from abroad. On the other hand, there are countless accompanying phenomena, such as the reduction of unemployment, the supply of technology, the involvement of subcontractors and the like. Especially in economies that are open to foreign trade and focused on one strategic sector, as in Slovakia, foreign direct investment can have a significant impact. There are several advantages, but also disadvantages, in relation to the movement of long-term capital into the country's economy. Some disadvantages are often neglected, respectively. underestimated, which can lead to economic imbalances.
Developments in 2018 indicate a general release of direct investment capital circulating between the EU and the rest of the world. The net outflow of foreign direct investment from the EU to non-EU countries was negative, at € 60 billion, in sharp contrast to the amount invested in 2017 (€ 301 billion). EU market investment by non-EU direct investors was even more pronounced, with around € 205 billion in foreign direct investment inflows removed, barely offsetting the additional EU direct investment inflows recorded in 2017 (€ 265 billion).
In 2018, EU companies in Canada invested more than € 90 billion and EU direct investment firms reached almost € 57 billion compared to their Canadian direct investors.

Switzerland shows some regularity in relation to FDI with the EU, although the figures for 2018 indicate a lower level of outflow and inflow of foreign direct investment from Switzerland into the Swiss market (EUR 63 billion and EUR 27 billion) compared to 2017. Outflows and inflows EU foreign direct investment with Switzerland remained significant in 2018, keeping Switzerland on the list of major foreign direct investment players in the EU market. 2019 was one of the most successful years for Europe in terms of attracting foreign direct investment. In the United Kingdom, foreign direct investment fell to zero and other major beneficiaries fell. However, the overall performance of European foreign direct investment masks several regional positives. In Sweden, for example, flows have doubled from $ 12 billion to $ 29 billion. Foreign direct investment in Spain also increased by 52%, thanks to several acquisitions.

Global foreign direct investment flows fell by 49% in the first half of 2020 compared to 2019, due to the economic downturn associated with the SARS-CoV-2 global pandemic (COVID-19). Developed economies saw the largest decline, with foreign direct investment estimated at $ 98 billion in the first six months, down 75% from 2019. (UNCTAD, 2020, 2021).

Flows to North America fell 46% to $ 166 billion, while cross-border mergers and acquisitions fell by 43%. Greenfield investment projects also fell by 29% and project finance deals fell by 2%. At the same time, the decline in foreign direct investment flows to developing economies was 16% lower than expected, mainly due to investment in China. Flows decreased by only 12% in Asia but were 28% lower in Africa than in 2019 and 25% lower in Latin America and the Caribbean. (UNCTAD, 2020)

The US saw a 49% drop in foreign direct investment, falling to an estimated $ 134 billion. The decline occurred in wholesale, financial services, and manufacturing. Cross-border mergers and acquisitions of US assets by foreign investors fell by 41%, mainly in the primary sector.

From other advanced economies, flows to Australia fell (minus 46% to $ 22 billion), but increased for Israel (from $ 18 billion to $ 26 billion) and Japan (from $ 15 billion to $ 17 billion). (UNCTAD, 2020)

EU foreign direct investment increased by $ 11.6 billion in April 2020, down from $ 55.4 billion in March 2020, indicating volatility in the inflow of foreign direct investment outflows in the pandemic period. EU foreign direct investment reached an all-time high of $ 234.1 billion in October 2013 and a record low of $ -209.8 billion in December 2018.

It is clear that the global SARS-CoV-2 pandemic has hit Europe hard. Some countries have been hit harder than others, but overall, the entire continent, if not the world itself, has become hostage to an invisible kidnapping. While the virus on the old continent is causing confusion and affecting its citizens and healthcare systems, the global economic consequences of this pandemic are shaping every day. It would not be a surprise if the investment sector became severely affected worldwide and more specifically in the EU.

Businesses around the world have revised their investment plans mainly for two reasons, the SARS-CoV2 pandemic and the fall in oil prices. According to preliminary data published within companies, 10% of foreign direct investment projects in Europe have been canceled and another 25% have been stopped so far.

As an example of the impact in the countries of the European Union, the Netherlands recorded a net outflow of USD 86 billion in foreign investment in the first half of 2020; The United Kingdom (although no longer a member of the EU since February 2020 - a transitional period was still in place in 2020) had a net outflow of USD 30 billion and Switzerland recorded a net outflow of USD 98 billion. Despite the poor situation in the first half of 2020, Ireland recorded a positive net inflow of foreign investment of USD 75 billion. (UNCTAD, 2020)

Due to increased government spending to address the SARS-CoV-2 pandemic as well as revenue shortfalls in the form of taxes, investors can be expected to wait when deciding on new investment projects. We can expect investors to expect possible tax increases from European governments, whose fiscal budgets will have to be stabilized if the current expansionary policy is continued.

According to preliminary UNCTAD data, capital outflows from European countries have caused total net foreign investment in Europe to fall to negative numbers for the first time since UNCTAD began collecting FDI data in the 1970s. The region recorded a net outflow of $ 7 billion in the first half of 2020, compared to a net inflow of $ 202 billion in the same period in 2019. (UNCTAD, 2020)

The European Union has recently taken a major step in regulating foreign direct investment. As of 11 October 2020, the new EU regulation on incoming foreign investment (the Foreign Direct Investment Regulation) became binding on all 27 Member States. The Foreign Direct Investment Screening Regulation, adopted in March 2019, established a Europe-wide framework within which the European Commission and Member States can coordinate their foreign investment actions.

Under the new foreign direct investment regime, the EU sets minimum standards for Member States' control systems, creates a channel for information sharing between the European Commission and Member States, and establishes a formal mechanism for the European Commission and Member States to provide feedback on foreign direct investment. within the EU. The Foreign Direct Investment Regulation does not require Member States to exercise control over foreign direct investment at national level or to control specific types of investment. On the other hand, the Foreign Direct Investment Regulation requires Member States that decide to introduce a screening system to meet certain minimum standards. (European Commission, 2020)

**5 CONCLUSION:** Many governments have taken stringent public health measures to limit the spread of the COVID-19 pandemic. These public health measures have caused severe economic disruptions that impact the FDI decisions of firms. Governments have also taken significant economic policy actions to forestall, or cushion, the economic consequences of the public health crisis. The eventual impact on FDI flows will depend on the success of both these public health and economic policy responses. COVID-19 may affect investors and economies differently depending on country/regional context and FDI motivations.

Not surprisingly, the COVID-19 pandemic has dramatically impacted FDI flows in many regions. According to the UNCTAD, global FDI flows for 2020 were $998.89bn, a fall of 35% from around $1.53 trillion in 2019 — the lowest level since 2005. UNCTAD also expects 2021 to be a fallow year for FDI, with any recovery not expected to start until 2022.

**Acknowledgements**

The paper is the output of an international scientific project IGP no. 1/2020 “Medzinárodné podnikateľské prostredie – determinant súčasných trendov”.

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# PHARMACIES IN COMPETITION

*Árpád László Hortolányi, Róbert Magda, Szilvia Domán*

**Abstract**

The aim of our research is to explore the reasons and preferences on the basis of which people choose pharmacies in the town of Gyöngyös and its catchment area. Whether the same consumer chooses the same pharmacy in different life situations, can loyalty be established in this special market?
In the first part of our primary research we looked at the service providers' side in order to see what they are currently doing and what additional tools they could use to acquire and retain consumers. During the qualitative research individual in-depth interviews were conducted with pharmacy managers and pharmacists. The information obtained in this way was supplemented with the results of observations made in pharmacies during purchases. During the survey, our main objectives were to explore the advantages and disadvantages of network memberships, the market knowledge of pharmacy managers, and to assess the impact of promotions from the perspective of supply-side players.

**Key words:** *pharmaceutical market, pharmacy chains, consumer behaviour, qualitative research, in-depth interview*

**JEL Classification:** M31

**1 INTRODUCTION:** The relevance of our choice of topic is justified by the fact that today medicines buying habits have undergone a significant change compared to previous decades. Consequently, pharmacies are not in an easy position as the competition is becoming increasingly fierce for acquiring and retaining customers. (Nádor, 2014). The marketing and promotional activities used in the sale of medicines interweave the everyday lives of customers (Buzási, 2014). In the small town where the study takes place there are currently ten public pharmacies with very different conditions and opening hours and in different parts of the city. In a city with a population of less than 30,000 inhabitants this is a very large number, which is favourable for customers, but does not make it easier for individual pharmacies. We believe they need to make a serious effort to acquire and retain customers.
The results of previous research on the subject have shown that the location of the pharmacy, that is the distance to the place of residence, is the most influential factor in choosing a pharmacy, followed by the friendly service of the pharmacy and the wide range of products on site. The majority of customers who receive the right quality of service typically remain loyal to their pharmacy. (Szinapszis, 2009)
In our present research we are looking for the answer to the question of how the actors of the supply side see their own situation and opportunities in this situation.

**2 THEORETICAL BACKGROUND:** Nowadays, pharmacies should be considered like any other average commercial unit. They have to do hard marketing work for the graces of

consumers (Birchall, 2018). In order to do this, they need to understand the motivations of the buyer, because the same range of goods is usually available in every pharmacy, yet the buyer will still prefer one of the units. Most of the time customers do not randomly go into stores, thus pharmacies are classified unconsciously and buyers act accordingly.
However, this segment of the market is much more regulated than other areas of trade (Jogtár, 2016). Market entry is very difficult due to legal regulations. At the national level, there are very few players whose marketing activities are constrained. The market could be characterized as an almost oligopolistic market by its operation, but prices are still characterized by a kind of free competition (Szalkai, 2004). In order to choose the elements of the marketing mix aimed at reaching the consumer, pharmacies also need to define their own target group, which is not as simple as we might first think. There is a significant difference between the motivation of ill people and those who want to buy cosmetics, yet both can be defined as consumers to reach. Let us not forget about impulse buying either, as this may be the case with today's pharmacy offers. According to the 2017 annual report of Hungaropharma Zrt. (2018), this market was very significant, amounting to approximately HUF 800 billion in the given year. In order to maintain the security of supply and ensure the availability of prescription medicines sold in pharmacies the state provides significant subsidies in Hungary, which is illustrated in Figure 1. (NEAK, 2018).

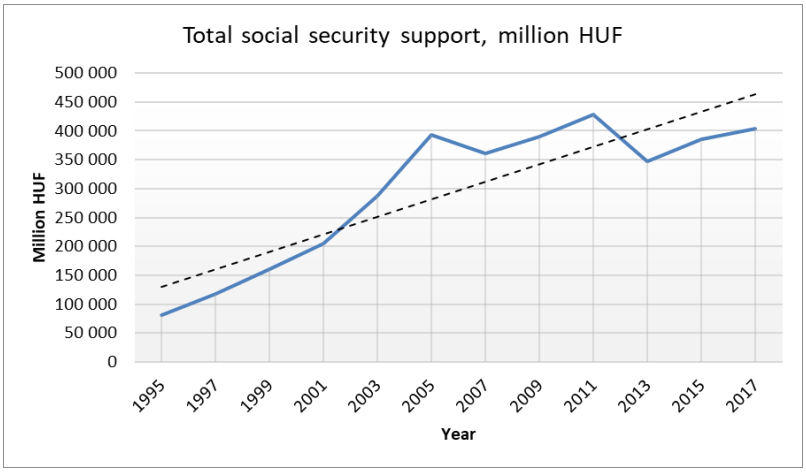


Fig.1 – Total social security support for medicines and medical aids between 1995 and 2017 (million HUF). Source: Own edition based on National Health Insurance Fund of Hungary (Hungarian acronym: NEAK) (2018), *Statisztikai Évkönyv 2017*.

Comparing the data on medicine consumption in Hungary in 2014 with the EU average, it can be stated that the proportion of the consumption of prescription medicines corresponds to the EU average (49%). For the other Member States, this value ranged from 40 to 60%. At the same time, the consumption of non-prescription medicines and medicinal products was 12% higher than the EU average (35%). As shown in Figure 2, examining the data by domestic regions, no significant difference can be detected in the consumption of prescription medicines. For the eight regions this value is around 48-52%. The consumption of non-prescription medicines nicely follows the use of prescription medicines since the former is a mere 3-6 percentage points below the latter, with the exception of Western Transdanubia, where the level of consumption

of non-prescription medicines is 15% lower (KSH, 2018). Based on the data, it can be said that the domestic pharmaceutical market produces similar results as the European Union average, while it exceeds the EU average in the case of non-prescription medicines. These are important data, as on the one hand they show that the domestic economic indicators of the sector do not deviate from the international trends, and on the other hand they highlight that free-price products, which significantly contribute to the profits of pharmacies, sell outstandingly well in Hungary.

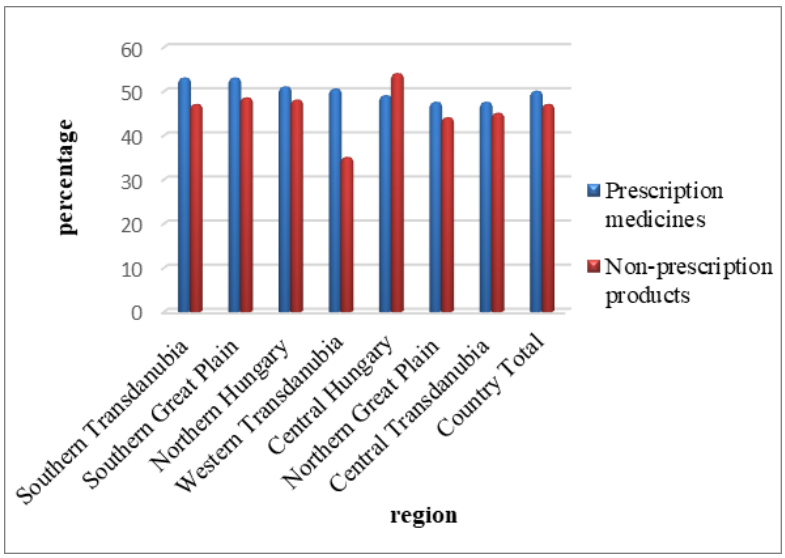


Fig. 2 – The proportion of medicine users in the two weeks prior to data collection, by region, 2014 (per cent). Source: Own edition based on KSH (2018), *A 2014-ben végrehajtott európai lakossági egészségfelmérés eredményei, összefoglaló adatok*

Our society is aging, which is having a major impact on the pharmaceutical industry. An increasing number of people need more and more medicine. The drivers of growth include an aging population and increased health awareness. (Dun & Bradstreet, 2019) At the same time, income conditions significantly determine the access to medicines. An aging society also means that more and more people are becoming inactive, and this segment needs to be supported by public revenues from a shrinking active population. It can be seen that this can only be solved by increasing state revenues or by relatively or actually reducing the amounts spent on benefits. Consumption of medicines is characterized by a higher percentage of women for both prescription and non-prescription medications. However, this difference decreases with age and almost equalizes over the age of 65 (KSH, 2018). (Figure 3)

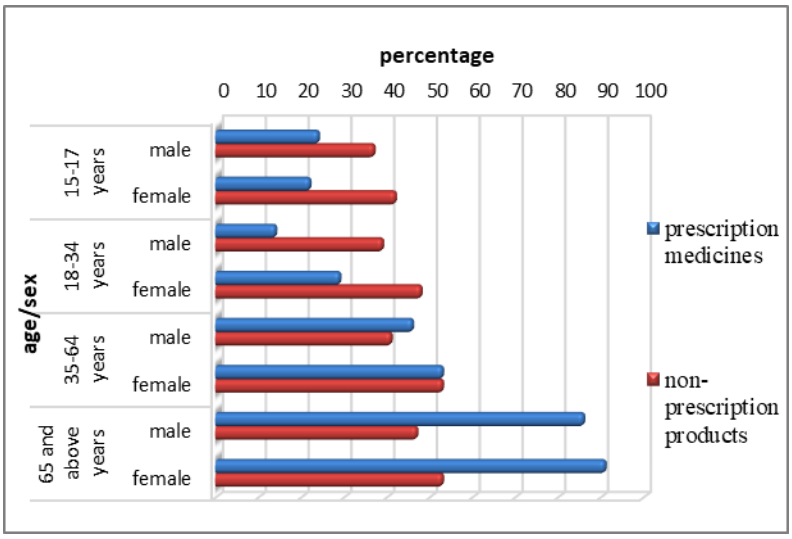


Fig. 3 – The proportion of medicine users in the two weeks prior to data collection by sex and age group, 2014 (percent). Source: Own edition based on KSH (2018), *A 2014-ben végrehajtott európai lakossági egészségfelmérés eredményei, összefoglaló adatok*

On behalf of the Association of Pharmacies Operating in Networks (HGYSZ 2018), the Szinapszis Market Research and Consulting Institute conducted a nationwide, representative survey of pharmacists between August and October, 2018. Pharmacists interviewed in the research see the sustainability constraint in the low profit margins that can be realised on subsidized drugs, the high operating costs, and the shortage of professionals. The problem of low margins is the result of an external regulator over which pharmacies have no control. At the same time, it may give cause for optimism that the sale of free-price products in Hungary is outstanding compared to the EU average, which may compensate for the loss of revenue on medicines sold at low margins set by the state.

In addition to the 60% share of the state subsidised prescription medicines, pharmacies sold 28% OTC [over-the-counter] goods and 12% other products in free price mechanism during the period under review (HGYSZ, 2018). As in all other sectors in Hungary, there is a significant shortage of specialists in healthcare and thus in pharmacies as well. (Figure 4) Pharmacies are in competition for professionals, which can only be won at a great cost, as wages need to be steadily raised to have a retaining effect. The greater the shortage of professionals in a region, the steeper this wage increase becomes.

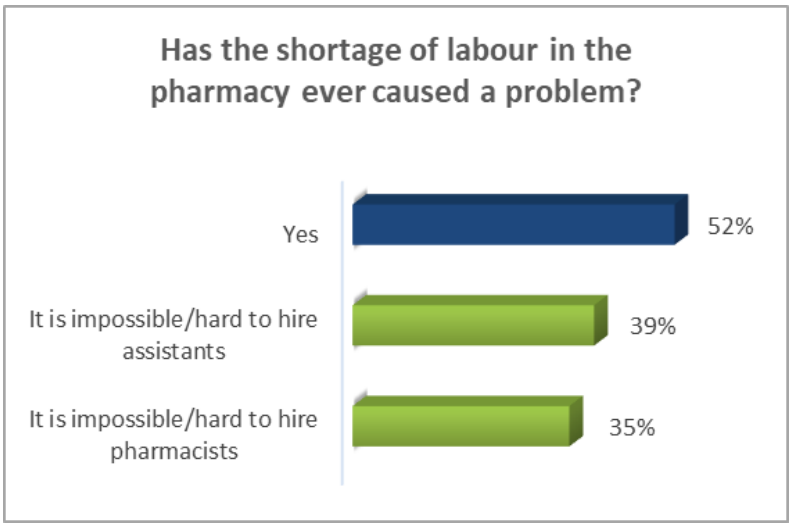


Fig. 4 – Percentage of workers in the sector perceiving labor shortages (percentage). Source: Own edition based on HGYSZ (2018), *We asked pharmacists for their opinions* https://hgysz.hu/blog/a-gyogyszereszek-velemenye-a-gyogyszertarbanforgalmazhato-termekekrol/

In retail, which is partly similar to the operation of public pharmacies, we find that both the regional situation of the economy and the urban or rural location of the commercial unit play an important role in terms of turnover and profitability. Pharmacies develop differently from this point of view as well. Csepeti & Bauer (2018) state that the location of the site is not important, it does not matter where the pharmacy is, only the traffic in front of the pharmacy has an effect on sales. The diversity and attractive features of a city do not have a significant effect on the turnover of pharmacies. A well-chosen strategy and the strategic approach of the manager can make a pharmacy in a less attractive location effective.

**3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA:** In order to examine the sales side of pharmaceutical retail, we saw the need for qualitative research in the form of individual in-depth interviews with pharmacy managers. The focus of our study was on how the managers of each pharmacy see the strengths and weaknesses of their own pharmacy, and what they think the main preferences of customers are for choosing a pharmacy in Gyöngyös.

3.1 The methodology of the in-depth interview

In the case of individual in-depth interviews, for the sake of processing, the number of respondents is usually not large (Lehota, 2001). First, we defined the mental framework of the topic. Because the interview is relatively informal, it is not easy to compare the responses.

The in-depth interview is a dialogue, an informal conversation that takes approximately 50–90 minutes between the interviewer and the respondent. (Domán et al, 2009) This method of marketing research is often used in the case of expert interviews, where the aim is to explore the individual views and opinions of the interviewee (Bérczíné, 1999). The method may be suitable for bringing to the surface the motives and nuanced opinions of the interviewee, which cannot be revealed with quantitative methods or only to a limited extent. The results are not processed on the basis of statistical methods, and due to the small number of sample items the obtained results cannot be generalized. (Malhotra, 2009) At the same time, in-depth interviews can be used to define the goals and hypotheses of later research and to establish a standard questionnaire (Veres et al. 2006). The in-depth interview is a flexible method that allows the

exploration of a wide range of topics. An interview outline listing the main and sub-topics is necessary, so that questions to which answers are searched for can be formulated. (Lehota, 2001). Interview should be conducted in the natural environment of the respondents, so that the behaviour of the interviewees can be the most similar to the natural one, and the answers are not manipulated by the will to comply or the unusual environment (Veres et al. 2006).

3.2 The purpose of the examination

The aim of the in-depth interviews was to get a comprehensive picture of the opinions and experiences of the managers of the pharmacies operating in Gyöngyös regarding the situation of the pharmacies and the main preferences of the customers.

Our specific objectives were:

- The advantages and disadvantages of network membership
- Familiarity with customer habits
- Customer segments
- Impact of promotions on customers
- Assessing the situation of the pharmacy
- Familiarity with and judgment of competitors

3.3 Hypotheses of the in-depth interviews

The in-depth interviews were based on the following hypotheses:

- Network membership is typically beneficial for pharmacies. (Koncsek, 2018)
- The personality of the pharmacist has a decisive role in shaping consumer habits.
- Pharmacists have recognized the importance of marketing in sales. (FrogDog, 2018)
- The turnover of the pharmacy is significantly influenced by its location within the settlement.
- The longest possible opening hours are important.

3.4 The sample

In-depth interviews were conducted with the managers of four of the ten pharmacies operating in Gyöngyös. Interviewees are in charge of units with different characteristics ranging from family pharmacy to a pharmacy belonging to a large network. Our goal is not only to obtain information based on the in-depth interviews in accordance with the objectives listed above, but also to make comparisons in which the identities and differences in the operations, acceptance, and the popularity of pharmacies from different backgrounds can be highlighted.

3.5 Circumstances of the interviews

The in-depth interviews were conducted between March 10 and 15, 2019. The questions were asked in a personal interview with the participation of the four pharmacy managers. In each case, the interviewee was visited in person, which gave the interviewee the opportunity to take advantage of the supportive effect of the "domestic" environment and to formulate the answers without external influences. In interview procedures, such as in-depth interviews, the psychological and logical order of the questions must be taken into account, therefore we tried to begin with simple questions and proceed towards more complex ones and ask any sensitive or difficult-to-answer questions at the end of the interview. (Bércziné, 1999).

**4 THE RESULTS OF THE IN-DEPTH INTERVIEWS:** 4.1 The advantages and disadvantages of network membership**:** Among the pharmacists interviewed, the managers of the units operating in a network clearly identified network membership as an advantage. Due to their mode of operation, they feel more advantages than disadvantages. There are no liquidity problems, all products can be obtained and kept in stock, which, in addition to profit, also plays

a significant role in creating security of supply. Centralized purchases, and thus large individual purchases, help keep non-prescription prices low. Due to the favourable effect of the bargaining position, the profit margin can be kept higher, which provides an opportunity to increase profits. Due to the favourable purchase prices, a similar profit can be achieved at lower retail prices than in traditional pharmacies by narrowing the margin. Another benefit is the feeling of "*belonging somewhere*". Nationwide networks create prestige for each other with a unified image and the same marketing strategy. Pharmacy managers are relieved of the burden of applying a central marketing strategy, as there is no need to experiment with what would be appropriate and how to achieve higher profits, rather they are offered ready-made solutions. At the same time, the traditional, so-called family pharmacies experience freedom as an advantage. There is no control or accounting constraints, they are not obliged to meet the demands of others. There are no high marketing costs or mandatory design elements. The importance of personal relationships was mentioned as most of the customers are returning, so to speak, regular customers. Being familiar with the characteristics and problems of a given consumer the pharmacist can offer personalized solutions. The disadvantages of network pharmacies are the size of the volumes and the limited nature of the orders. Due to central procurement, larger quantities of medicines arrive at the same time, the proper storage and the timely sale of which places a heavy burden on pharmacy managers. Network pharmacies are also negatively affected by high marketing costs and the compliance with central marketing standards.

Family pharmacies experience the more modest financial opportunities as a disadvantage. They are not capital-intensive, thus they can only process their orders in smaller batches. It follows straight from this that their bargaining position is not as good as that of a central purchaser of a pharmacy chain. In most cases, they can plan their maintenance costs within a narrower range. A major disadvantage is the lack of a skilled workforce in both types of pharmacy, but for different reasons. On the one hand the pharmacy chain finds it difficult to employ skilled labour force due to the busy pace of work, and the long, sometimes weekend opening hours. On the other hand the traditional pharmacies struggle with moderate financial means and the resulting uncertain future.

4.2 Familiarity with customer habits

Summarizing what was said in the in-depth interviews, the pharmacy managers believe that they are well acquainted with the habits of their own customers. They are able to design their stocks approximately according to consumer needs, thus ensuring the uninterrupted supply of medicines. Networked pharmacies can more easily meet special customer needs due to their larger inventory and capital strength. At the same time, family pharmacies are better able to plan their inventories due to a more in-depth knowledge of a narrower but ever-returning consumer base. While high-turnover pharmacy chains strive to fully meet the consumer needs of the masses, traditional pharmacies specialize more in the needs of the residents of a given area.

4.3 Customer segments

Pharmacies do not segment customers for prescription medicines, in which case they have a legal obligation to supply. We cannot talk about real segmentation among OTC products either, as it is not possible to form consumer groups based on criteria for these products either. In the case of non-prescription medicines, pharmacists must recommend the product they considers most appropriate in the given situation, bearing in mind the sales objectives of the pharmacy.

It is possible to create customer segments for other products such as vitamins and cosmetics. A significant part of vitamins is typically sold to customers with children, so their appearance and packaging are in line with this segment. Among beauty cosmetics, there are products that can

only be sold in pharmacies and reflect a higher category with their appearance and price. These cosmetics have a well-defined customer base. However, pharmacies can offer cosmetic products that are less burdensome on the wallet, but are of reliable quality, and which are also available to those with average income. Segmentation is not a special phenomenon, but it can help to map the needs of individual consumer groups. (Baranyi et al., 2015)

4.4 The impact of promotions on customers

In terms of promotion, a distinction should be made between the marketing activities of pharmacies and that of pharmaceutical manufacturers (Birchall, 2018). The budgets of smaller family pharmacies do not allow for a high level of application of marketing communications. In their case the use of point-of-sale advertising is the main promotional activity. Part of the marketing work is taken over by the activities of capital-intensive pharmaceutical companies. Manufacturers who present their medicines in professional forums or, in the case of certain products, advertise their products, create awareness of the products and thus generate turnover for the pharmacy. However, with this type of marketing it is not possible to build loyalty to the point of sale, only brand loyalty can be increased. There are significantly greater marketing opportunities for networked pharmacies. By applying a common marketing strategy, the chains create the same image, a wide and deep product range, and competitive prices. By delivering their own promotional newspaper to the consumer and operating a website, they can always keep customers up-to-date about the current promotions, which have a significant appeal. With the introduction of a loyalty card, in addition to encouraging purchases, they create a strong link to the consumer. Using the loyalty card they can explore consumer preferences by collecting data on a very large scale due to the breadth of the chains. The opinion of the managers of the pharmacy operating in either form was similar in that the effect of the advertisements on the turnover could be measured. The impact of television advertising stands out. An advertisement for an OTC product running on television will noticeably increase the sale of that product.

4.5 Assessing the situation of the pharmacy

The managers interviewed judged the situation of their own units favourably, regardless of whether they were networked or family pharmacies. Their special characteristics were marked as strengths. In the case of family pharmacies it is represented by the personal acquaintance, the preservation of traditions, the personalized solutions, and the friendly atmosphere. Furthermore, another advantage of these pharmacies is that they have been operating in the same well-known, central areas for a long time, for decades. All this was mentioned as a disadvantage as well due to the fact that they are usually located in the city centre, and consumers have to face poor parking opportunities. In the case of networked pharmacies, managers mentioned the wide and deep product range, favourable prices, or good parking as an advantage. Furthermore, the long and permanent opening hours at weekends, which generates a significant number of customers during these periods, is of paramount importance. The disadvantages were the extended customer lines, which are due to reasons beyond their control and the lack of specialist employees.

4.6 Familiarity with and judgment of competitors

All pharmacy managers know their competitors. However, this market is so comprehensively regulated and entry barriers are so high that there is no strong competition. Rather, internal sales expectations present a challenge. However, if a competitor had to be named, both family pharmacies and networked pharmacies would mention another networked pharmacy.

**5 CONCLUSION:** Summarizing the results of the qualitative research and based on our previously established hypotheses the following conclusions can be drawn:

- We have found that network membership offers many opportunities for pharmacies. Their image and financial independence will be partially eliminated, but they receive significant marketing and financial support and a secure background in return. Family pharmacies, on the other hand, have to stand on their own with their own image and full financial independence. Based on these, it can be said that belonging to a network has more advantages than disadvantages.
- The personality of the pharmacist is of high importance in sales. The importance of personal selling is reflected in providing advice, information, and recommendation that enables the pharmacist, as a person of trust, to greatly influence the current and future behaviour of the customer. Therefore, the pharmacist has a significant role to play in shaping customer preferences and habits.
- The role of marketing is significant in sales according to pharmacy managers. The ads reach the target audience and significantly increase the turnover of the advertised product. The use of purchase incentives plays a major role in both building customer loyalty and increasing sales. Pharmacists use these marketing tools more and more often and more widely.
- The location of pharmacies within the settlement does not significantly affect their turnover. Other external factors, especially the high through traffic in front of the pharmacy and the good parking facilities generate significant sales. The hypothesis concerning this question is therefore only partially supported by the results.
- Unusual, longer or regular weekend opening hours generate significant turnover. The increase in turnover during these unusual periods is often so intense that it is difficult to manage, in many cases leading to queuing. Extending opening hours to weekends can be a profit-making goal in addition to consumer convenience.

In conclusion, the in-depth interviews conducted during the qualitative research essentially supported the hypotheses related to the service provider side, with the addition that the specific location of the pharmacy within the settlement is not relevant, only the nature of the location (through traffic, parking) may increase the sales volumes.

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# THE EFFECTS OF FOREIGN COMPANY ON THE LOCAL ECONOMY IN ANANTAPUR, INDIA

*Priya Rani Bhagat, Agus Dwi Nugroho, Robert Magda*

**Abstract**
KIA Motors India (KMI) is a South Korean multinational automobile company that started its India operations in April 2017. It has been considered an industry that has single-handedly transformed the development, employment, and economy of the Anantapur district. This study aims to determine the effect of KMI on the local economy in Anantapur district, India. This study used descriptive analysis on google reviews and KMI corporate social responsibility policy. This study shows Antapur residents gave a positive assessment of the presence of KIM in their area. This company can increase employment, education, entrepreneurship and commercial activity. This is because KIM allocates corporate social responsibility according to Indian government regulations.

***Keywords:*** *corporate social responsibility, employment, education, commercial activity*

**JEL classification**: R10, R11, R38, R59

**1 INTRODUCTION:** India has tried to shift the burden of raising local development funds from the government to the big business conglomerates by showing that it is their responsibility to the stakeholders. This is due to the central government of India's difficulty in monitoring and caring for residents in rural and remote areas. The company is located in every area, allowing to cover almost all of India and contribute to regional development without government involvement. As a result of this circumstance, India's economic strategy should be focused on growing liberalization and expanding collaboration with other countries. One of them is increasing foreign direct investment inflows to close a large gap between the funding requires and the actual requirement. Although the Indian government has collected all available resources from international grants, government funds, private donations and other monetary donors, but the funds obtained are insufficient to meet the demands of the target population. Based on similar concerns, the Indian corporate law was amended to promote the effective engagement of companies with the community. Under section 135, companies must plan and invest in long-term development projects and programs in partnership with local NGOs. Companies with strong financial performance must have a long-term commitment to Corporate Social Responsibility (CSR). This is obviously beneficial to local NGOs that carry out a variety of activities in the community, but they often lack the financial resources to carry out constructive long-term programs. CSR contributions are expected to provide long-term funding to NGOs.

Meanwhile, more corporations are able to enter India as trade regulations are relaxed. As a result, it has made significant improvements to its CSR governance and reporting on a local level. The Indian government adopted a more assertive legal mandate that requires all companies, foreign company offices and subsidiaries that surpassed specific criteria of annual profit, turnover and net worth to spend a minimum of 2% of their average net profit on CSR activities.

The law also allows the Indian government to exercise many international norms and guidelines to regulate and implement obligatory that require corporations to contribute capital and resources to achieve human rights goals in their local communities. Evidently, providing

development comes at a cost for developing countries like India, which has a wide income gap and innately discriminatory traditions like gender inequality, untouchability and the caste system still in place. Hence, a seemingly aggressive legal obligation like this is necessary for the state to transfer some of the responsibility to entities that anyway should return to the community from which they have drawn human and natural resources. The mandated CSR requirements may be excessively costly and limiting in terms of spending areas for SMEs and new European and Asian companies looking to enter the Indian market.
One of the large-scale manufacturing companies is Kia Motors India (KMI) in Andhra Pradesh. The establishment and construction of KIM started in the year 2017 and could start full-fledged operations in 14-18 months (Andhra Pradesh Economic Development Board, 2020). Interestingly, the location is strategic because the state government creates industrial areas away from urbanized cities and metropolitan areas, in more remote towns and settlements with the lucrative amenities of special economic zones. Therefore, this study aimed to determine the effect of KMI on the local economy in Anantapur district, India.

**2 THEORETICAL BACKGROUND:** The theoretical framework followed in this paper is the theory of industrial districts, which Edward H. Lorenz further enhanced by evaluating three variables: trust, community, and cooperation in the industrial district under study. According to Lorenz (2017), to assess acceptance and cooperation amongst producers and stakeholders in the local community, it must be logically explained with the interaction between cooperation within communities and trust amongst the actors within the communities. Therefore, the variables considered in the study are trust, community and cooperation. Sforzi (2015) stated that researchers should use IDs as the benchmark to investigate a regional commercial community or monitor trends and change or explain regional development matters. The effectiveness of an industry in a region should not just be calculated based on its production, sales and commercial capacities but by analysis of how these industries can form a sustainable and robust economy, the benefits of which everyone in the locality can enjoy **(**Digiovanna, 1996).

**3 LITERATURE REVIEW:** Current situation of CSR in developing countries The literary foundation of this paper is based on previous theories and articles on the role of industrial districts (ID) and their implications on the economy, demography, development and cultures of the local communities. There are three stages or generations of industrial districts; the first industrial districts were pioneers in now developed countries that lead the industrial revolution. The second generation was the reappearance of IDs in developing worlds due to the boom of mass production technology. Nowadays, the 3rd that global inputs and international inflows of resources while coordinating with the local talent and market (Bellandi & De Propris, 2015). ID theory must be used in conjunction with stakeholder theory to obtain optimal performance. According to stakeholder theory, CSR is a voluntary initiative taken up by businesses to provide welfare for all their stakeholders, including the community they operate in using a portion of their profit. Additionally, CSR is also perceived as an investment made by the company to acquire trust and goodwill in society in philanthropy. The specific international laws and the UN Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" stated CSR does not hold a strong legal standing due to it being a voluntary option. But it lays down distinct foundational and operational principles for state duty and CSR (The Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, 2011). The current condition shows transnational operate in more countries than ever before and increasingly in sociopolitical contexts that pose entirely novel human rights challenges for them (Ruggie, 2007). This related to the state's duty to protect local communities and the corporate responsibility from recognizing local problems and building access to an effective remedy

(Muchlinski, 2012). In emerging economies and developing countries like India, Indonesia, and the Philippines, just the state can't perform its duties towards building society without the help of other stakeholders. A more aggressive approach is needed to source the much-needed capital and infrastructure from big and multinational corporations doing their business and utilizing local resources in these countries. Previously formulated international guiding principles are ineffective in the larger context because corporations typically dislike binding regulations until it sees their necessity or inevitability (Ruggie, 2007). As a result, companies are subject not to international law but to states' domestic law where they are incorporated and operate (Ruggie, 2014). Global corporations are expected to follow the laws of their domicile also when doing business in other countries, especially in economically less developed countries (Karhu, 2015). One example of such a domestic law is the mandatory CSR spending under section 135 of the Companies Act, 2013. There were several solid arguments for and against making CSR mandatory, which were discussed during the legislative process at the Indian Parliament in both houses. Nonetheless, the Indian mandatory CSR duties seem to find their legitimacy in promoting especially the rights essential to development (Karhu, 2015). A new regulatory dynamic under which these governance systems become better aligned about business and local communities are to add distinct value and compensate for one another's resources and to perform mutually reinforcing roles which would result in the cumulative change (Ruggie, 2014).

3.1 India-South Korea trade relations: The relations between India and South Korea have been going strong since they become the most dominant economies in Asia. They share common grounds socially, culturally and in the area of trade as well. The trade between two countries has been considerably low but consistently increasing and growing in volume as further cooperation and negotiations for trade relaxation dialog. The bilateral trade agreement between India and South Korea signed in 2009, called India- South Korea Comprehensive Economic Partnership Agreement (IK-CEPA) in short, brought about a boost in the trade relations between both countries. The agreement aims to eventually reach a free-trade level by gradually reducing non-tariff barriers to trade, liberalization of the service sector, further economic cooperation and building investment opportunities (Yedla & Cho, 2019). More sensitive industries such as agriculture and animal products had been deliberately left out of the negotiations and remained at original tariff brackets (Table 1 and 2).

Tab. 1. - Gradual Increase of Yearly Tariff Decline for Korea. Source: Comprehensive Economic Partnership Agreement Between the Republic of Korea and The Republic of India (2020)

| Category | Entry into force | Jan.1 Year 1 | Jan.1 Year 2 | Jan.1 Year 3 | Jan.1 Year 4 | Jan.1 Year 5 | Jan.1 Year 6 | Jan.1 Year 7 |
|---|---|---|---|---|---|---|---|---|
| E-0 | 100% | | | | | | | |
| E-5 | 20% | 40% | 60% | 80% | 100% | | | |
| E-8 | 12.5% | 25% | 37.5% | 50% | 62.5% | 75% | 87.5% | 100% |
| RED[5] | 12.5% of [Base Rate (in %s) minus 1~5%] | 25% of [Base Rate (in %s) minus 1~5%] | 37.5% of [Base Rate (in %s) minus 1~5%] | 50% of [Base Rate (in %s) minus 1~5%] | 62.5% of [Base Rate (in %s) minus 1~5%] | 75% of [Base Rate (in %s) minus 1~5%] | 87.5% of [Base Rate (in %s) minus 1~5%] | 100% of [Base Rate (in %s) minus 1~5%] |
| SEN | 6.3% | 12.5% | 18.8% | 25% | 31.3% | 37.5% | 43.8% | 50% |

Tab. 2. - Gradual Increase of Yearly Tariff Decline for India. Source: Comprehensive Economic Partnership Agreement Between the Republic of Korea and The Republic of India (2020)

| Category | Entry into force | Jan.1 Year 1 | Jan. 1 Year 2 | Jan.1 Year 3 | Jan.1 Year 4 | Jan.1 Year 5 | Jan.1 Year 6 | Jan.1 Year 7 | Jan.1 Year 8 | Jan.1 Year 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| E-0 | 100% | | | | | | | | | |
| E-5 | 20% | 40% | 60% | 80% | 100% | | | | | |
| E-8 | 12.5% | 25% | 37.5% | 50% | 62.5% | 75% | 87.5% | 100% | | |
| RED[5] | 12.5% of [Base Rate (in %s) minus 1~5%] | 25% of [Base Rate (in %s) minus 1~5%] | 37.5% of [Base Rate (in %s) minus 1~5%] | 50% of [Base Rate (in %s) minus 1~5%] | 62.5% of [Base Rate (in %s) minus 1~5%] | 75% of [Base Rate (in %s) minus 1~5%] | 87.5% of [Base Rate (in %s) minus 1~5%] | 100% of [Base Rate (in %s) minus 1~5%] | | |
| SEN | 5% | 10% | 15% | 20% | 25% | 30% | 35% | 40% | 45% | 50% |

In terms of share of exports and imports between the two countries, India imports bigger than its exports. The most exported products from India to South Korea include agricultural produce such as sesame seeds, fisheries, minerals from mining, chemicals, textile products, non-ferrous metals, simple metal parts and types of machinery (Yedla & Cho, 2019). The most prominent export products from South Korea to India are electronics and communication devices, steel, chemicals, automobile parts and components, and transportation equipment (Figure 1).

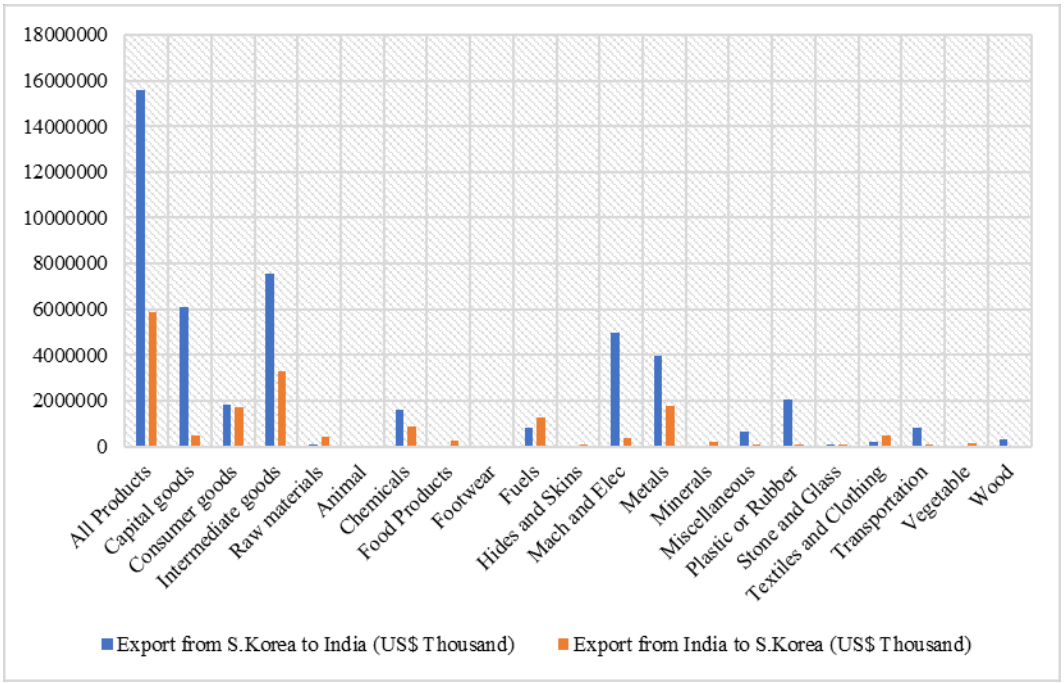


Fig. 1 - Product Groups and Volumes Traded between South Korea and India in 2018. Source: WITS Database (2018)

**4 METHODOLOGY AND DATA: Study area** Anantapur is the largest district in terms of area in the southern Indian state of Andhra Pradesh, with the most significant rural land area (18,753.11

km$^2$). The literacy rate, including both urban and rural populations, was 63.6% of the total population. Despite the geographic drawback, the district is conveniently located at easily accessible distances from India's metropolitan, urban cities and commercial hubs like Bangalore, Chennai and Hyderabad (Figure 2).

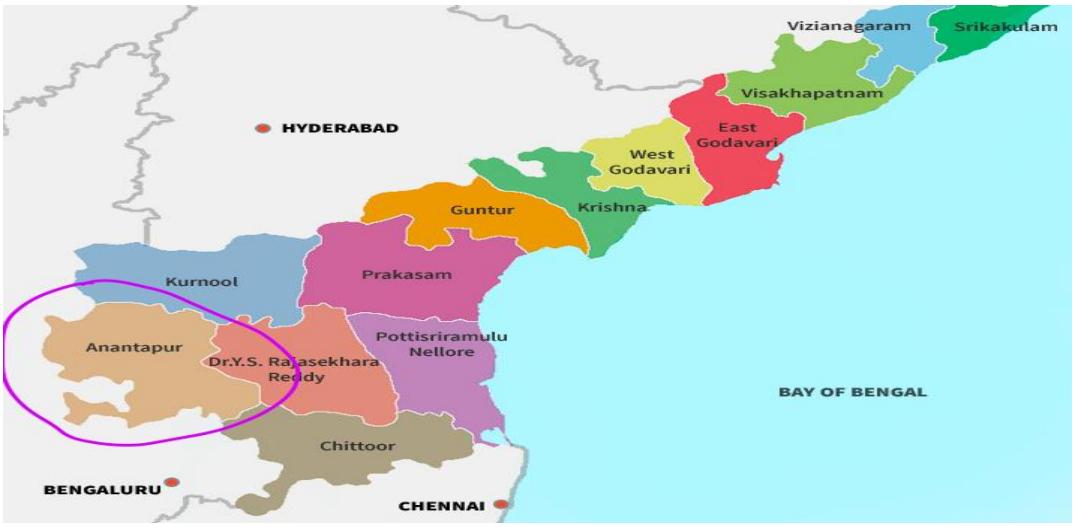


Fig. 2 - Map of Andhra Pradesh with Anantapur District Highlighted. Source: Andhra Pradesh Economic Development Board (2020).

The major commodities produced in the district were silk sarees, groundnut oil, refined oil, twisted silk yarn, raw silk and handloom products with a small share of two-wheeler vehicle seat fittings and pvc pipes manufacturing and the rest being agriculture produce.

4.1 Study analysis: The analysis used in this study is descriptive. We examine 2 things in this study; first stage is assessment, the trust, community and cooperation variables. The trust in this study is defined as the belief of the actors in the community that the existence of KIM in their vicinity is good for the community's development and well-being. Community is defined by the local individuals who are stakeholders in the offerings of KIM in employment, training, education and development initiatives. Meanwhile, cooperation can be explained as the willingness of the community's people to interact and involve with KIM's operations and initiatives. We study these variables by analyzing the specific set of search words to quantify the frequency of their occurrence in 1000 google reviews given by locals on KIM. Some modern academics have expressed those online reviews are as reliable or even better than questionnaire responses as they are self-motivated, voluntary and made without any external forces influencing the experience of posting reviews (Jensen et al., 2013; Hou, 2018). The data from online reviews is valuable because it is continuously updating and helpful in monitoring the current trends in opinions (Tucker & Kim, 2011; Min et al., 2018).

There are two steps to process online reviews: the first step is data extraction from google using the web crawling technique (Kang & Zhou, 2017). This is also referred as mining of review data. This stage also involves the structuration of the extracted data into a more meaningful and natural language to analyze it (Jin et al., 2016). The second step is to identify meaningful and relevant phrases from the data set to make observations and produce results. Out of the randomly extracted 1000 google reviews, the text was converted to more structured natural language form by classifying positive and negative connotation words and other classifications relevant to the study such as employment opportunity, environment, location, local pride, multicultural understanding and local development. After further data cleansing, only 705 reviews were used for the analysis.

In the second part of the analysis, we examine KIM's corporate social responsibility policy document, published on their website and credible local news sources.

**5 RESULTS AND DISCUSSION:** 5.1 Effects of KIM on local residents As shown in Figure 3, KIM in Anantapur received five stars from 68% of the reviews. Furthermore, 20% more reviews were four stars, indicating that most reviewers accept and are happy with KIM's presence in Anantapur.

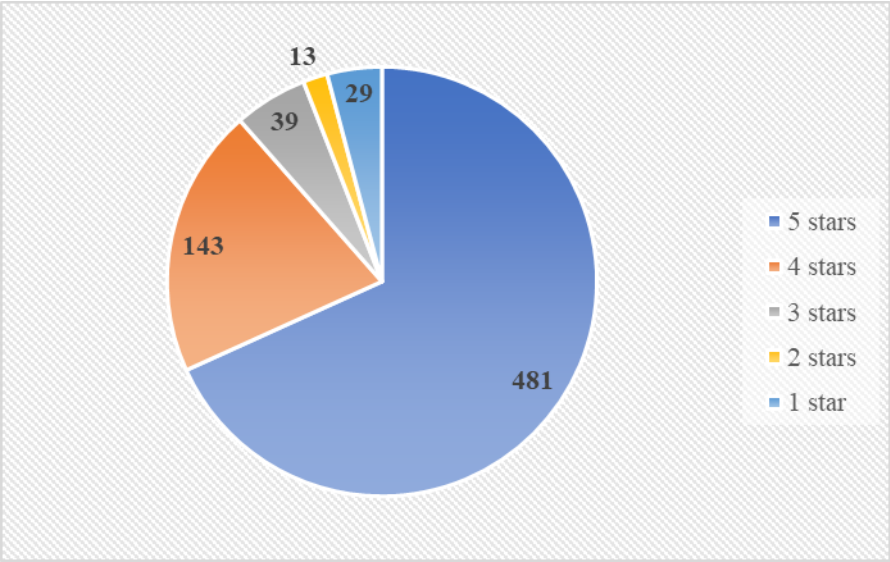


Fig. 3 - Distribution of Star Ratings in Google Reviews. Source: Data extracted from Google reviews (2021)

Based on Table 3, it can be determined that the majority of the people are in favor of KIM's presence in the area. Surprisingly, the most visible advantage of its presence in the area has been the employment, jobs, and entrepreneurial possibilities offered to the locals. A significant number of reviews recognize that it is a South Korean company and feel pride in working with it. The large-scale leadership in the sector and technological robustness impress many of its employees and stakeholders in the area. Based on the analysis of these randomly extracted review texts, it can be deduced that the frequency of negative remarks is substantially lower than that of positive comments.

Tab. 3 - Classification of Terms Used in Google Reviews. Source: Data mined and analyzed by the author from Google reviews (2021)

| Classification of terms used in google reviews | Frequency of use |
|---|---|
| Positive connotation (Best, good, excellent, friendly, awesome) | 448 |
| Space and size (Big, spacious, vast) | 40 |
| Clean and environment friendly (low emissions) | 20 |
| Employment and opportunities (jobs, employee, work, facilities) | 140 |
| Work conditions, work environment | 17 |
| Local Development (training, education, help) | 25 |
| Technology (high-tech, new, leader, first) | 35 |
| Native (local, pride) | 30 |
| International (Korean, South Korea, multinational) | 36 |
| Negative connotation (Bad, worst, horrible) | 12 |

5.2 KIM's 2019 CSR policy statement KIM's 2019 CSR policy document is available for public viewing on the company's website (Figure 4). This document consists of the objectives, CSR management structure, budgets and further information. According to the policy document, KIM has two main objectives; first, achieving its vision of global development "Together for a better future" by focusing on its core values of the customer, challenge, collaboration, people, and globality (KIA Motors India, 2019). Second, to be fully compliant with section 135 of the Companies Act of 2013 and the 2014 Companies CSR rules and follow all its amendments as required. From the list of CSR activities provided in schedule VII of the Companies Act 2013, KIM focuses its resources to work on- Community empowerment, education and training, poverty reduction, and health and nutrition (KIA Motors India, 2019).

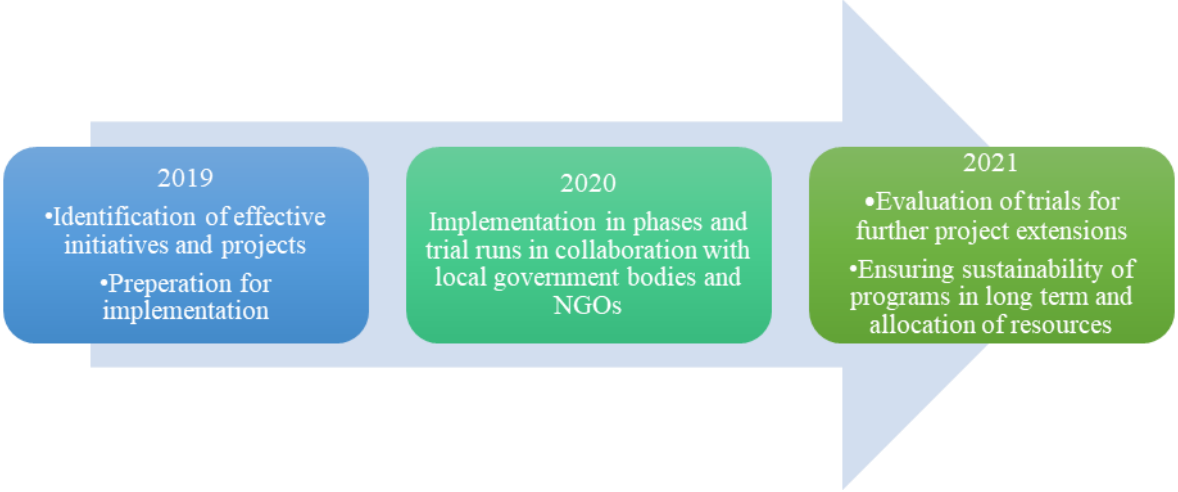


Fig. 4 - The KIM Annual Action Plan to Perform its CSR Activities. Source: KIA Motors India (2019)

The budget allocated for the KIM's CSR activities and projects in Anantapur is based on the amount outlined in the Companies Act 2013, which is 2 percent of the company's average net profit over the immediate past three years. Additionally, any unspent amounts ffrom past yearly budgets and surplus or earnings from CSR projects. KIM has the right to carry out its CSR operations on its own. But KIM must select an implementation partner with a registered body, charity institution, or company with expertise in CSR activities. In addition, the partner has a permanent address in India with an authorized tax exemption document. It must also submit a proposal and must be accepted by the CSR governance committee for appropriate budget allocation.

Several programs have already been implemented, such as the "Green light Project Initiative" in collaboration with the regional government (The CSR Journal, 2019). The program's goal is to help residents access good education, health and medical care while ensuring the program's sustainability by creating a self-reliant community. It was a two-week volunteer program where participants from South Korea engaged in a development project with other local volunteers in three different educational in the Anantapur district in January 2019. The first project, which was carried out in conjunction with Save the Children NGO at Government Polytechnic Anantapur, involved renovating classrooms and improving training modules to help students who wish to work in India's booming automobile industry.

The 2nd project institution under the project was Anantapur Industrial Training Institute. It helps 100 local set training and driver's license each year and established new training modules for vocational and information and communication technology training for 100 local students (The CSR Journal, 2019). The 3rd collaboration under KIM Green light project was with the

Government Polytechnic Hindupur, where a mobile school vehicle was launched, complete with educational books and resources, to reach rural remotely elementary schools in the district. This is expected to reduce urbanization in India.

Apart from the above annual projects, KIM maintains an online portal with the government of Andhra Pradesh's state skill development corporation, APSSDC, where aspiring diploma holders can access information, register, and apply for a 5-day Basic Technical Course (BTC) training conducted by KIM (Andhra Pradesh State Skill Development Corporation, 2019). Only applicants with official IDs proving permanent residency in the Anantapur district are eligible to attend this training. Candidates who are successfully selected through the portal are given technical skills to go through the interview and selection process to be hired by KIM and an experience certificate to be hired by other contractors and suppliers in the automobile industry.

**6 CONCLUSION:** The Indian government's regional economic development strategies, as well as the state government of Andhra Pradesh's, are slowly moving in the direction of decreasing decongestion of urban or metropolitan cities by attracting FDIs, multinational companies, and large-scale manufacturing units to Special Economic Zones, and other locations that are farther away but relatively well-equipped. As a result, these often large-scale international are seen to impact these regions' overall economic landscape positively, as seen by increases in employment, education, entrepreneurship and commercial activity, demographics, and population. This paper attempts to make an early observation of the community, cooperation and trust of the Anantapur district with the establishment of the KIA Motors India manufacturing plant. According to the Industrial Districts theory, establishing one primary industry leads to forming a community where most individuals are employed in or are affected by the industry, and more ancillary businesses in the same vertical as the primary industry develop further. The same is anticipated in the Anantapur district, where KIM's operations since 2017 have resulted in a transformation.

The Indian government's mandated CSR policy in section 135 of the Companies Act of 2013 allows these international companies to increase their engagement in providing resources to local communities, which would otherwise be impossible to do with municipal budgets alone. Therefore, by preliminary analysis of google reviews, local acceptance, cooperation, trust and mutual community pride in the company is observed towards KIM's prioritization on local talent for employment, local community participation, and developmental initiatives. The study has various limitations, such as access to all available google reviews is expensive, and conclusions generated from 1000 reviews extracted at random may be lower in reliability compared to an open-ended questionnaire survey.

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# PSYCHOLOGICAL CAPITAL: A REVIEW OF IT'S IMPACT ON HUMAN CAPITAL AND SMALL MEDIUM-SIZE ENTERPRISES

*Widhayani Puri Setioningtyas, Illés Bálint Csaba, Habil Anna Dunay*

**Abstract**
The construct of Psychological Capital or simply PsyCap, has gained interest from both practitioners and academics and has been linked to employees' behavior, attitudes, and work performance. At the organizational level, it is identified that the positive PsyCap within the employees might help a company to overcome the severity of the economic drawbacks. Especially for Small and Medium-size Enterprises (SMEs) which are vulnerable and struggle more to the recession effect, PsyCap can ultimately helps them to survive or even bounce back during crisis. This literature review is to provide increasing evidence of the importance of Psychological Capital's construct that contributes to the Small and Medium-size Enterprises to overcome the severity of the economics drawbacks throughout the current COVID-19 pandemic condition.

***Keywords:*** *Psychological Capital, Human Capital, SMEs, Economics Crisis*

**JEL Classification**: O11, M23, L13

**1 INTRODUCTION:** The Corona virus has been spreading throughout the world in the early 2020 and severely impacted the nation's economic system (Bacq et al., 2020). To prevent the spread of the viruses, the Government issued several regulations such as social distancing or even lockdown (Gaudig et al., 2020). The COVID-19, moreover, also challenges and disrupting society (Grözinger et al., 2021), and continues to be a threat and causing recession to the global economy (Global data PLC, 2021). During economic recession and governmental regulations, companies received tremendous pressure to adapting rapidly. Companies are forced to take steps to secure their market position, their employees, their performance, and most importantly their survivability (Beliaeva et al., 2020). Especially for Small and Medium-sized Entreprises (SMEs) that are vulnerable and struggle more to the recession long-term effect (Cucculelli & Peruzzi, 2020). This is because SMEs face several barriers such as the difficulties of reducing expenses, accessing financial resources, and also weaker physical resources to conduct diverse economic activities (Karlsson, 2021). Regarding this, SMEs implement some strategies which believed have the potential to perform important roles during economic downturns such as Firm's entrepreneurial orientation (EO) and market orientations (MO) (Beliaeva et al., 2020). An entrepreneurial orientation (EO) lead company to engage in new entries and exploratory processes (Wiklund & Shepherd, 2011), while market orientation (MO) focuses more on market gaps which resulted exploitative possibilities (Morgan & Berthon, 2008).
Furthermore, another factors that might contributes to the SMEs performance especially during crisis situations (Hansen & Hamilton, 2011) are Leader's characteristic and personal capabilities (Hansen & Hamilton, 2011), and the establishment size of the firms. It is acknowledged that, a young establishments which are less than 5 years old have higher mortality risk and more vulnerable in a number of ways (Fackler et al., 2013). This is because young firms are difficult to find qualified workers (Aldrich & Auster, 1986), have financial constraint (Carreira & Silva, 2010), and compared to larger firms, they operate on a

smaller scale (Audretsch & Mahmood, 1994), and may have no better options of risk dispersion across various economic activities which could reduce their risks of mortality (Comanescu et al., 2018). Cost-cutting and retrenchment strategy, moreover, are also effecting the SMEs performance in financial downturn condition (Collett et al., 2013). The companies strategy of cost cutting and retrenchment is easier to implement and relatively simple in a turnaround attempt (J. J. Cater & Schwab, 2008).

Another classic strategies taken by companies in crisis drawing is Management change and Financial restructuring. Financial restructuring can be utilized by companies especially a small firms to generate their cash through the liquidation of extra assets, for instance, by dispose unnecessary assets to provide them time and resource for recovery. Changing of management structure or system, however, might also essentials for the whole firm's management. This is because if the Management is poor, financial, human resource and marketing management will also be poor and successful turnarounds would not be achieved (Collett et al., 2013), and the poor management can cause catastrophic in small firms (J. Cater & Schwab, 2008).

From the explanation above it is clearly known that SMEs has diverse actions to secure their performance by using many strategies and essentials factors even though the results performance are different (Collett et al., 2013). Still, there are many questions regarding why some SMEs might more fragile, or, more resillient and perform better than other SMEs especially in the crisis condition ? is there any other factors that may utilize to increase or maintain SMEs performance while their existence is severely threatened ? (Grozinger, A.C. et al, 2021). Regarding to these questions, some researcher identified that instead of tangible resources, intangible resources also provide companies with sustained competitive advantages (Luthans & Youssef, 2004). Human capital, as one of intangible resources, is widely recognized has a crucial role in shaping the direction of the crisis within the company. This is because human have abilities of coping behaviour (i.e., cognitive, emotional, and behavioral response) (McKenny et al., 2013). It is also recognized that Positive Psychological Capital (PsyCap), as a construct of human capital, has positive contribution on employee's performance (Avey et al., 2010), behaviour (Avey et al., 2010), and attitude (Larson & Luthans, 2006), and most importantly, strengthen or increase performance of companies (Luthans & Youssef, 2004).

However, while a lot of crisis literature focused on the resilience and tangible resources of companies (Williams et al., 2017) , there are only few studies about Human Capital and in specifically Psychological Capital (PsyCap) in connection to SMEs especially during crisis (Raja et al., 2020). This review is to provide increasing evidence of the importance of Human capital and the value of the Psychological Capital's construct that contributes to the Small and Medium-size Enterprises to overcome the severity of the economics drawbacks especially throughout the current COVID-19 pandemic condition.

**2 THEORITICAL BACKGROUND:** Human Capital – A Source of Competitive Advantage It is continuously evidenced that human capital are the best investment and also the most vital resources to the companies success (Luthans & Youssef, 2004). Human capital, moreover, are indispensable assets that requires to be effectively managed so that they can contributes the high return of sustainable competitive advantage. Unfortunately, only about half of recent organizations believe that human capital has crucial role. Regarding to this matter, executives or managers who believe in the importance of human capital must be able to objectively represent how human capital as an investment, can be developed, leveraged and also measured for a desirable return. In other words, Human capital, as an alternative investment can be utilized as a source of competitive advantage that effects the bottom line,

not only in short-term profitability, but also long-term growth and survivability (Luthans et al., 2007).

2.1 Recognition of Explicit and Tacit Knowledge on Human Capital To become a core advantage and competence, organizational resource needed to be not easily duplicate by the competitors. Regarding to this, human capital are more inimitable by competitors compared to the traditional physical, structural, and financial resources. This is because human capital is usually equated with knowledge, abilities or competencies, and also skills or in other words, *explicit knowledge* that derived from experience, specific skills, and also education which may continuously changed and different from one person to each other (Battisti & Deakins, 2017).
As member become socialized into the organization, other dimension of human capital that also a criteria of competitive advantage, namely *tacit knowledge,* will be built. *Tacit knowledge* is a phase when human capital become part of a company's culture, understand it's structure, dynamic process, and also learn how the company operates as a whole. Competitors, moreover, cannot benefit from *tacit knowledge* because it is unique, cumulative, interconnected, non-transferable and specific to the organization. This knowledge is long-term oriented and requires high commitment on the part of employees, management, and organization. Therefore, the *tacit knowledge* of human capital will be wasted and thus, this investment retention becomes critical, once an employee is lost (Sweetman et al., 2011)
Regarding to *tacit knowledge*, job rotation is one of the practical approaches that can be used by the firms to develop this constraint. Job rotation allow human capital to spend a sufficient time with each division to formulate an overall perspective and gain exposure of the firms. Another approach to build *tacit knowledge* within human capital especially in global firms is expatriation. Expatriation is an international assignment at one of the organization's foreign operations that can help human capital to build cross-cultural perspectives. This method can increase the firm's position in various geographic markets, as well as its effectiveness and profitability as a integrated and coordinated whole. Furthermore, Job Security also known has contribution to the development of *tacit knowledge* in terms of creating a stable organizational culture that support the form of requisite long-term perspective. In specifically, Job security has contribution to the invention and maintenance of psychological contracts based on commitment, trust, and organizational citizenship. However, while companies start to treating Human capital as an investment for competitive advantage through the recognition of *explicit* and *tacit knowledge*, psychological capital or PsyCap become one of the constraint that also increasingly recognized and received more attention.
2.2 Psychological Capital (PsyCap) – The Definition and Construct Recently, It is widely acknowledged that, the focus of psychology not only limited on healing dysfunctional behaviour and mental illness, but also on facilitating and understanding normal, as well as development and growth, in healthy individuals (M. E. Seligman & Csikszentmihalyi, 2000). Instead of knowing what constraints that makes healthy individuals function normally, it is also important to know what makes them happy, creative, productive, and capable of loving, living, and working. According to this, there are growing number of studies expanding and refining psychology on healthy, or, "normal" individuals well-being, productivity, optimal functioning, and realizing human's optimal potential (M. E. P. Seligman et al., 2005) or, in other terms, Psychological Capital. Moreover, the term Psychological Capital (PsyCap) is simply used to represent human's propensities and positive psychological state of development that accrue through positive psychological constructs such as Hope, Efficacy, Optimism, and Resillience (Luthans et al., 2007).
2.3 The impact of Hope Construct on Employees Before we gain clearer insight about how PsyCap brings impact to the employees in areas of Small Medium-size Entreprises (SMEs), it is first necessary to clarify the contribution of each constructs state of PsyCap. As mentioned

above, one of PsyCap construct is Hope. Hope is consist two dimensions : pathways and willpower. Willpower is the motivation and expectancy that individuals have to achieve desired goal. Pathways complement this willpower by providing psychological resources to find multiple alternative pathways to the goal and despite the presence of obstacle. It is important for individual employees to internalize willpower, or, recognize and set their own goal, to make them personally relevant and well driven of their own behaviour. Moreover, in a rapidly changing environment, the utilization of alternate pathways of hope will be more effective and will make a greater contribution. This is because they will have the resources to recognize many alternative options to achieving goals. To be succeed at workplace, however, this hope factor of PsyCap will be strengthened when completed by the confidence or efficacy.

2.4 The impact of Self-Efficacy Construct on Employees

Self-Efficacy is the positive confidence in one's ability to perform specific tasks. Individuals utilize their efficacy to assess their ability to execute and also contribute to workplace activities. It is also clearly known that this efficacy of PsyCap can be developed, and significantly related to the work performance (Stajkovic & Luthans, 1998). Optimism is another PsyCap construct that strengthens the effectiveness of overall core construct of PsyCap.

2.5 The impact of Optimism Construct on Employees Individuals tend to internalize positive events and externalize negative events when they experience instances of Optimism. A higher level of optimism could help employees to have more positive expectations of outcomes that can change the work environments. Optimism need to be developed in order to improve employees performance. All of three construct of PsyCap will be futher reinforced when combined with the other recognized PsyCap construct – Resiliency.

2.6 The impact of Resilliency Construct on Employees Resiliency is the capability to bounce back from stressful or adverse situations (Luthans, 2002). The presence of resiliency is crucial to face business situation that rapidly changed. Once it activated, the power of resiliency allows individuals to bounce back, and also allow them to flourish. Thus, by developing all of PsyCap construct, Human capital may overcome the uncertainty and stress they are facing now and especially in the future (Luthans et al., 2007). It is widely acknowledged that the PsyCap constructs is the phase of the component of inner life. PsyCap constructs, can be more or less stable compared to core self-evaluations and personality traits (Avey et al., 2010). What is more, this constructs, can be changed over time due to mastery experiences, modelling, and feedback (Peterson, et al., 2015). Another important information to note that PsyCap constructs, or, components, work together synergistically. This is means that if one construct is affected, it is likely the other constructs will also be affected overtime (Peterson, et al., 2011). However, if it's well managed, The changeability of PsyCap could brings positive impact in specifically on employee's attitudes (Larson & Luthans, 2006), behaviour (Avey, et al., 2011), and importantly employee's performance (Avey et al., 2010).

2.7 The implementation of PsyCap in Work Environment

The value of positivity in human resource management has clearly and increasingly recognized. This influence many firms to particularly concerned on how to improve employee's performance and strengthen their psychological resources (Luthans et al., 2008). In the work environment, PsyCap is now recognized more than just human capital (i.e. employees knowledge, education, and experience, but also represent who employees are (their own psychological state), and what they can become (Luthans & Youssef-Morgan, 2017). What is important to note that, if it is well managed, PsyCap, can leads employees to attain successful performance outcomes (Bandura, A. 2008), that surely brings beneficial to the organization.

However, there is growing evidence that Psychological Capital also depending on the work context (Peterson, et al., 2011). For example, employees who receive higher level of

support from leader or supervisor will have greater level of PsyCap, which in turn predicted higher levels of performance (Liu, 2013). It is also found that recruitment system that utilized by organizations which based on satisfaction with buddying, a socialization mechanism, led to higher levels of PsyCap and in turn predicted employees work engagement (Nigah, et al. 2012). Another work context that positively associated with PsyCap is employee perceptions of external prestige (Mathe & Scott-Halsell, 2012).
Recent study indicated that individuals with high levels of work-family conflict and face a stressful working environment will have lower levels of PsyCap especially someone who felt under-rewarded and over-commited (Wang et al., 2012). Moreover, higher levels of employment uncertainty could also led to lower levels of PsyCap, which in turn predicted lower levels of meaning and higher levels of stress (Ahmad et al., 2019).

**3 RESULTS AND DISCUSSION:** The impact of PsyCap on Companies especially SMEs during Crisis. As it explained before that the recession of economics caused by pandemic COVID-19 posing a major challenge for companies especially SMEs. SMEs are forced to struggling with the situation for the sake of their survivability (Cucculelli & Peruzzi, 2020). Many different economic strategies and tangible assets were utilized to cope this crisis but recently, it is identified that intangible assets, in specifically Human Capital, also had crucial role on this measure. Eventhough overcoming a global crisis does not solely depend on Human Capital, there is growing evidence that Psychological Capital, or simply PsyCap, as a part of Human Capital, plays major role in boosting employee's behaviour, favoring a survival of a company. Regarding this, Numerous studies have investigated PsyCap constructs with desirable employees attitudes, such as job satisfaction, organizational commitment, employee attitudes (Luthans et al., 2007), and staying intentions (Avey, Reichard, et al. 2011).
Employees high in PsyCap, moreover, have more optimism in their ability to deal with various challenges in the work environment. This psychological state motivates them to exert greater effort and perform well in job. PsyCap also positively related to higher level of performance (Luthans et al., 2007). These employee's behaviour will surely help SMEs to survive since they become more vulnerable, unstable and powerless during the recession
economic situation (Cucculelli & Peruzzi, 2020). The other issues is that SMEs oftenly lack of physical resources and it is necessary to secure one's performance in order to survive during the economic drawbacks (Crook, et al., 2008). Regarding to this problem, PsyCap might contribute ultimate solution by positively influencing employee's commitment to their company mission which in turn, reduces absenteeism and turnover intentions (Sweetman et al., 2011).
The other fact is that PsyCap has influence on employees' uniqueness, or, in other words creativeness, innovation, and problem solving ability (Sweetman et al., 2011). Companies especially SMEs expected to utilize their unique resources to maintain or even increase their performance (Crook et al., 2008) which in return, increase the opportunity for bounce back and overcome adverse situations. All of the shown beneficials above proof that PsyCap has crucial role to company especially SMEs to survive in crisis circumstances. Therefore, since the construct of Psychological Capital can change over time (Peterson et al., 2011), and are open for development (Dello Russo & Stoykova, 2015) , Company especially SMEs should intensively and continuously utilize developmental interventions aimed at sustaining and increasing Psychological Capital in all employees. Instead of PsyCap, the support of creditors (Cole et al., 2004), companies' cash of liquidity (Bartik et al., 2020), and also a strong business climate is certainly important to decrease the probability of small firms bankcruptcy (Andrew & Dale, 1999). In addition, every companies' development management approaches, and design of workplace system should be adapted from their own PsyCap realities

and situation to bolster individual PsyCap and achieve the competitive advantage (Luthans & Youssef, 2004)

**4 CONCLUSION:** It is widely acknowledged that the construct of PsyCap namely Hope, Self-Efficacy, Optimism, and Resilliency, contribute positive impact on Human capital behavior and attitudes. PsyCap, moreover, positively related to the employees' greater work performance including creativeness, innovation, motivation, and also problem solving capabilities. In the context of SMEs, these kind of employees' capabilities would ultimately helps SMEs to maintain or create survivability especially during economic drawbacks (Battisti & Deakins, 2017), that recently caused by pandemic COVID-19. The focus of review in the areas of SMEs is because during the economic recession, this kind of firms are more vulnerable, and struggle towards the recession long-term effect (Cucculelli & Peruzzi, 2020). This is because SMEs face several barriers such as the difficulties of reducing expenses, accessing financial resources, and also weaker physical resources to conduct diverse economic activities (Karlsson, 2021). However, there is also growth evidence that PsyCap is not the only construct of a company to overcome a global crisis. Another factors such as leadership characteristic, companies' cash liquidity, support of creditors, and design of workplace system also has crucial role to helps company in obtaining their competitive advantage which in turns, helps to cope with a crisis, favoring a survival of a company.

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# PREDICTING THE INDONESIAN ISLAMIC STOCK MARKET DURING COVID-19 PANDEMIC: A LASSO APPROACH

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**Abstract**

The study aimed to evaluate the determinant of the Indonesian Islamic stock market price using the Covid-19 index. The dataset consists of the daily closing price of the Jakarta Islamic Index (JII) and six different Covid-19 indices, namely Aggregate Covid Index, Medical Index, Travel Index, Uncertainty Index, Vaccine Index, and Covid Index. This study also accounts for the Covid-19 new cases and death in Indonesia from March 11, 2020, to April 5, 2021. The study adopts Multiple Linear Regression Analysis (MLRA), Principal Component Regression Analysis (PCRA), and Least Absolute Shrinkage and Selection Operator (Lasso) for estimation. Our results show that Lasso outperforms the other two methods, PCRA and MLRA. Vaccine Index, new cases, and new deaths have a positive effect, while Aggregate Covid Index and Covid Index negatively impact predicting the JII during the estimation period.

***Keywords:*** *Jakarta Islamic Index, Lasso Regression, Principal Component Regression, Covid-19*

**JEL Classification:** G14, G41, I15, H12

**1 INTRODUCTION:** Coronavirus (Covid-19) infection has not yet been eradicated. The virus is causing an increase in new cases. The rapid spread of Covid-19, a virus that originated in Wuhan in last 2019, affected a large number of people worldwide. According to Worldometers data, there are over 240 million infected people and about 5 million deaths. The proliferation of Covid-19 has compelled governments to adopt preventative measures. On the one hand, limits on population activities, curfews, and lockdowns help contain the spread of the virus while also having an effect on the economy and financial markets. World Bank reported the fundamental of many corporations are at risk as a result of Covid-19, which has an effect on the value of company assets. Restrictions on company activities impact decreasing revenues and indirectly affect economic growth and also financial market (Verschuur et al., 2021). For example, Covid-19 triggered a 30% decline in worldwide stock markets at the early of the epidemic (OECD, 2020). In an uncertain financial market environment, market players are seeking alternative investments to diversify their portfolios, including the Islamic stock market. The Indonesian capital market is an important variable to encourage domestic economic activity, particularly as a source of capital for companies and an investment instrument for the community. Two leading indices often used as a barometer of Indonesia's capital market performance are the Jakarta Composite Index (JCI) as a proxy for the conventional stock market and the Jakarta Islamic Index (JII) for Islamic stocks. This research focuses on JII because Indonesia is the country with the largest Muslim population in the world, and there is still limited empirical research on the Islamic capital market in Indonesia. Other considerations for choosing JII are because companies that are included in the Shariah index must comply with Islamic compliance requirements, including avoiding Shariah capital market activities from elements of gambling (maysir), uncertainty (gharar), interest system (riba), and injustice.
The (Islamic Development Bank Group, 2020) reports that the average return of the S&P 500 Shariah index for the period 1 January to 21 August 2020 is 17.64%, higher than the S&P 500

at 7.56%. In addition, the volatility of the Islamic index measured by risk-adjusted return is lower than the conventional stock index (Aarif et al., 2021). The performance of the Islamic index, which tends to be better in crisis conditions, is caused by the risk-sharing principle of Shariah investment (Narayan et al., 2021). In addition, the growth of Shariah-based financial assets has overgrown in several decades, and the assumption about the potential of the Islamic stock index as a safe haven is interesting for empirical studies (Arif et al., 2021).
Most previous studies look at the performance of the Islamic index in terms of risk and return (Chaudhary et al., 2020); (O'Donnell et al., 2021), and have limited studies on the determinant of Islamic equity markets during the health crisis. The aim of our study is to examine the determinant of the Covid-19 index on the Islamic equity market in Indonesia. The Covid-19 index dataset is developed based on the 45 most popular newspapers in the world (Narayan et al., 2021). This study also involves other variables such as new cases and deaths due to Covid-19 in Indonesia. Predictive accuracy about the factors that influence stock prices helps implement portfolio strategy on financial assets (Tuna, 2021).
In line with these studies, we examine the Covid-19 index on the Islamic stock market. Our contribution to the literature is twofold. First, we use the new Covid-19 index dataset was constructed by Narayan et al. (2021). Second, this study applies MLRA, PCRA, and Lasso to reduce bias in predicting factors affecting Indonesia's Islamic index. The research paper is structured as follows: in the section two, we will present literature review. Section three will describe the data and methodology used in the analysis. Section four, presents the estimation result. Last section presents the conclusion and suggestion for future studies.

**2 THEORETICAL BACKGROUND:** The unprecedented and uncertain situation due to the Covid-19 outbreak has sparked a renewed interest in searching for safe-haven assets as portfolio diversification. Previous studies have assessed the several financial assets to hedge during the health crisis, for example (Hassan et al., 2021) sovereign bond, (Corbet et al., 2021) and (Disli et al., 2021) crytocurrencies, (Kanamura, 2021) commodities. This interest encourages the Islamic index as one of the financial assets that can cushion during a crisis (Yarovaya et al., 2021). The Shariah index is also a channel for capital flows for those who have excess and need capital but still adhere to Islamic principles (Alshubiri, 2021). In addition, the development of the Shariah index is also driven by the distribution of returns at minimum risk, and investors also do not feel disadvantaged by choosing Shariah index stocks over conventional ones (Trabelsi et al., 2020).
The theoretical link between stock market reactions during the crisis has been discussed in the literature. For example the efficient market hypothesis (EMH) and black swan theory. EMH theory explains that the stock market responds to all information in the market (Fama, 1965). If the market information is positive, it will increase stock prices and vice versa. EMH proposes three forms of the capital market, namely weak, semi-strong and strong forms. The three forms of EMH represent the level of stock price response to market information. Weak form depicts that future stock prices are unpredictable, and current prices reflect information available in the past. Meanwhile, semi-strong and strong forms occur when the stock price covers all public and private information in the market (Pereira da Silva, 2021). In addition, black swan was introduced by Nassim Nicholas Taleb, it posits to a rarely and random events but generates an unforeseen shock in financial markets (Ahmad et al., 2021) (Phadnis et al., 2021) (Zhang et al., 2021).
Empirically, many studies have investigated the performance of financial assets and integrated them as the potential of portfolio diversification hedging benefit. Previous studies compared the risk and return between Islamic and conventional indexes conducted by (Rahman et al., 2021) reveal that investors benefit from combining Islamic and conventional indexes in financial asset portfolios. In contrast, Camgoz et al. (2019) depict no difference between Islamic

and conventional indexes regarding risk and return. Few studies, however, evaluated the determinants of the Covid-19 index on the Islamic stock market. Even fewer studies focus on the Islamic index in Indonesia.

In the Indonesian stock market context, (Ganar et al., 2020) evaluate the impact of Covid-19 on the Indonesian Shariah Stock Index (ISSI) and Jakarta Islamic Index (JII) by applying the event study approach. This study found that the health crisis due to Covid-19 had a significant negative impact on both markets. The most recent study of the Indonesian stock index during the health crisis was conducted by (Ali et al., 2020) using continuous wavelet coherence. The study reveals that Covid-19 has a negative impact on return both the conventional and Islamic index in Indonesia. In addition, it also finds Shariah index in Indonesia is more volatile than its counterpart during the outbreak.

**3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA:** The research objective of this study is to conduct a fairly the determinant factors on the Islamic stock market in Indonesia. Our dataset consist of daily closing prices of JII, Covid-19 index, new cases and deaths. The JII data is extracted from the investing website and for the Covid-19 index, we adopt the dataset from Narayan et al. (2021). The data of Covid-19 new cases and deaths in Indonesia is collected from the Github portal. The sample period refers to the Covid-19 index dataset availability and the Indonesian Islamic stock market index, starting from March 11, 2020, to April 5, 2021.

Tab. 1 – Descriptive of dependent and independent variables. Source: own classification

| Label | Variables | Sources |
|---|---|---|
| Y | JII Index | https://www.investing.com/ |
| X1 | Aggregate COVID Index | Narayan et al. (2021) |
| X2 | Medical Index | Narayan et al. (2021) |
| X3 | Travel Index | Narayan et al. (2021) |
| X4 | Uncertainty Index | Narayan et al. (2021) |
| X5 | Vaccine Index | Narayan et al. (2021) |
| X6 | COVID Index | Narayan et al. (2021) |
| X7 | New Cases | https://github.com/ |
| X8 | New Deaths | https://github.com/ |

This paper applies three analyses such as Multiple Linear Regression Analysis (MLRA), Principal Component Regression Analysis (PCRA), and Least Absolute Shrinkage and Selection Operator (Lasso) to find the most efficient and simple method in defining the Covid-19 variables influence on JII. The MLRA means the model which explains the relationship between the independent and dependent variables. (Draper, Norman R. & Smith, 1998) describe a linear regression model as linear in parameters. The linear regression model has the following form:

$$y=X\beta+\varepsilon \quad (1)$$

X denotes a matrix of independent variables of size n×(p+1), y is a vector of dependent variables of size n×1, is a random residual vector of size n×1, and =(β_0,β_1,…,β_p )^ T. One of the methods used to estimate the linear regression coefficient (β) value is the least-squares method, which minimizes the sum of the squares of the remainder (Hastie et al., 2008)

The second model in this study is PCRA. This statistical technique used to minimize or summarize data, from variables that have been changed to a few variables and still contain most of the information present in the original variables. The equation of PCRA is shown below:

$$PC1=a11x1+a12x2+\ldots+a1pxp \quad (4)$$

$$PCp=ap1x1+ap2x2+\ldots+appxp \quad (3)$$

$$PCp\times1=Ap\times pxp\times(4)$$

The value used in the PCRA is the value obtained from the primary component score value. Furthermore, the PCRA applies the least-squares method to estimate the price of the regression parameter. According to Myers (1989) the least-squares method is used to estimate the parameter values (β_0,β_1 and _2 ) with the regression equation (Y_i=β_0+β_1 PC〗 _1+β_2 PC_2 ).

Lastly, we apply Lasso technique to overcome problems in the accuracy of estimates. Hastie et al. (2008) stated that the estimation of coefficients using the lasso technique is shown in the Lagrange equation to minimize the number of squares remaining, with the following constraints:

$$\|\|11\leq t\ ,\ t\geq0. \quad (5)$$

The value of t is a quantity that controls the amount of shrinkage in the estimated coefficient. If _j is a least-squares estimator and t_0=‖β‖_1^1, then the value of t<t_0 will cause the MKT solution to shrink towards zero and allow some coefficients to shrink to zero. The estimation of coefficients using the lasso technique might be represented in the Lagrange equation to minimize the sum of the squares of the remainder, as follows:

$$lasso=arg\ JKS\beta,\lambda \quad (6)$$

$$=arg,\ \lambda\geq0 \quad (7)$$

If a lasso parameter with a value of 0, the coefficient estimator cannot be obtained in closed form but must use quadratic programming (Tibshirani 1996).

**4 RESULTS AND DISCUSSION:** The first analysis in this study is conduct simple linear regression to see the correlation between dependent and independent variables. The result is displayed in the Tab.2

Tab. 2 – Correlation between JII and Independent Variables. Source: own calculation

| Variables | JII |
|---|---|
| A-COVID Index | -0.6720 |
| Medical Index | -0.5851 |
| Travel Index | -0.4846 |
| Uncertainty Index | -0.7078 |
| Vaccine Index | 0.7740 |
| COVID Index | -0.7210 |
| New Cases | 0.8362 |
| New Deaths | 0.8051 |

Tab. 2 shows that three independent variables have a positive relationship to the Jakarta Islamic Index, namely Vaccine Index, New Cases, and New Deaths, and five independent variables have a negative relationship to the Jakarta Islamic Index, namely Aggregate COVID Index, Medical Index, Travel Index, Uncertainty Index, and COVID Index. Furthermore, multiple linear regression analysis, principal component regression analysis, and the lasso method were conducted to evaluate the effect of the independent variable on the dependent variable.

4.1 Multiple linear regression analysis (MLRA)

Based on MLRA analysis using the R application, the equation model between JII with eight independent variables is presented in as follows:

$$Y=-0.0000-0.4340X1+0.2322X2+0.0560X3+0.0446X4+0.2849X5\ 0.1432X6 +0.2552X7 +0.1969 \quad (8)$$

The parameter estimator b0 of -0.0000 is the estimated value for the average JII if the parameter estimator of all variables is zero. Six independent variables positively influence the JII, namely Medical Index, Travel Index, Uncertainty Index, Vaccine Index, New Cases, and New Deaths, and the Aggregate COVID Index negatively influence the JII. The results of multiple linear regression analysis are not in line with the correlation between the dependent and independent variables. Some variables with negative correlations but a positive influence are Medical Index, Travel Index, and Uncertainty Index.

4.2 Principal component regression analysis (PCRA)

The result of principal component value for each variable using PCRA is displayed in the Tab 3 below:

Tab. 3 – Coefficient of principal component each variable. Source: own calculation

| Variables | PC1 | PC2 | PC3 | PC4 |
|---|---|---|---|---|
| A-COVID Index | 0.3854 | -0.3398 | 0.1593 | 0.0278 |
| Medical Index | 0.3548 | -0.4177 | 0.3181 | -0.0424 |
| Travel Index | 0.2934 | -0.1303 | -0.8848 | 0.2604 |
| Uncertainty Index | 0.3854 | -0.0895 | -0.0643 | -0.1334 |
| Vaccine Index | -0.3148 | -0.4550 | 0.1334 | 0.7547 |
| COVID Index | 0.3978 | -0.2559 | 0.0950 | -0.0926 |
| New Cases | -0.3467 | -0.4719 | -0.1269 | -0.2089 |
| New Deaths | -0.3368 | -0.4359 | -0.2089 | -0.5386 |

Tab. 4 – Coefficient of principal component each variable. Source: own calculation

| Variables | PC5 | PC6 | PC7 | PC8 |
|---|---|---|---|---|
| A-COVID Index | -0.0896 | 0.0826 | 0.3088 | 0.7744 |
| Medical Index | -0.2066 | -0.1218 | -0.7192 | -0.1478 |
| Travel Index | -0.1647 | -0.0232 | -0.1365 | 0.0073 |
| Uncertainty Index | 0.9004 | -0.0094 | -0.0146 | -0.1021 |
| Vaccine Index | 0.1992 | -0.2047 | 0.1215 | -0.1010 |
| COVID Index | -0.2599 | 0.0609 | 0.5786 | -0.5938 |
| New Cases | 0.0633 | 0.7650 | -0.0796 | -0.0434 |

| | | | | |
|---|---|---|---|---|
| New Deaths | 0.0084 | -0.5890 | 0.1119 | 0.0578 |

Based on Tab. 3 and Tab. 4, eight main components are formed with their respective coefficients, namely positive and negative. These coefficients are used to calculate principal component scores as a continuation of principal component regression analysis.

Tab. 5 – Summary of principal component analysis. Source: own calculation

| | PC1 | PC2 | PC3 | PC4 |
|---|---|---|---|---|
| Standard deviation | 2.3652 | 1.0990 | 0.7762 | 0.5533 |
| Proportion of Variance | 0.6993 | 0.1510 | 0.0753 | 0.0383 |
| Cumulative Proportion | 0.6993 | 0.8503 | 0.9256 | 0.9639 |

Tab. 6 – Summary of principal component analysis. Source: own calculation

| | PC5 | PC6 | PC7 | PC8 |
|---|---|---|---|---|
| Standard deviation | 0.4318 | 0.2433 | 0.1664 | 0.1259 |
| Proportion of Variance | 0.0233 | 0.0074 | 0.0035 | 0.0020 |
| Cumulative Proportion | 0.9872 | 0.9946 | 0.9980 | 1.0000 |

Tab. 5 and Tab. 6 show that PC1 and PC2 have the standard deviation value more than 1 with the cumulative proportion of 85%. It can be concluded that the main components formed are two main components, namely PC1 and PC2. Furthermore, these components can be used for further analysis using PCRA. The equation model of PCRA is displayed in the below:

$$Y=-0.0000-0.3527PC1-0.2600PC2 \quad (9)$$

$$Y=-0.0000-0.3527(0.3854X1+0.3548X2+0.2934X3+0.3854X4-0.3148X5+0.3978X6-0.3467X7-0.3368X8)-0.2600(-0.3398X1-0.4177X2-0.1303X3-0.0895X4-0.4550X5-0.2559X6-0.4719X7-0.4359X8) \quad (10)$$

$$Y=-0.0000-0.0476X1-0.0166X2-0.0696X3-0.1127X4+0.2293X5-0.0738X6+0.2450X7+0.2321X8 \quad (11)$$

Vaccine Index, New Cases, and New Deaths positively correlate with JII, while the other five variables (Aggregate COVID Index, Medical Index, Travel Index, Uncertainty Index, and COVID Index) have a negative influence on the Jakarta Islamic Index variable. The principal component regression analysis results are in line with the results of the correlation between the dependent and independent variables.

4.3 Least Absolute Shrinkage and Selection Operator (Lasso)

The analysis based on Lasso model between JII and eight other variables, is shown in the equation below:

$$Y=-0.0000-0.2046X1+0X2+0X3+0X4+0.2797X5-0.0577X6+0.2454X7+0.2130X8 \quad (12)$$

$$Y=-0.0000-0.2046X1+0.2797X5-0.0577X6+0.2454X7+0.2130X8 \quad (13)$$

Three independent variables positively influence JII, namely the Vaccine Index, New Cases, and New Deaths, while the Aggregate COVID Index and COVID Index have a negative effect on JII. Medical Index, Travel Index, and Uncertainty Index have no influence (selected) on JII.

The analysis results using the lasso method are in line with the results of the correlation between the dependent variable and the independent variable, and the resulting model is simpler.

Tab. 7 - Comparison analysis of MLRA, PCRA and Lasso method. Source: own calculation

| Independent Variables | Correlation | MLRA | PCRA | Lasso |
|---|---|---|---|---|
| A-COVID Index | -0.6720 | -0.4340 | -0.0476 | -0.2046 |
| Medical Index | -0.5851 | 0.2322 | -0.0166 | 0 |
| Travel Index | -0.4846 | 0.0560 | -0.0696 | 0 |
| Uncertainty Index | -0.7078 | 0.0446 | -0.1127 | 0 |
| Vaccine Index | 0.7740 | 0.2849 | 0.2293 | 0.2797 |
| COVID Index | -0.7210 | -0.1432 | -0.0738 | -0.0577 |
| New Cases | 0.8362 | 0.2552 | 0.2450 | 0.2454 |
| New Deaths | 0.8051 | 0.1969 | 0.2321 | 0.2130 |

Tab. 7 depicts the coefficient value of the Lasso model shrinking towards 0 so that it has a smaller effect on the dependent variable than the coefficient values of MLRA and PCRA. The shrinkage of the Lasso coefficient is precisely equal to 0, resulting in a simpler regression model and overcoming the problem of multicollinearity. The Lasso method outperforms MLRA and PCRA because it uses a simpler model and is in line with the correlation results.

**5 CONCLUSION:** This study searches for the best model to determine Indonesia's Islamic stock market index during the Covid-19 pandemic. The stock market is an alternative investment as a form of diversification of financial portfolios. To investigate the variables' influence on JII, we adopt the new Covid-19 index dataset and consider the domestic cases of Covid-19, such as new cases and deaths. Furthermore, MLRA, PCRA, and Lasso are applied to find the most efficient method in determining the impact of the Covid-19 index and the Islamic stock market in Indonesia The finding reveals that Lasso is the most efficient method in predicting the JII during the observation period. The coefficient value of its model reduces towards 0, indicating more simplicity and efficiency than MLRA and PCRA analysis. Furthermore, this study also finds that the Vaccine Index, new cases, and new deaths have a positive effect, while Aggregate Covid Index and Covid Index negatively impact predicting the JII during the estimation period. The implication of this study is provide the information related to the factors influence the Islamic stock market and it can be used as financial portfolio strategy.

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# EFFECT OF INDIVIDUAL FACTORS ON YOUTH ENTREPRENEURSHIP IN KHULNA DIVISION, BANGLADESH

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**Abstract**

The aim of this research is to investigate how individual factors effect on the inclination of young students to start a career as an entrepreneur. In this study, we collected data from 395 young students in Khulna division of Bangladesh. The male-to-female ratio in the study was 2:1. Cross tabulation and the chi square test were used to evaluate the data. The findings revealed that a student's entrepreneurial inclinations are not affected by prior entrepreneurial experience, prior employment experience and academic intelligence. On the other hand, educational background appears to have an influence on entrepreneurial intentions of young students.

**Keywords:** *Entrepreneurship, Individual factors, Career choice, Khulna divisions Universities, Bangladesh*

**JEL Classification: L26**

**1 INTRODUCTION:** Every community in the world has realized that encouraging entrepreneurship among their people, particularly among the youth, is the most significant factor in improving economic growth. When young people are employed, the economy develops. Indeed, youth entrepreneurship not just to helps to reduce unemployment in the country, but it also helps to define their future by allowing them to start firms without having to look for a job (Sharma & Madan, 2013).The Khulna Division is one of Bangladesh's most important business areas. It is well connected to Bangladesh's main land port station “Banapole” and one of the country's second largest sea ports “Mongla”. For these two critical reasons, it expands the number of business opportunities available to young entrepreneurs. Several scholars have interpreted the study differently depending on its nature and setting. Due to a lack of a uniform definition, this study used Reynolds' definition of entrepreneurship, which describes it as the discovery of opportunities and the subsequent creation of new economic activity. As a result, the likelihood of undergraduate students (aged 20-32 years old) starting a new firm or taking over an existing one is characterized as young entrepreneurial intention in this study (Dendup & Acharja, 2017).Entrepreneurship is a practical and well-tested approach to personal fulfillment and financial success. The difference between entrepreneurial thoughts and actions emphasizes the importance of initiatives that inspire young people to start their own businesses. We believe that a relational developmental systems approach can aid researchers in better understanding and facilitating entrepreneurial development. Individual variables such as previous experience in job or start up, education of the Students are examined in this study to discover how they influence the development of entrepreneurial aptitude. Individual determinants have an important role in entrepreneurship growth, and considerable research has been done on them globally, but we have attempted to review them in the context of Bangladesh's Khulna Division. The most crucial aspect of youth is career choice. In reality, a person's profession decision is influenced by their family situation, educational background, attitudes, views, and experience. Students with prior work experience are also considered as

being interested in starting their own business (Sharma & Madan, 2013) and Adults with prior entrepreneurial experience are more likely to start a new business (Nancy & Vozikis, 1994)

**2 THEORETICAL BACKGROUND:** Youth entrepreneurship is now considered a decent career option. As a result, it is crucial for politicians, educators, and the general public to comprehend the specific elements that impact the decision to become an entrepreneur (Dendup & Acharja, 2017).
A student's academic course and prior job experiences have had an effect on their post-graduation entrepreneurial career goals (Dendup & Acharja, 2017) (Shapero & Sokol, 1982). There is no link between academic achievement and post-graduation business goals (Dendup & Acharja, 2017). Nevertheless, there is a link between previous entrepreneurial experience and self-efficacy (Bandura, 1986). Previous experience to business, and networks has been highlighted as important factors to become entrepreneurs (R & Vries, 1977). Similarly, self-employment experience on young entrepreneurship and regional differences are important element to consider (Sharma & Madan, 2013). Thus, we sought to figure out how the two are related in the context of the Khulna division and came up with our initial theory.

*H1: The student's entrepreneurial inclination is not affected by previous entrepreneurial experience.*

An entrepreneur's intention is determined by the level of formal education and prior managerial skills (Maxwell & L., 2002). Previous business experience effects on an individual's decision-making and performance (McStay, 2008). Industry knowledge could be very useful in determining the practical and intangible demands for startup (Box, Watts, & Hisrich, 1994).
According to venture capitalists, industry competence is closely related to the goods, procedures, or business strategies that are being considered for funding (Smith, Smith, & Bliss, 2000).
*H2: The student's entrepreneurial inclination is not affected by previous employment experience.*

Education has a positive impact on business success in general (Douglass, 1976). Entrepreneurial inclinations might be strongly influenced by educational programs (Peterman & Kennedy, 2003). College education plays insignificant role to become entrepreneur (Asoni, 2011). Higher levels of education may open up more prospects in other fields, reducing the likelihood of starting a business (Sluis, Praag, & Vijverberg, 2004). Self-employment is less attractive to educated people than uneducated people (Kangasharju & Kerr, 2002). Postgraduate students have fewer entrepreneurial intentions than diploma and undergraduate students because they face a high opportunity cost of time and a predictable cash flow demand (Wu & Lingfei, 2008). As a result, it is essential to realize the behaviors and educational backgrounds of entrepreneurs that start new businesses. One of the most essential functions of the contemporary educational system is to develop the entrepreneurial mindset of young people, as university students represent a significant portion of the potential entrepreneur (Welter, 2011). College education on the other hand may assist business owners and managers in understanding and applying concepts such as business planning, marketing strategy, locating and financing a business, dealing with legal issues, and human resource management (Ashmore & M, 1986).

*H3: Academic intelligence has no influence on a student's entrepreneurial inclinations.*

People with higher education have a better chance of finding work and holding their jobs in a crisis (Lonescu, 2012). Higher education serves to develop a skilled work force and makes it easier to respond to changing job market demands in today's modern knowledge-based economy (Enders, 2010). Higher education institutions have the opportunity to have a major impact on regional development, but the magnitude among these benefits is determined by the excellence of each institution and also local policy frameworks (Arbo & Benneworth, 2007).

*H4: Educational Background has no influence to the entrepreneurship intention.*

**3 RESEARCH OBJECTIVES, METHODOLOGY AND DATA:** The objectives of the research are to examine the effect of individual factors whether they influence the inclination of young students to begin their career as entrepreneur. This study was conducted using a quantitative research method. As the major data collecting instrument, a self-administered questionnaire was developed. Students at Khulna division universities' undergraduate level (third & fourth year**)** and post graduate, like MBA, MSS, and MSC programs, were the target respondents. The sample strategy used in this study was simple random sampling. The overall target number of populations to the survey was roughly 13300. We collect information from 408 respondents. 13 of the 408 respondents provided incomplete information. To avoid variation, the responses were divided into two groups. Students in the first group had taken an entrepreneurship course as part of their professional education, but students in the second group had not. When a statistic in the population is projected to be over 70% or under 30%, the sample size with a 95 percent confidence level is 395 for a population of 13300. As a result, the sample size for the study is 395. Based on their prevalence at the institution, the total number of seats in each of the following courses in the Khulna division were calculated: BBA, BSC, Pharm, MBA, MSS, MSC. These seats were calculated into the sample size ratio, and then separate samples from each course were taken to accurately represent the population. The data was analyzed using cross tabulation and the Chi square test. All statistical data was calculated using SPSS version 26.

**4 RESULT AND DISCUSSION:** Result of testing hypothesis H1**.** The student's entrepreneurial inclination is unaffected by previous entrepreneurial experience.
To test the given hypothesis, the chi-square test was used. When asked if they had any prior business experience, the students were asked directly (Table 2). As per the results of the crosstabulation, 15 of the 395 respondents had prior business experience, while the remaining 380 had no prior business experience (Table 1).

Tab. 1 - Cross tabulation between 'Future Career Plan' and 'Prior experience in business.

| | | Respondents prior experience in business | | |
|---|---|---|---|---|
| | | Yes | No | Total |
| Future Career Plan | Start a new business | 2 | 7 | 9 |
| | Seek a suitable job | 10 | 301 | 311 |
| | Go for higher study | 2 | 42 | 44 |
| | Not decided yet | 1 | 30 | 31 |
| Total | | 15 | 380 | 395 |

'Future Career Plan' and 'Prior experience in business'

Tab. 2 - Chi-Square Tests between 'Future Career Plan' and 'Prior experience in business.

| | Value | df | Asymptotic Significance (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) | Point Probability |
|---|---|---|---|---|---|---|
| Pearson Chi-Square | 8.747[a] | 3 | .033 | .063 | | |
| Likelihood Ratio | 4.487 | 3 | .213 | .241 | | |
| Fisher's Exact Test | 6.234 | | | .065 | | |
| Linear-by-Linear Association | .233[b] | 1 | .629 | .692 | .342 | .084 |
| N of Valid Cases | 395 | | | | | |

'Future Career Plan' and 'Prior experience in business'
Three cells (37.5%) have an expected value of less than five. The estimated minimum value is .34.

The chi-square test results are presented in the table above. The calculated Fisher's Exact Test p value of 0.065 (typically greater than 0.05) suggests that the two variables have no relationships. The variables 'Prior business experience' and 'Entrepreneurship Intention' are clearly independent. As a result, at a 5% significance level, we accept the null hypothesis. It indicates that a student's prior business experience has no influences on his entrepreneurial inclinations.

*Testing hypothesis H2*

The student's entrepreneurial inclination is unaffected by previous job experience. Students were divided into three groups based on their past work experience. Students with no experience, less than one year of experience, and one to two years of experience (Table 3)

Tab. 3 - Cross tabulation between 'Future Career Plan' and 'Previous job experience'.

| | | Previous job experience | | | |
|---|---|---|---|---|---|
| | | Less than 1 year | 1 year to 2 years | No experience yet | Total |
| Future Career Plan | Start a new business | 1 | 0 | 8 | 9 |
| | Seek a suitable job | 6 | 1 | 304 | 311 |
| | Go for higher study | 3 | 0 | 41 | 44 |
| | Not decided yet | 2 | 0 | 29 | 31 |
| Total | | 12 | 1 | 382 | 395 |

'Future Career Plan' and 'Previous job experience'

Tab. 4 - Chi-Square Tests between 'Future Career Plan' and 'Previous job experience'.

| | Value | df | Asymptotic Significance (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) | Point Probability |
|---|---|---|---|---|---|---|
| Pearson Chi-Square | 6.898[a] | 6 | .330 | .273 | | |
| Likelihood Ratio | 5.669 | 6 | .461 | .317 | | |
| Fisher's Exact Test | 11.493 | | | .086 | | |
| Linear-by-Linear Association | 4.191[b] | 1 | .041 | .038 | .038 | .014 |
| N of Valid Cases | 395 | | | | | |

'Future Career Plan' and 'Previous job experience'
There are 7 cells (58.3%) with an estimated value of less than five. The minimum value is expected to be.02.

Cross tabulation is used to show the amount of cases in every category, which is determined by two grouping variables: the student's 'Work experience' and his or her 'Entrepreneurship Intention'. 382 individuals have no job experience, 12 have less than one year of experience, and 1 has one to two years of experience out of a total of 395 responses. The variables 'Work experience' and 'Entrepreneurship Intention' were tested using the chi-square test (Table 4). The chi-Square test results are presented in the table above. The calculated Fisher's Exact Test p value of 0.086 (typically above 0.05) indicates that the two variables have no relationship. As a result, we accept the null hypothesis at a significance level of 5%. This illustrates a student's previous work experience at a job has no impact on his or her entrepreneurial intentions.

*Testing hypothesis H3*

Academic intelligence has no influence on a student's entrepreneurial inclinations. The above hypothesis was tested using the chi-square test.Student's academic intelligence level has been determined based on his or her academic performance. Students with a CGPA of 3.6 or more should select Excellent; those with a CGPA of 3.00 to 3.59 should select Mediocre; and those with a CGPA of less than 3.00 should select Poor (Table 5)

Tab. 5 - Cross tabulation between 'Future Career Plan' and 'Academic Intelligence level'.

| | | Respondent academic excellence in undergraduate level. (If got 3.6 0r above Tick Excellent, if 3.00 to 3.59 above Tick Mediocre, if got below 3.00 then Tick Poor Total CGPA or CGPA Up to current year if not completed your graduation) | | | |
|---|---|---|---|---|---|
| | | Excellent | Mediocre | Poor | Total |
| Future Career Plan | Start a new business | 1 | 4 | 4 | 9 |

| | | | | | |
|---|---|---|---|---|---|
| | Seek a suitable job | 157 | 106 | 48 | 311 |
| | Go for higher study | 26 | 14 | 4 | 44 |
| | Not decided yet | 12 | 11 | 8 | 31 |
| Total | | 196 | 135 | 64 | 395 |

'Future Career Plan' and 'Academic Intelligence level'.

Tab. 6 - Chi-Square Tests between 'Future Career Plan' and 'Academic Intelligence level'.

| | Value | df | Asymptotic Significance (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) | Point Probability |
|---|---|---|---|---|---|---|
| Pearson Chi-Square | 12.323[a] | 6 | .055 | .053 | | |
| Likelihood Ratio | 12.114 | 6 | .059 | .074 | | |
| Fisher's Exact Test | 11.964 | | | .051 | | |
| Linear-by-Linear Association | .539[b] | 1 | .463 | .485 | .241 | .021 |
| N of Valid Cases | 395 | | | | | |

'Future Career Plan' and 'Academic Intelligence level'.
3 cells (25.0%) have an expected count of lower than five. The estimated minimum value is 1.46.

Out of 395 responses, 196 students were judged to be in the "High" academic intelligence segment, 135 students in the "Mediocre" academic intelligence segment, and 64 students in the "Low" intelligence level group, according to cross tabulation (Table 6). Table 7 shows the results of the chi-square test. A calculated Fisher's Exact Test p value of 0.051 (typically more than 0.05) indicates that no relationship exists between two variables. The variables 'Student intelligence level' and 'Entrepreneurship Intention' are clearly independent. As a result, we accept the null hypothesis at a significance level of 5%.This demonstrates that a student's intelligence level has no effect on his post-graduate career plans, particularly his desire to be an entrepreneur

**Testing hypothesis H4**

Educational Background has no influence to the entrepreneurship intention. To test the given hypothesis, the chi-square test was used. Respondents are divided into two groups based on their educational backgrounds. First category is those whose background is business and others who are not from business background. 89 respondents come from a business background, whereas 306 come from a non-business background (Table 7).

Tab. 7 - Cross tabulation between 'Future Career Plan' and 'Respondent educational background'.

| | | Are respondent from business background? | | |
|---|---|---|---|---|
| | | Yes | No | Total |
| Future Career Plan | Start a new business | 6 | 3 | 9 |
| | Seek a suitable job | 60 | 251 | 311 |
| | Go for higher study | 10 | 34 | 44 |
| | Not decided yet | 13 | 18 | 31 |
| Total | | 89 | 306 | 395 |

'Future Career Plan' and 'Respondent educational background'

Tab. 8 - Chi-Square Tests between 'Future Career Plan' and 'Respondent educational background'.

| | Value | df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 18.601[a] | 3 | .000 |
| Likelihood Ratio | 15.669 | 3 | .001 |
| Linear-by-Linear Association | 7.552 | 1 | .006 |
| N of Valid Cases | 395 | | |

'Future Career Plan' and 'Respondent educational background'.
1 cell (12.5%) has an expected value of less than 5. The expected minimum value is 2.03.
Table 8 shows the results of the chi-Square test. There is a relationship between the two variables because the estimated chi-square test and likelihood ratio significant value is 0.000 (typically less than 0.05). The 'Respondent educational background' and 'Entrepreneurship Intention' are clearly dependent. As a result, at a 5% significance level, we reject the null hypothesis. This demonstrates that the student's educational background has an impact on his entrepreneurship intention.

**4 DISCUSSION:** According to the research, prior business experience has no effect on a student's decision to continue entrepreneurship as a career path. Students with past business expertise were given the lowest interest in pursuing entrepreneurship as a career path. Only 13.33 percent of students who had previously worked for themselves expressed an interest in doing so again. While the majority of students having self-employment expertise (66.67 percent) desired to find work after graduation. It indicates that they would have a poor business experience previously and did not like to continue it. The outcome could also imply that by doing business in the Khulna division is challenging or that the business environment is unfavorable. (McMullen & Shepherd, 2006) have found entrepreneurship education and prior entrepreneurial expertise were both identified as major motivators and drivers to the formulation of entrepreneurial intentions, as well as the practicality of entrepreneurship and individual preferences. As per our findings, the feasibility of starting a business in the Khulna division could be low. Our results complement the study of (McStay, 2008) who supported that students in the entrepreneurship lesson who may have had "limited" prior entrepreneurial experience were more likely to want to be self-employed than those who had "high" prior entrepreneurial knowledge. Our findings also revealed that a student's previous job experience has no impact on his entrepreneurial inclination. Our target sample included 3.03% of students with less than a year of work experience, nearly 0.25% of students with 1 to 2 years of job experience, and 96.70% of students with no work experience. None of the students had more than two years of experience. Contrary to the study by (Wadhawa, Holly, Aggarwal, &

Salkever, 2009) the majority of respondents (75.4%) having performed as employees at other organizations for more than six years before starting their own and nearly half of company founders (47.9%) had more than 10 years of professional experience when they launched their new business. It implies that a student's previous work experience has no impact on his entrepreneurial inclinations. Our research also shown that a student's academic intelligence has no effect on his entrepreneurial inclinations. According to our findings, the Fisher's Exact Test value is .051 which is higher than .05. It indicates that student's academic intelligence has no effect on his entrepreneurial inclinations. Only 0.51 percent of students who have been put in the excellent academic performance level reported a desire to pursue entrepreneurial intentions, however 80 percent expressed an interest in working, according to our statistics. Students with high grades expect good jobs and are not interested in starting their own business. The research also revealed that a participant's educational background has an impact on their desire to become an entrepreneur. 67 percent of students who wish to be entrepreneurs in the future come from a business background, while 37% come from other backgrounds. As a result, it's apparent that an entrepreneur's goal is influenced by their educational background.

## 5 CONCLUSION

Individual factors affect youth to set career as an entrepreneur. Prior business experience has no effect on a student's decided to start entrepreneurship as a career option. A student's entrepreneurship aptitude is unaffected by job experience. The terms 'Previous work experience in job' and 'Entrepreneurship Intention' are not mutually exclusive. The researchers also found that students' academic intelligence has no impact on their desire to start a business. The terms 'Student intelligence level' and 'Entrepreneurship Intention' are independent. The student's educational background has an impact on his or her desire to be an entrepreneur. Students with a business background are more interested in becoming entrepreneurs than students with a non-business background, such as students enrolled in BSC, B.Pharm, MSS, or MSC programs.This research has a time limit. The study was conducted on students from Bangladesh's Khulna divisions' universities; however more research is needed outside of Bangladesh's Khulna division's universities.

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# WASTE AND WASTE MANAGEMENT AS A SOURCE OF CIRCULAR ECONOMY

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**Abstract**

Circular economics considers waste from the perspective of the waste management hierarchy. First, we should prevent waste. If we cannot prevent it, we should recycle it. If it is not possible to recycle waste, then we should recover it. The sustainability for key value chains requires urgent, comprehensive and coordinated action, which will be an integral part of a sustainable product policy framework that uses waste as a raw material, identifies barriers to the expansion of markets for the circulation of products, as well as ways to remove them. Waste reduction should be incorporated in the design, product design and other measures to prevent the generation waste. The sustainability dictates to generate less waste and more value, i. e. design and manufacture products which do not generate waste and are repairable, reusable and made from materials that are recyclable at the end of their operating life.

*Keywords: sustainability, waste management, circular economy*

**JEL Classification**: **O 44, Q 01,P 48**

**1 INTRODUCTION:** The circular economy is a model of production and consumption in which products and services are designed to enable their sharing, reuse, repairability and recyclability. Unlike the linear economy, where resources are overexploited and unnecessary waste is generated, the circular economy uses scarce resources efficiently and the value of end-of-life products as waste does not end up in landfills.

Sustainability is a key concept in waste management. The issue of sustainability for key value chains requires urgent, comprehensive and coordinated action, which will be an integral part of a sustainable product policy framework that uses waste as raw materials, identifies markets and ways to remove barriers to the expansion of circulating products.

The aim of the study is to associate, analyse and assess the issues of sustainability with the approach of a new paradigm called a circular economy. Based on the analysis and evaluation of key documents and trends in waste management the paper will formulate the basic principles of support of the circular economy in the conditions of the Slovak Republic.

On the example of the development of waste management in the conditions of Slovakia, we will point out the need to linkages between the principles of sustainable development with the principles of the circular economy.

**2 THEORETICAL BACKGROUND:** The circular economy considers waste to be a resource that is returned to circulation, creating a closed material cycle. On 1 March 2020, the European Commission published a new EU Action Plan for the circular economy, for a cleaner and more competitive Europe, which follows on from the EU Action Plan for the Circular Economy of 2015.

The concept of circular economics originated as a response to the current linear nature of material flows. Primary raw materials, such as oil, metals or wood, are extracted, transformed into products and, once their life cycle terminates, they end up in landfills or incinerators. The situation is also exacerbated by the fact that the life cycle of up to 95 % of products terminates by 6 months after their purchase.

The circular economy, which is struggling with the above trend, is often defined as a waste-free concept. Following the example of natural ecosystems, it proposes closing material flows in

functional and endless cycles, drawing energy from renewable and sustainable sources, and creating sustainable products and services.
The second important part of the circular economy must be focused on responsible consumption, including the education of responsible consumers. Already at the time of purchase, the consumer should seek products that minimize waste and could be collected, sorted and reused. Circular economics looks at waste from the perspective of the waste management hierarchy. First, we should prevent waste. If we can't prevent it, we should recycle it. If we don't even recycle, we should make it more energy efficient.
The new circular economy action plan contains a forward-looking program and aims to achieve a cleaner and more competitive Europe in cooperation with economic operators, consumers, citizens and civil society organizations. It aims to accelerate the transformational change required by the European Green Deal, building on the circular economy measures, as implemented since 2015.
The above plan sets out a set of interrelated initiatives to create a strong and coherent product policy framework that makes sustainable products, services and business models become the norm, and changes consumption patterns so that no waste is generated in the first place. This product policy framework will be implemented gradually, with key product value chains being addressed first. Further measures will be put in place to reduce waste and ensure that the EU has a well-functioning internal market for high-quality secondary raw materials. The EU's ability to take responsibility for its own waste will also be strengthened.

**3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA:** Although the Slovak Republic generates only 0.3-0.6 % of the EU total waste production, in real terms the waste production cover 8.4 to 14.5 million tons of waste per year. In an effort to overcome the negative effects of human activities on the environment, we are at the beginning. In 2004, Slovakia generated only 61.4 thousand tons more waste compared to 2016. These findings show that it is utmost necessary to introduce measures to reduce waste production in the Slovak Republic.
The main goal of waste management in the Slovak Republic until 2020 has been to minimize the negative effects of waste generation and waste management on human health and the environment.
In order to achieve the set objectives, it will be necessary to enforce and adhere to a binding waste management hierarchy in order to increase waste recycling, especially for municipal, construction, and demolition waste, in accordance with the requirements of the Waste Framework Directive 2008/98/EC.
The significant challenge of waste management in the Slovak Republic is to stop the increase in waste generation, and to reduce the high share of waste landfilling. In the Slovak Republic, a total of 12,407,669 tons of waste was generated in 2019. Compared to 2018, the year-on-year decrease in total waste generation in 2019 represents 0.5%. There was a decrease in the categories of other and hazardous waste.
With the growth of the economy, production, population and income, consumption increases in the use of natural products and products created by human activity, which generate more waste, as stated by Urminská (2018).
The structure of waste in the Slovak Republic is presented in Table 1 in the categorization of the basic division of waste. The values indicate the ratio of the total composition of waste in the form of safe and hazardous, which poses a great risk to the abiotic and biotic components of the environment, including humans.

Tab. 1 - Waste structure in the SR and in the EU (in tons and in%). Source: Eurostat

| YEAR | 2014 | % | 2016 | % | | 2018 | % |
|---|---|---|---|---|---|---|---|
| Safe | 8 491 561 | 95,81 | 10 110 840 | 95,32 | | 11 951 750 | 96,37 |
| Hazardous | 371 214 | 4,19 | 496 126 | 4,68 | | 450 121 | 3,63 |
| **Total SR** | 8 862 778 | 100 | 10 606 966 | 100 | | 12 401 870 | 100 |
| Safe | 2 412 203 000 | 96,22 | 2 435 500 000 | 96,03 | | 2 512 040 000 | 95,88 |
| Hazardous | 94 870 000 | 3,78 | 100 670 000 | 3,97 | | 107 850 000 | 4,12 |
| **Total EU** | 2 507 100 000 | 100 | 2 536 170 000 | 100 | | 2 619 880 000 | 100 |

The development of waste management in the Slovak Republic is lagging behind other EU member states, especially in terms of municipal waste. The municipal wates recycling rate was increasing each year, and in 2019 it achieved the level of 40.30 %, and in 2020 the level of 43.67 %. The EU recycling rate is higher by 10 % on average. Nevertheless, a relatively large share of waste in the Slovak Republic ended up in landfills, e.g. 48.39 %, in 2019, which demonstrated that it was just above the level of 50 %, however, the development is gradually declining, as confirmed by the Statistical Office of the Slovak Republic (2020).

Tab. 2 - Municipal waste management in the Slovak Republic (in tons). Source: own research

| Year | 2018 | 2019 | 2020 |
|---|---|---|---|
| **Total municipality waste** | 2 325 177,50 | 2 369 725,20 | 2 434 039,50 |
| **Material recovery** | 506 841,60 | 513 039,20 | 586 087,60 |
| **Energy recovery** | 156 769,60 | 125 383,50 | 187 795,30 |
| **Organic recovery** | 378 558,40 | 441 872,20 | 476 846,80 |
| **- by composting recovery** | 215 014,70 | 269 461,70 | 324 018,30 |
| **Other recovery** | 1 713,00 | 449,5 | 1 305,80 |
| **Dispose by landfilling** | 1 250 279,50 | 1 198 249,40 | 1 177 944,30 |
| **Dispose by incineration without energy use** | 30 047,10 | 85 415,90 | 95,40 |
| **Other dispose** | 72,50 | 72,20 | 308,60 |
| **Other waste management** | 895,80 | 5 243,30 | 3 655,90 |

The share of recovery as one of the priorities of the circular economy is constantly growing, but we do not use its potential to address reuse in the form of input raw material, primary or completely new product.

In the composition of municipal waste, the largest subgroup with a high share is represented by mixed waste, which in the long term represent the half of the total municipality waste, followed by sorted components, waste from parks and gardens, small building materials (construction waste) and others.

The population of the Slovak Republic increased slightly by 0.0 3% from 2019 to 2020, while the amount of municipal waste increased by up to 2.76 %. This is the highest increase in municipal waste of up to 11.63 kg per capita. From the point of view of the overall economic development, the net cash income of the household has a growing trend, net cash expenditures are growing at a slower pace.

According to the Statistical Office of the Slovak Republic (DATACUBE, Demography and Social Statistics, 2021), households spent their expenditures on consumer goods, especially food, beverages, housing, energy.
In 2020, households increased the volume of generated municipal waste and the share of recycled waste jumped to 44 %. As much as 48 % of municipal waste ended up in landfills. In 2020, the Slovak population generated 446 kg of municipal waste on average. This is 53 kg more than the average annual value of waste generated in the previous five years (2015 - 2019). From a regional point of view, the most waste - more than 500 kg per capita per year - was generated in three regions of Western Slovakia, namely Trnava region (584), Bratislava region (531) and Nitra region (521).
On the contrary, the least waste was generated by the inhabitants of the Prešov, Košice and Banská Bystrica regions. In these regions, the amount of waste per capita did not exceed 400 kg. In the Prešov region, one person generated on average two thirds less waste compared to the Trnava region.

**Tab. 3 - Volume of municipal waste (in tonnes). Source: Statistical Office of the SR**

Landfilling in 2020 decreased for the first time the level below 50 %. The long-term environmental problem of the Slovak Republic is the high share of landfill. In 2020, for the first time in the history of the Slovak Republic, less than the half of the municipal waste ended up in landfills, only 48 %. The unfavourable situation has been improving in recent years, compared with the share of 69 % of municipal waste going to landfills five years ago.

| | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bratislava region | 357 774 | 336 551 | 338 169 | 324 714 | 292 857 | 291 229 | 277 328 | 262 437 | 258 625 | 268 588 | 278 283 |
| **Western Slovakia** | 932 476 | 920 299 | 903 764 | 818 118 | 765 528 | 731 823 | 728 535 | 683 382 | 684 344 | 702 633 | 701 522 |
| Trnava region | 330 111 | 323 490 | 313 247 | 280 807 | 268 070 | 247 482 | 243 865 | 231 574 | 232 354 | 241 247 | 240 894 |
| Trenčín region | 251 835 | 245 845 | 247 929 | 222 573 | 206 541 | 206 195 | 211 721 | 200 094 | 194 819 | 198 684 | 200 528 |
| Nitra region | 350 530 | 350 964 | 342 588 | 314 739 | 290 916 | 278 145 | 272 949 | 251 714 | 257 171 | 262 702 | 260 101 |
| **Central Slovakia** | 564 713 | 557 486 | 548 324 | 499 987 | 441 750 | 414 130 | 404 857 | 384 167 | 394 327 | 391 384 | 406 536 |
| Žilina region | 312 432 | 311 036 | 299 601 | 274 936 | 238 509 | 229 218 | 219 483 | 212 635 | 213 069 | 214 632 | 229 741 |
| Banská Bystrica region | 252 281 | 246 450 | 248 723 | 225 051 | 203 241 | 184 912 | 185 374 | 171 532 | 181 258 | 176 752 | 176 795 |
| **Eastern Slovakia** | 579 076 | 555 390 | 534 920 | 494 133 | 453 343 | 451 273 | 419 447 | 414 442 | 413 479 | 404 385 | 422 166 |
| Prešov region | 288 350 | 283 339 | 271 709 | 238 309 | 226 144 | 216 867 | 199 549 | 198 123 | 199 338 | 200 950 | 206 229 |
| Košice region | 290 727 | 272 051 | 263 211 | 255 824 | 227 199 | 234 406 | 219 898 | 216 320 | 214 141 | 203 434 | 215 936 |

However, the situation in waste management varies from region to region. In total, in six out of the eight regions of Slovakia, landfilling still predominates over incineration and recycling. In two regions, the situation is significantly more favourable - in the Bratislava region only a quarter of waste gets to landfills and in the Košice region only a third of waste.
This is due to the fact that, in addition to recycling, in the two regions, waste is recovered by incineration. In the Bratislava region, almost 30 % of waste is incinerated (energy recovery)

and in the Košice region 27 %. Overall, at the national level, we are currently recovering only 8 % of waste in incinerators (in incinerators, waste is converted into heat or electricity).

**4 RESULTS AND DISCUSSION**: We can also observe a positive trend in recycling. The municipal waste recycling rate, including composting, has increased significantly in recent years, up to 44 % of waste was recycled in 2020, compared to the share of recycling under 15 % five years ago. In 2020, the most waste was recycled in Trnava region (47.2%), the least recycling was in Košice region (39.4%).
Slovakia plans to increase the recycling rate of municipal waste from 39 % to 50 % by 2024, and up to 55 % by 2026. By 2030, 60 % of municipal waste should be recycled. The recycling rate in Slovakia was 39 % in 2019, as estimated by the Institute of Environmental Policy. Recycling has tripled since 2005. However, this has developed in accordance with a change in reporting and only to a lesser extent to the actual development of recycling.

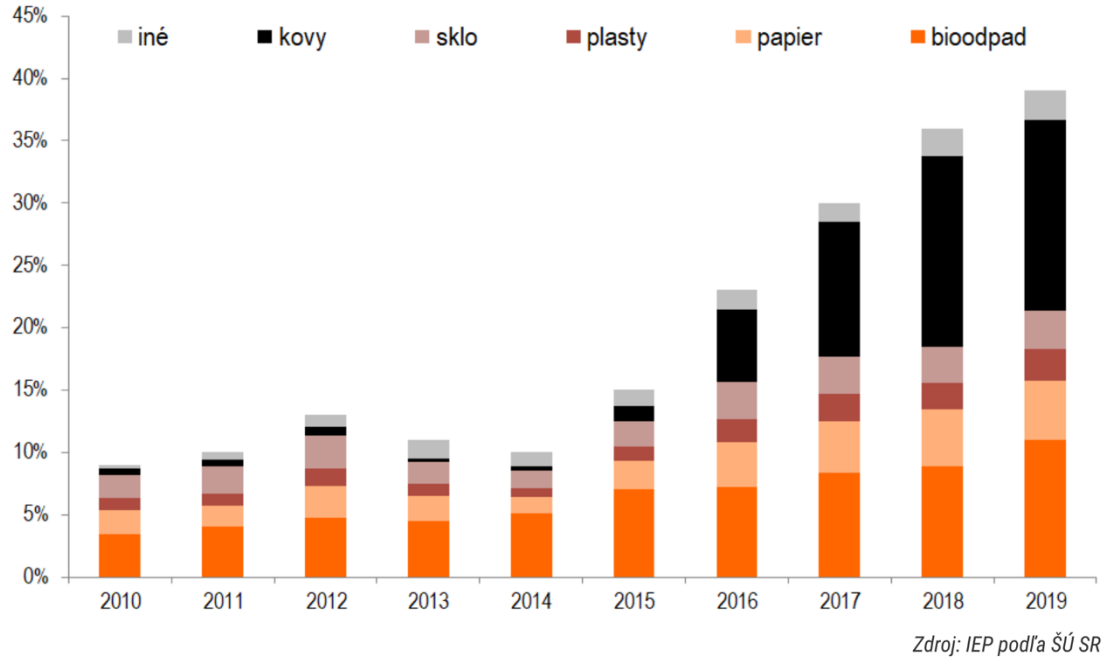
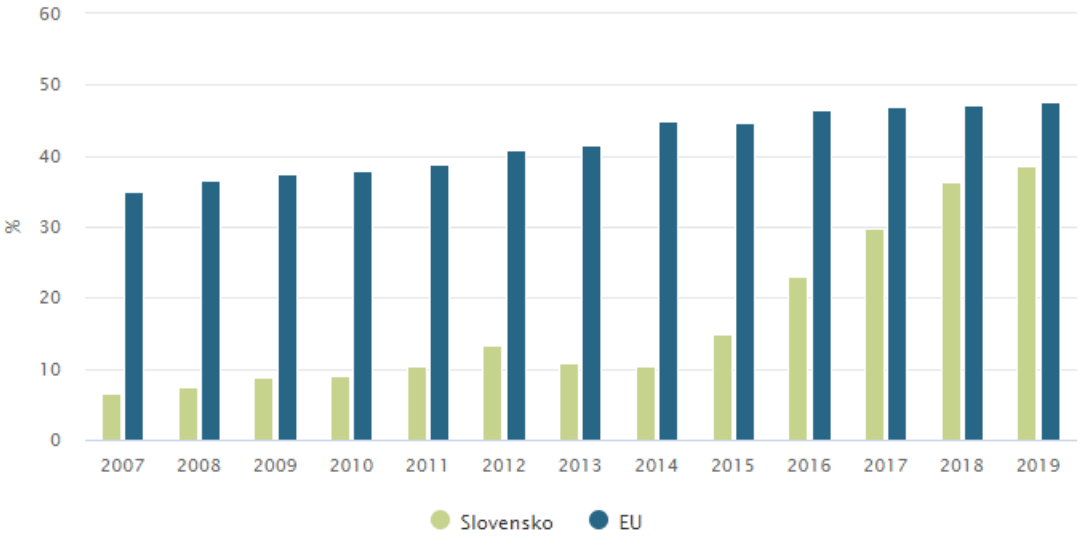


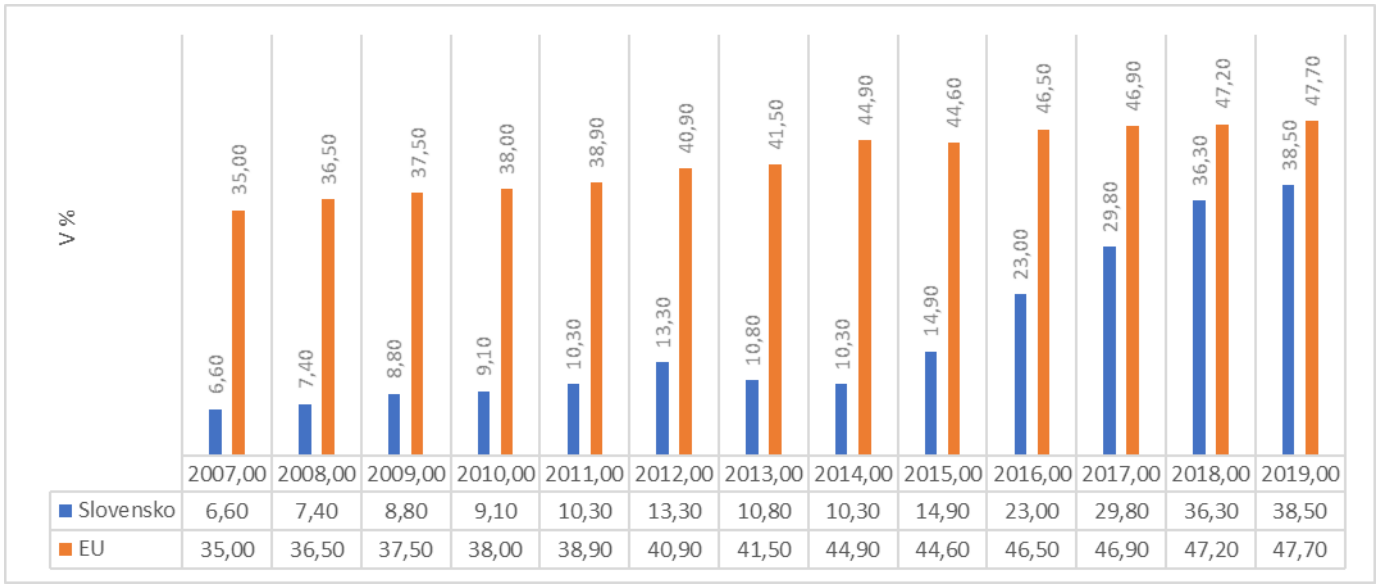

Fig 1 - Municipal waste recycling rate. Source: own research

The recycling rate of all types of municipal waste increased year-on-year, the highest increase was recorded in biodegradable waste. However, compared with previous years, the growth of the recycling rate has slowed down due to the halt in the growth of metal waste production. Since 2017, these have increased significantly and account for up to 40 % of the total amount of recycled municipal waste.
Compared to 2018, biodegradable municipal waste was recycled by 24 %, plastic waste by16 % and glass waste by 8 %. Recycling of paper waste increased only by 4 %, which is less than in previous years.
The recycling rate of municipal waste indicates how waste from final consumers is used in the circular economy as a source of materials. Municipal waste is represented mainly by waste generated by final consumers, including household waste and waste from other sources, which is similar in nature and composition to household waste. It accounts for about 10 % of the total waste generated in the EU, but due to its heterogeneous composition, municipal waste management is demanding.
The recycling rate of municipal waste is a good indicator of the quality of the overall waste management system. The indicator measures the share of recycled municipal waste in the total

generation of municipal waste. Recycling includes material recycling, composting and anaerobic treatment. The ratio is expressed as a percentage (%).




Zdroj: Eurostat




| | 2007,00 | 2008,00 | 2009,00 | 2010,00 | 2011,00 | 2012,00 | 2013,00 | 2014,00 | 2015,00 | 2016,00 | 2017,00 | 2018,00 | 2019,00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Slovensko | 6,60 | 7,40 | 8,80 | 9,10 | 10,30 | 13,30 | 10,80 | 10,30 | 14,90 | 23,00 | 29,80 | 36,30 | 38,50 |
| EU | 35,00 | 36,50 | 37,50 | 38,00 | 38,90 | 40,90 | 41,50 | 44,90 | 44,60 | 46,50 | 46,90 | 47,20 | 47,70 |

Fig. 2 - Municipal waste recycling rate. Source: Eurostat

The essence of the phenomenon lies in the social behaviour pattern of the population, who draw resources from nature, but do not return them at the end of the life cycle, so production and consumption are linear. We can assess the changes in this area, based on the data presented in Figures 1 and 2, which provide the recorded available data for 2007 to 2019 from the Eurostat and the Statistical Office of the Slovak Republic.

The public-private platform Circular Slovakia addresses the support for the circular economy in Slovakia. It brings together companies, government institutions, knowledge centres, business associations and non-governmental organizations with the aim to accelerate the transition to greener and circular Slovakia.

The initiative was launched in December 2019, when founding organizations, including the Ministry of the Environment of the Slovak Republic, the Embassy of the Kingdom of the Netherlands, Slovak Business Agency, the Institute of Circular Economics, the Slovak Environment Agency, Pricewaterhouse Coopers Slovakia and the Dutch Chamber of Commerce committed to create a public-private platform for the circular economy.

Gradually, the platform got larger by other 20 partners. By signing a joint statement, they demonstrated the need to speed up the transition to circular and greener Slovakia. They declared they would support the exchange of experience and knowledge, sharing examples of good practice. They plan to discuss with policy makers the opportunities and removal of barriers to the transition to a circular economy, to support entrepreneurship in the circular economy and the emergence of circular partnerships and projects.

**5 CONCLUSION:** In our paper, we analyzed and evaluated the situation in waste management in Slovakia in terms of launching the circular and green economy. It was indicated that the reuse of waste is heading towards recycling, material recovery and energy recovery. Waste management is thus becoming an important source of circular economy.
The transition to a more intensive circular economy, in which the value of products, materials and resources is kept in the economy for as long as possible and waste is minimized, is a major contribution to the EU's efforts to develop a sustainable low-carbon, competitive and resource-efficient economy. Such a transition is an opportunity to transform the Slovak economy and ensure new and sustainable competitive advantages for Europe.
The real goals include finding savings in the quantity of materials needed without affecting the quality of the product, efficient use of the material in production without large wastes and residues, reusing materials to produce other products, or the effort to repair damaged products.

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# SECURITY ASPECTS OF GATHERING AND USAGE OF DATA FROM SOCIAL MEDIA FOR MARKETING PURPOSES

*Lucia Ferenčáková – Marián Kováč*

**Abstract**

Social media users are reluctant to share their thoughts, experiences, images, files, videos, and links in an environment, which however needs to be an object of securitization. The study is using critical analysis to monitor various competencies, standards and models of behavior related with citizens' security in social media data usage. Through knowledge about quality of these security services there is a possibility of its comparison, and also improvement. There exist several uncertainties among various types of security understanding regarding the data shared on social media. One such an uncertainty is between provided security services and the expectations of such services from the citizens' point of view. Another uncertainty is represented by the quality of services measured by available objective data indicators, however also by the perception by different social groups and generations of users. All these uncertainties represent potential security risks, which needs to be surveyed.

The main task of further study needs to be an analysis of possibilities of measurement of these risks to use them for process of benchmarking of quality of security services provided in various types of social media and for various groups of social generations.

***Keywords:*** *Z generation, social media, marketing, personal data protection, security*

**JEL Classification**: M31, H12

**1 INTRODUCTION:** Many social media today share their thoughts, experiences, images, files, videos, and links in an environment that is often unknown to them. Users tend to trust other members of the community with expertise, identity, personal information, and even borrowing money (Lai & Turban, 2008). Users also tend to trust social network providers to teach their information and photos in private. Thus, social networks obviously exist in the context of trust. As a result, questions arise - why the nearest social networks are so trusting, whether this context of trust is justified or not. which affects the extent of their trust (Grabner-Kräuter, 2009).

These and other issues related to the social media era are very closely linked to the perception of security from the perspective of different generations according to age, and thus the social habits of a group of people.

As a result of the significant increase in the activity of users of social media and specific social networks, such as Facebook, Twitter and Instagram, the collection of information has become very profitable in this environment. The protection of personal data may in some cases lag data collection techniques, also due to the rapid development of the social media environment. The collected personal data are shared not only with search engines, but also number of requests from third parties, which further increases the risk of personal data being collected and made available. The acquisition and analysis of data from social networks has thus become a thriving business sector. One example of profiting from information obtained from social media is the emergence of various types of personally targeted advertising (Al-Saggaf & Islam, 2015).

Although social media and security issues are being developed by several published research studies, the issues of the impact of feelings of privacy, security and trust, and their willingness to disclose information on social media, still exist. The aim of this article is therefore to provide an initial overview of the issues and interrelationships in terms of the impact of the feeling of security in the context of the collection and use of social media data. As part of a further study of the issue, we plan to address these issues by examining the significance and interactions of impacts specifically with respect to social group Z.

**2 THEORETICAL BACKGROUND:** Porter Liebeskind et al. (1995) define social networks as a collective of individuals between whom there is an exchange supported by shared standards of trustworthy behavior (Liebeskind et al., 1996).

Most social networks support the maintenance of existing social ties, but there are also network services that support the creation of new connections with strangers based on common interests, political views or activities (Grabner-Kräuter, 2009).

Regarding more specific definitions of social networks, published research most often cites the research of Kaplan and Haenlein (2010). In their work, Kaplan & Haenlein (2010) first created a classification scheme using three categories for "social presence / media richness" (low, medium, high) and two categories for "self-presentation" (low, high). Second, they define six categories of social media, one of which is social networks (with medium social presence / media richness and a high degree of self-presentation), while the other categories include blogs, virtual social worlds, collaboration projects, content communities, and virtual game worlds. Third, they define social networks as “applications that allow (1) users to connect by creating personal profiles, (2) accessing friends to those profiles, and (3) messaging with each other. These personal profiles can contain any type of information, including photos, videos, audio files, and blogs (Kaplan & Haenlein, 2010).

Social networks can then take the form of either personal (or non-professional) networks (eg Facebook, Instagram) or professional networks, such as those connecting users with potential employers (eg LinkedIn) (Hanna et al., 2011; Hartwell & Campion, 2019; Nikolaou, 2014; Smith & Kidder, 2010; Suen, 2018; Zide et al., 2014)

As Hakan Wiberg writes, "There are two borderline conceptual options: security for whom and security against whom?" (Wiberg, 1996). If we are examining security at any level, we need to answer these fundamental questions. As new ways of distributing data have emerged, so have the need for new forms of data protection. If data became valuable, then there is a necessity to protect it as a certain value.

We agree with Kacer, who believes that the biggest challenge for the security system is the conflict between the public's sense of security and the complexity and unpredictability of risks. (Kacer, 2011)

The dictionary of security relations describes the division of security into so-called objective and subjective. Objective security is the real absence of threat. Subjective security is the perception of the absence of threat. It is associated with trust, based more on perceptions and feelings than on verifiable facts. Collective security is a system of security involving a group of states, a subregion (region), continents or the whole world. (Kulasik, 2002)

Human security is composed of threats that manifest themselves as an objectively demonstrable threat and their subjective perception by humans in the form of risks. Such

interaction is conditioned by the size of the objective threat, but also by the vulnerability of the entity. We can therefore state that security has a subjective-objective dimension. American psychologist Abraham Harold Maslow ranked safety within the human life pyramid on second position, emphasizing the importance of the need for human security. According to personal psychology, each person is an individual personality that develops and achieves success until it is disturbed by external influences. For human, external influence is everything that surrounds him, regardless of origin. The environment in which it lives and develops is created by nature, human inventions, and social groups. Such an environment is not without risks.

**3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA:** In connection with the determination of the research topic and the goal of the work, the following research questions were identified: How does the feeling of privacy and security affect the willingness of Generation Z to publish information on social media? How knowledge of the use of information available on social media by marketers affects the sense of privacy, security and trust of Generation Z in social media.

The first phase of the research, which is presented in this paper, focuses on a systematic review of the literature on the domain of collecting and using social media data for marketing purposes and meta-analysis of studies.

The main methods are: A method of abstraction that requires an in-depth analysis of the phenomena and claims being studied, as we may abstract from the essential phenomena and arrive at a new or innovated theory that is based on the wrong foundations. Within the theoretical and analytical part of the work we will use the method of analysis, which allows the division of the researched problem into individual parts, elements, features, opposites, and their research to reveal their nature. The task of the analysis is to distinguish from the whole mass of facts and contexts those main, essential, and necessary features that can shed light on the causes of the course of the investigated event and its essence. The unification of the analysed parts into a single unit will lead us to the method of synthesis because we will derive the links and relationships between theoretical concepts and between the problems that occurred in the research. The method of deduction, which is a procedure from general to specific, is also applied. This is a standard procedure in which hypotheses are formulated based on theories that could provide an answer to a research question.

**4 RESULTS AND DISCUSSION:** Public availability of information is a critical element of social networks that also contributes to user growth (Boyd & Ellison, 2007). Privacy is thus, paradoxically, one of the key areas of social network research. In general, privacy is governed by an individual's ability to manage data within different social contexts. Social networks address privacy concerns primarily through the ability to set profile visibility or privacy, through the ability to specify individual preferences (Boyd & Ellison, 2007). However, these settings often do not make it easier for users to specify different levels of privacy settings for each of their friends, and often not at all for data collection for marketing purposes (Lane & Shrestha, 2011).

It should be emphasized that all personal information published on the website by users can be searched and "extracted". The use of social media and the publication of personal information online poses an undeniable risk of use, resp. misuse of this information. The relationship between data providers and their social media operators is therefore rather one-sided (Al-Saggaf & Islam, 2015; van Wel & Royakkers, 2004). Other authors also define privacy as the ability to restrict others' access to and control over personal information, including its transmission (Al-Saggaf & Islam, 2015; Tavani, 1999).

In order to obtain an overview of the perceived security factors by citizens, we have decided to carry out initial survey of citizens' perceiving of their security.

Research question: "Try to Prioritize given security sectors: national security, physical security, economic security, internet security." Research sample n = 248.

After initial evaluation of the survey, results clearly show the dependence of prioritization of security according to age of respondents. The total number of 248 respondents was divided according to the age criteria into two groups with an aim to show various opinions of different social groups. For respondents with average age 19 (first year university students), there was a significant emphasis on a primary role of the State in ensuring citizens' security. For older respondents, by contrast, exhibits greater autonomy and diversity of perceptions human security.

Table 1 – Summarisation of survey results, average age 19, research sample n = 159

| Type of security | Percentage of prioritisation |
|---|---|
| National security | 63 % |
| Physical security | 30 % |
| Economic security | 4 % |
| Internet security | 3 % |

Table 2 – Summarisation of survey results, average age 28, research sample n = 89

| Type of security | Percentage of prioritisation |
|---|---|
| National security | 31 % |
| Physical security | 53 % |
| Economic security | 9 % |
| Internet security | 7 % |

The majority of respondents identified national and physical security as the most important ones. When comparing the results according to age of respondents, a striking fact replacing the first position between these two sectors, is seen. For the younger group, the national security has leading role, while internet security is a priority only for 3 % of them. This can suggest a decisive differentiation of security perceiving in various social groups. Since the survey was conducted among students in their first year of university study, the result can be attributed to the fact of their perceiving of the social order. Based on other social and economic issues, the following facts connections were identified. The representants of the younger generation usually live with their parents or parents pay for their living expenses or make a significant contribution to fulfilling the necessities of their life. Thus, the result of this survey was influenced by the context of their claims or the expectation of ensuring the security from external point of view (as something what is provided for them no-matter by whom). In contrast, majority of older respondents, who already have own family, do live alone or significantly contributes to the common household, see security of individuals not only as a service obtained by security systems.

Based on the survey, significantly less involvement of the respondents in the field of internet security can be observed. Several of them reported in this connection that internet is strongly linked to factors of economic security in case of electronic banking operations respectively with personal security issues. This idea is supported also in the research of the educational aspects of e-learning, where internet plays decisive role, however, could relate to mainly economic

threats. In relation to the different interpretations of each of the security sector as well as with respect to existing objective indicators and the possibility of their influence, it seems to be efficient to allocate the physical, economic, and external security of the state. The national security could be replaced by external security and defence policy. In this way the sector can be better understood by respondents and there is also shown an emphasis on role of state external policy in this sector. Economic security would focus primarily on sustainability of work in the regions, but also in social security, savings, and investment security. Physical security should include all the efforts to prevent threats that affect humans in the physical area. In addition to violent crime of individuals and groups, property crime, the sector would also affect services in fire protection, civil protection, whether in the context of crisis management globally. Separate attention deserves health security with a focus on the availability and quality of health care, and the very well-being of the population and in relation to environmental threats. To manage such a security service properly, there is a need of their identification and developing a methodology for their measurement. Only those things we can measure, are able to be managed.

**5 CONCLUSION**: Security is a new phenomenon in various sectors that citizens are beginning to realize and subject to certain patterns of behaviour. A safe and orderly environment is important not only in the current time and space, but also regarding future development and sustainable development. Whereas in the past the human security sectors were gradually expanded towards the social, environmental, or economic spheres, the social security sector is now taking on a new dimension. It is not only cyber security itself, but above all the security of data shared via social media. Today, almost every internet user has at least some form of protection against viruses and other software pitfalls. However, few people are more intended about what specific information, to what extent and regime they share when using social media. Specifically, this area is then linked to the attitudes of different generations. As a research, part of which is presented in the form of an overview of the issues addressed, we plan to focus on identifying and comparing the attitudes of members of social groups, but also their expectations and results.

Security is a very important aspect of human coexistence with the social, natural, technical, and economic environment. The level of human safety affects the level of satisfaction of his needs, quality of life, but also his further development.

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Acknowledgements

The paper is the output of an international scientific project IGP-M no. 5/2020 "Applicability of the risk management principles in economic practice".

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# ECONOMIC DIPLOMACY: ONE OF MANY DIPLOMACIES WITH AN ECONOMIC ATTRIBUTE OR AN UMBRELLA TERM?

*Marek Csabay*

## Abstract

Despite the undoubtedly significant improvement of the theoretical background of economic diplomacy during recent years, it still lacks a generally accepted definition and theoretical framework. The aim of the paper is to discuss the theoretical and conceptual usage of the notion of 'economic diplomacy' as an umbrella term covering other sub-areas of diplomacy with economic dimension. The paper presents a horizontally and vertically structured image of economic diplomacy in form of a modular concept combining individual strands of economic diplomacy and two levels of action: macro and micro. The paper is theoretical in its nature and contributes to the development of the theoretical framework of economic diplomacy. Literature review and empirical experience serve as main sources for the development of the presented conceptual framework.

***Keywords:*** *economic diplomacy, trade diplomacy, commercial diplomacy, investment diplomacy, economic dimension of diplomacy*

**JEL Classification**: F59

**1 INTRODUCTION:** Both theoreticians and practitioners have to live with a variety of used economic attributes to diplomacy, which include economic (diplomacy) itself, as well as trade, commercial, financial, investment, innovation (alternatively expanded to science, technology and innovation, abbr. Sti) diplomacies. Moreover, theory and practice of 'economic dimensions of diplomacy' recognizes different methodologies, conceptual frameworks and definitions of economic diplomacy. The latter are represented in a relatively large number and differ from each other in terms of approach or scope of activity included into economic diplomacy. These diverse approaches stem mainly from their respective author's field of activity – whether they are interested in international economic relations, international trade and trade policy, political science or diplomacy in general. The range of possible variations thus includes the perception of economic diplomacy, i.a., as:

- an implied synonym for the projection of economic interests abroad regardless of the means used as indirectly indicated by Baldwin (1985) in his essential study on economic statecraft, although at the same time he states that using economic diplomacy as a synonym for economic statecraft "*broadens the concept of diplomacy so much that it makes it difficult to think in terms of diplomatic alternatives to economic techniques*" (Baldwin, 1985);
- an international decision-making and negotiation in international economic relations (Bayne & Woolcock, 2011), which can be also understood as a framework for implementation of state policies, especially the foreign policy and partial economic policies;
- a use of political tools to achieve economic objectives (van Bergeijk et al., 2011);
- a special component of the state diplomatic service assigned with economic functions and tasks in accordance with diplomatic law (Tóth & Horváthová, 2006).

This diversity can be observed in the widespread use of the term economic diplomacy in situations that might be more accurately described as part of international economic relations (e.g., in the results and development of foreign trade), trade or other external economic policies (e.g., in the application of trade policy instruments). Studies by international organizations sometimes contribute to the confusing and unstructured debate as well, e.g., Cruz et al. (2018) call export promotion agencies instruments of diplomacy. Recent proliferation of strategic, conceptual or analytical documents on economic diplomacy adopted by Ministries of Foreign Affairs (abbr. MFA; e.g., MFA JP 2019, MFA DK 2018, MFA SK 2015, etc.) or other organizations like the European Union (Bouyala Imbert, 2017) with rather dissimilar contents does not make the efforts for unified understanding of the topic easier. It is on the other hand quite understandable, because the methodological framework of economic diplomacy is still only evolving. However, the building of trade and economic relationships has definitely moved to the center of diplomacy (Rana, 2007).

Main aim of the paper is to discuss the theoretical and conceptual usage of the notion of 'economic diplomacy' from the perspective of its settlement as an umbrella term covering other sub-areas of diplomacy with an economic dimension. Thus, the paper contributes to the theoretical discourse on economic diplomacy and expands the conceptual literature on this topic. Our objective here is to provide an alternative vision of the possible solution to the terminological discrepancy and overlapping among various approaches, mainly to economic and commercial diplomacies, which are seemingly investigated separately.

The remaining part of the paper respects the required structure and is organized as follows. After a concise literature review in the 'Theoretical background' section, which provides an overview of related up-to-date theoretical and empirical resources, objectives and methodology are described in the article's third section. Main conceptual theses are presented in the 'Results and Discussion' section. The last section of the paper summarizes the conclusions of the paper.

**2 THEORETICAL BACKGROUND**: Limits of the diplomatic law are materialized, i.a., in article 3 of the Vienna Convention on Diplomatic Relations stating the functions of the diplomatic mission, from which economic diplomacy may draw its mandate. The diversity in the understanding of economic diplomacy reflects its variability in the daily life of international relations managed traditionally by political representatives and diplomats. The practice of economic diplomacy is wide-ranging and shows numerous solutions, paradoxically, many even non-diplomatic or on the edge of diplomatic law. This fact also represents one of the factors affecting its definition. By 'non-diplomatic' are sometimes meant activities of economic "diplomacy" carried out through a consular network, which is basically closest to diplomacy itself due to its management from the same power center – a ministry of foreign affairs. In some literature we can even encounter the term consular diplomacy (see e.g. Kerr & Wiseman, 2013; Rana, 2011). However, economic diplomacy knows also other ways ranging from business-promoting activities of highest state representatives and members of government through activities of specialized business-promoting agencies to activities of non-state actors. Purist approach to the definition of economic diplomacy that follows the Vienna Convention on Diplomatic Relations as a basic legal norm of the diplomatic law is in reality strongly confronted with a common practice of states that create specialized non-diplomatic structures at home and abroad in order to promote economic cooperation, complementing thus the diplomatic and consular network managed by MFAs.

Moreover, great ambiguity is associated with the perception of the scope of economic diplomacy. What should or should not fall within the capacity of economic diplomacy seems often to be a result of a free professional discretion, or limits set by an institutional tradition. Undisputed, on the other hand, is the position of economic diplomacy as a contributor to the development of cross-border economic relations. As stated by Creusen & Lejour (2011),

government's economic diplomacy forms the basis of one of possible entrepreneurial internationalization strategies aiming at the reduction of uncertainty in exports.
Economic diplomacy is possibly the only area of diplomatic activity sensitive to markets: economic diplomacy succeeds only if its instruments are applied accordingly to market developments (Csabay, 2019) In economic diplomacy governments must sometimes bargain with private firms to secure their interests (Rana, 2007).
Various concepts of economic (or commercial) diplomacy have been presented by Carron de la Carrière (1998), van Bergeijk (1994, 2009), van Bergeijk et al. (2011), van Bergeijk & Moons (2018), Bayne & Woolcock (2011), Berridge & James (2003), Lee & Hudson (2004), Lee & Hocking (2010), Okano-Heijmans (2011, 2016), Ruël (2012), Ruël & Zuidema (2012), Kostecki & Naray (2007), Naray (2008, 2011, 2012, 2018) or Tóth & Horváthová (2006). The Economic Diplomacy Commission established by the London School of Economics and Political Science defines economic diplomacy through five key areas of its agenda: commerce; norms and standards; bilateral, plurilateral, and multilateral agreements; international organizations; and economic statecraft (LSE IDEAS, 2021). Economic diplomacy can be regarded as a labeling for all activities of state and diplomatic representatives with an international economic dimension, outreach or impact. These main actors of economic diplomacy are supplemented through a variety of complementary and supporting actors, which include, e.g., government agencies of various kind and business chambers or associations.
Support to entrepreneurs in their cross-border activities and the promotion of internationalization of companies is considered to be among the most important activities of economic diplomacy. Economic diplomacy shall be then understood as an international activity of the state pursued at its core by state representatives and diplomatic missions augmented by the involvement of complementary and supporting actors with the aim to promote the development of external economic relations while safeguarding national economic interests and fulfilling the objectives defined by the external economic policy of the state by means of negotiations and other standard practices including, i.a., observing, informing, reporting, consulting, advisory, lobbying, mediation, dispute settlement, and coaching. We regard here the external economic policy as an intersection of the foreign policy and respective partial economic policies with cross-border elements, mainly with regard to areas of trade in goods and services (incl. tourism), investment, finance, innovation and development assistance.
Activities of economic diplomacy may lead to one or more of the following results: development of international economic cooperation; contribution to regime building in international economic relations; increase in economic and financial stability of a nation; elimination or decrease of uncertainty in international relations on the macro level and in cross-border business operations on the micro level; increase in competitiveness based on the elimination of the information gap and successful execution of business operations; increase in the number of exporting companies or amount of exported goods and services; increase in investment; increase in the number of incoming tourists; increase in the number of enterprises participating in development activities, etc.
It is the nature of diplomacy and emphasis on negotiations that forces us to perceive economic diplomacy as a means of representation and communication in the broadest sense of collecting, sending or exchanging information, and not as a decision-making system. This attitude shall help us to answer questions such as whether sanctions, embargoes or boycotts are instruments of economic diplomacy. Here we agree with van Bergeijk (2009) that these negative sanctions are the most visible economic instruments of foreign policy. This paper tends to regard sanctions as a means of using (non-military) power, an exercise of economic statecraft, while admitting that economic diplomacy can play a crucial role in their design, negotiation and adoption, e.g., it may assist in the "implementation of smart economic sanctions" as is suggested by Berridge (2015). While understanding economic diplomacy as a negotiating arm of the

external economic policy, we advocate the exclusion of any unilateral or power instruments from economic diplomacy based on its nature, which we find to be in principle in contradiction with a (unilateral) use of economic force. Economic power affects economic diplomacy to the extent, in which it is included in the economic size of the state.

**3 OBJECTIVES AND METHODOLOGY** : Main objective of the paper is to discuss the positioning of the term 'economic diplomacy' as a term covering all economic areas, or dimensions, of diplomacy. Our ambition here is to develop a horizontally and vertically structured image of economic diplomacy. The paper is theoretical in its nature and contributes to the development of the theoretical framework of economic diplomacy. Literature review and empirical experience serve as main sources for the development of the presented conceptual framework. General approach to the discussed topic is rather institutional than procedural, although we recognize the possibility to define individual strands of economic diplomacy through a distinctive set of activities and instruments.

**4 RESULTS AND DISCUSSION:** Many authors, e.g., Saner & Yiu (2003) or Bayne & Woolcock (2011), differentiate between the economic and commercial diplomacy. Chatterjee (2020) sees their mutual relationship in a way, that "*commercial diplomacy may gradually be graduated to economic diplomacy – the latter contains elements of commercial diplomacy*". Okano-Heijmans (2011) distinguishes between trade diplomacy aimed at creating an environment for trade, and commercial diplomacy aimed at supporting individual companies, business cases, or cross-border operations. Okano-Heijmans & Ruël (2012) postulate that economic diplomacy can be seen as an umbrella term, which in broad sense also includes trade diplomacy, development cooperation, sanction policy, and eventually the commercial side of economic diplomacy – commercial diplomacy – as well. Following Okano-Heijmans (2016), of the various economic diplomacy strands, commercial diplomacy has the broadest consensus and the most developed body of literature. Besides commercial diplomacy Okano-Heijmans recognizes trade diplomacy and development cooperation as the "trinity" of economic diplomacy. As stated by Bouyala Imbert (2017), from the perspective of the EU diplomacy there are at least three strands, each one wider in scope, that are common to all definitions of economic diplomacy: 1) facilitating access to foreign markets for national businesses; 2) attracting foreign direct investment to a national territory; and 3) influencing international rules to serve the national interest.

Trade diplomacy and commercial diplomacy can surely be perceived as main areas of economic diplomacy. However, empirical evidence suggests that other strands like financial diplomacy, investment diplomacy, or innovations diplomacy, do exist in the practice of international economic relations. While other components of economic diplomacy seem to be easier understood and differentiated (e.g., investment diplomacy active in the area of foreign direct investments, abbr. FDIs), it might not be so straightforward with regard to the commercial and trade diplomacy, which are both related to the international trade in goods and services and thus are seemingly positioned in a very similar area.

Commercial diplomacy represents the connection between diplomacy and international business, it is the diplomacy focused on international commerce, while trade diplomacy rather represents the diplomacy of international trade policy. Commercial diplomacy involves business and government overseas in cooperative efforts to achieve commercial objectives that advance national interests (Kopp, 2004). Usually these two strands have separate institutional structures and, although being interconnected, they typically take place in different theaters. Moreover, they require different types of economic diplomats with different set of skills and expertise.

The construct of multiple strands is formed, i.a., on the premise that these are composed of activities rather distinct in their nature and usually executed by different institutional carriers. Investment diplomacy – a rather new strand – constitutes a good example. Although it shares the benefits of nation-branding, information and promotion activities abroad with the commercial diplomacy, and eventually applies similar types of cooperating instruments (e.g., workshops), it is generally executed on a higher level: in particular the attraction of big FDIs and the approval of state aid to investors is a matter of government, and usually requires the ministers responsible for economy, finance, labor and regional development, or their appointees, to be in contact with investors. Bilateral investment treaties are similarly negotiated rather by governments than by diplomats. Moreover, states usually establish dedicated investment promotion agencies (IPAs), which act alongside trade promotion organizations (TPOs) – although the practice in some states shows that these two areas can be merged into one agency with two alter egos. However, objectives and agenda of IPAs, which focus on attracting the FDIs and on services to investors both at home and abroad, is distinctively different comparing to trade-promoting activities of TPOs. Investment promoting tasks seem to be increasingly part of instructions to diplomatic missions, too. Thus, we may speak of a specific strand in economic diplomacy focusing on investment. Similarly, other areas of economic diplomacy could be identified.

Size of the economy, its openness, together with the complexity of economic ties and economic interests, stimulate the development of economic diplomacy and creation of its individual strands. Resources provided to the diplomatic service and to other actors set on the other hand the limits. Specific institutional strands of economic diplomacy may be established administratively or generically based on the following institutional criteria:

- existence of a distinctive (partial) economic policy defining (e.g., through a conceptual or a strategic government document) objectives, instruments and resources in the particular area, ideally including key performance indicators, based on which the activity of economic diplomacy may be evaluated;
- and the existence of strand specific activities, in which a higher efficiency or performance is achieved through specialization;
- and a clearly identified decision-maker (carrier of competence) in the public service in general or in the foreign service in the narrower sense;
- and/or existence of a distinct institutional framework abroad within or complementary to the diplomatic service responsible for the implementation of the policy (the minimum requirement is an identifiable part-time carrier within the foreign service, i.e., diplomats, who have the responsibility for the fulfillment of the assigned tasks);
- and/or existence of a specific international theater (economic forum), which stimulates the establishment of the strand, and is linked to a distinct expertise (e.g., the World Trade Organization, Trade Policy Committee within the EU's Common Commercial Policy, etc.).

Although it may seem that certain strands are linked with activities on a certain level of action, (e.g., the prevailing definition of trade diplomacy relates it to the creation of trade-political rules and regimes and thus to the macro level; and, alternatively, commercial diplomacy with its focus on business promotion appears to be dominantly active on the micro level) in fact, every strand includes activities both on macro and micro level.

Tab. 1 – Modular Concept of Economic Diplomacy. Source: own research

| Diplomacy | | | | | | |
|---|---|---|---|---|---|---|
| **Non-Economic Agenda** | **Economic Diplomacy** | | | | | |
| **Levels of Action** | **Trade Diplomacy** | **Commercial Diplomacy** | **Investment Diplomacy** | **Innovation Diplomacy** | **Financial Diplomacy** | **Development Diplomacy** |
| **Macro** | Trade-political agenda, creation of the trade-political regime and rules for trade. | Bilateral trade cooperation on the government level. | Rules and regimes for FDIs, FDI protection, assistance in FDI screening, attraction of inward FDIs and support to domestic investments abroad. | Framework development for research and innovation cooperation and cooperation in the field of science and technology. | Activities supporting the stability of the international financial system, access to financing, aspects of debt and credit management. | Development cooperation activities, development support in target countries with eventual creation of trade and investment potential. |
| **Micro** | Interaction with private actors (businesses and NGOs) in the process of position creation and negotiation of rules and regimes. | Trade facilitation, export promotion, internatio-nalization support, problem-solving and conflict resolution on the business level. | Assistance to individual inward and outward investors, problem solving and conflict resolution on the business level. | Assistance to business activities in the fields of innovations, science, technologies or research. | Access to financing for individual projects or large business cases. | Promotion of entrepreneurs' participation and assistance in ODA activities abroad. |

Individual strands (presented in Tab. 1) potentially represent a division of labor in economic diplomacy and reflect a high level of complexity of international economic relations that requires high specialization on both macro(economic) and micro(economic) levels. Macro level is dedicated to the regime and environment building, while the micro level is focused on a direct and targeted assistance to cross-border business operations. Establishment of an individual strand within the national economic diplomacy is based on the social order defined either by government priorities or needs of the business community.

Some areas of economic cooperation naturally fulfill the above-mentioned criteria like trade or trade policy, other will possibly stay hidden in the general scope of economic diplomacy. Other areas not mentioned in Tab. 1, like activities focused on raw materials, environment or energy, are increasingly mentioned in the perspective of environmental or energy diplomacy, however mainly procedurally with regard to the field discussed by state representatives (see, e.g., Orsini, 2020), and not institutionally, which is the perspective applied within this article. This, however, does not mean that such institutional strands will not appear very soon.

Number of established strands may differ among nations, with those areas of international economic cooperation without an established strand being subsumed into the general economic diplomacy. Economic diplomacy and its strands are pursued on the bilateral, plurilateral (regional) and multilateral levels. States choose the level and the theater that suit their actual interest based on their executive decision, customary practice, or on the basis of obligations arising from international agreements.

**5 CONCLUSION**: Based on the described matrix of strands and levels of action a modular concept of economic diplomacy can be developed. Presented outline of the modular concept of economic diplomacy allows for various practical solutions and models of organization both in headquarters and abroad. It recognizes the roles of a wide spectrum of actors involved in or affecting economic diplomacy ranging from heads of state or government, through heads of ministries or departments (eventually their deputies), diplomatic and non-diplomatic economic representations abroad to government agencies, representative business associations, chambers and other potential stakeholders. It remains open to possible new strands that may appear in future, including the environmental or energy diplomacies.

The paper contributes to the conceptual discussion on economic diplomacy. Despite the undoubtedly significant improvement of the theoretical background of economic diplomacy over the period of last twenty years, it still lacks a universal and generally accepted definition. One of the reasons seems to be the fact that not only theory, but also the practice of economic diplomacy evolves. New areas, new techniques, new kinds of actors are continuously added to the framework, in which economic diplomacy is conducted. Naturally, it is difficult for theory to follow such dynamic development.

The paper follows selected works on economic diplomacy from various national schools of economic diplomacy, which focus on the conceptual framework, e.g., Carron de la Carrière (1998), Tóth & Horváthová (2006), Bayne & Woolcock (2011), or Okano-Heijmans (2011). It anchors the term of economic diplomacy as an umbrella term covering all partial economic activities performed within the state's diplomatic endeavor as it was proposed by Okano-Heijmans & Ruël (2012). Commercial and other economic dimensions of diplomacy are regarded as strands of economic diplomacy rather than parallel areas of diplomacy. The author is aware of the limits of the paper, caused mainly by the extent of this contribution, which relate, e.g., to the description of individual strands, as well as the justification of their eligibility as independent areas of economic diplomacy. These issues remain open for further research and discussion, as well as the comparative investigation of practices in selected states.

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# EDUCATION IN TIMES OF SARS-COV-2 PANDEMIC WHY WE DIDN'T CLOSED OUR SCHOOLS

*Ľubomír Nebeský, Michal Fabuš*

**Abstract**

The COVID-19 pandemic in Europe and the necessary national measures taken to combat the spread of the virus can significantly hamper the provision of education, training and mobility opportunities for students, teachers, and educators throughout the European Union. The pandemic is very painful, but it can also be seen as an opportunity to set up a mirror and modernize schools. However, it should be borne in mind here that the transition to online education will resolve all education issues.

The aim of the paper is to characterize and analyze the education system during COVID-19 pandemic.

***Keywords:*** *education, elementary schools, high schools, pandemic, COVID-19*

**JEL Classification**:

**1 INTRODUCTION:** Pre-primary education in the Slovak Republic is provided in kindergartens (ISCED 0.2) designed usually for children aged 3 to 6 years.
With effect from 1 September 2021, in accordance with the Education Act, pre-primary education is compulsory for every child who reaches the age of 5 by 31 August. Children will be admitted to compulsory pre-primary education from the school year 2021/2022. These children will have priority in the admission process.
In the Slovak Republic, according to the Education Act, compulsory school attendance is ten years and lasts until the end of the school year in which the pupil reached the age of 16. Compulsory schooling usually begins at the age of six. If the child is not physically or mentally mature after the age of six, the child's legal guardian will request or the preschool will propose, after examination by the relevant counseling (psychological) facility, postponing the start of compulsory schooling by one school year.
Since 2002, there has been a possibility to establish a zero grade at primary school for children who have reached the age of 6 but do not reach school maturity, come from a socially disadvantaged environment and due to the social and linguistic environment school year.
Primary and lower secondary education is provided by a primary school with two levels:

- grade 1st-4th (ISCED 1),
- grade 5th-9th grade (ISCED 2).

Pupils, after successfully completing primary school, continue to fulfill compulsory school attendance in the first year of secondary school.
Secondary schools provide upper secondary general or vocational education (ISCED 3).
Secondary general education and upbringing takes place at grammar schools, which prepare mainly for university studies.
General education and training are also part of education and training at secondary vocational schools and conservatories focused on vocational training. In secondary vocational schools, it is vocational training, preparation for the performance of professional activities, especially

technical-economic, economic, pedagogical, medical, social, administrative, artistic, and cultural, but also for university studies.
The conservatory provides comprehensive art and art-pedagogical education. It prepares students for professional artistic application and for teaching art and professional subjects in art educational programs.
Higher education (ISCED 6-8) can only be provided by higher education institutions, which can be public, state, and private. Military and police colleges are state budget organizations, medical colleges are state subsidized organizations.
In Slovakia, home education has been possible since 2008, when the newly adopted Education Act enabled the education of pupils in the home environment under the term individual education. Homeschooling is provided to primary school pupils (ISCED 1). Parents can apply for permission for the pupil's home education and release him / her from the obligation to attend the school principal of the school to which the pupil has been admitted. Along with the application for home education, the parent must also submit the pupil an individual educational program, the principles, and goals of education of which must be in accordance with the Education Act, description of spatial and material-technical security, a list of textbooks and textbooks to be used in the pupil's home education. The parent of a pupil who has been granted home education must provide a person who meets the qualification requirements of the secondary education established for primary school teachers. A financial reward is paid to such a person who provides the pupil's home education. The student then takes commission exams every six months from the relevant subject matter of each compulsory subject. Based on the results of the commission exam, the school will issue a certificate to the student. The control of the level of quality of education in home education is performed by the State School Inspectorate. The control of the professional-pedagogical and material-technical provision of education and training is performed by the tribal school. For this reason, the parent is obliged to allow the authorized school inspector and the authorized employee of the tribal school to enter and carry out the inspection.

**2 THEORETICAL BACKGROUND:** The new coronavirus pandemic (SARS-CoV-2) and the COVID-19 disease caused by it have had an unprecedented impact on the education system around the world. UNESCO speaks of more than one billion pupils and students affected by coronavirus pandemics worldwide (UNESCO, 2020).
In Slovakia, the first case of COVID-19 was confirmed on March 6, 2020, after which the Slovak government issued a set of regulations concerned bans on school competitions and subject olympiads, excursions and trips, all sports events held in the system of schools and school facilities. Gradually, children's playgrounds, outdoor and indoor sports fields, children's corners, and all leisure regulations where children would be associated were also closed. As of March 16, 2020, the educational institutions were completely closed and the Ministry of Education, Science, Research and Sports of the Slovak Republic ordered to suspend the full-time form of study and replace it with distance learning, which affected the education of all more than 988 thousand pupils and students in Slovakia.
Several experts (Bol, 2020; Cullinane, 2020; Doyle, 2020; Toseeb et al., 2020) point to the risk of deepening inequalities in education with the longer-term closure of educational institutions. A study from the Netherlands mapping pupils aged 4 to 18 (Bol, 2020) showed a widening of inequalities between children from disadvantaged families and families with higher socio-economic status. Inequalities between schools in one country and their possible material and technical provision of online teaching are also highlighted. In England, an analysis by the Sutton Trust in the education sector pointed to variability in distance education between private and public schools, as well as between schools from richer and poorer areas of countries (Cullinane, 2020). Similar conclusions are presented by the Czech School Inspectorate (2020), where

distance education at primary and secondary schools during the COVID-19 pandemic showed fundamental differences between the regions of the Czech Republic in terms of school management, school approach to teaching and in conditions for distance education.
Shortcomings in distance education are also pointed out in a study by Edurom from Slovakia, which confirms that students from marginalized Roma communities (MRCs), despite the availability of technical facilities, due to the domestic situation and lack of privacy, have difficulty teaching online and lack teacher guidance. Pupils from the MRC, who do not have a technical background and are not supported by the environment, were not regularly involved in distance education (Tomšík, et.al., 2020).
The closure of educational institutions has had a direct impact not only on the education and mental health of children, but also on parents, who have had to take greater responsibility for supervising school responsibilities and providing technical and material training needs in addition to work and home care. A Dutch study highlighted parents' concerns about the competence to help their children with education during the corona crisis (Bol, 2020).
In addition to the impact of the corona crisis on parents in general, some studies have focused on the impact of the corona crisis on parents of children with special needs. A study in England found a negative impact of the coronavirus pandemic on the mental health of parents of children with special needs and disabilities aged 5 to 18 years. Parents experienced increased anxiety and stress. There has also been a specific response from these parents - concerns about the child's future so that they do not lag behind and lose the progress they have made so far (Asbury et al., 2020).

**3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA:** The main research goal of the presented study is the analysis of the development of COVID-19 cases among students and teachers in kindergarten, elementary schools and high schools for the selected observed period and the impact of the SARS-CoV-2 pandemic. As part of the analysis of the development of shoes indicators, we limited the research set on weekly reports from the institutions from the period from 19th of September until 21st of November, in order to have a sufficient period of time to evaluate the analysis of time series during the 3rd wave of pandemic spread in Slovakia. Within the application part, we used several research methods, which we implemented with a quantitative approach. The application part of the paper follows the theoretical analysis and synthesis of available foreign and domestic literature and foreign and domestic statistical data. One of the used mathematical-statistical methods is the analysis of time series. It is a gradual and chronological arrangement of values that are spatially, temporally, or factually comparable and recorded over time. The basic premise to create time series analysis is the use of the decomposition method. This is the composition of the basic components, which we quantify in the case of regular developments by analytical adjustment or in the case of irregular developments by moving averages.
The data of the research set were obtained from Ministry of Education, Science, Research and Sports of the Slovak Republic.

**4 RESULTS AND DISCUSSION:** Minister of Education Branislav Gröhling defends open schools. He pointed out that in addition to schools, it will be possible to go to work and there are four times more workers than students. In this case, he also pointed to greater mobility. Another reason why schools should remain open, is the fact that Ministry of Education collect data from schools every week. It is a data package from about 6.000 schools and entities. In the last week, Slovakia have registered 1,5 percent of positive students.
At present, the incidence of new cases of COVID-19 is growing sharply in Slovakia, and this situation can to some extent be related to the vaccination rate of the population. The Government of the Slovak Republic gradually approached the tightening of epidemiological

measures in accordance with the set rules. Which led to the declaration of a state of emergency when meeting the national criteria. As part of the state of emergency, there were proposals for the closure of schools and school facilities (except for kindergartens and 1st level of primary schools – ISCED 1). Finally, after the intervention of the Ministry of Education, the Government of the Slovak Republic did not close the schools, arguing with the statistics of the ministry (see Table 1).

The Ministry of Education, Science, Research and Sports of the Slovak Republic has compiled a manual based on valid laws, resolutions of the Government of the Slovak Republic, decrees as well as measures and decisions of the Public Health Office of the Slovak Republic. It summarizes an overview of legal obligations and professional recommendations to better manage the COVID-19 pandemic. If necessary, the founders of schools and school facilities can consult their actions with the locally relevant regional public health authorities.

To maintain a safe environment in schools and school facilities and to minimize the risk of classroom closures, the Ministry regularly obtains information from school principals about the development of the epidemiological situation using an online form. This form contains questions on the various possibilities for the development of the epidemiological situation in schools and classrooms. The school principal is obliged to report current information:

- every Monday, and at the same time
- immediately whenever the situation at school changes due to the occurrence of COVID-19.

In Tab. 1 we can follow the development of indicators from weekly reports from schools. The data are summarized for primary and secondary schools, where there is a presumption of increased mobility for students / children. From the data for the period from 37 to 46 week of 2021 presents a small increase in active cases among students and children, as well as a slight decrease in the share of full-time teaching.

| | 19.9.2021 | 26.9.2021 | 3.10.2021 | 10.10.2021 | 17.10.2021 | 24.10.2021 | 31.10.2021 | 7.11.2021 | 14.11.2021 | 21.11.2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| Percentage of schools that reported data | 84,2% | 82,6% | 88,3% | 88,8% | 88,4% | 88,5% | 87,3% | 92,0% | 90,3% | 89,2% |
| Percentage of students in full-time education | 96,2% | 96,1% | 95,8% | 95,1% | 94,3% | 91,2% | 88,8% | 90,8% | 86,0% | 80,9% |
| Percentage of pupils in distance education | 3,8% | 3,9% | 4,1% | 4,9% | 5,7% | 8,8% | 11,2% | 9,2% | 14,0% | 19,1% |
| Percentage of classes in full-time education | 97,8% | 97,4% | 97,3% | 96,3% | 95,6% | 93,2% | 90,6% | 93,4% | 88,9% | 83,8% |
| Percentage of classes in distance education | 1,8% | 2,2% | 2,6% | 3,2% | 3,8% | 5,8% | 7,5% | 5,7% | 10,2% | 12,1% |
| Number and percentage of students with actively confirmed COVID-19 disease | 1 157 | 1 596 | 1 900 | 2 343 | 2 879 | 4 284 | 6 174 | 8 251 | 9 759 | 12 386 |
| | 0,1% | 0,2% | 0,2% | 0,3% | 0,4% | 0,5% | 0,8% | 1,0% | 1,2% | 1,5% |
| Number and percentage of students in quarantine (designated by RPHO as close contact) | 14 760 | 17 485 | 19 569 | 24 075 | 28 785 | 44 897 | 54 566 | 46 188 | 74 596 | 97 705 |
| | 1,8% | 2,1% | 2,3% | 2,9% | 3,5% | 5,5% | 6,7% | 5,5% | 9,0% | 11,9% |
| Number and percentage of employees with active COVID-19 disease | 466 | 573 | 744 | 889 | 1 069 | 1 473 | 1 940 | 2 775 | 3 446 | 3 894 |
| | 0,4% | 0,4% | 0,6% | 0,7% | 0,8% | 1,1% | 1,5% | 2,1% | 2,6% | 3,0% |
| Number and percentage of quarantined employees (designated by RPHOas close contact) | 729 | 792 | 908 | 1 278 | 1 474 | 1 871 | 2 376 | 2 307 | 3 282 | 3 882 |
| | 0,6% | 0,6% | 0,7% | 1,0% | 1,1% | 1,4% | 1,8% | 1,7% | 2,5% | 3,0% |

* Note: The sum of classes in full-time and distance learning is not equal to 100%, as the data "number of classes in which teaching was restricted for reasons other than COVID-19" are not included in this sum.

Tab. 1 – Selected data set from RIS system of the Ministry. Source: own research from MoESRS SR data

The following figure shows the development of the presence of full-time teaching in relation to distance learning, where a slight decrease in full-time teaching is observable, which currently exceeds 80%, but in this context, it should be noted that distance learning may not be related only to class / school closures due to COVID-19 pandemic.
At the same time, it is observable that three weeks ago, the level of full-time teaching was around 90% and more.

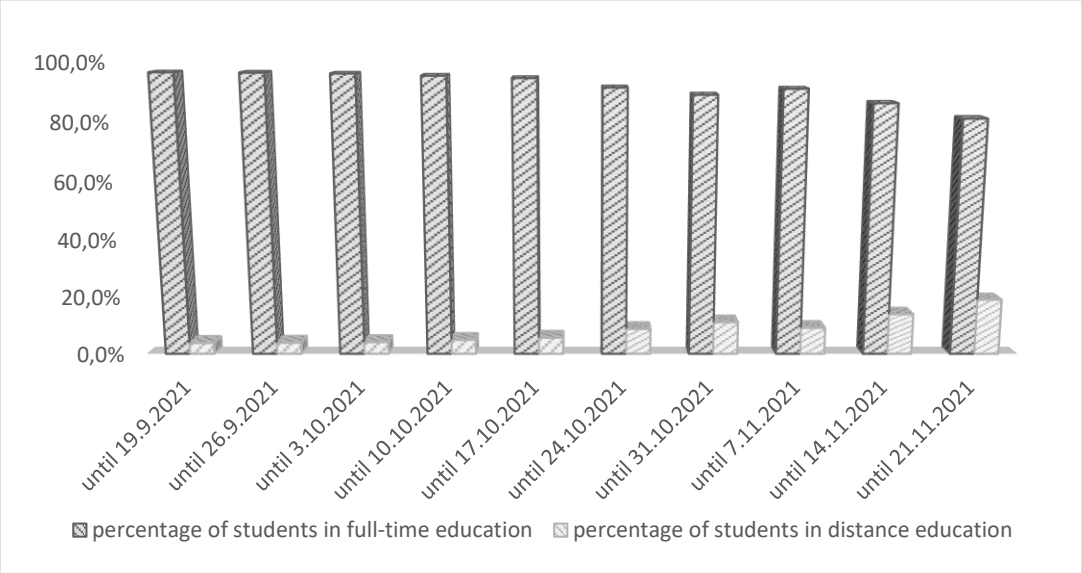


Fig. 1 – Graphic representation of students / children in full-time and distance education. Source: own research

In Fig.2 it is possible to monitor the development of students / children with active COVID-19 disease as well as the level of quarantined persons, due to the set rules within the school COVID automat.

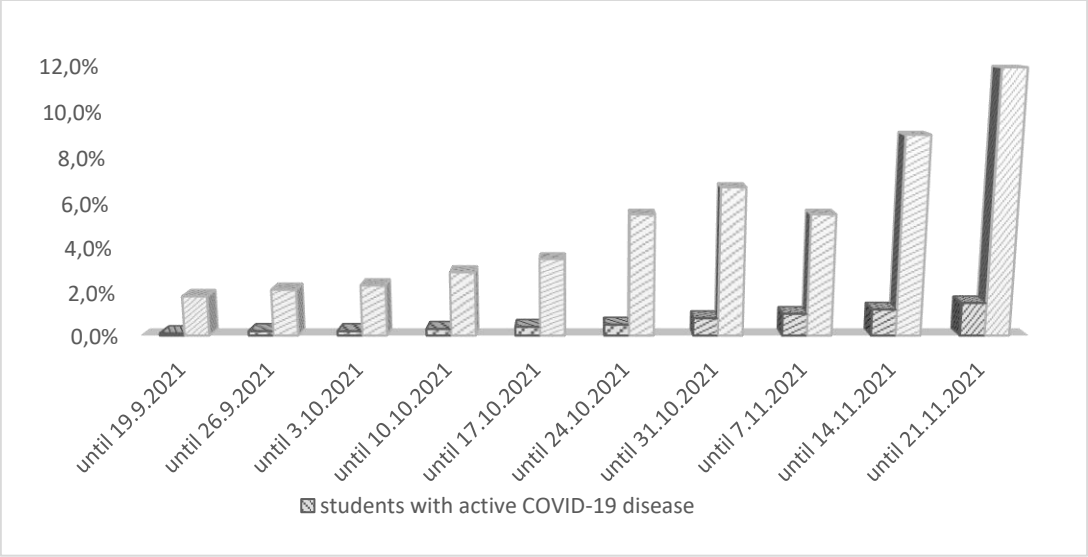


Fig. 2 – Graphic representation of students / children with active illness and students / children in quarantine. Source: own research

The data show that the level of active diseases at COVID-19 among students / children in the sample is 1.5%, a significant proportion is in quarantine (in relation to the number of active

cases), which is approximately 10 times more. Here it is demonstrably visible how the rules are set within the educational system, where in the case of a confirmed case of COVID-19 infection, the whole class is quarantined by the regulation of the regional hygienist and undergoes epidemiological investigation.
Following the active cases of students / children, it is necessary to monitor and develop this indicator among schoolteachers, which is represented in Fig. 3.

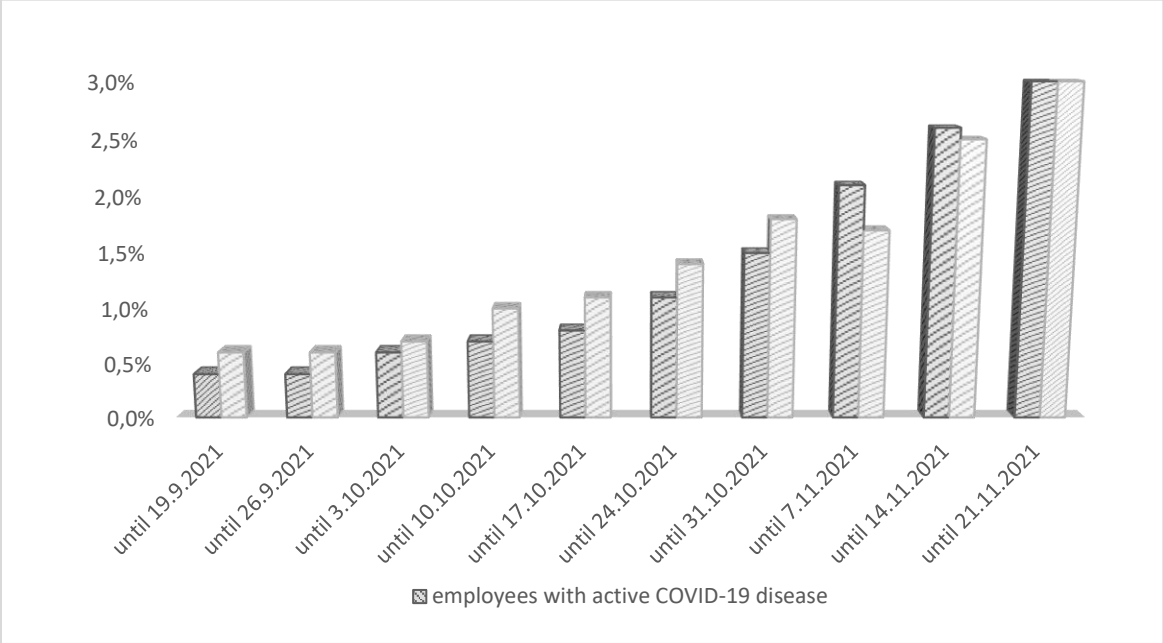


Fig. 3 – Graphic representation of employees with active illness and quarantined employees.
Source: own research

Based on the development of the indicator for pedagogical staff, other data show that the number of pedagogical staff with active disease at COVID-19 is at the level of 3%, which is why it should be emphasized that the vaccination coverage of pedagogical and non-pedagogical staff at 71% with approx. 11% have already received the third dose of the vaccine (based on the prioritization of school staff in the vaccination strategy).

**5 CONCLUSION**: Many European countries are tightening measures to protect public health due to the deteriorating epidemiological situation. This phenomenon is natural, and in the case of schools, it would be necessary to restrict access to education based on real data. There are yet no comprehensive studies of the impact of online education on students / children, but partial studies tend to point to the predominant negative consequences, especially for younger children. It should be noted at this point that there is also unequal access to education, which means that not all students / children have access to information technology.
The epidemiological situation, according to the examined data, is gradually deteriorating slightly in the recent period, but the share of the total number of students / children in the education system is still very low (at the level of 1.5%) as well as the share of pedagogical staff (at the level of 3%). The high share of preserved full-time education out of the total number of classes and schools is also over 80%.

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# SELECTED ECONOMIC FACTORS AND THE IMPACT OF COVID-19 - EVIDENCE FROM SLOVAK REPUBLIC

*Zuzana Tešovičová*

**Abstract**

The Covid-19 pandemic not only leaves economic problems but also exacerbates social problems in all countries of the world. Current government officials from all over the world are taking various economic measures to deal with the crisis, but the introduction of the lockdown in 2020, specifically in the Slovak Republic, has greatly damaged the business environment. As part of our contribution, we will focus on selected indicators of the state of public finances in the Slovak Republic and the degree of impact of the Covid-19 pandemic, which we will compare with the average of the 27 countries of the European Union. We have identified real GDP growth, household income development, employment, and unemployment as key indicators, which we will compare in the period 2009-2020. We will describe the individual indicators, statistically evaluate them, and then draw a conclusion. Data from the EUROSTAT database was used in our paper.

***Keywords:*** *GDP, household income, employment, unemployment*

**JEL Classification**: G51, D13, E20

**1 INTRODUCTION:** The COVID-19 pandemic has literally shocked the Eurozone and the world. In the world, real GDP growth slowed to 2.9% in 2019, the lowest rate since the Great Recession. This is due to the sharp decline in world industrial production, growing global uncertainty, the lockdowns of several economies, the disruption of global retail chains, stock market tensions, falling oil prices and many other shocks accompanied by a wave of coronation and, finally, uncertainty in all segments of the world economy. The slowdown in world trade growth in 2019 also reached its peak. In our research we will focus on selected economics indicator that could have influence on the economy of the Slovak Republic and we will compare them to the EU27.

**2 THEORETICAL BACKGROUNDS:** The economic shock stemming from the coronavirus crisis first disrupted supply chains from China before bans on international travel hit airlines, cruises, and tourism. Next, government mandated lockdowns and physical distancing restrictions closed entertainment, restaurants, and recreational outlets as well as office-based work in a wide range of service industries, with negative spillovers to other industries. Makin, Layton(2021)

The aftermath of the corona pandemic has been devastating, 43 percent of the European start-ups have frozen their hiring process. A survey has revealed that 40 percent of the start-up companies are expecting to see their revenue drop by 25 percent in 2020 as mentioned by Arundale and Mason (2020) The COVID-19 pandemic has left a devastating economic scene in its path. Thus, it is quite understandable that it has affected the start-up industry in Europe in a vast manner. Kalogiannidis (2020)

2.1 Real GDP growth: The most common indicator to measure economic activity is GDP. In the period 2000 to 2020 the annual GDP growth in the EU was quite volatile. Between 2001

and 2007, the economy grew at an annual rate of between +1 % and +4 %. From 2008 to 2013, the EU economy was strongly affected by the financial crisis, with GDP dropping by more than 4 % in 2009 and then again slightly in 2012. Between 2014 and 2019, the economy progressively recovered, with annual growth rates around +2 %. However, in 2020 there was a drop of just above 6 %, mainly because of the Covid-19 pandemic.

In the EU, investment and consumption follow the same four phases as GDP, investment however with larger fluctuations. With the recovery from the financial crisis, investment and consumption grew steadily between 2015 and 2019: at around +5 % and +2 % per year respectively. This trend changed in 2020 when the Covid-19 pandemic, at least in part, caused a downturn of - 9 % and - 5 % respectively. EUROSTAT (2021)

The European Commission's GDP forecasts are worse every month as Eurozone governments fail to stabilize the epidemiological situation. The fall in GDP was 8.7 percent in September, while the executive expected a fall of only 7.7% of GDP in the spring forecast. European Commission (2021) According to new forecasts from the European Commission, the eurozone is facing a very deep recession. European Commission (2021)

The positive news, however, is that the European Commission is forecasting Slovakia's second fastest growth in the euro area in 2021, after France, and thus economic growth of 4.3% of GDP. Growth is expected mainly due to a slowdown in investment and consumption in 2020, reduced liquidity and a slowdown in overall economic activity, which will bring growth in the second half of 2021. (Expects foreign trade to increase in the second half of the year) Euractiv (2021).

2.2 Households income and consumption: Focusing on the Eurozone, the empirical analyses are limited due to scarcity of proper household income, wealth, or consumption surveys. Two independent reports, Claeys et al. (2015) and Bernoth et al. (2015), have assessed qualitatively the risk of a rise in income inequalities in the EA following the ECB's large-scale assets purchasing program (APP) announced in January 2015. Specifically, both argue that in the short-run ultra-loose monetary policy would increase assets prices and, hence, would exacerbate the wealth and income inequalities in Europe. However, both agree that if the program successfully stimulates the economy, it would improve more the employment and income situation of low income and low-skilled households and, hence, it will lately reduce inequalities. Guerello (2018)

The existing evidence suggests that the COVID-19 crisis will lead to an increase in both poverty and wage inequality in all European countries. Palomino et al. (2020), for instance, estimate the Gini coefficient to increase 2.2% in Europe. Moreover, historic data suggest that past events of this kind, even though much smaller in scale, have led to significant, persistent increases in the net Gini coefficient (by 1.25% five years after the pandemic) and raised the income shares of higher income deciles. Almeida at all. (2021)

2.3 Employment and Unemployment

Unemployment is a long-term problem in many countries worldwide, including European Union. Decreasing unemployment rate has become one of the EU development priorities declared in the Europe 2020 Strategy. Therefore, national policies in this area are coordinated and supported through funding on modernization of education systems, easier access to work, free movement of labor within the EU and support for handicapped people. Paľová at all. (2018)

One of the fundamental objectives of the EU strategy "Europe 2020" is full employment and social cohesion (European Commission 2020). Employment growth prospects, on the one hand, depend on the EU's ability to promote economic growth and efficiency through macroeconomic policies and, on the other hand, it must be accompanied by appropriate microeconomic structural policies designed to foster the conditions for employment – increasing the number of jobs and creating new jobs, facilitating the transition to another job, providing labour supply,

corresponding to the growing labour market demand. Employment policy should not only help the economy to recover in the short term, but also to ensure necessary social investments in a longer term, which will enable increased budget revenues. Necverauskiene at all (2018)

**3 RESEARCH OBJECTIVE, METHODOLOGY AND DATA**: We will use several research methods in this paper. With the use of statistical analysis, we will compare the selected key indicators and describe them. Subsequently, we will compare the individual parameters for the EU27 and the Slovak Republic.

**4 RESULTS AND DISCUSSION:** 4.1 The Real GDP growth in Slovak Republic and EU27**.** In the EU, investment and consumption follow the same four phases as GDP, investment however with larger fluctuations. With the recovery from the financial crisis, investment and consumption grew steadily between 2015 and 2019: at around +5 % and +2 % per year respectively. This trend changed in 2020 when the Covid-19 pandemic, at least in part, caused a downturn of - 9 % and - 5 % respectively. EUROSTAT (2021)
We can see from the Fig. 1 the Comparison of real GDP growth of the EU27 and the Slovak Republic from 2017 – 2021. Th most interesting fact is the overflow vin 2nd quarter of 2020 and the increase in the 3rd quarter 2020. We can explain the situation by the release of anti-pandemic measures.

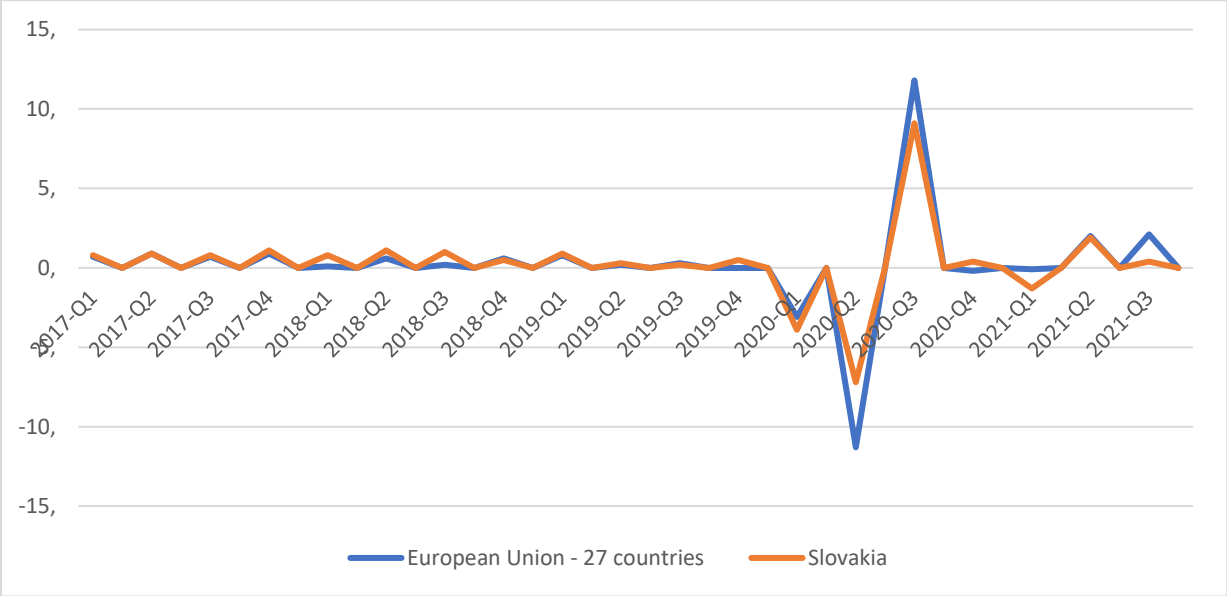


Fig. 1 – Comparison of Quarterly GDP growth in EU27 and Slovak Republic, % change on previous period. Source: EUROSTAT, own proceeding

4.2 Households income and consumption in the Slovak Republic and EU27: The COVID-19 pandemic is a historic health and economic crisis. One consequence of the pandemic is the record job loss and widespread wage cuts. While job loss and partial income loss may not be similarly distressing experiences, any unexpected household income reduction likely causes distress for individuals. As such, job loss and wage cuts on this scale are a significant concern for population health and well-being. Donelly,Farina(2020)

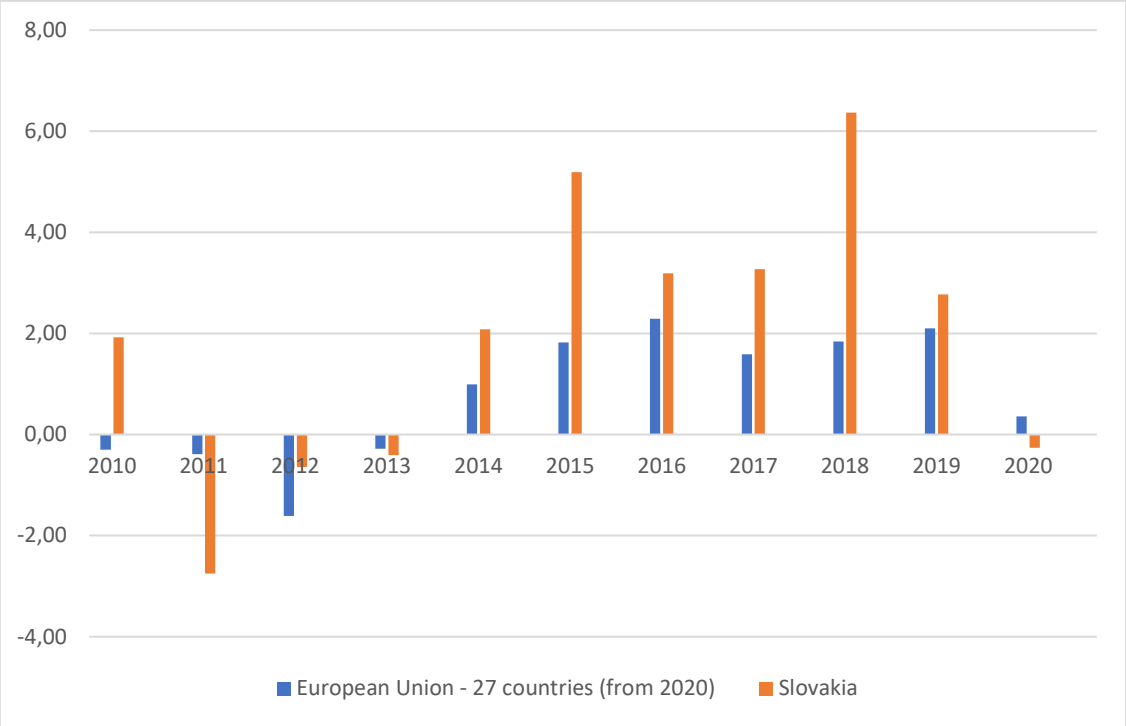


Fig. 2 – Comparison of Adjusted gross disposable income of households in real terms per capita in EU27 and Slovak Republic. % Change on previous period. Source: EUROSTAT, own proceeding

Fig. 2 shows the Comparison of Adjusted gross disposable income of households in real terms per capita in EU27 and Slovak Republic. As we can see from the comparison a huge difference between the 2018, 2019 and 2020 in both research geopolitical areas. As can be seen from the Fig.2, household disposable income is declining, as is private household consumption, while unemployment is stagnating, and the income of the population is declining. Therefore, the prediction of future developments does not look very optimistic from my point of view. In analyzing the older predictions of the European Central Bank, the National Bank of Slovak Republic, and the Institute of Financial Policy, we found that the forecasts of these institutions have been deteriorating since the pandemic COVID-19. Hopefully, the arrival of a new vaccine will have a positive effect on the domestic or global economy, when the pandemic threat should disappear, and countries could return to normal functioning

4.3 Employment and unemployment in Slovak Republic and EU27: In 2020, the EU employment rate for people aged 20 to 64, as measured by the EU Labour Force Survey (EU-LFS), stood at 72.4 % against 73.1% in 2019 (a decrease of 0.7 percentage points (p.p.)). Behind this average, large differences between countries can nevertheless be found (see Map 1 and Tool 1). Sweden (80.8 %), Germany (80.1 %) and the Netherlands (80.0 %) display the highest employment rates in the EU so far, with more than 8 out of 10 persons aged 20 to 64 in employment in 2020. Such a high rate is also observed in the EFTA countries Switzerland (82.5 %) and Iceland (82.3 %). At the same time, 70% or less of the population aged 20 to 64 were employed in Belgium (70.0%), Croatia (66.9%), Spain (65.7%), Italy (62.6%) and Greece (61.1%). EUROSTAT (2021)

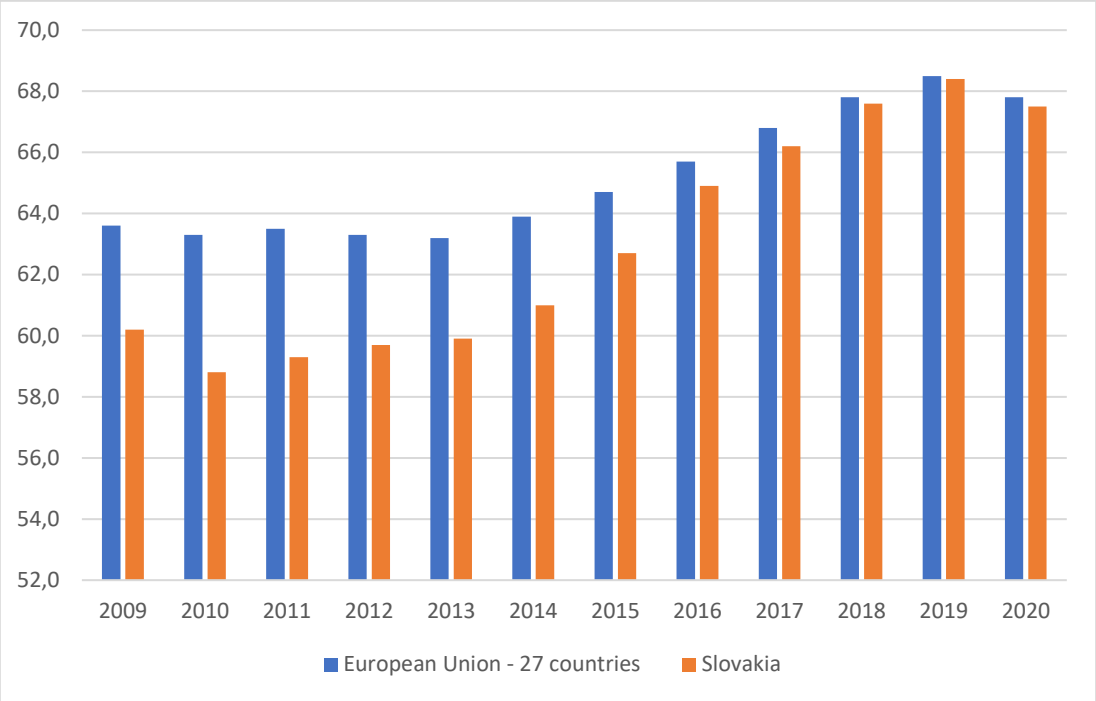


Fig. 3 – Comparison of total employment (from 16 to 64 years) in Slovak Republic and EU27 as % of total population. Source:

Eurostat estimates that 14 324 million men and women in the EU, of whom 12 079 million in the euro area, were unemployed in September 2021. Compared with August 2021, the number of persons unemployed decreased by 306 000 in the EU and by 255 000 in the euro area. Compared with September 2020, unemployment decreased by 2 054 million in the EU and by 1 919 million in the euro area. EUROSTAT (2021)

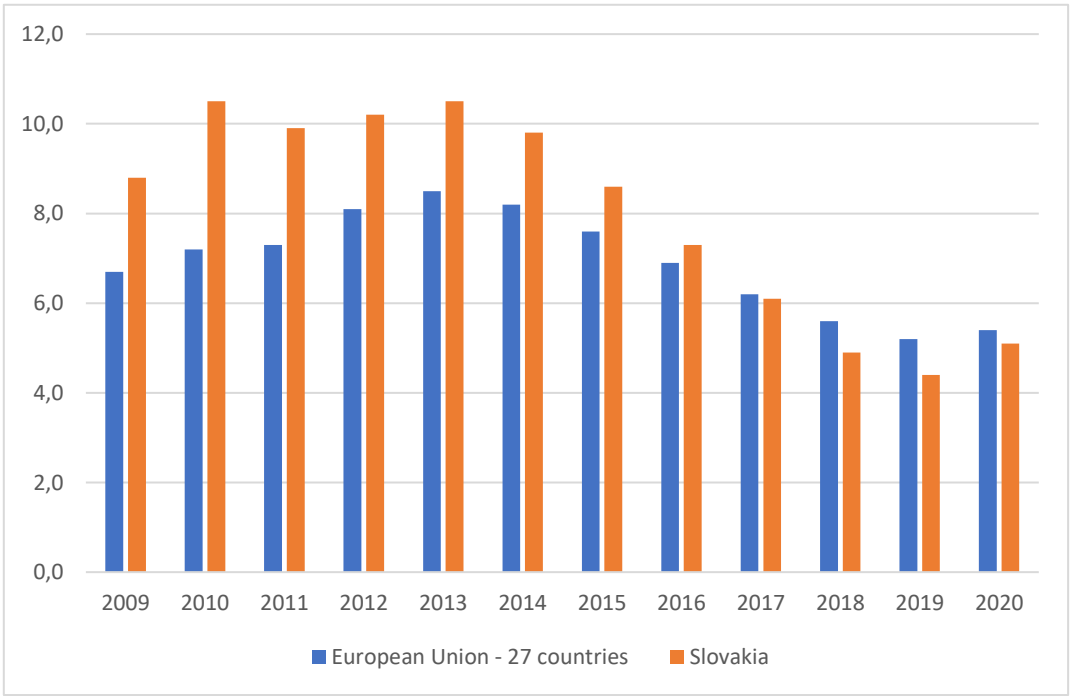


Fig. 4– Comparison of total unemployment (from 20 to 64 years) in Slovak Republic and EU27 as % of total population. Source: EUROSTAT own proceedings

**5 CONCLUSION**: As can be seen in Charts 1 - 4, the situation in the Eurozone and thus also in the Slovak Republic is not favorable. Thanks to the ECB's policy and its impact on economic stabilization, the unemployment situation, possibly in terms of GDP or other indicators, has not deteriorated so dramatically. The ECB significantly eased its monetary policy stance to counter the impact of the pandemic, introducing several measures that were adapted to the current needs of the changing market during the year. The introduction of pandemic emergency purchase program was also important for the stabilization of the Eurozone, mainly through asset purchases and long-term refinancing operations. A very important tool was the support of the European banking sector and especially the reduction of interest rates, which, thanks to the measures, reached an average level of only 1.46% in the Eurozone.

We can argue about the ECB's measures to increase liquidity by €2.2 trillion. This measure is certainly effective in the short term, but the question remains as to how quantitative easing will affect inflation in future periods. However, the liquidity easing measure ensured the need for financing in the euro area economy, as well as affecting medium-term price stability. However, we expect rising inflation in the medium term and thus an increase in interest rates as a tool to reduce inflationary growth.

If we were to compare the financial crises of 2008, 2011 and 2012 with the crisis caused by the coronavirus epidemic, the main difference would be that previous crises had specific problems. However, the crisis began in 2020, which did not stem from the financial sector, but was caused by the expansion of COVID 19. The serious threat to global value chains has thus had a high degree of uncertainty in the financial markets. Despite the successful development of the vaccine against the disease, states are constantly struggling with new epidemic waves of the disease, leading to a stagnation in regeneration of global value chains.

Due to the fact of high globalization, the pandemic also had a significant impact on the Eurozone economy. The initial consumption crisis was partly managed by the Eurozone mainly due to support mechanisms from the ECB (in the case of the Slovak Republic, government support programs and mechanisms of the NBS and commercial banking systems). Rapid access to liquidity has led to a partial reversal of the consumption crisis.

However, thanks to supportive economic and financial mechanisms, unemployment in Eurozne has fallen and remains close to 2019. As far as the Slovak Republic is concerned, it lags below the Eurozone average. But not dramatically as in 2009-2015. Thanks to state support, we can therefore say that the support mechanisms have been able to maintain employment. When comparing disposable income and household income, we can state that household per capita income has fallen since 2018 to such an extent that households are burdened with high debt service, which may have a significantly bad impact on future periods. It is necessary to increase the financial literacy of the population so that households can operate without undue indebtedness in crisis.

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# DEPOSIT RETURN SYSTEM FOR SINGLE USE BEVERAGE CONTAINERS IN SLOVAK REPUBLIC

*Andrej Rácik*

**Abstract**

Purpose of this paper is to provide brief information about newly introduced deposit return system for single use beverage containers, especially plastic bottles and aluminium cans. It belongs to group of motivational tools to encourage consumers to participate in reducing waste of beverage containers by its separation and possible recycling. One of its strength is high success rate compared to other recycling schemes, as the financial incentive contributes to collection of up to 90% of wastes.

***Keywords:*** *waste management, recycling, plastic waste, economic tools of environmental policy, circular economy, sustainability*

**JEL Classification**: Q54

**1 INTRODUCTION**: Apart from direct regulation, highly efficient form of environmental policy tools is the motivation via financial incentives. Classic laws and regulations for limiting are very effective, because usually their provisions are legally binding in general, environmental performance of polluters must comply with the limits provided, and this leads to the protection of the environment. However, on one hand there is certainity to limit the damages to the environment, on the other hand, critics point out to the static nature of the limits (not motivating polluter to reduce the environmental damages to the most feasible minimum), and also many times their cost-inefficiency (Romančíková, 2011).

**2 HISTORY AND LEGAL BASIS**: Motivation via deposit and collection is not new. It is used in many countries for various types of packaging and containers. Very frequently it is used by beverage producers for returnable and reusable packing (from glass, or also plastics). Recently, deposit schemes are also used more frequently for ensuring that the non-reusable plastic bottles or aluminium cans are not stored at landfills, but rather separated and possibly recycled.

Economists since the very beginning of the economic theory understand the mutual relationship between the economic and environmental system as a natural unit. On one hand, recycling helps to save the resource base, especially the non-renewable natural resources that are crucial for the economic growth. For example already Malthus (1798) stressed the fact that the natural resources will became less and less available as they would get consumed by growing economy for growing population. On other hand, single-use and single-purpose packaging, especially the plastic ones, are very uneconomical, considering their utility and rather limited and short-lasting function of packing one serving of drink or produce from shops. Not only this is very irrational "spend" of the natural resources, but it also leads to creation of hard-to-decompose plastic waste, that is (in the better case) cumulating in the landfills, but quite often, it is contaminating the ecosystems of the free nature.

Economists address these issues in the environmental policy utilizing two main approaches: Regulation or Economic instruments. Regulative instruments include ban on certain single-use plastic products, like plastic cutlery in the countries of EU or PET bags in India (DG

Environment, 2021). Another approach is to use economical tools, either compulsory payments as form of an environmental taxation (Pigou, 1920) for these single use products, or schemes of returnable packing for deposits. Key factor of the deposit return schemes is their financial incentive, returnable deposit, that motivates the consumers to return the packaging for re-use or recycling instead consuming new raw material. Where the compulsory taxation (pricing) of these products leads to certain reduction of consumption (consumer is judging, if he really needs the bag when he has to pay for it), it misses the direct incentive for separation of the packing for reuse and recycling, hence creating the non-degradable waste, albeit in a smaller volume.
The deposit return schemes have the benefit of directly providing the incentive to separate and return the packing for recycling, minimizing the need for landfilling – studies from several countries cite up to 90% rate of return (IEP, 2018).
Also in Slovakia, historically, there was well-established tradition of deposit system for glass containers for beverages. The bottles were even standardized in the past and the deposit system was unified and generally applicable in distribution chain on national level.
After political and economic changes in 1989 this general system has temporarily collapsed, deposits eligible for refund only in the original point of sale. Individual sellers had to finance the deposits themselves, so it was not wanted to collect more returnable bottles than they have sold, in order not to pay more money for refunds than originally collected. In the same time, usage of glass packing has been significantly reduced in favor of plastic bottles, which were deemed much cheaper to produce and also more practical (durable and lighter). Ironically, the introduction of PET bottles was also believed more environmentally friendly, leading to fuel saving by its reduced weight. But the single-use nature of this packing started the problem of creation of vast amount of plastic waste.
During the brief period of 1999-2000 there was an initiative of Pepsi's Czech and Slovak branch to use returnable PET plastic bottles for their drinks, consisting of more robust and thicker plastic. However, this initiative did not meet wider adoption on the market. It can be estimated, the susceptibility of plastics to visually degrade (while it is almost impossible to crack the PET bottle, it is very lightly scratched and loses is visual clarity, very much opposite to glass bottles) resulted in prejudice of the consumers, especially when the competitors still use "virgin" and visually perfect plastic bottles. These aesthetic and hygienic concerns became an long term obstacle for adoption of re-usable plastic beverage containers. Other critics were also citing the ecological impact of transport and cleaning of the returned bottles (Enviweb, 2007).
However, the amount of plastic waste generated by beverage industry remains a problem, so EU is within its environmental policy encouraging member states to introduce tools for effective prevention of its landfilling. As mentioned above, the deposit scheme has high potential to separate and recycle them.
In Slovak republic, it will be mandatory for wholesale to establish a system for collection of returned PET and aluminium beverage containers. This was introduced on provision of the Law No. 302/2019 about deposit system of single-use beverage containers. This new scheme is not aimed to re-use the collected containers, but to secure proper recycling/upcycling the raw materials. It is expected, that 90% of plastic bottles and aluminium cans will be collected under this scheme, in accordance with experience from other countries and in line with EU targets.

**3 PARTICIPANTS OF THE SCHEME:** The deposit return system at the time of start will be consisting of following subjects (Law No. 302/2019):

- Ministry of Environment of the Slovak republic
- Slovak environmental inspectorate
- Slovak trade inspection

- Producers
- Distributors
- Deposit return system administrator

For purpose of this law, as the producer of single use beverage containers is meant every organization, that is placing on the market in Slovak republic the drinks in single use containers (it can be producer, importer, or entity for which the product is being packaged using its own trade mark). Distributor of containers is meant any organization, who is distributing the drinks in single use containers. Administrator is meant an non-profit organization, founded by a legal entity or consortium of legal entities, that is authorized by Ministry of Environment as a result of public tender. The nonprofit organization needs to be set up for an unlimited period of time and solely for the purpose of coordinating, financing and financial balancing of the deposit system. Ministry of Environment is acting as competent body of state administration, responsible for this subject. All controls, except marking, collection of deposits and the receipt of empty containers is performed by the Slovak environmental inspectorate. Practicalities of the physical marking, collection system and administration of deposits are surveilled by Slovak trade inspection.
Based on the public tender no. 5009/2020-10, Ministry of Environment has nominated as an administrator a consortium of 4 nonprofit organizations historically active in the beverages industry:

- Association of producers of non-alcoholic beverages and mineral waters
- Slovak union of beer and malt
- Slovak alliance of modern commerce
- Commerce union of Slovak republic

This entity is responsible for distribution of 80% of total amount of containers complying with the scheme and represents more than 3000 commercial subjects (www.spravcazaloh.sk).

According to the law, administrator for the system is responsible mainly for following tasks:

- To create, administer and fund the deposit system
- To ensure that the targets for return of refundable single use containers for beverages are met
- To provide its services to producers and distributors of beverage containers under non-discriminatory conditions
- To execute measures as stated in organizational plan of the deposit system and in financing scheme
- To provide appropriate educational and propagational activities, including provision of general information related to the system
- To decide on deposit fee respecting minimal fees stated by the ministry
- To reimburse justified costs of paid returned deposits for distributors of containers in accordance with the valid contract
- To ensure transport, appreciation and recycling of single-use beverages containers, and disposal of non-recyclable damaged containers
- To inform and educate the public about the deposit system
- To keep records about collected refundable containers and provide this data to the Ministry of environment

- To enable the inspection by inspectorates designated by the law and provide them with true and clear information about his performance

The most important responsibilities of producers of single use beverage cans are:

- To collect deposits for single use beverage containers in the fee provided by Ministry of environment
- To mark the containers subject to the deposit system
- To keep full financial records about separately for prices of drinks and collected deposit fees
- To register single use beverage containers in the system before introduction of product on market
- To transfer to administrator all deposit funds collected
- To pay to administrator all costs related to participation in the system, including transport costs, appreciation, recycling and disposal of collected returnable containers
- To keep records about amount of returnable containers and provide it to the administrator

Distributors of beverages in single use returnable containers are mainly responsible:

- To collect deposits for single use beverage containers in the fee provided by Ministry of environment
- To mark the beverages being sold with clear information on price of the goods and deposit fee
- To collect returned single use containers in actual market site or in distance of max. 150 meters from it
- To return the full deposit fee to consumers after returning the single use beverage containers
- To continue collecting returnable containers and return deposits for products that are discontinued from the market, in period of min. 6 months after publishing the information on web page of administrator
- To keep records of returnable single use containers and provide it to the administrator
- To properly store the returned single use containers and secure it from damage, theft or other losses
- To return the collected waste from single use beverage containers to the administrator

**4 FUNCTIONING OF THE SYSTEM**: Before introducing the system, feasibility studies were performed by state Institute for environmental policy. Existing systems in Western European and Scandinavian countries were chosen as a benchmark (IEP, 2018). To ensure that the system is financially sustainable, only containers for which the deposit fee has been paid will be collected as part of the system. It means, only specially marked plastic bottles and cans are allowed, carrying the newly introduced logo (Decree 247/2019). For returning the logo needs to be present and recognizable on the packing.

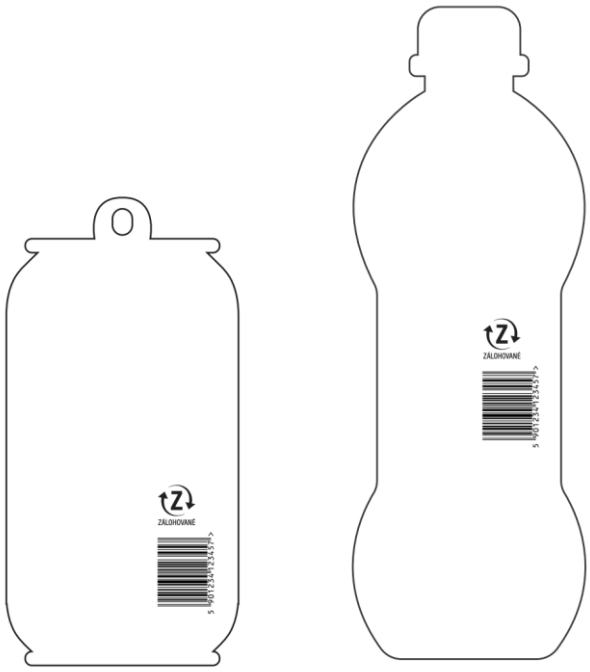


Fig. 1 – Logo and numeric code of Deposit return system. Source: https://www.spravcazaloh.sk/Logo_Z_Design_Manual_1_2_4_5_2021.pdf

Not all distributors of beverages in returnable containers are obliged to collect returnable packing. The law states, that sellers with area min. 300 m2 need to provide collection of the packing, except for businesses that sell the beverages only as complementary goods. But every distributor can make a decision to join the system also on voluntary basis. There must not be placed any condition, like purchase of additional goods, or providing purchasing receipt, in order to pay back the deposit. The system will start with the fee of 0.15 EUR per both bottle or can, where the minimum fees were set for 0.12 EUR for PET bottle and 0.10 EUR for aluminium can (Decree 247/2019). In case of not complying with the responsibilities with the scheme, penalty up to 120.000 EUR can be issued, and these funds are transferred to state Environmental fund for financing the measures of environmental policy (Law No. 302/2019).
It is estimated, that in Slovak republic, around 1 billion of plastic bottles and 345 thousand aluminium cans are sold as beverage containers. It represents about 2% of weight of all municipal waste (IEP, 2018). Despite its relative small share, it is one of most harmful type of municipal waste, non-biodegradable and causing not only visual, but also ecological damages to the ecosystem. It is not only causing problems like for world oceans, (they are very well publicized in form of photographs showing ocean animals trapped in plastics, or floating "islands" of plastic garbage), but this kind of waste is frequently present also in local lakes and rivers, or woods of Slovakia. Another negative effect is the creation of micro-plastic particles, which enter via the food chain also human bodies.
To tackle this problems, several initiatives, reflecting the best practice of environmental policy theory have been introduced. In EU they are covered by the Directive on single-use plastics. It focuses on main single-use plastic categories (Directive (EU) 2019/904):

- Cotton bud sticks
- Cutlery, plates, straws and stirrers
- Balloons and sticks for balloons
- Food containers

- Cups for beverages
- Beverage containers
- Cigarette butts
- Plastic bags
- Packets and wrappers
- Wet wipes and sanitary items

Certain products, namely cotton bud sticks, cutlery, plates, straws, stirrers, and sticks for balloons, cups, food and beverage containers made of expanded polystyrene, and all products made of oxo-degradable plastic are completely banned from the market. It is because more environmentally friendly alternatives can substitute these products. For the other various other activities are chosen in order to improve recycling of these plastics (Directive (EU) 2019/904):

- reducing consumption through awareness-raising measures
- introducing design requirements, such as a requirements to connect caps to bottles
- introducing labelling requirements, to inform consumers about the plastic content of products, disposal options that are to be avoided, and harm done to nature if the products are littered in the environment
- introducing waste management and clean-up obligations for producers, including Extended Producer Responsibility schemes
- increased share of recycled material content in the single-use plastic product.

Again, the experience shown from the states, where is the deposit system already in place, shows the highest efficiency from the measures except for complete ban of products.

**5 CONCLUSION**: Single use plastics evolved into a persisting problem of the global environment. It is relatively cheap and easy to produce, and in most cases very consumer-friendly and practical. However, the quantity of these plastics annually produced, and the fact that after the usage (which is only very short-lived moment of consumption) become these products practically worthless and in most cases, it presents an unwanted waste disposed of in landfills, or even worse, in free ecosystems. One type of the these products, plastic containers for beverages, are together with aluminium cans, subject of the newly introduced deposit return system in Slovak republic. Because of the deposit, these products regain value for the consumer, in form that they can exchange it for repayment of the deposit, if they bring it back to the dedicated place, where proper recycling will be arranged. Theoretical analysis, and real experience with these systems worldwide prove, that it is highly effective.

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**Acknowledgement:**

Project IGP 4/2020 - Aktuálne otázky ekonomiky podnikov v dôsledku prebiehajúcich zmien svetového hospodárstva

# ABSTRACTS

## ANALYTICAL VIEW ON POSITIONS OF Z GENERATION ON GATHERING AND USAGE OF DATA FROM SOCIAL MEDIA FOR MARKETING PURPOSES

**Lucia Ferenčáková[1] – Michaela Moravcová[2]**

**Abstract**

Social media users share their thoughts, experiences, images, files, videos, and links in an environment, which however needs to be an object of protection. The study is using critical analysis to monitor various competencies, standards and models of behavior related to Z generation citizens in accordance with the social media data usage, with a specific focus on marketing purposes of the data usage. Although the issue of social affairs and security is being developed by several published research studies, in terms of the impact of the feeling of privacy, security and trust, and their impact on the willingness to publish social media information, gaps still exist. The contribution is therefore focus on verification of the impact of the feeling of privacy, security, and the goal of trust, in the context of the collection and use of data from social media for marketing purposes, for the willingness of Generation Z to publish information on social media. The purpose of the paper is to compile a systematic review of the literature on the domain of data collection and use for marketing purposes. In the following research, we plan to develop a model of the structure of the relationship between the sense of privacy, security, trust and willingness of Generation Z to publish information on social media.

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## Conference Program

| | | |
|---|---|---|
| 13:00 | CONFERENCE OPENING | prof. Robert Magda<br>prof. Michal Fabuš |
| 13:15 | MIGRATION AND UNEMPLOYMENT ARE A COMPLEMENTARY RELATIONSHIP FROM AN ECONOMIC POINT OF VIEW | Alayan Rahaf |
| 13:30 | THE EFFECTS OF FOREIGN COMPANY ON THE LOCAL ECONOMY IN ANANTAPUR, INDIA | Priya Rani Bhagat, Agus Dwi Nugroho, Robert Magda |
| 13:45 | RESPONSE OF FINANCIAL PERFORMANCE TO ECONOMIC CHANGE: (A LESSON FROM ETHIOPIAN FINANCIAL INSTITUTIONS) | Goshu Desalegn Deresa |
| 14:00 | PREDICTING THE ISLAMIC STOCK MARKET DURING COVID-19 IN INDONESIA: A LASSO APPROACH | Setiawan Budi |
| 14:15 | DISSCUSSION + BREAK | |
| 15:00 | ROLE OF THE LARGEST MEDICAL AND PHARMACEUTICAL CORPORATIONS IN THE DEVELOPMENT OF HEALTHCARE IN THE USA AND WORLDWIDE | Nadiya Dubrovina, Lidiya Guryanova, Vira Dubrovina, Stanislav Filip |
| 15:15 | EFFECT OF INDIVIDUAL FACTORS ON YOUTH ENTREPRENEURSHIP IN KHULNA DIVISION, BANGLADESH | Talukder Saurav Chandra |
| 15:30 | ANALYTICAL VIEW ON LEGALIZATION OF CRIME PROCEEDS IN CONTEXT OF EUROPEAN UNION | Gombár Miroslav, Vagaská Alena, Korauš Antonín |
| 15:45 | WASTE AND WASTE MANAGEMENT AS A RESOURCE IN THE CIRCULAR ECONOMY | Silvia Matúšová, Vojtech Kollár |
| 16:00 | IS POSITIVE PSYCHOLOGICAL CAPITAL BRINGS BENEFICIAL ? A REVIEW ON SME'S SURVIVAL MEASURES DURING PANDEMIC COVID-19. | Widhayani Puri Setioningtyas |
| 16:15 | DISSCUSSION + BREAK | |
| 17:00 | FOREIGN DIRECT INVESTMENTS IN TIMES OF SARS-COV-2 PANDEMIC | Michal Fabuš |
| 17:15 | SECURITY ASPECTS OF GATHERING AND USAGE OF DATA FROM SOCIAL MEDIA FOR MARKETING PURPOSES | Lucia Ferenčáková, Marián Kováč |
| 17:30 | EDUCATION IN TIMES OF SARS-COV-2 PANDEMIC<br>WHY WE DIDN'T CLOSED OUR SCHOOLS | Ľubomír Nebeský, Michal Fabuš |
| 17:45 | SELECTED ECONOMIC FACTORS AND THE IMPACT OF COVID-19 - EVIDENCE FROM SLOVAK REPUBLIC | Zuzana Tešovičová |
| 18:00 | DEPOSIT RETURN SYSTEM FOR SINGLE USE BEVERAGE CONTAINERS IN SLOVAK REPUBLIC | Andrej Rácik |

| | | |
|---|---|---|
| 18:15 | ECONOMIC DIPLOMACY: ONE OF MANY DIPLOMACIES WITH AN ECONOMIC ATTRIBUTE OR AN UMBRELLA TERM? | Marek Csabay |
| 18:30 | DISSCUSSION | |
| 18:45 | CONFERENCE CLOSURE | |

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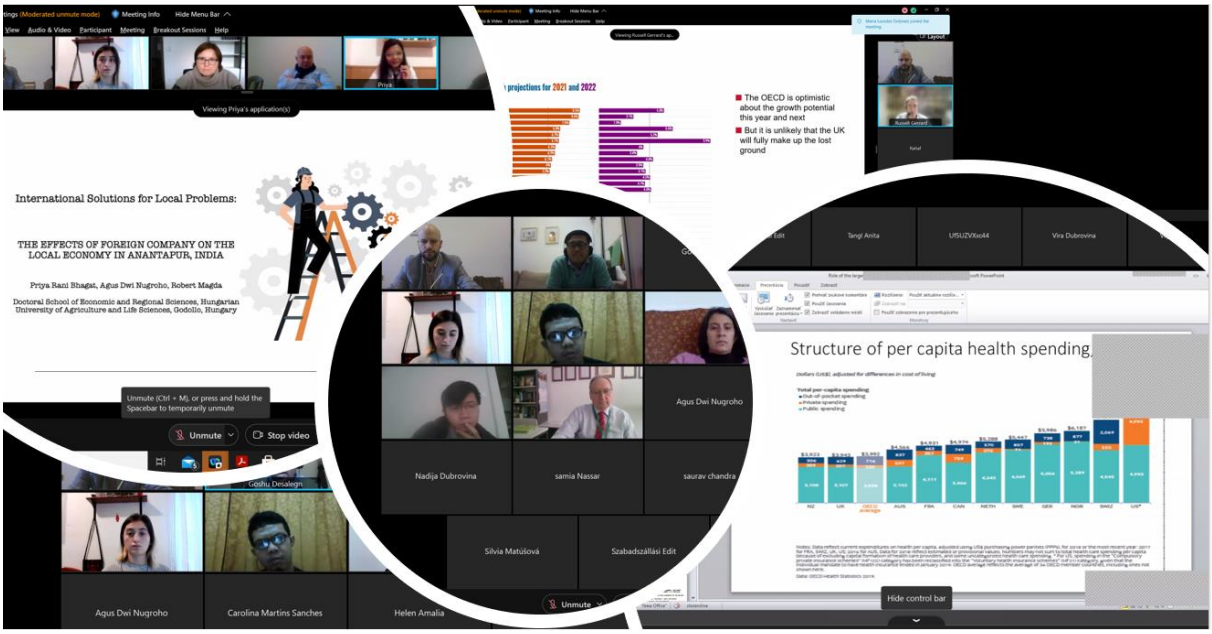


Conference Proceedings of the 2nd Online International Scientific Conference

*Economics, Politics and Management in times of change*

Online conference (CISCO Webex Meetings) 2021

November 19th, 2021, Hungary

Conference Organizer

Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary



ISBN 978-80-89654-83-3