Hammes, Khalid (Ed.); Volarevic, Hrvoje (Ed.); Kaurova, Olga (Ed.)

Conference Paper

Economic and social development : 66th International Scientific Conference on Economic and Social Development : book of proceedings : Rabat, 26-27 March, 2021

Provided in Cooperation with:
Varazdin Development and Entrepreneurship Agency

Reference: (2021). Economic and social development : 66th International Scientific Conference on Economic and Social Development : book of proceedings : Rabat, 26-27 March, 2021. Varazdin, Croatia : Varazdin Development and Entrepreneurship Agency. https://www.esd-conference.com/upload/book_of_proceedings/Book_of_Proceedings_esdRabat2021_Online.pdf.

This Version is available at:
http://hdl.handle.net/11159/5275

Varazdin Development and Entrepreneurship Agency and **University North**
in cooperation with
Faculty of Management University of Warsaw
Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat
Polytechnic of Medimurje in Cakovec

Economic and Social Development

66th International Scientific Conference on Economic and Social Development Development

Book of Proceedings

Editors:
Khalid Hammes, Hrvoje Volarevic, Olga Kaurova

ISSN 1849-7535

Rabat, 26-27 March, 2021

Varazdin Development and Entrepreneurship Agency and **University North**
in cooperation with
Faculty of Management University of Warsaw
Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat
Polytechnic of Medimurje in Cakovec

Editors:
Khalid Hammes, Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat, Morocco
Hrvoje Volarevic, Croatian National Bank, Croatia
Olga Kaurova, Russian University of Cooperation, Russian Federation

Economic and Social Development

66th International Scientific Conference on Economic and Social Development Development

Book of Proceedings

Due to the Covid-19 restrictions and epidemiological measures, the Program of the Conference has been scheduled online. All Sessions and Presentations have been presented via Discord platform.

Rabat, 26-27 March, 2021

Title ■ Economic and Social Development (Book of Proceedings), 66th International Scientific Conference on Economic and Social Development Development

Editors ■ Khalid Hammes, Hrvoje Volarevic, Olga Kaurova

Publishing Editor ■ Spomenko Kesina, Mario Vrazic, Domagoj Cingula

Publisher ■ **Design** ■ **Print** ■ Varazdin Development and Entrepreneurship Agency, Varazdin, Croatia / University North, Koprivnica, Croatia / Faculty of Management University of Warsaw, Warsaw, Poland / Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat, Morocco / Polytechnic of Medimurje in Cakovec, Cakovec, Croatia

Printing ■ Online Edition

ISSN 1849-7535
The Book is open access and double-blind peer reviewed.
Our past Books are indexed and abstracted by ProQuest, EconBIZ, CPCI (Web of Science) and EconLit databases and available for download in a PDF format from the Economic and Social Development Conference website: http://www.esd-conference.com

CONTENTS

In memory of a colleague and a Friend, Kristijan Maric.

Thank You for all the effort and passion You put into our projects.

MOST INFLUENTIAL FACTORS IMPACTING FOREIGN DIRECT INVESTMENT – A COMPARATIVE ANALYSIS

Dusko Pavlovic
Professor at Libertas International University, Zagreb, Croatia
dpavlovic@libertas.hr

Kristijan Maric
Libertas International University, Zagreb, Croatia
kmaric@libertas.hr

Igor Zovak
Libertas International University, Zagreb, Croatia
izovak@libertas.hr

ABSTRACT

In the last several decades, foreign direct investment has reached record highs in the history in international economic relations. All countries, developed, as well as developing, have been competing to attract increasing amounts of foreign capital, some of which have been more successful in doing so than others. The question is: what are the most important factors affecting the decisions of the biggest global investors, multinational corporations, on choosing the location (country) in which to invest? After the 1990-s, more and more companies from developing countries, such as Croatia, have become foreign direct investors. There is a question whether the same factors impact their decisions to invest abroad as they do for the largest companies in the world. The paper presents research into key factors impacting the decisions of the largest international corporations, comparing them with the factors influencing Croatian companies investing abroad.

Keywords: *foreign direct investment (FDI), multinational corporations, foreign investment, multinational corporations*

1. INTRODUCTION

Foreign investment has been a business activity of the largest companies since the 18th century, even though individual cases were present before this time. At first, it constituted investing in neighbouring countries, which was the simplest, due to geographical vicinity and, frequently, similar socio-economic systems. Based on knowledge and experience acquired, it subsequently started expanding to more distant regions. However, since the 19th century, especially its second half, foreign direct investment has played a significant role in international economic development and in connecting national economies. The two world wars and the great economic crisis slowed the global integration streams down in the first half of the 20th century; nevertheless, the privatisation processes and the liberalisation of goods and capital movements, present largely in both developed and developing countries, initiated an investment activity of the last several decades, that has been reaching record highs in the world history with regard to both the size of the investments and the number of countries involved. The fast-paced introduction of new technologies, as well as the drop in prices of transport and telecommunication services have been creating prerequisites for the international exchange of more and more goods and services. This is an additional motivation for foreign direct investment and expansion of business activities and direct presence of an increasing number of especially large, global companies, transnational companies abroad. The history of economy shows that the openness of the economy and international trade guarantee economic growth and development in a greater scope than protectionism and isolation.

However, a necessary prerequisite for all participating countries, especially the developing countries, to achieve equal benefits from international economic exchange is that they use national jurisdiction and macroeconomic policy to create such economic, legal and social conditions to ensure that foreign direct investment become a part of the national development strategy, facilitating their faster inclusion in international economic relations. Nevertheless, the last several years have seen the decrease in foreign direct investment and a considerable drop in international trade levels, mostly due to the anti-globalisation policy of the Trump administration in the US, but also as a consequence of the corona virus pandemic from the beginning of 2020. The World Trade Organisation estimated that in 2020 the world trade would decrease by 13 to 32 per cent, which is a much larger drop than the expected decrease of the global GDP. The United States, having been the most significant global exporter for the entire 20th century, has reduced foreign direct investment under Trump's slogan „America First", and has been stimulating the largest domestic companies to get their production back into the country. China, which has become the largest exporter and great investor in the 21st century, has also been reducing its global presence, the consequence of which is the drop of the share of export in its GDP from 31% in 2008 to 17% in 2019 (Irwin, 2020). The Republic of Croatia, as a small, transitional and moderately developed country is forced to rely on foreign capital for its development, due to the low domestic accumulation and the necessity of fast recovery of old capital funds as well as the acquisition of modern technology. A significant share of foreign funds, since its independence, has been in the form of foreign direct investment. Despite having been intended to a lesser extent to production activities aimed at export and to a larger extent to the tertiary sector aimed at increasing the business share on the Croatian market, these investments have constituted a significant factor in the development of the Republic of Croatia in the last thirty years, even with regard to employment and even with regard to local community and central government income, and even with regard to export. The extent of potential harm from closing companies owned by foreign transnational enterprises and moving them to another country can be seen in the reactions of politicians, economists and employees to the recent example of the German company Meggle discontinuing further production in Croatia or the British-American tobacco company BAT threatening to do the same. Almost every technically more complex product is not produced nationally anymore, but internationally. The vertical disintegration of a production process enables smaller countries to participate in the production of the most complex products. The level of technical development and the expertise and education levels of the labour force are key elements determining whether this participation will ensue or not. This provides the small, economically less developed countries with an equal opportunity to be included in international trade, which was significantly difficult, due to limited resources, in competing with large, industrially developed countries, in conditions of closed national economies. The rapid industrialisation of the four Asian Tigers (South Korea, Taiwan, Singapore and Hong Kong) in the 1960-s and 1970-s contributed, to a large extent, to the investment activities of multinational companies and foreign direct investment. Foreign direct investment was immensely helpful in transforming China at the end of the 20th and the beginning of the 21st century into the second largest world economy. China received $ 140 billion from foreign investment in 2019, second only to the USA. For the first time ever, less developed countries received more FDI then the world's developed economies (Lowe, 2020, p. 23). The benefits of internalisation of the production process are shared, albeit unequally, by all countries participating in it. Foreign direct investment, adequately directed and nationally supervised, can be a major factor of economic growth and development of any country. However, the activity of multinational companies, the main holders of FDI, if not included in the overall development strategy, can, especially in developing countries, have severe adverse effects on their economic and social development.

The Asian Tigers and China are a good example of the possible benefits of foreign direct investment that has enabled their companies to compete with the companies from the most advanced economies. The share of the global profits on the basis of nationality of the companies shows that North American companies account for 26, Western European companies 25, and Chinese companies 15 percent of the global profits (Mikler, 2018, p. 70). Only some 30 years ago the participation of Chinese companies in the global profits was negligible. Besides the possible positive effects, foreign direct investment can also negatively impact the economy's own competences to be equally included in international trade and can lead to loss of sovereignty of receptive countries in deciding on their own economic development, especially within the finance sector and with regard to economic foreign relations.

2. FOREIGN INVESTMENT - CONCEPT AND CLASSIFICATION

Foreign investment became a significant part of international economic relations in the second half of the 19th century. The liberal economy became a dominant characteristic of industrially largest and most developed countries, customs decreased, international trade was encouraged and barriers to international capital movement were discontinued. Its fruition transcended the national and entered the international market. This was achieved by foreign investment including companies, countries and individuals. Foreign investment can take several forms. According to the IMF and OECD classification (International Monetary Fund, 1996) foreign investment can be classified as foreign direct investment, portfolio foreign investment and other foreign investment. The most significant role in production internationalisation is played by foreign direct investment. Monetary investment is considered foreign direct investment (FDI) if the investor buys at least 10 % of company shares in a country other than their country of residence with the intention to ensure permanent interest in the company and achieve a significant impact on its management. Identical definition is also provided by the Croatian National Bank. Direct investment is an investment whereby a foreign owner acquires at least 10 % of the equity share of a company, regardless of whether it is investment by a resident abroad or by a non-resident investing in Croatian residents (CNB, 2020). The 10 % limit identifying an investment as a direct and not a portfolio investment was set arbitrarily. It is considered that a 10 % share in ownership provides a possibility of significant influence on company management. Investment can be carried out in three different forms:

1) share capital – investment in buying shares of an existing company or establishing a new one;
2) reinvested profit – instead of profit distribution through dividends and its transfer to headquarters, it stays in the foreign company – affiliated company;
3) intercompany loans

Pursuant to the Balance of Payments and International Investment Position Manual, CNB classifies investment in their reports on the assets/liabilities principle with regard to the division to date according to the so-called directional principle on direct investment in Croatia, i.e., direct investment of Croatian companies abroad. In accordance with the above-mentioned methodology, direct investment is additionally classified into:

1) investment in direct investment company („common“ direct investment)
2) investment in a direct investor (reverse investment). This is investment whereby the original direct investment recipient invests less than 10 % in the capital of their direct investor or provides them with a form of a loan (credit, bond).
3) investment among horizontally connected companies. This form of direct ownership investment is investment whereby the investor owns less than 10 % of share capital, if they are part of the same group of companies.

These investments can be investments in existing companies (brownfield) or establishment of new companies (greenfield). Although an investor can be an individual, a fund, a foundation, state and others, the most significant global investors are the economically most powerful companies in the developed countries – multinational companies. As regards foreign direct investment, this is mostly an investment or entrepreneurial activity of multinational companies into countries outside of their residence. Portfolio foreign investment is an investment whereby an investor buys securities (bonds, records) or shares of an individual company, but up to 10% of their total value. Portfolio investors do not participate in company management, but are interested in the security of the invested capital, the probability of increase in its value and profit it will generate. Their investment in a company is seldom characterised as long-term, but is determined to a large extent by short-term movements on the financial markets (International Monetary Fund, 1996). Other foreign investment comprises credit arrangements between two or more countries, international organisations, as well as other investment not characterised as direct or portfolio foreign investment. This mainly relates to public capital, as opposed to direct and portfolio investment characterised predominantly by private capital. These types of investment have a lesser direct impact on the economic activity of the receiving country and are more aimed at overcoming financial difficulties that the country is facing.

3. THE MOST SIGNIFICANT THEORIES OF FOREIGN DIRECT INVESTMENT

Numerous authors (Hortsman, I.J., Markusen, R.J. (1987), Markusen, R.J. (2002), Helpman, E. (1984), Vernon, R. (1966), Dunning, J. (1977, 1981), Hirsch (1976)) dealt with explaining the reasons behind a decision of a company to undertake foreign direct investment, instead of export or licencing, and to organise their own production abroad. This paper presents three theories that, taken as a whole, analyse a wide spectrum of reasons behind the most expensive and the riskiest method of a company's presence on a foreign market – its own organisation of production via foreign direct investment.

3.1. Product life cycle theory

The theory was developed by Raymond Vernon (1996)[1] in the 1960-s, based on the experience of the most significant production companies of the United States of America. At that time, American companies were leaders with regard to technological development level and the product creation based on it. Vernon's theory of product life cycle is divided into four stages. In the first stage, introduction of a new product, the production will be carried out in the resident country in which the product was created. It will be non-standardised and will try to adapt its characteristics to domestic buyers, that usually have greater purchasing power, so the price at this stage, due to the monopolistic position on the market, will be a less significant factor in determining the size of sales. The sales will, mainly, be carried out on the domestic market, while only a small quantity will be exported, usually to countries of an equal level of economic development and purchasing power of the population. In the second stage, the growth stage, there is an increase in product sales, there are imitators who produce similar products, some with lower production costs, therefore, leading to pressure to lower the prices. Product export is increasing, and some producers, in order to decrease production costs, are undertaking foreign direct investment to organise production abroad, thus expanding the market not only to countries of similar level of economic development, but also to less developed countries. At that time, American workers enjoyed the highest wages in the world, making production costs high, so conquering new markets by replicating production abroad (horizontal investment) was the best way to expand the market. At a later point of this stage, due to moving production abroad, there is a drop in export from the resident country. The third stage marks the maturity of the product and production standardisation, with a cease to technological advancements and

[1] See Pavlović (2008) for theories on foreign direct investment in more detail.

the key factor being the price, so production costs gain even stronger significance when deciding on the location of the company. In this stage, foreign direct investment is carried out in less developed countries where the costs of production are lower, supplying third markets, also including the resident country of the multinational company that created the product. The fourth stage is characterised by the decline in product demand in the developed countries, its production, mostly based on foreign direct investment, is moved to less developed countries, which become its main market in this stage. Vernon's was a dominant theory justifying reasons for moving production abroad, via foreign direct investment, in the 1960-s and the first half of the 1970-s. This was a period when investment was almost exclusively carried out from developed into developing countries in order to expand the market and ensure cheaper factors of production. However, in the late 1970-s, along with horizontal investment, there was an emergence of vertical investments, whereby the production is not moved entirely abroad, but only in part. Also, from 1980-s investments are carried out by countries with lower labour costs into countries with higher labour costs, i.e., opposite of what Vernon's theory states. It is beginning to be replaced by new theories, explaining the reasons behind foreign investment.

3.2. OLI paradigm

At that time a new theory is developed, the so-called OLI paradigm that represents the most frequently used theory[2] to date explaining the reasons behind undertaking foreign direct investment. The theory was set by John Dunning (1977, 1988), providing a systematic explanation of reasons for a company's decision to undertake foreign direct investment.

The theory resides on three elements:

O Ownership
L Location
I Internalization

Companies have ownership advantages (**O**) when they own an asset, knowledge or skills that provide them with an advantage over other companies and they decide to undertake foreign direct investment to achieve additional profits on foreign markets based on that advantage. Assets can be tangible, in terms of specific tangible products, or intangible, such as a world-renowned brand name, for example Coca Cola. The activities, the end products of which involve more intellectual input (R&D) have more participation of multinational companies in their company structure. This is understandable because intellectual capital is more easily transferred over national borders with considerably smaller costs than is the case with tangible products. Besides, knowledge has the nature of public goods and it can supply one location (plant), without any loss at other locations (plants). Such is the nature of formulae for chemical products, for pharmaceutical products and of brands (Markusen, 1995). Ownership of such assets can generate additional income without adding new expenses. Ownership advantage is basically a reward for previous entrepreneurial efforts (Clegg, 1992). Location advantage (**L**) is the second element construing Dunning's theory. Companies have to invest in production abroad in order to overcome limitations emerging with export. These limitations can comprise high transport costs related to product characteristics or distance from the market, or import quotas and high customs and other duties imposed on imported products. Location advantage is connected with the production factor costs, whereby there can be differences among countries. Finally, the availability of production factors, especially natural resources, and the desire for their ownership, represents a reason to undertake foreign direct investment. A direct presence of companies in such locations, as well as industrial, financial or technological centres (Silicon Valley) provides companies with a competitive edge over other companies.

[2] See (Jensen, 2006); (Matić, 2004); (Liu, 1997); (Navaretti & Venables, 2004)

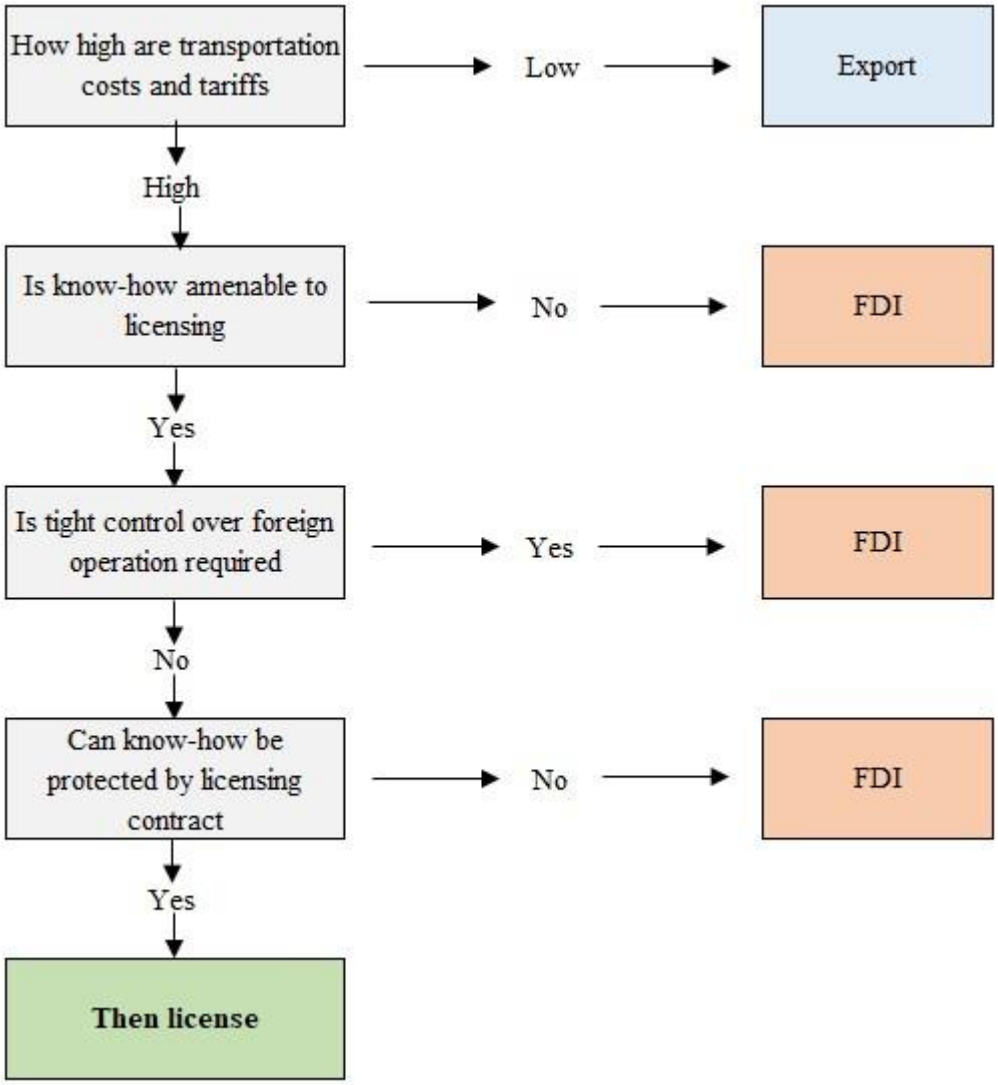
Internalization advantage (**I**) – knowledge on production processes, marketing and managerial skills and other tangible and intangible assets represent an advantage of ownership that companies can transfer abroad, also on the basis of licenced production, which would constitute a cheaper and financially less demanding method of being present on foreign markets. However, by contracting production abroad, the companies are in danger of losing the advantage, whether to the contracted party or to a third party (company). Intangible assets are easily transported abroad without high costs. However, they can be equally easily transferred from the foreign recipient to a third party. This is why companies decide to organise their own production abroad in order to keep the mentioned advantages within their own company (internally). Intellectual capital represents a more significant input with the more complex production, based on modern technologies, and with a newer product applied in a way that has not existed before. It is with regard to these types of production that multinational companies tend to keep technology and other knowledge transfers internal, since it ensures comparative advantages that bring above-average income to the company in the long term. Due to its complex approach to justifying reasons that motivate companies to make a decision on undertaking foreign direct investment and organise production (business) abroad, Dunning's theory makes up the basis of understanding foreign activity of multinational companies.

3.3. Licencing theory versus foreign direct investment

Hortsman and Markusen (1987) questioned the choice a company faces on a foreign market between licencing and foreign direct investment. The theory is based on the reputation of a company on a foreign market and product quality expected by the consumers on the grounds of that reputation. Considering that they are not able to determine the quality of the product before purchase, they expect that renowned multinational companies will offer superior quality and make purchase decisions based on that assumption. If a multinational company decides to entrust a foreign company, on the basis of a licence, with the production of its product, the latter can start producing goods of poorer quality, because it is cheaper, and generate additional income in the short term, but simultaneously destroying the reputation of the multinational company in the long term. In order to divert the foreign company in doing so, the multinational company has to offer incentives in the licence agreement that will exceed the benefits of cheaper production of poor-quality goods, and will make the foreign company lose interest to cheat on quality. By offering additional stimuli, multinational companies can face a situation in which these, together with the production costs of the local company, exceed the costs of setting up their own production abroad, in the case of which companies decide to undertake foreign direct investment and their own production. The theory is based on the necessity of multinational companies to maintain their reputation in foreign markets, that can be threatened by organising licenced production, the results of which they cannot control. The authors conclude that the dilemma over licencing and foreign direct investment does not only lie on the issue of abilities of multinational companies to control the quality of the licensed product, but also on a spectrum of other issues brought forth by the ways in which the company, the licence recipient, behaves during its utilisation, leading multinational companies to opt for undertaking foreign direct investment and organising their own production, and divert from licencing. By analysing licencing policies, Hill and Hult (2017, p.295) present companies and occasions that are best for licencing options, as well as the occasions in which licencing policies should be avoided. They show these rules visually in the following chart.

Chart following on the next page

Chart 1: Factors affecting the decision making on methods of business internationalisation



Source: (Hill & Hult, 2017, p. 295)

Despite the usefulness of the presented theories for both theoretical understanding of foreign direct investment and making practical decisions on investing activities, each company deciding to enter a foreign market should always start with its own circumstances, and only then use the described (and other) theories and practical examples of successful business ventures abroad.

4. REASONS FOR FOREIGN DIRECT INVESTMENT

Numerous theories deal with reasons why the largest global enterprises opt for expanding their business activities abroad by means of foreign direct investment. The reasons are specific for each individual company and come from their development strategies. However, a larger number of objectives are shared by most of the companies. According to UNCTAD (2006) there are four basic objectives a company wishes to achieve with foreign investment:

1) Market-seeking – investing to expand the market;
2) Efficiency-seeking – investing to increase efficiency;
3) Resource-seeking – investing for cheaper production factors or, in case of natural resources, easier access to them;

4) Asset-seeking – investing to increase assets, whereby considering both tangible and intangible assets. In case of investing in developing countries, the greater role is played by tangible assets, whereas FDI in developed countries, especially in the case of multinational companies of developed countries investing in the developing countries, the objective is to acquire intangible assets, such as licences, patents and brands.

Besides, there is also a strategic goal of investing, usually defined by governments of certain countries that encourage multinational companies to invest abroad in vital inputs such as oil and gas. There is not a strict division among the enumerated objectives, rather they are intertwined when making investment decisions and making gains on invested resources. Optimal investment conditions exist in cases in which, besides the main objective, additional effects of one of the enumerated objectives can be achieved. Nevertheless, when a company has already opted for foreign investment as means to expand their business activity, there is a question of the main factors motivating it to invest in a specific location – country. One of the most comprehensive research studies on factors impacting multinational companies to invest in a specific location was done by the Multilateral Investment Guarantee Agency within the World Bank (MIGA) (Table 1).

Table 1: Most influential factors impacting site selection for foreign direct investment

Rank	Factor	%
1	Access to customers	77
2	Stable social and political environment	64
3	Ease of doing business	54
4	Reliability and quality of infrastructure and utilities	50
5	Ability to hire technical professionals	39
6	Ability to hire management staff	38
7	Level of corruption	36
8	Cost of labour	33
9	Crime and safety	33
10	Ability to hire skilled labourers	32
11	National taxes	29
12	Cost of utilities	28
13	Roads	26
14	Access to raw materials	24
15	Availability and quality of university and technical training	24
16	Available land with all services in place	24
17	Local taxes	24
18	Access to suppliers	23
19	Labour relations and unionization	23
20	Air service	23

Source: (MIGA, 1/2002)

With the objective to compare the most influential factors of the world's largest companies motivating them to invest in a specific location/country with the factors influencing foreign investment of Croatian companies, we conducted a research study in 2011 with thirteen Croatian companies (Pavlović et al., 2011, p.61). However, this research comprised only ten factors from the MIGA list. In 2020, we repeated the research, including all twenty factors. The research was conducted via a structured questionnaire on the sample of fifty companies.

The companies that participated in the research hold business operations, i.e., branches abroad. The questionnaire was answered by 20 companies, providing the response rate of a satisfying 40 %. The respondents were asked to rank 10, from the offered 20 factors, that were the most influential in their opinion, whereby they ranked the most influential factor with a value of 10, and the least influential with a value 1. The highest absolute value a specific factor could get was 200, whereby a relative value (%) was provided and the research results are shown in Table 2.

Table 2: Most influential factors impacting foreign investment by Croatian companies

Rank	Factors	%
1	Access to customers	70
2	Cost of labour	61
3	National taxes	55
4	Ease of doing business	52
5,5	Stable social and political environment	44
5,5	Ability to hire skilled labourers	44
7	Access to suppliers	34
8	Availability of quality of university and technical training	27
9	Level of corruption	25
10	Local taxes	24
11	Crime and safety	21
12	Reliability and quality of infrastructure and utilities	19
13	Ability to hire management staff	17
14	Ability to hire technical professionals	15
15	Labour relations and unionization	11
17	Available land with all services in place	10
17	Cost of utilities	10
17	Access to raw materials	10
19	Air service	4
20	Roads	4

Source: Authors

Based on the comparison of the two sets of responses, we conducted a correlation analysis in the Microsoft Excel programme, with two indicators: Spearman's rank correlation coefficient and Pearson's linear correlation coefficient.

Equation 1: Calculation of Pearson's and Spearman's rank correlation coefficient

$$r = \frac{\sum(x-\bar{x})(y-\bar{y})}{\sqrt{\sum(x-\bar{x})^2 \sum(y-\bar{y})^2}} \qquad r_s = 1 - \frac{6\sum D^2}{n\left(n^2-1\right)}$$

Source: (Papić, 2014, p. 138)

Table 3: Comparison of most influential factors ranked by foreign and domestic managers

Factor	%	Rank X (foreign managers)	%	Rank Y (domestic managers)	di (rank difference)	di^2
Access to customers	77	1	70	1	0	0
Stable social and political environment	64	2	44	5.5	-3.5	12.25
Ease of doing business	54	3	51.5	4	-1	1
Reliability and quality of infrastructure and utilities	50	4	19	12	-8	64
Ability to hire technical professionals	39	5	14.5	14	-9	81
Ability to hire management staff	38	6	17	13	-7	49
Level of corruption	36	7	24.5	9	-2	4
Cost of labour	33	8.5	60.5	2	6.5	42.25
Crime and safety	33	8.5	21	11	-2.5	6.25
Ability to hire skilled labourers	32	10	44	5.5	4.5	20.25
National taxes	29	11	54.5	3	8	64
Cost of utilities	28	12	9.5	17	-5	25
Roads	26	13	3.5	20	-7	49
Availability and quality of university and technical training	24	15.5	26.5	8	7.5	56.25
Local taxes	24	15.5	24	10	5.5	30.25
Access to raw materials	24	15.5	9.5	17	-1.5	2.25
Available land with all services in place	24	15.5	9.5	17	-1.5	2.25
Labour relations and unionization	23	19	10.5	15	4	16
Access to suppliers	23	19	34	7	12	144
Air service	23	19	4	19	0	0
					0	**669**

Source: Authors

The coefficients indicate that the correlation between responses of domestic and foreign managers is positive and strong. A positive correlation coefficient indicates the variable proportionality, i.e., similar rank of significance of individual factors in specific cases. The P-value given in the regression table ($p<0.05$) leads to a conclusion that at the level of reliability of 95% there is a statistically significant correlation between the answers of the two groups of respondents. Despite the evident specific variances related to ranking the influence of individual factors (the greatest variance being the access to suppliers factor and ability to hire technical professionals factor), the Pearson's linear correlation coefficient and the Spearman's rank correlation coefficient show that these variances are statistically negligible.

Table following on the next page

Table 4: Overview of correlation indicators in MS Excel

Regression Statistics	
Pearson Coefficient (Multiple R)	0.60
Spearman Coefficient	0.50
P-value	0.01
R Square	0.36
Adjusted R Square	0.32
Standard Error	12.38
Observations	20.00

Source: Authors

As can be seen, access to customers is also the most important factor for Croatian companies in making a decision to invest in a specific country. This is an especially important fact for small countries. Namely, these have to compensate for the fact that they have a small market with a range of other important factors such as ease of doing business, stable political and social environment, availability of highly educated and trained labourers and the like, in order to attract foreign investors. With the intention to compare our success in attracting foreign direct investment with the results achieved in this sense by other countries, in Croatia there is a frequent mention of Poland or even China. Due to a great difference in the number of potential customers, as seen in Tables 1 and 2, this represents the most significant factor in attracting foreign investors, indicating that these are not countries with which Croatia should be compared. Croatian companies rank labour costs and national taxes as the second and third most influential factor. Both factors are ranked significantly lower in the MIGA report (Table 1). In terms of local taxes, they do not represent a high significance for the largest global companies, the multinational companies, because by means of transfer pricing and methods of creative accounting, they can be easily avoided in countries in which the taxes are high. For Croatian companies, this is much more difficult, because they do not have a great number of affiliates in different countries to use transfer pricing, thus avoiding taxes in high-tax countries. With regard to costs of labour, we assume that the difference lies in the meaning that the factor has for Croatian companies, as opposed to multinational companies from the MIGA report, because the foreign investment of major global companies is mostly in capital-intensive business activities, and of Croatian companies in labour-intensive business activities; therefore, the cost of labour has a significantly different impact on the end price of a product or service. An encouraging fact is that the level of corruption and the level of crime and safety gained a far more prominent rank as negative factors in the research conducted in 2020, compared to the one we conducted in 2011 (Pavlović et al., 2011). We assume that the reason for this is the level of awareness, which rose after Croatian admission into the European Union, about the extent to which corruption and crime level can adversely affect equal market competitiveness of a company in a specific country. This is why Croatian companies, as well as global companies, try to avoid or reduce investment in countries, the economic activity of which is significantly affected by corruption and crime. In relation to other factors, there are no significant differences between research conducted with Croatian companies and the MIGA report on the largest global companies. This indicates an equalisation of factors and, in relation to the research conducted in 2011, approximate similarity of Croatian companies to multinational companies in valuating foreign locations/countries in deciding on foreign investment.

5. CONCLUSION

Inclusion of more and more countries in international labour trade in the last several decades has resulted from several simultaneous processes. On the one hand, the fall of the Berlin Wall and ensuing events have brought a larger number of Central and Eastern Europe with over 300 million citizens into the processes of international economic trade and foreign investment.

On the other hand, the economic, and partly political opening of China and an extremely rapid growth of its economy, partly motivated by vast foreign investment, and, additionally, the dominating liberal ideologies present in a great majority of the world's largest economies, have led to a growth in foreign direct investment, reaching a record high. There almost isn't a country in the world that is not, in various ways, competing to attract foreign investors by offering various incentives and benefits in order to ensure that the venture capital be invested in economic activities on their own territory. The research conducted on the sample of twenty Croatian companies shows the most influential factors impacting the decisions on the locations most likely to be chosen by companies for their investments. With this regard, the attitudes of Croatian companies do not significantly differ from the attitudes of the world's largest companies shown in the MIGA research report. Both research studies carry special significance for small countries, such as Croatia, because they indicate the ways in which they can attract foreign investors, and additionally, that they cannot compete with large countries in the most important criterium of investing decisions, which is the size of the market. Nevertheless, the examples of countries like Singapore, Hong Kong, Denmark, Ireland, Slovakia and others show that creative economic policies can attract significant resources from foreign investors even with a small number of citizens, i.e., a small market. Foreign direct investment will continue to play a significant role in achieving presence on foreign markets, but also to be a significant factor in the development of all countries. This is a reason for, especially small countries to use the results of this research and dedicate a great amount of attention in their development to those business conditions that would be of high importance to foreign investors.

LITERATURE:

1. Clegg, J., 1992. Explaining Foreign Direct investment Flows. *Multinational Enterprises in the World Economy: Essays in Honour of John Dunning,* p. 56.
2. Hill, C. & Hult, G., 2017. *Global Business Today.* 10 ur. s.l.:McGraw-Hill Education.
3. HNB, 2020. [online publication] Available at: https://www.hnb.hr/statistika/statisticki-podaci/sektor-inozemstva/inozemna-izravna-ulaganja
4. Horstmann, I. & Markusen, J., 1987. Licensing versus Direct Investment: A Model of Internalization by the Multinational Enterprise. *Canadian Journal of Economics,* 20(3), pp. 464-81.
5. International Monetary Fund, 1996.. *Balance of Payments Manuel: OECD Benchmark definition of foreign direct investment,* Washington: International Monetary Fund.
6. Irwin, D. A., 2020. *www.piie.com.* [online publication] Available at: https://www.piie.com/blogs/realtime-economic-issues-watch/pandemic-adds-momentum-deglobalization-trend
7. Jensen, N., 2006. *Nation-States and the Multinational Corporation.* New Jersey: Princeton University Press.
8. Liu, S., 1997. . *Foreign direct Investment and the Multinational Enterprise.* Westport: Praeger.
9. Lowe, P., 2020. *Transnational & Multionational Corporations in the Gobal Economy.* Meinzahn : Independently published.
10. Markusen, J. R., 1995.. Factor movements and commodity trade as complements. *International Trade Volume II: Production Structure, Trade and Growth,* pp. 311-326.
11. Matić, B., 2004. *Međunarodno poslovanje.* Zagreb: Sinergija nakladništvo d.o.o..
12. MIGA, 1/2002. *FOREIGN DIRECT INVESTMENT SURVEY,* Washington: The World Bank Group/MIGA.
13. Mikler, J., 2018. *The Political Power of Global Corporations.* Cambridge : Polity Press .
14. Navaretti, G. B. & Venables, A. J., 2004. *Multinational Firms in the World Economy.* New Jersey: Princeton University Press.

15. Papić, M., 2014. *Primjenjena statistika u MS Exelu.* 5 ur. Zagreb: ZORO d.o.o..
16. Pavlović, D., 2008. *Inozemne direktne investicije u međunarodnoj trgovini.* Zagreb : Golden marketing- Tehnička knjiga.
17. Pavlović, D., Ćosić, D. & Stojsavljević, S., 2011. Razlike u vrednovanju inozemne lokacije za izravna ulaganja. *Ekonomski vjesnik : Review of Contemporary Entrepreneurship, Business, and Economic Issues,* 24(1), pp. 61-71.
18. UNCTAD, 2006. *World Investment Report 2006-FDI from Developing and Transition Economies. Implications for Development,* New York and Geneva: United Nations.
19. Vernon, R., 4/1966.. International Investment and International Trade in the Product Cycle. *Quarterly Journal of Economics,,* 82(2), pp. 190-207.
20. Zakon o deviznom poslovanju NN 79/13, 2013. s.l.: an.

DRIVERS AND BARRIERS OF CROSS-BORDER CO-OPERATION: CASE STUDY OF THE SLOVAK-AUSTRIAN CROSS-BORDER COOPERATION PROGRAMME

Dagmar Gombitova
Institute for Forecasting, Centre of Social and Psychological Sciences, Slovak Academy of Sciences, Šancova 56, 813 64 Bratislava, Slovak Republic
dgombitova@gmail.com

ABSTRACT
The cooperation programmes should contribute to integration of the common area and help to eliminate differences in development of the border regions. Slovak-Austrian cross-border cooperation has been running for more than 25 years. Despite the long-term experience it still faces many challenges, especially since the management of the Programme was transferred to Slovakia. The economically strongest Slovak and Austrian metropolitan areas create a special cross-border region with the shortest border. Therefore, there is relatively small number of the institutions programming and implementing the Programme and small number of applicants. However, the implementation has not progressed well and experienced numerous difficulties. These are in line with the common obstacles of the cross-border cooperation identified by the Commission Services' intensive research. The questionnaire conducted with the stakeholders of the currently running Programme confirmed difficulties to overcome differences in the administrative and management structures on both sides of the border. Besides that, the language difference is obviously limiting factor, especially for some potential partners. The cultural issues have been dealt with mainly at the strategic level. The summary of identified obstacles led to a competitive perception of the Programme rather than development of a strategy for the common region by all partners together. A few proposals are outlined to overcome this approach and strengthen the original objectives of the European cross-border cooperation policy.
Keywords: *cross-border, cooperation, obstacles, regional development*

1. INTRODUCTION

The European Commission provides financial sources to support cooperation in the bordering regions of the Member States. This support aims *to tackle common challenges identified jointly in the border regions and to exploit the untapped growth potential in border areas, while enhancing the cooperation process for the purposes of the overall harmonious development of the Union* (EC). The cooperation programmes should thus ensure that national borders are not perceived as barriers, their development contributes to integration of the common area, and the cross-border cooperation (CBC) helps to eliminate differences in development of the border regions. Currently, the overall border area comprises 38 internal borders of NUTS 2 or NUTS 3 regions populated by more than one third of the EU citizens (European Commission, 2017). The cross-border cooperation CBC was initially introduced as an EC Community initiative in 1990 and the cooperation at the Slovak – Austrian (SK – AT) border[1] started in 1994. At the outset, the cooperation had focused on cross-border relations but gradually it has been transformed by the EU into an administrative cooperation directed to the wider border region (Terlouw, 2012) with growing financial support. The current Interreg V-A 2014 – 2020 at the same border (€76 mil. allocation) is focused on the cooperation in education, natural and cultural heritage, environment, transport, and institutional cooperation.

[1] the Programme area covers five regions: Wien, Niederösterreich and Burgenland in Austria and Bratislava and Trnava regions in Slovakia

The current assistance still faces numerous berries but in the future should be more concentrated on the reduction of obstacles in the development of border areas (Pucher, Stumm, Schneidewind, 2017; Medeiros, 2018). The SK - AT CBC programmes were managed on the Austrian side until 2013, when it was agreed that the Managing Authority of the Programme would be transferred to Slovakia. The management and administrative processes and procedures had to be established from scratch. The beginning of this process was complicated by high staff turnover in the management position of the Programme, influenced by political changes following the Slovak parliamentary elections in 2016. This resulted in a factual re-start of the Programme with two years' delay. The studied border region is to a large extent centrally located metropolitan regions of two capitals - Vienna and Bratislava, which are the administrative and economic centres of the two countries – Austria and Slovakia. The special features of the cross-border region are reinforced by its geographic location in Europe. The demographic and economic development of areas situated in Central Europe is more favourable compared to those situated in peripheral parts of Europe (Caisto, 2016). Besides that, it is the most closely located couple of capitals within the EU. Bratislava is situated directly at the border and distance between capitals of the two countries is 60 km. At the same time, it is the only EU capital neighbouring with two countries. The proximity of capitals and metropolitan regions is thus an important specific feature of the SK – AT CBC (Halas, 2007). Austria and Slovakia share a very short common border that runs for 106,7 km. Therefore, the border concentrates strong economic power as well as a few powerful central and regional administrative bodies in a small area. All these factors offer a good context for the development of cooperation, but this is also limiting the number of stakeholders (Kaisto, 2016). This may eventually have a negative influence on the Interreg programme as the small group of stakeholders is planning, selecting, and implementing all the interventions and may face conflict of interest at some stage (Nadulatti, 2015). Slow progress of the SK – AT CBC Programme, despite the effort of the main stakeholders to speed up the implementation, raised the question if there are any obstacles, which are specific for this Programme and/or region or the observed problems can be considered typical for any CBC programme. Therefore, the aim of the study was to identify the main problems of CBC in general and review the SK – AT CBC Programme from this perspective. Chapter 1 presents general overview of the discussed topic. Chapter 2 provides state of art in relation to the identification of cross-border cooperation barriers. Chapter 3 comprises description of the methodology. The next chapter includes review of the obstacles from the SK – AT CBC Programme perspective. Chapter 5 offers findings and the final chapter 6 conclusions and recommendations.

2. CHALLENGES

After 30 years of CBC support, the border regions within EU still face some challenges. To learn more about the CBC development, the Commission Services initiated in 2015 the first two-years intensive survey and dialogue with border stakeholders, national, regional, and local authorities in EU countries (European Commission, 2016). The survey explored a range of issues and was conducted among citizens living in the border regions covered by Interreg programmes. The questions of the survey concerned the awareness of cross-border cooperation programmes, travelling abroad, trust and attitudes towards neighbour citizens and obstacles to cross-border cooperation, which were understood as challenges for cooperation created by the presence of a border. The final results of the survey stated five main obstacles: accessibility, cultural differences, legal or administrative differences, social and economic differences, and language barrier. There are number of various factors, which influence opinions of relevant stakeholders in different bordering regions. The historical development of the border region is one of the most important factors, that plays key role in mutual relationships and is likely to influence all identified obstacles.

The results of the research therefore differ, depending on the region and assessed issue. The proportion of respondents considering individual factors as obstacles for the CBC at the Slovak borders with individual neighbouring countries and/or Slovak and EU averages are provided in Table 1 (European Commission, 2016).

Borders of Slovakia with	Austria	Hungary	Poland	Czech R.	SK average	EU average
Accessibility	**28**	22	38	27	29	30
Cultural differences	**35**	29	34	21	30	32
Legal/administrative differences	**51**	40	42	42	44	45
Social and economic differences	**67**	38	46	47	50	46
Language barrier	**72**	64	60	18	54	57

Table 1: Percentage of respondents who identified individual obstacles for CBC in their region (Source: Author, based on European Commission, 2016)

The obstacles are ranked from the least to the most significant for SK – AT CBC. Comparing the results of survey, we can see that obstacles of Slovak CBC on average, are in the same range as the European average or respondents considered them slightly less problematic except for legal/administrative differences. According to the research, the least problematic is the accessibility with Hungary, while the most problematic is the language barrier between Slovaks and Austrians. The SK – AT border is seen as the most problematic, apart from accessibility, which is at about the same level as at the Czech border, slightly worse than at the Hungarian but much better than at the Polish border. The Interreg programmes should serve as tool to mitigate the obstacles. Citizens living in the border areas mentioned obstacles from their perspective. However, the perception of obstacles from the perspective of the programme stakeholders can provide different picture. The initial research of relevant scientific literature and other available sources enabled the identification of the most common and typical obstacles of the CBC interventions in general. Then, the main attention was paid to the five identified obstacles of the CBC. We studied and compared individual obstacles in the context of the currently implemented Interreg V-A Programme 2014 – 2020 (further referred as the Programme). Our aim was to detect the most relevant obstacle from the Programme perspective, explain the reasons and suggest corrective measures to ensure smooth implementation and achievement of the planned objectives.

3. RESEARCH METHODS

The initial research focused on the Programme reports and other documents explaining the history of its implementation from the start: establishment of structures, elaboration of forms, guidelines, procedures, published calls for proposals, assessment of applications, their final selection, contracting, project implementation monitoring and financial progress. The secondary data were either published on the web page of the Programme or were made available by the management body and detailed analysis of information could be carried out. This information offered sufficient base to judge how relevant were the above-mentioned obstacles for the Programme and identify the main bottleneck - legal and administrative obstacles. Further research applied mostly qualitative methods. The main tool for the primary data collection was the online questionnaire (see Annex 1) comprising both, closed and opened questions. The questions were designed to provide namely more detailed understanding of the legal and administrative obstacles. It was focused on the processes from the planning stage, through the application up to the project implementation. The introductory part of the questionnaire was asking about experience of the applicants because the high administrative complexity requires experience. It is often a critical factor for the success. Next part questioned the application process - the way how the applications were prepared, submitted and provision of support and

information during this process as this is also limiting for the success. The inevitable condition to apply for the grant is existing partnership therefore it was crucial to find out how it worked. At the time of the research only a few projects were running. The main emphasis was therefore given to such legal and administrative steps, that had been applied by all the respondents and they had some experience with these procedures. This was valid mainly for the application phase and partly for the implementation. As the monitoring system (ITMS – Information Technology Monitoring System) was introduced at the later stage some of the respondents submitted printed form of the application. Nevertheless, if they succeeded, they had to work with the ITMS during the implementation. The question was raised in relation to the use of this monitoring system. The final question asked about the scope of the assistance aiming at the identification of some specific area, which might not be suitable for the cooperation due to legal obstacles. As the Programme implementation was initiated with the delay, the overall number of the applicants - those who succeeded and obtained financial support, as well as unsuccessful applicants - was rather limited at the time of our research. It was therefore feasible to approach all of those who applied and officially represented the project, which was either Slovak or Austrian institution/organisation in the role of project Lead Partner. Overall, 36 questionnaires were thus distributed in December 2019 to the Slovak and Austrian Lead Partners and 27 of them provided answers (15 Slovak and 12 Austrian). Following the distribution, the Lead Partners were contacted by phone and kindly reminded to provide answers. Some decided to respond by phone, which offered the opportunity for the clarification if there was such a need. More than half of respondents provided written answers by email.

4. BARRIERS OF COOPERATION

When judging the five identified barriers from the perspective of the Programme implementation, their perception is a bit different. The current SK - AT CBC Programme planned and allocation to further support connectivity but faced low interest of the applicants. The originally planned bridge, that should replace existing ferry at the border crossing Angern – Záhorská Ves and assumed to spend large part of the allocation, was refused in local referendum in Austria. The project was eventually replaced by the bridge for pedestrian in the neighbouring village. The lack of applications in this area was the result of very complicated and lengthy planning and administration process, including the need to resolve ownership of plot, urban planning and building permission for any infrastructure on the Slovak side. As regards possible transport infrastructure, the needs of Bratislava are saturated by three road border crossings and two train crossings. The remaining length of border is small (some 40 – 50 km) and located in rural area with a few small municipalities. It is currently served by two road crossings (ferry and bridge) and additional bridge for pedestrians built in Bratislava with the support of previous programme. Therefore, if the new pedestrian bridge is built from the current Programme, it is unlikely to expect any other small bridges in this area. The complementary big infrastructure (highway connections or railway modernisation) is financially demanding and could be only partially funded by CBC sources due to the budget restrictions. Therefore, if there is further support provided, it needs to carefully consider what are the possible options. Otherwise, the Programme my face the same difficulties with low interest of applicants or lengthy preparatory period of newly submitted projects. The needs that have not been dealt with but were identified earlier refer to a transport infrastructure upgrade, removal of bottlenecks on logistics nodes, better connection of the airports or the use of untapped transport capacities of the Danube (CENTROPE, 2012). Regarding the cultural differences, the information provided on the Programme reveal that there used to be different perceptions and views of the Slovak and Austrian stakeholders how to develop the cooperation. While in some cases the Slovak partners started with direct planning, the Austrians needed more time to get acquainted with the counterparts and their ideas.

At the same time both sides were willing to seek and find common solutions. The experience shows that the created partnerships worked well and are sustainable. Although it could be expected that there is little what can be offered by the Slovak partners to their partners from the more developed and economically stronger country, some of the projects confirm the opposite. The Slovak folk culture and traditions proved to be very attractive but also contemporary art combined with innovation have gained the recognition of partners and wider professional public. Although the general macroeconomic figures do not show big differences, the unidirectional cross-border mobility confirms that economic situation in Austria is better. The Slovak citizens travel to work in Austria due to persisting income differences but also for other reasons: shopping, culture, or tourism. The cross-border suburbanisation of Slovak citizens in Austria is still growing. This imbalance is felt in some CBC projects where the transfer of know-how and/or partnership's benefit has largely one-way direction (from Austria to Slovakia). The financial power of partners favours Austrian part while the Slovak institutions fight for promised co-financing sources from their headquarters. As mentioned earlier, the economic situation in the countries is also reflected in the focus of the project activities. The Austrian regions (Länder) are politically much stronger, more independent with more decision-making powers, while the Slovak regions have much less decision-making powers and are centrally managed in many areas. Their financing mechanisms are also significantly different. The needs and issues the project partners from regional administrations can directly manage and decide, thus differ a lot, as well as their competencies. In addition, the cooperation interventions must consider sometimes the very different level of basic infrastructure and therefore diverse needs of the partners. While Austrian partners usually have the necessary infrastructure in place and need some follow-up activities, the Slovak side is often missing the basic elements. This is one the main challenges for the partnership when it comes to harmonising needs, satisfying all partners, and achieving truly common objectives. The language barrier is not directly visible from our survey as the applicants had to overcome this problem and at least some of the partners in the partnership were better equipped with the language knowledge (either German or English). However, our review suggests that the language represents the big barrier for small municipalities and institutions where the administrative human resources are scarce and less proficient in languages. This type of partners is practically absent in the partnerships, especially on the Slovak side. The general reviews confirmed the language barrier as the most significant obstacle of the CBC (European Commission, 2016; Šindelář, 2018). This might be also the reason for small number of applicants in the calls of the CBC Programme. After the review of the primary and secondary data we detected two levels of legal and administrative barriers: one concerned the projects per se (their feasibility), the other was at the Programme management level. At the project level it meant that some project ideas could not be implemented because the legal set up in the countries was not compatible. It mostly concerned social and health projects (common services). However, in some countries a few projects already found solutions how to overcome the obstacles and serve as good practise examples (Pucher, 2017). When designing the project, the partners must carefully assess all possible risks and redesign the original ideas if such problems could occur. The barriers at the Programme management level concern all projects. Our review briefly covered main management and administration processes to identify the most significant issues.

5. KEY FINDINGS

As explained above, one of the main reasons for late start of the Programme was completely new set up of all management and administration processes following the transfer of the Programme Managing Authority from Austria to Slovakia. This transfer provided a good opportunity to compare former Austrian and current Slovak Programme management as most of the applicants had this experience.

Based on the findings, our research attributed late start and slow progress of the Programme largely to legal and administrative barriers. The responses (Table 2) indicated that practically all Lead Partners had previous experience with this type of projects and found this experience very useful. As mentioned by one of the respondents: *we had a lot of experience with other programmes but for those who submit applications for the first time, it had to be very complicated*. The available data and information suggest that the participants of the CBC programmes are often the same. The change of the partnership's composition is only occasional and/or only some partners are replaced. The long-term partnerships prove the success of the co-operation. However, the opportunity to succeed for new partnerships without previous experience, is rather limited. Projects with too many partners are difficult to manage and require sufficient and capable human resources. This is unlikely to expect from non-governmental organisations or small municipalities.

Questions	**Lead Partners**			
	Slovak		**Austrian**	
	Yes	**No**	**Yes**	**No**
Previous experience with CBC or other EU programmes	14	1	11	0
Usefulness of previous experience	13	2	9	2
Difficulty in finding a suitable CB partner/s	1	13	0	11
Sufficient info during preparing the application	13	2	8	1
Knowledge whom to contact if necessary	14	1	9	1
Support of programme staff if needed	14	1	9	2
Focus of the future programme - additional areas of support	3	10	5	6

Table 2: Number of the Slovak and Austrian respondents (Lead Partners) expressing consent or disagreements with the items in the questionnaire
(Source: Author)

Most of the respondents submitted the application in the paper form as the monitoring system (ITMS) was made operational later. During the implementation phase it was used for the reporting and accounting purposes. In relation to the application process, respondents mentioned *countless forms, that had to be filled in* and *much stricter guidelines than in Austria* but also stated that *it takes a long time for a funding application to be signed*. As regards the provision of information apart from the very initial stage of the Programme no substantial difficulties were mentioned. The support was provided by the Programme staff if needed and it was found sufficient. Despite the good guidance and gradually reduced number of confirmations/documents for the applications, the procedure was still considered *tedious and unnecessarily complicated* by the respondents. One of the respondents stated: *It is a pity that the Programme is not very flexible during implementation and the administrative burden is disproportionate. I often feel that the results of a project are not as important as the amount of paper that is produced during implementation. The control is sometimes close to administrative bullying and is demotivating.* Some differences were reported in the requirements of the Slovak Programme management and Austrian regional authorities, performing the role of the first level control. The change of forms and templates due to various legal and administrative requirements was found disturbing. Slovak respondents representing state institutions experienced problems with the funding as it was not easy to align the institutional budget and lengthy approvals of project activities and subsequent reimbursement of funds also took a long time. Most of the complaints concerned the monitoring system ITMS compulsory used for the management of all European Structural and Investment Funds in Slovakia. The legal requirement to use the ITMS caused difficulties as the system had to be additionally translated into German, which did not work well. The ITMS was developed to work at the national level therefore, it was difficult to login to the system without Slovak identification card and the

Austrian partners had no possibility to use electronic signature. Some of the documents had to be delivered both electronically and signed in the paper form. The use of ITMS was considered user-friendly by four Slovak respondents who are the long-term users of the system and eight others considered the system manageable. However, five Slovak and nine Austrian respondents found it unsuitable for this Programme. As mention by the respondents: *the whole system is multiplied by numerous and explicitly formally set fields, many of which are not relevant to the Programme* and stated that *several training courses had to be completed before the handling of the program was understandable*. They referred to the system as very confusing, non-intuitive and user unfriendly and complex. Nevertheless, the ITMS use was made obligatory with the explanation that for the safety reasons no other system can be linked to the state treasury enabling payments. Slovak national guidelines and procedures did not prove to be suitable for the Programme and did not fit well with its special features. All the necessary Programme forms, contracts, templates, and other materials were developed from scratch and tried to balance the specific needs of the Programme and the strict frames of the national legislation, which proved to be challenging. Facing the above-mentioned problems, some special measures had to be introduced and several exceptions from the Slovak legal framework for EU funded programmes had to be adopted. The differences were also visible in the approval processes of the Monitoring Committee. It contains an unusual dual decision-making mechanism of the Committee, which enables three options - voting for, against and abstain for the Slovak members, and consensus agreement only for the Austrian part of the Committee. The above-mentioned differences in the governance and administrative set up of the two countries also play important role. The role of implementing partners in Austria is often taken by quasi-public agencies, nongovernmental regional bodies, or think-tanks, which reflects the outsourcing of governmental activities. Development and business agencies are also actively participating in the partnerships. On the contrary, the Slovak partners implementing CBC projects involve very restricted number of private bodies as the coordination of socio-economic development rests very much in the hands of public authorities and central government (Sohn, 2015; Scott, 2015; Beck, 2018). These authorities are stable but rigid and slow-to-adapt to different conditions or problems (Špaček, 2018). The final part of the questionnaire confirms that current scope of the assistance is from the legal point of view manageable and existing best practise examples can serve as inspiration to manage such hindrances.

6. CONCLUSIONS

It is understood that the external validity of the research is limited in scope. It concerns only one specific CBC Programme and the number of respondents (27) was low, though it represented 75 % of the population (Lead Partners). The findings confirm that the new management of the Programme is suffering from substantial differences in both administrative and legal systems. The effort to unify the management of all EU funded interventions in Slovakia and apply the common legal framework for both national and CBC programmes, did not work well and caused numerous difficulties. The Programme, which started late faced many problems to catch up the delay from the beginning, at least to some extent. The Slovak partners had to deal with additional and very substantial legal and administration obstacles concerning complicated and lengthy public procurement and building permits provision. These might not affect the Austrian partners directly but slowed down the project planning and implementation. Majority of problems was related to the management and administration system of ESIF. The former Austrian management system used to be simpler but the Slovak one proved to be too bureaucratic. The long-term efforts to simplify the processes have not materialised, yet. The EU support in Slovakia is governed by the Act on ESIF[2], which is applicable to all EU funded

[2] Act no. 292/2014 on the contribution provided by the European Structural and Investment Funds

Operational Programmes running in Slovakia[3], has not assumed any cross-border operations and participation of foreign stakeholders. The main difficulties were caused by universal application of the Act on ESIF, which did not correspond with the special management of the CBC programmes. Equally, the use of ITMS system, namely its delayed German version with inaccurate or missing translation, was considered serious obstacle. It is obvious, that the common projects can obviously reduce many obstacles but those of a legal-administrative character, cannot be mitigated by the Interreg programmes (Medeiros, 2018). As this is a common problem of CBC programmes, based on the findings we would recommend considering the use of unified management system for all EU cross-border programmes. This management system could be like the one applied in community initiatives managed by EC. Such a solution could reduce most of the obstacles at the programme implementation level and unify the rules regardless of the legal framework of the country managing the programme. The recent survey conducted by Šindelář (2018) pointed out a few other weaknesses and stated that despite the long-term CBC support the current Slovak – Austrian cooperation is not very intensive. Besides the above-described obstacles, the survey emphasised the lack of actors who would be active and speak to their counterparts. It mentioned the focus on the cooperation of capitals but otherwise insufficient communication. Similar pattern was observed by Sohn (2015) confirming, that Bratislava communicated more often with Austrian partners, mainly its counterpart Vienna. On the contrary, the Austrian organizations communicated more with their national partners than with the Slovak organizations. This demonstrates that CBC is still a challenge and abolition of borders between the EU member states are necessary, but not sufficient condition for stronger integration (Perchinig et al., 2018). The issue of communication and competition rather than cooperation of the cross-border regions (Jasso, 2008) represent new subjects of research. This can also have potential to improve the cooperation as the cross-border territory is currently not perceived as a joint property (Nadalutti, 2015).

ANNEX 1 QUESTIONNAIRE

1. Did you have experience with a cross-border cooperation program or another EU program?
   Yes
   No
2. Did previous experience help you?
   Yes
   No
3. Did you submit the application
   in printed form
   electronically by e-mail
   through ITMS
4. Did you have sufficient information when applying for the grant (what can you ask for, under what conditions)?
   Yes
   No
   If not, why?
5. Was it difficult for you to find a suitable cross-border partner / partners?
   Yes
   No
   Why?

[3] consists of European Regional Development Fund, European Social Fund and Cohesion Fund

6. Did you know who to contact if necessary?
   Yes
   No
   If so, did you take this opportunity/did it help?
7. Was the support of the program staff sufficient?
   Yes
   No
   If not, why?
8. What form of communication with the Programme staff do you prefer?
   Phone
   Email
   Seminars
   Other
9. What was the most complicated for you in the process of preparing grant application and Why?
10. If you had the option, which part of the process would you adjust and how?
11. What is your experience with ITMS?
    System is user-friendly and easy to use
    System is not user-friendly, but manageable
    System is not suitable for this type of programme
    If not suitable, why?
12. Should the program focus on other areas in the future? (excluding support for building a cross-border knowledge region, natural and cultural heritage and biodiversity, sustainable transport solutions and strengthening cross-border institutional cooperation)
    Yes
    No
    If so, which and why?

LITERATURE:

1. Beck, J. (2017). *Cross-border cooperation and the challenge of transnational institution-building – the example of the European Grouping of Territorial Cooperation*. RECERC, 1 Spécial.
2. European Commission. (2017). *Boosting growth and cohesion in EU border regions*. Communication from the Commission to the Council and the European Parliament. Brussels.
3. European Commission. (2016). *Overcoming Obstacles in Border regions*, summary report on the online public consultation on border obstacles. 21 September-21 December, Directorate-General for Regional and Urban Policy (DG Regio). Brussels.
4. Jasso, M. (2008). *Cross-border cooperation challenges: Positioning the Vienna-Bratislava region*, in M. Leibenath, E. Korcelli-Olejniczak, and R. Knippschild (Eds), *Crossborder Governance and Sustainable Spatial Development*, 87–100, Berlin: Springer.
5. Kaisto, V. (2016). *Cross-Border Areas Facing Europe's Crises: Problems in Measuring Territorial Development with Statistical Data and Analyses*. YearBook Cross-Border Review. 65-85. Budapest: European Institute of Cross-Border Studies – CESCI.
6. Medeiros, E. (2018). *Should EU cross-border cooperation programmes focus mainly on reducing border obstacles?* Documents d'Analisi Geografica, 64, 467–491.
7. Nadalutti, E. (2015): *Is EU Cross-border Cooperation Ethical? Reading Cross-border Cooperation Through the 'Needs for Roots' by Simone Weil*, Geopolitics, 1-28.

8. Perchinig, B., Horváth, V., Molnár, D., Ťavodová, L. (2018) *A Multitude of Mobilities: Cross-border Practices in the Austrian-Hungarian and Austrian-Slovak Border Regions*. Working Paper. Vienna: International Centre for Migration Policy Development.
9. Pucher, J., Stumm, T., Schneidewind, P. (2017). *Easing legal and administrative obstacles in EU border regions*. Final report. Brussels: European Commission.
10. Scott, J. (2015). *Bordering, border politics and cross-border cooperation in Europe*. In Celata, F. and Coletti, R. (Eds.) *Neighbourhood policy and the construction of the European external borders.* 27–44. New York: Springer, GeoJournal Library.
11. Šindelář, M., Jeřábek, M. (2018). *Slovensko-rakouská přeshraniční spolupráce pohledem místních obyvatel a starostů*. Geografický časopis, 70 (2), 179-194.
12. Sohn, C., Giffinger, R. (2015). *A Policy Network Approach to Cross-Border Metropolitan Governance: The Cases of Vienna and Bratislava*. European Planning Studies Journal, 23 (6), 1187-1208.
13. Špaček, M. (2018). *Multilevel Cross-Border Governance in the Czech-Saxon Borderland: Working together or in Parallel?* Administrative Culture, 18 (2), 175-202.
14. Terlouw, K. (2012) *Border Surfers and Euroregions: Unplanned Cross-Border Behaviour and Planned Territorial Structures of Cross-Border Governance*, Planning Practice & Research, 27(3), 351-366.

THE ROLE OF SERVICE QUALITY IN SELECTING BUSINESS CONSULTING PROVIDERS

Dragan Benazic
Associate Professor at Juraj Dobrila University of Pula,
Faculty of Economics and Tourism „Dr. Mijo Mirković", Croatia
dbenazic@unipu.hr

ABSTRACT

Due to the distinctive characteristics of business consulting services such as intangibility, heterogeneity and non-storability, customers perceive a high level of risk regarding service quality and expected benefits. This poses many challenges and implications for the marketing management of business consulting service providers. For these reasons, it is vital for service providers to build and maintain long-term business relationships and to understand the provider selection process. With the aim of identifying the factors affecting the provider selection process and the development of business relationships, this study used a questionnaire to survey a sample of 110 managers of Croatian companies. The research results obtained from factor analysis suggest that the provider selection process can be explained by six factors, that is, expected service quality, proven service quality, standard service quality and experienced service quality, the cost elements, and the provider's proximity. The research showed that customers give more importance to quality-related selection criteria than to the other criteria. In this respect, in order to build a relationship with their customers, business consulting providers need to focus their marketing activities on conveying messages about the quality of the service and the benefits provided by the service, as well as to prove their capabilities to solve business problems via appropriate reference management and a price linked to the expected benefits, thus focusing on value of the service delivered.

Keywords: *business consulting services, selection criteria, relationship marketing*

1. INTRODUCTION

Business consulting services are professional services provided by qualified business consultants hired to help management solve a variety of business problems within their organization (Jeschke, 2004, Lippold, 2019). As they rely on knowledge and information transfer, business consulting services are highly intangible, heterogeneous and non-storable. They are actually a promise or, in other words, a set of expected benefits that customers will experience at some point after service delivery, that is, after the implementation of business problem solution. Moreover, business consulting services are delivered in the form of consulting projects involving a high level of interaction and contact between business consultants and management. All of the above, due to asymmetric information between business consultants and customers, create a number of consumers' perceived risks associated with the delivery process and the expected outcome of business consulting services, and pose a number of challenges for the business consulting providers' marketing department in terms of ensuring a high level of service quality and company image as well as building and maintaining long-term business relationships with customers. These challenges are further exacerbated by current trends in the business consulting market, i.e. an increasingly intense global competition among business consultants as a result of digital transformation of both providers' and customers' businesses (Lippold 2019). Besides, customer expectations are increasingly rising as there is a continuous search for innovative ways of business problem-solving in order to maintain their competitive position. These ever-increasing customer expectations set higher standards for the development of business consultants' professional and social competencies.

In this respect, business consulting providers need to create effective marketing concepts that will allow them to achieve customer satisfaction and loyalty and to build long-lasting customer relationships. To achieve the above it is essential to understand the customer decision-making process, especially because, as it concerns business services, it involves a number of people with different professional competencies and influences on the provider selection process. The purpose of this study is to identify the criteria used by Croatian business consulting clients and their relevance, i.e. to identify any latent variables that could explain the importance attached by customers to each of the selection criteria. Previous studies investigated only some of the criteria, mostly those related to service quality (Niederreicholz, 2012), or analyzed the selection criteria from the business consultants' perspective (Barchewitz, Armbruester, 2004). Therefore, this research on latent factors affecting the provider selection process aims at filling the gap in the scientific literature. The study results will be useful for the providers of business consulting services in developing and implementing the business consulting marketing concept, especially in the phase of customer relationship development and customer acquisition. The paper is divided into 5 sections. After the introduction, an overview of previous scientific research on the criteria in business consultant selection is given, followed by presentation and analysis of the present research findings. The fourth section provides an outline of the study's limitations and recommendations for future research. The final section presents the conclusions and the study's implications for marketing of business consulting providers.

2. LITERATURE REVIEW

Building long-term business relationships with customers depends largely on the marketing activities implemented by business consulting providers in the initial stage of customer relationship development or in the customer acquisition phase. To this end, business consulting providers need information about the customer's provider selection process in order to design an appropriate marketing strategy. Here come into play the specific aspects of the business services procurement process. The decision-making process typically involves a number of individuals brought together as members of the so-called buying center. A buying center is comprised of people with different educational backgrounds who also hold different positions within the organization; hence, they are able to provide different evaluations according to a set of selection criteria. As a rule, business services procurement is a highly formalized process and, since the reasons for purchasing the service are purely rational, customers make their decisions without emotions, in order to solve the organization's business problems (Meffert, Burmann, Kirchgeorg, Eisenbeiss, 2019). The scientific literature addressing B2B customer behavior has identified, apart from the specificities depending on the company's sector, the relevant legislation and the environmental standards, four general criteria for selecting service providers (Homburg, Kuester, 2001, Homburg, 2015): quality, price and cost, delivery terms, and B2B relationship quality. Since quality is harder to assess when it comes to services, company's image, reputation, warranties and references are indicated as tools for reducing consumer risk perception associated with service quality. Furthermore, as far as cost is concerned, the available literature mentions lowest-price procurement models and total-cost procurement models, where both quality and price of the service are considered. The latter models would play a predominant role in the procurement of business consulting services given the complexity of the service and its importance in solving the organization's business problems. With regard to delivery terms, what matters to B2B customers is the speed of delivery or, in the case of business consulting services, the time needed for designing a consulting project, the observance of deadlines and the speed of implementation of business problem solution. Finally, some existing literature places an emphasis on relationship quality as an important general criterion for selecting service providers. The above relationship relies on the service provider's social skills which indirectly improve service quality due to better learning

effect and knowledge transfer from service provider to customer (Beck and Palmatier, 2012). In the context of business consulting services, Schade (1996) pointed out the following criteria in the selection of a business consulting provider: consultant's reputation in a particular function, consultant's reputation in the consulting business, offering of business consulting services, personal acquaintance, recommendation from business partners and friends, service provider's independence from other firms. Within the scope of their research on the importance of criteria in business consultant selection, Effenberger and Fritz (2005) revealed some of the most relevant criteria, namely consultant's general reputation in a particular function, consultant's renown, consultant's personal experience with customer's sector related problems. Furthermore, Kohr (2005) divided the provider selection process into three stages: rough selection, pre-selection, and final selection. Each stage uses its own selection criteria and the number of potential providers gradually decreases as the selection process progresses. In the rough selection stage, the business consulting customer selects service providers based on provider's image in a particular function, provider's image in the consulting business, provider's general image, and provider's size. In the pre-selection stage, the business consulting customer evaluates and assesses the remaining potential providers based on the demonstrated understanding of the customer's business problem, provider's experience from previous projects, provider's competencies relevant to the sector in which the customer operates, feasibility of the business problem solving proposal, suggested methods and provider's competencies for the implementation of the suggested problem solving methods. The final selection from the remaining providers depends on the customer's reevaluation of provider's understanding of the business problem, involvement of the customer in the consulting project, expected successful completion of the project, and competencies required for the implementation of the suggested problem solving methods. On the other hand, according to Hoeck and Keuper (2001), service customer first narrows down the selection of potential providers based on their business references and experience from previous projects and based on their qualifications, and then chooses a provider among the remaining candidates. In the selection process, customer uses the following criteria: qualifications of the business consulting project team, provider's experience in the sector in which customer operates, and quality of presentation of the problem solving proposal. Based on the findings of their research on business consultants, Barchewitz and Armbruester (2004) indicated the following provider selection criteria of high relevance: references (past projects), provider's specializing in a particular business problem, customer's personal interviews with providers, total consulting price, and brand of the consulting service. A large number of selection criteria without empirical support were suggested by Niederreizholz (2012), namely experience of the provider and of the business consultant, quantity and quality of references, successful completion of similar projects, general and specific knowledge about the customer's field, provider's independence in terms of services and from other firms, provider's image, provider's years of presence in the consulting market and its size, consulting fee and pricing method, project schedule and tasks planning, transparency of the quality-price ratio. Lastly, the business consultant's expertise relevant to the given problem, adaptability to the customer's requirements, expertise in applied methods, expertise in relevant digital tools and software, and provider's image and reputation are recognized as key factors for successful implementation and completion of the project, hence customers may consider these factors in selecting a service provider (Lippold, 2019). The research findings are outlined in the sections below.

3. SURVEY SAMPLE AND METHODOLOGY

The study was conducted on a sample of companies selected from the Business Croatia database, from a sampling frame of 2,761 active medium and large-sized enterprises. In addition, 241 small-sized companies were added to the sampling frame from the HAMAG

database (Croatian Agency for SMEs). 1,592 companies were contacted via email and invited to have the attached questionnaire filled out by managers who had experience with business consulting services by participating both in the provider selection process and in the consulting project. A total of 110 (6.9%) completely and correctly filled questionnaires were collected. About 3.33% of the invited respondents said that they did not use business consulting services and 13 managers refused to participate in the survey due to lack of time. According to the structure of the surveyed sample by industry sector, 41.6% of companies belonged to the manufacturing industry, 12.7% to the trade industry, 11.8% to the banking and insurance industry, 10.9% to the hospitality industry, while the remaining part of the sample were companies operating in other industries. The sample comprised 47.3% of large-sized companies, 35.5% of medium-sized companies, and 17.2% of small and micro companies. 26.4% of the managers surveyed were top-level managers, 47.3% middle-level managers, and the remaining 26.4% were low-level managers. With respect to gender, 60% of the managers surveyed were male and 40% female. 40% of the managers surveyed were in the age group of 25 to 35 years, 28.2% in the age group of 36-40, followed by 38.9% of the respondents above 40 years of age. Although it is difficult to assess sample representativeness due to a lack of reliable data about the population structure, certain conclusions can be drawn on the basis of the study's findings. Besides, we asked the managers about their influence on the selection of business consulting providers and used a 7-item scale (1-very low, 7-very high) to assess their suitability to participate in the study. About 80% of the managers rated their responses on the scale higher than 4, suggesting that the obtained results are adequate for analysis and interpretation. In the questionnaire, the respondents were asked to rate the importance attached to each criterion for selecting business consultants on a 7-item scale (1-not at all important, 7-very important). An exploratory factor analysis was performed to analyze the data.

4. RESEARCH RESULTS

Exploratory factor analysis was used in research to find out whether there are any latent factors that could explain the customer behavior in selecting a provider of business consulting services. A total of 27 selection criteria designed on the basis of existing scientific literature (Section 2) were included in the analysis. Bartlett's test of sphericity was statistically significant (χ^2=1556.71, p<0.05), and KMO (Kaiser-Meyer-Olkin) measure of sampling adequacy was 0.818, that is, it exceeded the cut-off value of 0.5 (Hair et al., 2010). Both measures confirmed that the data set was adequate for factor analysis. We used the method of principal components analysis for extracting factors and Varimax rotation to obtain the final structure of the variables. Based on the Kaiser-Guttman rule (eigenvalue of the factor greater than 1), a total of 6 factors were extracted that together explained around 67.7% of the total variance in all variables, which is an acceptable level for this type of study (Hair et al. 2010, p. 111). Two criteria were removed from the final factor analysis because of similar factor loadings, namely „deadline for completion" and „confidence in individual business consultants". As a result, a total of 25 selection criteria for business consulting service providers were included in the final analysis. The results of the factor analysis are shown in Table 1.

Table following on the next page

Variable	F1	F2	F3	F4	F5	F6
Image of the business consulting services provider	0.036	**0.736**	0.156	0.028	-0.138	-0.006
Consultants' expertise in the specific field	**0.541**	0.484	-0.232	-0.028	0.082	0.124
Consultants' expertise relevant to the problem and to the methodology	**0.665**	0.432	-0.262	0.051	-0.006	0.088
Quality of provider's references regarding other customers	0.184	**0.764**	0.064	0.089	0.242	0.171
Quality of provider's references describing the content of previous projects	0.357	**0.684**	-0.008	0.075	0.295	0.127
Breadth of business consultants' knowledge	**0.556**	0.314	-0.087	0.165	0.225	0.168
Consultants' understanding and approach to the possible solution of the business problem	**0.809**	0.116	0.058	0.027	0.139	0.101
Transparency in cost-benefit assessment	**0.674**	0.035	0.333	0.323	0.067	0.034
Business consulting proposal development and presentation	**0.588**	0.121	0.199	0.394	0.217	-0.158
Possession of a consultancy and service quality certificate	0.073	0.169	0.185	0.102	**0.759**	-0.073
Provision of warranties for service quality	0.303	0.029	0.096	0.178	**0.773**	0.082
Total price of the business consulting services	0.228	0.029	-0.085	**0.817**	-0.041	0.026
Pricing method	0.345	0.145	0.135	**0.681**	0.192	0.342
Payment terms	0.048	0.009	0.426	**0.673**	0.334	0.092
Layout of the consulting services agreement	0.203	0.075	0.310	**0.584**	0.449	0.262
Previous experience with the business consulting services provider	0.227	0.146	0.037	0.116	-0.056	**0.838**
Recommendations from other business partners	0.179	0.111	0.290	0.156	0.0945	**0.795**
Personal acquaintance with business consultants	0.041	-0.245	**0.659**	0.129	-0.062	0.269
Independence of the business consulting services provider from other firms	0.279	0.068	**0.580**	-0.014	0.309	0.304
Business consultants' social skills	0.717	-0.128	0.137	0.124	0.183	0.279
Confidence in the business consulting services provider	**0.798**	0.019	0.097	0.025	0.079	0.199
Proven practical experience in consulting (amount of advice delivered and projects completed)	**0.701**	0.388	0.179	0.127	0.112	0.121
Customer's expectations from the business consulting services provider	**0.671**	0.220	0.195	0.265	-0.014	0.015
Geographical proximity of the provider	0.059	0.104	**0.691**	0.131	0.121	0.072
Years of operation in the business consulting industry	0.142	0.392	**0.638**	0.018	0.205	-0.157
% Explained variance	21.0	10.71	9.99	9.79	8.17	8.0
Total explained variance (5)	67.7					

Table 1: Factor analysis of the selection criteria for business consulting service providers (Source: Authors' own calculation, n=110)

Factor 1 explained 21% of the total variance in all variables and included, based on the level of factor loadings, the following criteria for selecting business consulting services providers: consultants' expertise in the particular field, consultants' expertise relevant to the given business problem and to the methodology, breadth of business consultants' knowledge

(knowledge in multiple areas, business activities and business problem solving methodologies), understanding and approach to the possible solution of the business problem demonstrated by the consultants, transparency in cost-benefit assessment, business consulting proposal development and presentation, business consultants' social skills (communication skills, customer-orientation, helpfulness etc.), confidence in the business consulting services provider (confidence in the provider's reliability and fairness), proven practical experience in consulting (amount of advice delivered and projects completed), and customer's expectations from the business consulting services provider. Since the first extracted factor consisted of the business consultant selection criteria related to expertise and social skills, various features of business consulting services as well as expectations and confidence in providers, it was named „Expected quality of business consulting services". The second factor explained 10.71% of the variance in importance of individual selection criteria and included the following criteria: image of the business consulting services provider in the business consulting industry, quality of provider's references regarding other customers and quality of provider's references describing the content of previous projects. This factor related to business consulting services provider's references and image which are the result of success and quality of its previous services; hence, it could be named „Proven quality of business consulting services". The third extracted factor explained 9.99% of the variance in all variables. According to the obtained results, it was associated with the following selection criteria: personal acquaintance with business consultants, independence of the consulting services provider from other firms, geographical proximity of the provider and years of operation in the business consulting industry. This factor consisted of the selection criteria related to customer's geographical and personal proximity to the business consulting services provider and to provider's relationships with other companies. For these reasons, it was named „Proximity to the business consulting services provider". The fourth extracted factor was named „Cost elements of the service" as it included the following criteria related to the service pricing: total price of the business consulting services, pricing method for the business consulting services, payment terms and layout of the consulting services agreement. This factor explained 9.79% of the total variance. The fifth factor explained 8.17% of the variance in all variables. It was named „Standard quality of business consulting services", because it included the following criteria: possession of a consultancy and service quality certificate, and provision of service quality warranties. Lastly, the sixth factor explained 8% of the total variance in all variables and was named „Experienced service quality", as it included the criteria related to customer's personal experience and the experience of other customers with a specific provider. After performing the factor analysis, we calculated the mean values of individual factors based on summary scales. Before computing summary scales, the reliability of the scales was tested using Cronbach's alpha coefficients. The findings of the summary scale analysis are shown in Table 2.

Table following on the next page

Factor	Cronbach's Alpha	Importance Mean	St. Deviation	Ranking
F1 - Expected quality of business consulting services	**0.905**	**5.81**	0.86	1
F2 – Proven quality of business consulting services	**0.749**	**5.29**	1.04	2
F3 – Proximity to the business consulting services provider	**0.674**	**3.87**	1.14	6
F4 – Cost elements of business consulting services	**0.831**	**4.77**	1.24	5
F5 – Standard quality of business consulting services	**0.714**	**4.98**	1.36	4
F6 – Experienced quality of business consulting services	**0.800**	**5.09**	1.75	3

Table 2: Cronbach's alpha coefficients, descriptive statistics for factor analysis results (Source: Authors' own calculation, n=110)

According to the study results, factor 1 „Expected service quality" received the highest mean value of importance (5.81) among the criteria for selecting business consulting service providers. This was followed by factor 2 „Proven quality of business consulting services" (5.29) and factor „Experienced quality of business consulting services" (5.09). Fourth-ranked was factor 4 „Standard quality of business consulting services" (4.98). Business consulting customers found the cost elements of the service less important in selecting a provider (4.77). Finally, the criteria included in the sixth factor „Proximity to the business consulting services provider" were considered unimportant by business consulting customers, so this factor received a mean value of importance of 3.87. From the results of the present study, it can be concluded that business consulting customers in selecting service providers prefer criteria related to service quality to price and other service elements.

5. LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH

The study has a few limitations that can serve as the basis for future research. As the first limitation we can point out the size and the structure of the sample. A larger sample with an appropriate structure in terms of companies' size would provide more reliable results and enhance the generalization of the results. The second limitation concerns the respondents. In fact, the survey was conducted among so-called key informants who had experience in selecting business consulting service providers. However, as the topic was related to a B2B service whose procurement involves a group of individuals, the survey should include most of the people participating in the selection of business consulting service providers, e.g. using the triangulation method, to obtain more reliable and more valid results. Finally, the study results are presented as aggregate results. In future research, it would be beneficial to investigate the importance of criteria taking into account the type of the service and the size of the project. It is reasonable to expect that respondents that use more complex business consulting services (e.g. strategic consulting) will consider more important the quality of service and the like, whilst others, especially small companies that purchase standardized services (e.g. development of a marketing plan), will consider more important price and payment terms. Furthermore, future research could include segmentation based on importance of selection criteria and describe the segments in more detail, including demographics of companies and managers, in order to identify market segmentation profiles on which marketing efforts should be focused.

6. CONCLUSIONS AND STUDY IMPLICATIONS

Business consulting services are professional services used by company managers to help them solve a variety of business problems. As such, they are highly intangible and require a lot of interaction and involvement of the customer in the service provision process. Besides, the outcome of the service provided i.e. the benefits from business consulting services only become visible some time after delivery of the service. All of the above increase the risk perceived by customers with regard to service quality. For these reasons, that is, due to the interactive nature of business consulting services, it is vital to build and maintain long-term business relationships. To this end, the acquisition phase, i.e. the phase of customer relationship development, and the understanding of the selection process and of the criteria for selecting business consulting providers are of utmost importance in order to reduce the perceived risk in purchasing and using consulting services. According to the study findings, in selecting business consulting providers the managers of Croatian companies give priority to selection criteria dealing with service quality to criteria that are connected to cost elements of the service. This points to the importance attached by managers to business consulting services in terms of the expected benefits of making better business decisions based on the transfer of new knowledge. The greatest influence on the selection of business consulting service providers was exerted by the background factor „Expected service quality“, which is associated by customers with the required business consultant's professional and social competencies, transparent presentation of costs and benefits (achievement of future results), demonstrated understanding of customer's individual needs and requirements, and an appropriately designed consulting proposal template. In this sense, marketing communication plays a vital role for successful acquisition of new customers. To this end, marketing communication should be focused at providing customers with comprehensible and complete information on the potential and the expected benefits from services. Lastly, the quality of communication in the phase of customer relationship development depends, among other, on business consultants' social skills and business consulting providers should bear this in mind when recruiting and training business consultants. Furthermore, according to the study results, acquisition of new customers depends largely on the outcomes of services previously provided to other customers, which are presented in the provider's references that serve as an important indicator of service quality. The importance of references in the selection of a business consulting provider places further emphasis on the necessity to continuously provide high-quality services. Hence, in the presentation of their business references providers should include, apart from the content of past projects, the results achieved as well as performance indicators and their own abilities and readiness to provide the service in line with customer's expectations. In doing this, it is crucial to implement appropriate communication activities to set realistic expectations with customers regarding future outcomes of the service and potential benefits for the company. Service providers could, for instance, present the benefits from business consulting services (expected outcomes – degree of target achievement) using a From/To range or develop different scenarios depending on the development of potential work environment factors that could influence the service outcomes. Cost elements of business consulting services were less important for domestic companies in selecting a service provider. Nevertheless, since they are business customers that are supposed to act rationally during the service procurement process, the projected price of the consulting project may exert a certain degree of influence on provider selection, especially in the circumstances of limited budget resources and demand for standardized services. In this respect, in the phase of acquisition and presentation of the business consulting service offering it is necessary to link the price of the service to the expected benefits for the company and to implement communication activities to highlight the value that business consulting services may bring to the company.

LITERATURE:

1. Barchewitz, C. i Armbruester, T. (2004), Unternehmensberatung: Marktmechanismen, Marketing, Auftragsakquisition, Wiesbaden: Gabler.
2. Beck, J.T., Palmatier, R.W. (2012). Relationship Marketing. In G. L. Lilien, R. Grewal (ed) *Handbook of Business-to-Business Marketing*, (pp. 186-194). Northhamptin: Edward Elgar Publishing.
3. Fritz, W., Effenberger, J. (1998), Strategische Unternehmensberatung. Verlauf und Erfolg von Projekten der Strategieberatung, *in Die Betriebwirtschaft (DBW)*, Vol. 58, No. 1, pp. 103-118
4. Hair, J.F., Black, C.W., Babin, B.J., Anderson, R.E. (2006). *Multivariate data analysis*, New Jersey: Prentice Hall.
5. Hoeck, M., Kueper, F. (2001), Empirische Untersuchung zur Auswahl und Kompetenz von Beratungsgesellschaft, *DBW*, Vol. 61, pp. 427 – 443.
6. Homburg, C. (2015). *Marketing*, Wiesbaden: Springer Gabler.
7. Homburg, C., Kuester, S. (2001) Towrds an Improved understanding of Industrial Buying Behavior: Determinants of the Number of Suppliers. *Journal of Business-to-Business Marketing*, Vol. 8, No. 2, pp 5-33.
8. Jeschke, K. (2004). *Marketingmanagement der Beratungsunternehmen*, Wiesbaden: Gabler.
9. Kohr, J. (2005.). *Die Auswahl von Unternehmensberatungen: Klientenverhalten – Beratermarketing*, Muenchen: Mering.
10. Lippold, D. (2019). *Grundlagen der Unternehmensberatung: Strukturen – Konzepte – Methoden*. Berlin: De Gruyter Oldenbourg.
11. Meffert, H. Burmann, C., Kichgeorg, M., Eisenbeiss, M. (2019). *Marketing*, Wiesbaden: Springer Gabler.
12. Niedereichholz, C. (2012), *Unternehmensberatung: Beratungsmarketing un Auftragsakqusition*, Band 1, Muenchen: Olednbourg.
13. Schade, C. (1996). *Marketing fuer Unternehmensberatung*, Wiesbaden: Gabler.

EXPLORING THE INFLUENCE OF ORGANIZATIONAL CULTURE ON ETHICAL CLIMATE

Meryem El Alaoui Amine
Faculty of Juridical, Economic and Social Sciences - Salé,
Mohammed V University, Rabat, Morocco
alaoui_meryem22@yahoo.fr

Soukaina El Omari
Faculty of Juridical, Economic and Social Sciences - Salé,
Mohammed V University, Rabat, Morocco
elomarisoukainammsp@gmail.com

ABSTRACT

Research in the field of ethics has focused on the importance and implications of an ethical approach on decision making, leadership ethics and employee behaviors and attitudes.... However, we know little about the factors that foster the creation of an ethical climate. In this paper, we will study the effects of organizational culture on ethical climate. More specifically, we will try to determine what type of organizational culture promotes the creation of an ethical climate within the company. A survey was conducted among 152 managers and employees of Moroccan banks. The Principal Component Analysis and multiple regression analysis were used to test the proposed hypotheses. The main results of this paper indicate the existence of a positive and significant relationship between, on the one hand, People-Oriented Culture, Outcome-Oriented Culture, Detail-Oriented Culture, Team- Oriented Culture innovative culture , and on the other hand, Ethical Climate. However, Stability Culture have no effect on Ethical Climate.

Keywords: *Ethical Climate, Employee, Multiple Regression Analysis, Organizational Culture, Principal Component Analysis.*

1. INTRODUCTION

In recent years, the financial and ethical scandals experienced by multinational companies such as Enron, Worldcom, Arthur Andersen, Xerox ... had negative consequences for the world economy. In particular, after the Global Financial Crisis the financial services sector regulators have encouraged financial institutions to more actively introduce ethical values into their services and financial activities. Organizational culture, as a pattern of beliefs, symbols, rituals, myths, and practices, is used by manager not only to explain what happens in organizations, but to attempt to shape what happens in ways that are consistent with organizational goals and to orchestrate organizational change (Sinclair, 1993). In this context, research in literature, has attempted to study the effects of organizational culture in the implementation of an ethical approach (Sinclaire 1993, Kuye et al, 2013). However, organizational culture is seen as a multidimensional concept that includes several subcultures (Hewett et al., 2002; O'Neill & Jarratt, 2002, Coleman 2013). There are few works that explain the effects of each type of culture on the ethical climate. Our paper tries to fill this gap. In this paper, we will try to study the effects of organizational culture on ethical climate. More specifically, we will try to determine what types of organizational culture contribute to the creation of an ethical climate? In order to respond to this problematic, an empirical study was conducted with managers and employees of Moroccan banks. Our research is structured as follows: first, we will present a literature review on organizational culture, ethical climate and the relationship between the two concepts. In a second place, we will expose the research methodology.

Third, the results of the Principal Component Analysis and Regression Analysis are presented. Finally, the research results are discussed and future research avenues are highlighted.

2. LITERATURE REVIEW ON ORGANIZATIONAL CULTURE AND ETHICAL CLIMATE

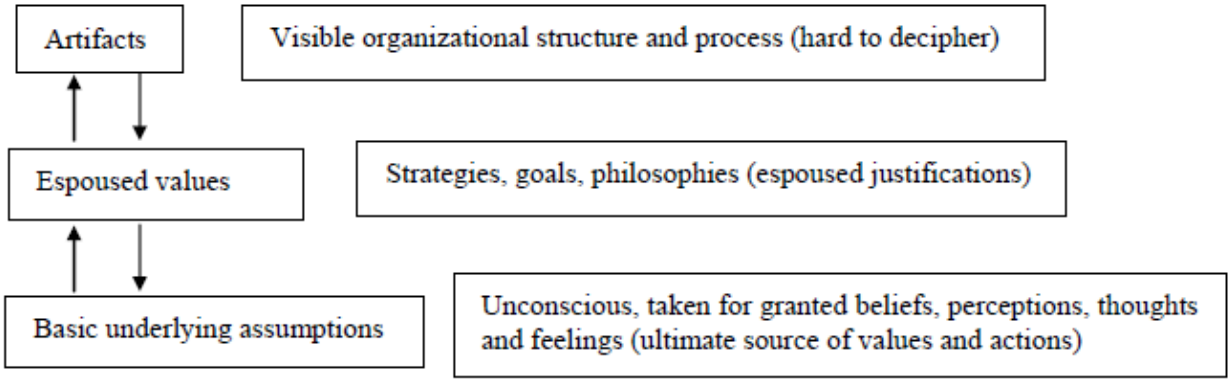
2.1. Organizational Culture

2.1.1. Definition of Organizational Culture

In literature there is no consensus on definition or what constitute organizational culture (Hatch and Zilber; 2012). Definitions take different shapes depending on the concept they reflect, their authors' approaches and emphases. Management specialists have been interested in organizational culture since the 1980s. More specifically, these are Ouchi (1981), Pascale and Athos (1981), Deal and Kennedy (1985), Sathe (1985) and Denison (1990). According to Ouchi (1981) organizational culture as a set of symbols, ceremonies and myths that enable participants to understand their underlying organizational assumptions and values. Deshpande and Webster (1989) defined organizational culture as "the model of shared values and beliefs that help individuals understand organizational functioning and thus provide them standards of behavior in the organization". Also, Organizational culture is a pattern of beliefs, symbols, rituals, myths, and practices that have evolved over time in an organization (Pheysey, 1993). Van de Post *et al* (1998), adds that culture is to the organization what personality is to the individual. It is a hidden but a unifying force that provides meaning and direction. Some authors distinguish between two approaches to define organizational culture (Szczepańska-Woszczyna, 2014, Adedeji Adelekan, 2016): the first approach is descriptive in nature and allows the characteristics of the "personality" of the company to be traced. Culture is treated as an internal subsystem of the organization, allowing individuals to adapt to the environment. In this approach, the company has a culture. The second approach is unlike the first, the company is treated as a culture, i.e., a system of knowledge that each of its members can interpret through their mind. This approach rather converges towards the concept of corporate identity in the sense that it allows access to the dynamics of the social system in all its complexity (Garcia-Torres, and Hollanders, 2009, Adedeji Adelekan, 2016). Furthermore, Schein's work is considered to be the most influential of this decade (Iglesias et al., 2011) since he created a model for analyzing organizational culture. He explained that Organizational culture refers to the collection of values and norms shared by people in an organization and that control how they interact with each other and with stakeholders both in an organization and outside the organization (Schein, 2010). Also, Schein (2004) has developed a structural model of culture indicating different level of organizational culture. This structural model consists of three elements ": 1) *Observable artifacts:* They refer to an organization's specific attitudes, beliefs and behaviors, mission statement and values, individual style (e.g. dress code of employees) *2) Espoused values:* They are indicated by the organization's superiors and may or may not be reflected in the employee's actual behavior. An organization's leadership should have significant influential skills, in order to make such values acceptable by employees. These values allow organizational members to interpret signals, events and issues that guide behavior. *3) Basic underlying assumptions*: They refer to interpretative personal schemes used for perceiving situations, creating the basis for collective action." (Belias and Koustelios, 2014). Figure 1 shows the structure of this model.

Figure following on the next page

Figure 1: Structural model of organizational culture



Source: Schein (1994, 2004)

2.1.2. Types of organizational cultures

Even though culture may not be immediately observable, identifying a set of values that might be used to describe an organization's culture helps us identify, measure, and manage culture more effectively. For this purpose, several researchers have proposed various culture typologies. Based on the values of an organizational culture, management researchers have distinguished between two main dimensions of organizational culture (Quinn, 1988 and Hewett et al., 2002):

- Internal maintenance (characterized by a high degree of integration activities) compared to external positioning (competitive, differentiated by a superior ...)
- Organic processes (spontaneous, flexible) versus mechanical (oriented towards control, order and stability)

These dimensions generate 4 types of organizational culture (Cameron and Quinn 2006):

1) *The culture of "clan" (organic, internal*) is characterized by cohesion, teamwork and commitment to the organization
2) *the culture of "market" (mechanical, external)* is characterized by competitiveness and the achievement of objectives.
3) *The culture of "adhocracy" (organic, external)* aims at creativity, entrepreneurship and dynamism.
4) *the "hierarchical" culture (mechanical, internal)* is characterized by order, rules and regulations, uniformity and efficiency.

These "types" of organizational cultures are described as "dominant" or "modal" and are not mutually exclusive (Deshpande, Farley And Webster, 1993). Indeed, elements of these "types" can be present in most organizations, but some of them can be dominant and therefore influence business performance as well as business practices. Jarratt & O'Neill (2002) have attempted to make connections between types of organizational cultures and relationship management. They indicated that companies characterized by the domination of values associated with the "market" culture (competitiveness and achieving goals) and the culture of adhocracy (entrepreneurship, creativity and adaptability) tend to manage their relationships effectively. These types of organizations are marked by flexibility, innovation and adaptation to change. Furthermore, organizations dominated by the values associated with clan cultures (cohesion, participation and teamwork) and hierarchical cultures (order, rules and regulations) tend to be rigid and respect orders.

Coleman (2013) has distinguished six common components of successful types of organizational culture:

1) *Vision:* this is the purpose of an organization formulated in the form of a specific objective or mission. She guides relationships with consumers and suppliers and guides employee decisions.
2) *values:* they promote the achievement of the organization's vision and lay out the directives for employees. Values ensure that professional standards are high. To this end, they constitute the hard core of the organizational culture.
3) *Practices:* they correspond to the applications of values in the daily life of the organization. Evaluation criteria and promotion policies promote the implementation of values.
4) *People:* the values of the organization are addressed to current and future employees who must adopt and apply it. the recruiting policies should focus on people who are not only talented, but suitable for the organization's specific culture type.
5) Narrative: An organization's unique history should be identified, shaped and retold as part of its ongoing culture.
6) Place: An integral element of an organizational culture is its location and working environment, perceived in terms of geography, architecture and aesthetic design. Coleman (2013) indicated that these six elements influence the organization's performance, effectiveness and employees'values and behaviors.

Another typology of organizational culture was developed by O'Reilly et al. (1991) taken up by Évraert and Prat Dit Hauret (2003) from accounting and financial firms. The researchers asked accountants and auditors from large accounting and auditing firms to note the importance of 54 attributes that could characterize the organizational culture of the firm. Subsequent factor analysis reduced the number of items to 26 by identifying seven dimensions: innovation, stability, respect for people, focus on results, attention to detail, focus on team and aggressiveness (Évraert and Prat Dit Hauret, 2003).

2.2. Ethical climate

The ethical organizational climate can be defined as "the shared perception of what is correct behavior and how ethical situations should be dealt with in an organization" (Victor and Cullen, 1987, p. 51). Also, the ethical climate represents employees' perceptions of organizational norms regarding behavior and decisions that have ethical content (Victor and Cullen, 1988; Cullen et al., 2003;). It derives to a large extent from the organizational processes, procedures and policies intended to convey managerial expectations in terms of moral behavior and methods of resolving ethical problems (Mayer et al., 2010, Chouaib, Zaddem, 2013). According to Cullen et al. (2003), the ethical climate can be considered as "perceptual lenses" supporting the manager in the identification and resolution of dilemmas. The concept of ethical climate describes a group of rooted climates echoing the practices e""of organizations with moral concerns (Cullen et al., 1993; Kaya and Başkaya, 2016). It is possible to identify several types of ethical climates in organizations due to the differences between individuals, membership in working groups, permanence and the position of individuals within an organization (Cullen et al. . 2003). In this context, Victor and Cullen (1987, 1988) developed a theory called "Theory of the Ethical Climate" (TEC) which represents a descriptive map of ethical decision-making and actions within an organization. Until today this theory continues to serve as an important predictor of employee behavior as well as individual and organizational performance (Keikoh, 2017). Thus, on the basis of philosophical theory and sociological theory, the two authors tried to establish a typology of ethical climates empirically tested. Two types of dimensions were used to classify the climates of ethical work: on the one hand, the ethical criteria composed of three constructs (egoism, volunteering and principles).

On the other hand, locus analysis which differentiates between three levels of analysis (individuals, local and cosmopolitan). Martin and Cullen (2006) carried out an extension of the TEC on the basis of the meta-analysis technique. This study resulted in the distinction between five types of ethical climates: 1 / instrumental, 2 / caring, 3 / independent, 4 / rules, 5 / law and codes. An ethical organizational climate is created when ethical values are established and maintained within a company (Singhapakdi and Vitell, 2007) and which practically translate into the existence of ethical behaviors. However, the literature has pointed out that unethical behavior occurs when companies do not adopt an ethical code, and do not apply policies and guidelines that discourage and correct unethical behavior. To this end, how do employees perceive an ethical organizational climate? Singhapakdi and Vitell (2007) indicated that the institutionalization of ethics is vital in the perception of the importance of an ethical climate by employees, which in turn can lead to more ethical behavior. The authors define the institutionalization of ethics as "the extent to which an organization explicitly and implicitly integrates ethics into its decision-making processes" (Singhapakdi & Vitell (2007, p: 284). Implicit integration of ethics means that ethical behaviors are implicit, or not expressed directly, and appear mainly in organizational culture, leader ethics, and communication (Jose and Thibodeaux, 1999). Explicit integration of ethics means that ethical behavior is formally expressed. Explicit forms include codes of ethics, ethics training, newsletters, and ethics charters (Jose and Thibodeaux, 1999). In this context Singhapakdi and Vitell (2007) underlined that explicit institutionalization has a significant impact on the perception of the importance of ethics by employees. Nonetheless, companies should maintain explicit rules and guidelines and ensure compliance and strict enforcement of codes of conduct in order to clarify to employees the appropriate actions to take. Employee perception is influenced by several factors such as the content and specificity of the code of ethics, how it was communicated to employees, and the effectiveness of the reward / punishment system for compliance or non-compliance with instructions from the code of ethics (Schwartz, 2001). Stevens (2008) argues that codes of ethics can be an effective tool for training employees' ethical behaviors and a decision-making guide. It indicates that culture and communication are the keys to the success of these codes. Moreover, employees must be aware of the content of the codes and even participate in its development in order to reach a consensus of opinion between the employee and the organization. The sharing of values not only reflects recognition of the importance of the employee, but also that of the culture of the organization.

2.3. Relationship between organizational culture and ethical climate

Sinclair (1993) studied the effects of organizational culture on ethics. Besides, culture is considered according to the author as the source of problems and the basis of solutions. She evaluated two approaches of organizational culture and ethical behavior. They rest on different understandings of organizational culture and the processes by which ethics are enhanced. The first approach indicates that ethical behavior is reinforced by the creation of a unitary cohersive culture around core moral values. The second approach assumes that the organization is shifting coalitions of subcultures. « This subcultural approach imposing standards but vests efforts in nurturing individual processes of self inspection, critique and debate. While this debate occurs in a broadly managed framework, it ultimately relies on individual, rather than institutional processes, to produce better ethics" (Sinclair, 1993, p:71). Researchers (Leornard, et al. 2004, Kuye et al. 2013) have indicated that ethical behavior can be reinforced by factors including: i) Personal normative beliefs and organizational goal ; ii) Organizational ethical climate and organizational culture; iii) Organizational scenario (situations) iv) Group loyalty; v) Leadership traits and effectiveness. Organizational culture is one of the determining factors in the embodiment of ethical behavior. Uen et al. (2011) demonstrated that there is a positive relationship between ethical behavior and the ethical climate.

Also, based on a study carried out with auditors, Apriliani et al. (2014) pointed out that organizational culture is a powerful tool for leaders to communicate to employees and all members of the organization values, beliefs, awareness and sensitivity to ethical issues and decision containing ethical content. The authors add that « actions or behavior of auditors will tend to be more ethical if there were applicable ethical culture within the organization, and vice versa" Apriliani et al. (2014, 232).

From the above we can put the following hypotheses:

- Hypothesis 0: the organizational culture does not significantly and positively influence the ethical climate
- Hypothesis 1: the organizational culture significantly and positively influences the ethical climate.

3. RESEARCH METHODOLOGY

3.1. Data collection and Measurement

In order to respond to our research problematic and to verify our hypotheses, we conducted a survey of managers and employees of Moroccan banks. Our sample is selected by the convenience sampling method. The data was collected through a questionnaire that was administered directly to employees working in commercial banks. The questionnaire was accompanied by an introductory letter in which the authors presented the study framework and purpose, the guarantee of confidentiality and the possibility of having the results of the study once completed. 215 copies of the questionnaire were distributed and 152 were returned properly completed representing a response rate of almost 71%. In this research, valid instruments used in other works were adopted. The items used in our analysis were taken from anglo-saxon work. Therefore, we translate these measurement scales according to the method of reverse translation.

- *Organizational culture:*
  The organizational culture variable is a multidimensional variable characterized by several types of cultures. In the present study, reference was made to the measurement scale of O'Reilly et al. (1991) and taken up by Évraert and Prat Dit Hauret (2003). This scale consists of 26 items representing the characteristics of the organizational culture. The scale is rated on a five-point Likert-type scale ranging from 1 indicating "strongly disagree" to 5 indicating "strongly agree".

- *Ethical climate:*
  In order to measure the ethical climate, reference was made to the scale proposed by Schwepker et al. (1997), used to assess the presence and application of codes of ethics and professional conduct, the actions of managers regarding ethics and corporate ethics policies. The scale consists of 7 items and is rated on a five-point Likert-type scale ranging from 1 indicating "strongly disagree" to 5 indicating "strongly agree".

3.2. Data analysis:

The collected data were analyzed through Principal Component Analysis and multiple regression analysis with SPSS.25. Firstly, Principal Component Analysis (PCA) was conducted, to test the structure of our variables (organizational culture and ethical climate). Secondly, multiple regression analysis was carried out. The dependent variable is the ethical climate while the independent variable is the organizational culture. Empirical test results from each stage of analysis are presented next.

4. RESEARCH RESULTS

4.1. Principal Component Analysis (PCA) results

We started by studying the structure of organizational culture variable through Principal Component Analysis. PCA makes it possible to simplify the data by moving from a large number of variables to a small number of variables obtained by cross-checking the first ones and to interpret the initial data, based on a small number of new variables. In our study, all of the organizational culture items were introduced. The measurement of Kaiser-Meyer-Olkin (KMO) sampling precision is 0.61 which is greater than 0.5 recommended by Hair et al. (2010) as well as Bartlett's sphericity test is significant, which shows the adequacy of the sample for a principal component analysis. (Hair et al. 2010; Gavard-Perret, 2012). The results also indicate that the items are grouped into six factors with eigenvalues above 1. The factors are: Detail Oriented Organizational culture (OC) , innovative OC, People Oriented OC, Stable OC, Team Oriented OC, Outcome oriented OC. These factors represent more than 69% of the variance. However, seven items, cross-loaded, and was removed. In a second time, A PCA comprising all ethical climate items was also performed. Only one factor emerged with an eigenvalue above 1. However, one items has communality less than 0.4 and were removed from our analysis. Tow items cross-loaded and was removed.

4.2. Multiple Regression Analysis

Multiple regression was achieved by considering ethical climate as the dependent variable and organizational culture as the independent variable. The goal is to find out what type of organizational culture best promotes the creation of an ethical climate. Based on the results of PCA, the research hypotheses have been reformulated to take into account the six factors of organizational culture. In this context, the hypothesis are as follows:

- Hypothesis 1 : " Detail Oriented Organizational Culture" significantly and positively influences Ethical climate.
- Hypothesis 2 : " Innovative Organizational Culture" significantly and positively influences Ethical climate.
- Hypothesis 3 : " Team Oriented Organizational Culture" significantly and positively influences Ethical climate.
- Hypothesis 4 : " Stable Organizational Culture" significantly and positively influences Ethical climate.
- Hypothesis 5 : " People Oriented Organizational Culture" significantly and positively influences Ethical climate.
- Hypothesis 6 : " Outcome Oriented Organizational Culture" significantly and positively influences Ethical climate.

Our model can be presented as follows:

$$\boldsymbol{Y(ethical\ climate) = b_0 + b_1\ \text{Detail Oriented}\ OC\ + b_2\ innovative\ OC + b_3\ Team\ oriented\ OC + b_4\ Stable\ OC\ + b5\ \ People\ Oriented\ OC + b6\ \ Outcome\ Oriented\ OC + \varepsilon} \quad (1)$$

With ε : error

The results of multiple regression analysis performed by SPSS 25 are as follows:

Table following on the next page

Table 1: Summary of models[b]

Model	R	R-squared	Adjusted R-squared
1	,601[a]	,362	,335

a. Predicted values: (constant), Detail Oriented OC , innovative OC, People Oriented OC, Stable OC, Team Oriented OC, Outcome oriented OC
b. Dependent Variable: Ethical climate

This table shows, the strength of the relationship between the dependent variable and the combination of independent variables. Firstly, the value of the multiple correlation R= 0.601 suggests that the relationship between ethical climate and organizational culture is satisfactory. Secondly, the coefficient of determination (R2) shows that 36.2% of the variation or change in ethical Climate is caused by organizational culture. While the remaining 63.8% unexplained variation is due to other variables outside the regression model. The evaluation of the quality of the model is given by the ANOVA table (see table 2).

Table 2: ANOVA[b]

	Model	Sum of squares	ddl	Mean squares	D	Sig.
1	Régression	15917	6	2653	13500	,000[a]
	Résidu	28101	143	0.197		
	Total	44018	149			

a. Predicted values: (constant), Detail Oriented OC , innovative OC, People Oriented OC, Stable OC, Team Oriented OC, Outcome oriented OC
b. Dependent Variable: Ethical Climate

According to this table, we can reject the null hypothesis according to which there is no relationship between ethical climate and organizational culture. Indeed, the F value is 13500 and is significant at p <0.001, which suggests that we have less than 0.1% chance of being wrong in saying that the model helps to better predict ethical climate than a simple model without explanatory variables. The table of coefficients allows to know the contribution of each independent variable in explaining the dependent variable (Table3)

Table 3: Coefficients[a]

		Unstandardized Coefficients		Standardized coefficients		
Model		A	Standardized error	Bêta	t	Sig.
1	(Constante)	1961	,780		2.515	,013
	People Oriented OC	,569	,114	,359	4.993	,000
	Outcome oriented OC	,551	,090	,520	6.115	,000
	Detail Oriented OC	,573	,110	,435	5.222	,000
	Stable OC	,052	,052	,070	1.009	,315
	Innovative OC	.199	,095	,175	2.216	.025
	Team oriented OC	.197	,091	,156	2.176	.031

a. Dependante Variable : Ethical climate

The results provided by the table 3 allow us to write the equation of our model.

Ethical climate= 1961 + 0,569 People Oriented OC + 0,551 Outcome oriented OC + 0,573 Detail Oriented OC + 0,052 Stable OC + 0,199 Innovative OC + 0,197 team oriented OC

The findings revealed that organizational culture is a strong predictor of ethical climate. According to Table 3, the variables People Oriented OC, Outcome oriented OC, Detail Oriented OC, Innovative OC and Team Oriented OC, are significant at $p < 0.05$. However, the variables Stable OC is not significant.

- Hypothesis 1 :"Detail Oriented Organizational Culture significantly and positively influences Ethical climate" is accepted since the relationship between the two variables is significant at ($p < 0.001$). Also, Hypothesis 2 : "Innovative Organizational Culture significantly and positively influences Ethical climate" is accepted since the relationship between the two variables is significant at $p < 0.05$.

On the other hand, hypothesis 3 according to which the "team-oriented organizational culture significantly and positively influences ethical climate" is accepted since the relationship between the two variables is significant at $p < 0.05$. In contrast, Hypothesis 4 that « Stable Organizational Culture significantly and positively influences Ethical climate" is rejected because the relationship between the two variables is not significant.

- Hypothesis 5 : « People Oriented Organizational Culture significantly and positively influences Ethical climate" and Hypothesis 6 : « Outcome Oriented Organizational Culture significantly and positively influences Ethical climate" are both accepted since the relationship between , on the one hand, ethical climate and people Oriented OC and on the other hand, ethical climate and orientation results are successive significant at ($p < 0.001$)

The value of the standardized Beta (β) provides interesting information. It shows the contribution of each independent variable in the explanation of dependent variable. From the table 3, Outcome Oriented OC explains the large part of the variation of ethical climate ($\beta = 0.520$), followed by Detail Oriented OC with $\beta = 0.435$, People Oriented OC with $\beta = 0.359$, Innovative OC with $\beta = 0$,175 and finally Team Oriented OC with $\beta = 0.156$.

5. DISCUSSION OF FINDINGS

In this paper we have tried to study the effects of organizational culture on the establishment of an ethical climate. The results show that different types of organizational cultures do not contribute in the same way to the creation of an ethical climate. In fact, the acceptance of Hypothesis 1 that "Detail Oriented OC significantly and positively influences ethical climate" is logical since the Bank's business lines are marked by a high precision, attention span to detail and the need to comply with the rules of banking law and financial regulations. Hypothesis 2 according to which the "Innovative Organizational Culture significantly and positively influences Ethical climate » can be explained by the fact that there is a positive correlation between the two variables. This result is supported by those of Kadir et al (2019) and Türk and Biçer (2018). Regarding Hypothesis 3: " Team Oriented Organizational Culture significantly and positively influences Ethical climate" has been accepted which implies that a culture based on collaboration and emphasize cooperation among employees in Moroccan commercial banks contribute to the creation of an ethical climate. This result joins those of Cabana and Kaptein (2019) who showed that within an organization, there are several team cultures and that each

of them contributes differently in the formation of an ethical culture. The rejection of Hypothesis 4 that the organizational culture "stability" significantly and positively influences the ethical climate can be explained by the changing and uncertain nature of the banking sector. Indeed, there is fierce competition between banks to maintain and expand their market share (Competition Council 2013). However, "People Oriented" (Hypothesis 5) Culture contributes to the creation of an ethical climate through a culture of justice and fairness towards the employees of Moroccan banks as well as respect for the rights of the individual. In these organizations, there is a greater emphasis and expectation of treating people with respect and dignity. This result has been supported by the literature. Eromafuru, (2013) has shown that organizations that take care of their employees and leaderships by motivating and encouraging them to use their own initiative and creativity in tasks, promote the establishment of ethical behaviors of employees in work places and push leaders to make ethical decisions. Hypothesis 6 that "Outcome Oriented" Organizational Culture significantly and positively influences Ethical climate has been accepted. This result can be interpreted by the fact that at bank level outcome-oriented cultures as those that emphasize achievement, results, and action as important values. The bank is always seeking continuous improvement in its financial and commercial performance as well as strengthening its competitiveness. The presence of such values of an organization contributes to set reasonable and clear performance expectations, use full range of rewards and punishment to enforce high performance standards. These elements motivate employees and leaderships to adopt ethical behaviors in the workplace.

6. CONCLUSION AND AVENUES FOR FUTURE RESEARCH

The results of our study show that the existence of an organizational culture based on collaboration, Outcome Oriented , innovative and centered on the individual is a solution to enhancing ethical behaviors, and ethical climate in general. We recommend for future research to analyze the relation between organizational culture and ethical climate through moderation variables which can explain the intensity of the relation. Also, recommending the study of the relationship between culture and ethics by introducing mediating factors that promote the determination of the direct and indirect relationship between the two variables.

LITERATURE:

1. AdelekanA. S. (2016), the impact of organizational culture on innovation capability of smes case study of smes in alimosho and ojo local government area of lagos state, nigeria, International Journal of Economics, Commerce and Management Vol. IV, Issue 9. P: 158-181
2. Belias D. and Koustelios A., (2014), Organizational Culture and Job Satisfaction: A Review, International Review of Management and Marketing, Vol. 4, No. 2, 2014, pp.132-149
3. Cabana G.C and Kaptein (2019) Team Ethical Cultures Within an Organization: A Differentiation Perspective on Their Existence and Relevance, *Journal of Business Ethics*
4. Coleman, J. (2013). Six Components of a Great Corporate Culture. Harvard Business Review,
5. Évraert S. and Prat Dit Hauret C.(2003), La culture organisationnelle perçue des cabinets comptables français par les associés-dirigeants : essai de typologie, *Finance Contrôle Stratégie – Volume 6, N° 4, décembre 2003, p. 5 – 24*
6. Hewett, K., Money, R. B., and Sharma, S. (2002). An exploration of the moderating role of buyer corporate culture in industrial buyer-seller relationships. Journal of the Academy of Marketing Science, 30(3), 229-239.

7. Kadir A.A. Ismail F. , Khan A. , Humaid AlHosani A.A.H , Izzati Zaidi N.S (2019) The Relationship between Ethical Work Climate and Organizational Innovation, Conference Paper
8. Keikoh, R. (2017), theoretical research on organizational ethical climate: applications and practices of japanese enterprises in china, International Journal of Economic Behavior, vol. 7, n. 1, pp. 51-62, 2017
9. KUYE O.L, UCHE C.B.N. AND. AKAIGHE G.O (2013) organizational culture and ethical behaviour: a strategic standpoint, Journal of Humanities, Social Sciences and Creative Arts 8: 1-12.
10. Leonard, L. N. K., Cronan, T. P. and Jones, J. (2004).Ethical Behaviour. *Journal of Information and Management.* USA: Elsevier.
11. O'Reilly C.A. et *al.* (1991), « People and Organizational : A Profile Comparaison Approach to Assessing Person-Organization Fit », *Academy of Management Review*, vol. 34, n° 3, p. 487-516.
12. Schein, E. H. (1990) Organizational Culture. American Psychologist, 45(2), 109-19
13. Sinclair A. (1993) Approaches to Organizational Culture and Ethics, *in* Journal of Business Ethics , N°12, 63-73
14. Sinclair A. (1993), Approaches to Organizational Culture and Ethics, Journal of Business Ethics N°12, 63-73.
15. TÜRK M. and BİÇER M. (2018) A Research on the Relationship between Ethical Climate, Organizational Learning and Innovative Behavior, International Journal of Business Management and Economic Research(IJBMER), Vol 9(1),1207-1218.
16. Uen J.F. ,Wu T., Tsai H.C. (2011) Ethical Climate and its Relationship to Ethical Behavior and Ethical Mechanisms, Chiao Da Management Review Vol 31, No. 2, 2011 pp.33-60

FACTORS OF CURRENT AND LONG-TERM SIGNIFICANCE FOR THE EFFECTIVENESS OF THE BULGARIAN PROSECUTOR'S OFFICE IN COUNTERING CRIME

Venelin Terziev
Georgi Rakovski Military Academy, Sofia, Bulgaria
University of Rousse, Rousse, Bulgaria
Kaneff University Hospital, Rousse, Bulgaria
vkterziev@gmail.com

Marin Georgiev
Kaneff University Hospital, Rousse, Bulgaria
clementon@abv.bg

Stefan Bankov
Ministry of Interior, Sofia, Bulgaria
smbankov14@gmail.com

Ivan Ivanov
Kaneff University Hospital, Rousse, Bulgaria
isivan@abv.bg

ABSTRACT

In the last few years, significant progress has been made by the Republic of Bulgaria in relation to combating crime and enforcing the rule of law. As a result of the excellent interaction between the judiciary, presented by the Prosecutor's Office of the Republic of Bulgaria on the one hand, and the executive, presented by the Ministry of Interior Bodies, State Agency for National Security, Commission for Anti-corruption and illegal assets forfeiture (CACIAF), and other institutions, a number of actions have been taken to prosecute a number of persons occupying high state positions for corruption crimes committed by them. The present study tries to make a brief analysis of the factors of current and long-term importance for the effectiveness of the Bulgarian Prosecutor's Office in combating crime and to try to find an answer to the new challenges facing the Bulgarian Prosecutor's Office.

Keywords: *Factors, Efficiency, Bulgarian Prosecutor's Office, Crime Prevention, Legislative Changes*

1. INTRODUCTION

Of paramount importance for the efficiency in the implementation of the main constitutional functions of the Prosecution are the compliance of the legal framework with the socio-economic conditions, the growth and dynamics of crime, staffing, professional experience and qualification of law enforcement bodies. There is no significant change in the geographical, economic and social characteristics of the administrative districts and regions (Terziev, Nichev, Bankov, 2016). Determining for the specifics of the activity of the Regional Prosecutor's Offices in the regional centers is the undertaken structural optimization, with a view to overcoming the personnel deficits and unifying the volume of the assigned work and the individual workload of the prosecutors of the same level (Terziev, Nichev, Bankov, 2016a). Some of the legislative changes in 2019 are of immediate importance for expanding the protection of fundamental rights and freedoms from criminal acts of domestic violence. The legislation related to the fight against corruption and the protection of the EU's financial interests has also been improved - the security and confiscation (confiscation) of property

acquired through criminal activity have been brought in full compliance with the requirements of Directive 2014/42 / EU of the European Parliament and of the Council of 3 April 2014. An adequate mechanism has been established for the management of secured property until its confiscation by an effective court act (2020). The amendments to the Code of Criminal Procedure supplement the regulation of the rights of the accused, the rights of the victim with special needs, and the jurisdiction of cases within the competence of the European Public Prosecutor's Office is regulated. An important factor is the organizational and methodological provision of the interaction of the European Public Prosecutor's Office with the national authorities and their staffing in accordance with the European legislation, as a final stage in the preparation of the future functioning of this international body (Terziev, Bankov, Georgiev, 2018-a). The creation of optimal conditions for using the capacity of investigators, including through legislative expansion of their competence, is a factor of current importance due to the insignificant effect of the active application of legal possibilities for assigning cases of factual and legal complexity of investigators at District Investigation Department with the District Prosecutor's Offices and with the National Investigation Service (Terziev, Georgiev, Bankov, 2020a). The shortage of qualified specialists (experts, translators) for the purposes of criminal proceedings, including in cases of crimes of special public interest, continues to have a negative impact not only on the timeliness but also on the quality of investigations. The existing normative deficits in the regulation and the organization of the expert activity cannot be compensated only by administrative efforts, actively made by the management of the Ministry of Interior and the judiciary. It is beyond the competence of the law enforcement and judicial authorities to provide a mechanism that will guarantee not only the high professional qualification of the experts, but also to ensure adequate remuneration for the performance of assigned expertise. It is also important to provide translators and ensure timely receipt of translation fees in less common languages (Terziev, Georgiev, Bankov, 2020b). The quality of the investigation continues to be a challenge due to the difficulties related to the staffing of the investigating police officers in the Ministry of Interior, resp. their initial appointment, professional training and education, career development, operational independence, as well as further training. Some difficulties in the logistical support of the investigative bodies and some of the prosecutor's offices have not been overcome. It is the duty of each administrative head to promptly motivate and defend requests for resource provision, in due course. The workload of prosecutors remains high due to the involvement of issues beyond their competence, which in the current framework, excluding the determination of expediency (unlike other European legal systems), takes a significant resource for a reasoned response to each signal (Terziev, Georgiev, Bankov, 2020c).

2. FACTORS OF CURRENT AND LONG-TERM IMPORTANCE IN COUNTERING CRIME

2.1. Problems and suggestions

Despite some positive changes in the substantive and procedural legislation, many of the findings and proposals stated in the reports of previous years remain valid - for legislative activity aimed at creating appropriate regulations to help increase the effectiveness of criminal prosecution for corruption crimes and acts of organized crime, as well as to ensure compliance with European standards for effective investigation (Terziev, Georgiev, Bankov, 2020a-c). The gradual overcoming of the established significant imbalance in the workload of the first instance (regional) prosecutor's offices and of the various investigative bodies continues. The organizational measures taken by the Prosecutor's Office to transform and redistribute staff through the SJC and the use of secondment under the JSA meet the most acute staffing needs (for example, at the Specialized Prosecutor's Office) (Terziev, Georgiev, Bankov, 2020a-c).

The positive effect of the ongoing process of consolidation of the regional prosecutor's offices, which objectively has the potential to ensure the long-term optimization of the workload through appropriate staffing, is to be manifested and confirmed. The excessive duration of the competition procedures not only in the Prosecutor's Office in the Republic of Bulgaria (PORB), but also in the Ministry of Interior, negatively affects the timely staffing in places and presupposes the use of palliative measures to overcome emerging problems. For normative reasons, despite the structural changes, the capacity of the military prosecutor's offices (except for the investigators) is not used adequately. The (already stated) provision of sufficiently competent court experts and translators with the necessary financial and resource support for their functioning remains an extremely topical, serious and urgent issue in the bodies of the pre-trial proceedings.

2.2. Necessary measures and legislative changes

The findings in the annual reports of the prosecutor's offices allow to making important proposals for necessary legislative changes in order to increase the efficiency of the criminal proceedings. Some of them coincide with announced, discussed and / or adopted drafts of essential program documents for the development of the legislation.

2.3. Regarding the Penal Code

The goals and measures formulated in the Concept for Criminal Policy 2020 - 2025 are a positive step in the efforts for comprehensive review and modernization of the criminal law framework in accordance with the current social and socio-economic conditions. The need for decriminalization has been taken into account both through the abolition of criminal offenses that have lost their significance, and related to acts of low public danger, which can be successfully sanctioned through administrative channels. The above-mentioned partial amendments to the Penal Code and the Law on Administrative Offenses are not sufficient to increase the efficiency of the administration of justice. The practical problems, which require an answer in the investigation of corruption crimes, remain relevant in the proposed and previous reports expansion and improvement of the positive regulation of corruption crimes with new components, adequate to the socio-economic conditions. The creation of a system of incentives for subsequent good faith conduct, excluding criminality, for a person who has given a bribe if he has voluntarily reported it, although not immediately, including when he has not been blackmailed; for persons who have revealed particularly serious crimes in which they have participated, if an agreement has been concluded between the defense and the prosecutor; introduction of reduction of the punishment, in case of confessions of the accused; discussion of the elimination of the criminal liability for provocation to bribery under Art. 307 of the Penal Code are proposals of direct importance for increasing the efficiency of criminal justice (2020). It is necessary to include in the limits of criminal protection in case of illegal destruction or damage of protected areas or habitats the deliberate destruction or damage of riverbeds outside the protected areas. The introduction of objective criteria regarding the amount of the remainder to be served and the mandatory application of probation measures during the probationary period will create the necessary guarantees of predictability in the case of early release.

2.4. With regard to the Penal Procedure Code (PPC)

The problem stated in previous reports in the procedural regulation in the PPC of the rules for providing data by enterprises providing public electronic communications networks and/ or services (Article 159a of the PPC) has been unresolved. (Chapter nine "a" of the Penal Code), which in their priority part are not heavy within the meaning of Art. 93, item 7 of the Tax Code (2020). The proposals for effective use of the human resources of the investigators and the military prosecutor's offices with possible expansion of the substantive jurisdiction (inclusion

of new corpus delicti and expansion of the range of cases under Article 396 of the PPC) remain relevant (2020). It is necessary to provide for the possibility of assigning the investigation in cases under the jurisdiction of the Specialized Criminal Court pursuant to Article 194, paragraph 2, sentence 2 of the PPC to investigators from the National Investigation Service through a supplement to Article 411c of the PPC, in order to use the capacity of National Investigative Service. In addition, given the competence of the investigators of the Investigation Department of the Specialized Prosecutor's Office at national level and their high workload, they should be able to ask investigators from the district investigation departments of the district prosecutor's offices to carry out separate investigative actions under Article 218, para 1 of the PPC. At present, such delegation is inadmissible due to the specific competence of the investigators from the investigation department at the Specialized Prosecutor's Office according to Article 411c, paragraph 2 of the PPC (2020). It is proposed to reconsider the possibility of expanding the application of the provision of Article 281, paragraph 4 of the PPC and with regard to the testimony of witnesses given in the pre-trial proceedings, when they cannot be found to participate in the court proceedings, or when they have died in the meantime. The significant deficit in the legislation for introduction of procedural rules corresponding to the significant factual and legal complexity of the crimes committed by organized criminal groups and corruption crimes has not been overcome - reciprocal increase of the duration of the investigation, deadlines for application of special intelligence tools and investigations through an employee under cover, of the terms for application of the measures for procedural coercion and the measures for detention, elimination of the sanction consequences of the provision of Article 234, paragraph 7 in respect of performed actions on the investigation outside the deadlines. It is proposed to supplement the provision of Article 111 of the PPC with the possibility for destruction of the waste, subject of crimes under Article 353, letters "b – e" of the Penal Code before the end of the criminal proceedings (2020). The need for updating and improving the procedure under Article 427-432 of the PPC, related to the application of compulsory medical measures under Article 89 and the following of the Penal Code, given the findings of non-compliance with the requirements of EU law.

2.5. Regarding other laws

The proposals for easing the procedure for disclosure of information, representing "tax and social security information" in the sense of Article 72 of the Tax and Social Insurance Procedure Code. Amendments needed to Article 145 of the Judicial System Act (JSA) given the findings of insufficient time for preliminary inspection, especially in cases of factual and legal complexity (2020).

3. ACTIVITIES OF THE BULGARIAN PROSECUTOR'S OFFICE FOR IMPLEMENTATION OF THE "COMMUNICATION STRATEGY OF THE JUDICIARY 2014-2020"

3.1. Basic principles of information exchange

The provision of information of public interest through the media is a guarantee of the right to information of citizens. In carrying out the information exchange, the provisions of the Constitution of the Republic of Bulgaria, the Penal Procedure Code, the Judicial System Act, the Personal Data Protection Act, the Access to Public Information Act, the Classified Information Protection Act, the Communication Strategy of the Judiciary 2014 - 2020, the Rules for media communication in the system of the Prosecutor's Office of the Republic of Bulgaria, shall be in compliance with Opinion № 8/2013 on the relations between prosecutors and the media and Opinion № 9 of 2014 on European principles and norms concerning prosecutors of the Consultative Council of European Prosecutors (CCPE) (2020).

3.2. Forms of public communication

In 2019, all Prosecutors' Offices in the country continue their activities in the priority areas in implementation of the Communication Strategy of the judiciary 2014 - 2020. Among the specific activities for its implementation are:

- established internal organization for providing up-to-date information, in compliance with the principles of efficiency and coherence;
- daily preparation of press releases for the activity of the prosecutors' offices from the respective region, in order to ensure constant public awareness of the actions of the state prosecution in specific proceedings;
- publishing press releases on the Prosecutor's Office of the Republic of Bulgaria website and sending them to national and regional media
- preparation of answers to received journalistic inquiries;
- organizing, conducting and participating in briefings and press conferences;
- media participation of prosecutors on the occasion of specific criminal proceedings, which provoked increased public interest;
- holding Open Days;
- organizing working visits of magistrates from EU Member States.

3.3. Internal organizational aspects and forms of public communication

The total number of prepared press releases for cases monitored by the prosecutor's offices in the Republic of Bulgaria in 2019 is 2,698, with the largest number in the region of Sofia - 562. As part of the media policy, in 2019 the work of the regional prosecutor's offices will continue to be promoted, in respect of which there is an increased interest on the part of the local and regional media. When preparing the press releases, the specific requirements of the law are observed in accordance with the functional competence of the state prosecution, including with a view to maintaining the investigative secret. Before providing information to the public on a specific pre-trial proceeding, the requirements of Article 198, paragraph 1 of the Penal procedure code as the supervising prosecutor gives permission for disclosure of the information and determines its specific volume so as not to complicate the investigation. A balance is sought between the right of citizens to be informed and the disclosure of the objective truth of the case, in compliance with the basic principle of innocence of persons until proven otherwise by an effective sentence. The press releases most often refer to murders, embezzlement, fraud with expert decisions of the Territorial Expert Medical Commission, executed European Arrest Warrants and European Arrest Warrants, possession and distribution of drugs, migrant trafficking, illegal border crossing, theft and robbery, participation in telephone fraud by misleading, keeping excise goods without excise labels, etc. The positive practice of the so-called "pre-emptive reaction on the part of the prosecutor's offices in the country" is confirmed. Information about an event is provided through a briefing or press release before it became publicly known, in order to convey the facts and circumstances as accurately as possible. The information is provided in a way that thwarts speculation and opportunities to damage the reputation, independence and professional competence of prosecutors and investigators. The spokespersons of the prosecutor's offices, in their statements to the media, transmit and supplement, if necessary, the information provided in the press releases. An objective criterion for building trust is the increasingly frequent publication of press releases of the prosecution, received by the press center, without changing their content. The good joint work with the press services of the Ministry of Interior, SANS, GDBOP, SDVR, KPKONPI, National Social Security Institute (NSSI), National Revenue Agency (NRA) and other state bodies, with which joint briefings are held, continues. The election of the Prosecutor General - a leading topic in the last three months of the previous year - had a significant impact on media communication in the Prosecutor's Office of the Republic of Bulgaria in 2019.

In order to raise public awareness of pre-trial proceedings of public interest, the participation of prosecutors on television, print and electronic media has been strengthened. Priorities in communication with the media are related to providing fast, accurate and clear information, better coverage of the work of small district prosecutor's offices, participation of more and more prosecutors from appellate districts in meetings with students on topics related to crime prevention in the Internet space, etc., activating the work with children from the primary and basic educational course. The activity in the priority directions continues, in implementation of the Communication Strategy, as the emphasis in the work is the improvement of the internal communication relations.

3.4. Work with citizens and non-governmental organizations

The total number of signals, requests and complaints submitted on spot, in the Information Center of the Prosecutor's Office of the Republic of Bulgaria and electronically, addressed to the Supreme Prosecutor's Office and the Prosecutor General, during the reporting period are 6,800, and to the Sofia City Prosecutor's Office - 3,500. Most of the applications are for the issuance of certificates for lack of charges in criminal proceedings.

3.5. Open Doors Information Campaign

In 2019, all prosecution offices organized events on the occasion of Constitution Day and the lawyer. An organization has also been set up to hold an Open Day in all appellate districts and in the Supreme Cassation Prosecutor's Office. The Plovdiv Appellate Prosecutor's Office organized an exhibition of paintings dedicated to the anniversary of the Tarnovo Constitution, which was attended by students from Tsanko Lavrenov National Art High School in Plovdiv. Most of the initiatives related to the information campaigns on the activities of the Prosecutor's Office of the Republic of Bulgaria are aimed at young people and the younger generation.

3.6. Educational programs and initiatives

Participation of prosecutors in the educational program of the Supreme Judicial Council (SJC) and the Ministry of Education and Science – "Together in an ethics and law class" has been carried out for the fourth consecutive year. The aim of the campaign is to acquaint students with the work of magistrates, the functions of the judiciary, the Constitution and the state building, human rights and freedoms and and so on. During the open lessons presented in 2019, the emphasis was mainly on the harm from narcotic substances and the envisaged penalties for their possession and distribution. The participation of prosecutors from all appellate districts continued in the program "Judiciary - Informed Choice and Civic Trust. Open courts and prosecutor's offices". In the final initiative of the educational program, the Sofia City Prosecutor's Office hosted 100 students from three Sofia schools who took part in a simulated trial. The event was held in the Ceremonial Hall in the Palace of Justice. Numerous other meetings were organized with students, during which prosecutors gave lectures on topics previously announced by them. For the second consecutive year, the Appellate Prosecutor's Office in Plovdiv hosted meetings with prosecutors and law students from "Paisii Hilendarski" University of Plovdiv. For the third consecutive year, the Burgas Appellate Prosecutor's Office has given lectures to students on the topic "Issues that have arisen in the course of the work on criminal cases under Article155a-155c, Article 158a and Article 159 of the Penal Code with injured persons - minors and juveniles and identification of measures for completion of the initiated pre-trial proceedings". For the second consecutive year, an initiative has been held to donate books to the prison of Burgas. Total of over 220 books, textbooks, scientific journals, etc. collected by prosecutors and court employees were handed over to the Burgas prison administration.

Prosecutors from the Veliko Tarnovo Appellate Prosecutor's Office held meetings with primary school students who are familiar with the activities of the prosecutor's office and with the prevention of crimes and the prevention of patterns of illegal behavior. Special presentation modules have been prepared and presented, through which the profession of "prosecutor" is presented in an accessible way for their age. Particular attention is paid to the dangers that can be encountered in everyday life and on the internet. During the accounting year year District Prosecutor's Office - Gabrovo held a number of events dedicated to the 60th anniversary of the establishment of the Prosecution.

4. CONCLUSION

What has been written gives grounds to draw the following conclusions (Terziev, Georgiev, Bankov, 2020a-h):

- Stability is established in the reduction of registered crimes, according to data from the Ministry of Interior. The Ministry of Defense has also reported a decline in registered crime again this year.
- There is an increase in the disclosure compared to 2018 and 2017, according to data from the Ministry of Interior (2019).
- Registered crimes against property retain a predominant share, followed by generally dangerous, economic and crimes against the person.
- The possible admissible transparency in the activity of the Prosecutor's Office is ensured, including by implementing the envisaged forms of accountability of the Prosecutor General to the Supreme Judicial Council (SJC) and the National Assembly, as well as by informing the public about the initiation and progress of significant cases.
- In the activity of the Prosecutor's office the rights of the citizens are strictly observed and the achievement of institutional predictability is sought.

LITERATURE:

1. Terziev, V., Nichev, N., Bankov, S. (2016). Corruption and national security. // Mezhdunarodnayy nauchnnayy zhurnal Inovatsionnaya nauka, №10-3/2016, Chastyah 3, Ufa, Rossiya, ISSN 2410-6070, s.189-196 (Terziev, V., Nichev, N., Bankov, S. Corruption and national security. // Международный научнный журнал Иновационная наука, №10-3/2016, Частях 3, Уфа, Россия, ISSN 2410-6070, с.189-196).
2. Terziev, V., Nichev, N., Bankov, S. (2016a). National security of the republic of Bulgaria. // Science and practice: Collection of scientific articles. Thoroe-Bowker, Melbourne, Australia, 2016, ISBN 978-0-9942661-3-2, pp.12-21.
3. https://www.parliament.bg/bg/const (2020).
4. Terziev, V., Bankov, S., Georgiev, M. (2018). The Stability and growth pact: pursuing sound public finances and coordinating fiscal policies in the EU member states. // Journal of Innovations and Sustainability, Plovdiv, Bulgaria, 4, 2018, 3, pp. 53-68, ISSN 2367-8127 (CD-ROM), ISSN 2367-8151 (on-line).
5. Terziev, V., Bankov, S., Georgiev, M. (2018a). The Change in the approach of the court of justice of the European Union in the context of market freedoms and internal situations. // Journal of Innovations and Sustainability, Plovdiv, Bulgaria, 4, 2018, 3, pp. 85-112, ISSN 2367-8127 (CD-ROM), ISSN 2367-8151 (on-line).
6. Terziev, V., Georgiev, M., Bankov, S. (2020a). Interaction of the Prosecutor's office with the competent state authorities for counteraction of corruption. // International scientific journal "Internauka", Kiev, Ukraine, 2020, № 12 (92), pp. 54-57, ISSN 2520-2057.
7. Terziev, V., Georgiev, M. Bankov, S. (2020b). Increasing the risk of corruption activities during a COVID-19 pandemic. // International scientific journal "Internauka", Kiev, Ukraine, 2020, № 12 (92), pp. 58-59, ISSN 2520-2057.

8. Terziev, V., Georgiev, M., Bankov, S. (2020c). The functions of the Bulgarian Prosecutor`s Office to guarantee compliance with the law during investigations. // 58th International Scientific Conference on Economic and Social Development – Budapest, 04-05 September, 2020, Economic and Social Development (Book of Abstracts), p. 1, 2020, ISSN 1849-7543.
9. Terziev, V., Georgiev, M., Bankov, S. (2020d). Achieved results of the Bulgarian Prosecutor`s Office in the prosecution and investigation of crimes of corruption. // 58th International Scientific Conference on Economic and Social Development – Budapest, 04-05 September, 2020, Economic and Social Development (Book of Abstracts), p. 43, 2020, ISSN 1849-7543.
10. Terziev, V., Georgiev, M., Bankov, S. (2020e). The functions of the Bulgarian Prosecutor`s Office to guarantee compliance with the law during investigations. // 58th International Scientific Conference on Economic and Social Development – Budapest, 04-05 September, 2020, Economic and Social Development (Book of Proceedings), pp. 1-5, 2020, ISSN 1849-7535.
11. Terziev, V., Georgiev, M., Bankov, S. (2020f). Achieved results of the Bulgarian Prosecutor`s Office in the prosecution and investigation of crimes of corruption. // 58th International Scientific Conference on Economic and Social Development – Budapest, 04-05 September, 2020, Economic and Social Development (Book of Proceedings), pp. 384-387, 2020, ISSN 1849-7535.
12. Terziev V., Georgiev M., Bankov S. (2020g). Edinayy katalog korruptsionnayh prestupleniy v bolgarskoy prokurature. // Mezhdunarodnayy nauchnayy zhurnal "Internauka", 2020, №14,. https://doi.org/10.25313/2520-2057-2020-14-6265 (Терзиев В., Георгиев М., Банков С. Единый каталог коррупционных преступлений в болгарской прокуратуре. // Международный научный журнал "Интернаука", 2020, №14,. https://doi.org/10.25313/2520-2057-2020-14-6265).
13. Terziev V., Georgiev M., Bankov S. (2020h).Functions, rights and obligations of the „Expert Council“ of the prosecutor general of the Republic of Bulgaria. // International scientific journal "Internauka", 2020, №14, https://doi.org/10.25313/2520-2057-2020-14-6266.

CYBERSECURITY AND CRIMINAL JUSTICE IN DIGITAL SOCIETY

Sabrina Horovic
University of Mostar Faculty of Law, Bosnia and Hercegovina
Matice hrvatske b.b. 88 000 Mostar
sabrina.horovic@pf.sum.ba

Marija Boban
University of Split Faculty of Law, Croatia
Domovinskog rata 8, 21000 Split
marija.boban@pravst.hr

Ivana Stipanovic
University of Mostar Faculty of Law, Bosnia and Hercegovina
Matice hrvatske b.b. 88 000 Mostar
ivana.stipanovic@pf.sum.ba

ABSTRACT

Authors of this paper will address a topic that is increasingly known to modern society and that is cybersecurity and criminal justice in digital society. We are witnessing the constant progress of society in the form of technology that is changing almost daily and introducing the new forms of cybercrime. Undoubtedly, this development greatly facilitates our everyday life, but it brings with it a number of negative consequences that we encounter more and more often. One of these is the growing number of criminal offenses in which the Internet or computer is used as a means of committing. The consequences of this misuse of opportunities provided by technology can be enormous.Precisely because of this, there was a need to comply and to bring new regulations and state acts that would cover this area of law. This paper will analyze the general concept of cybersecurity and protection of cybercrime, its origins, their regulation and prevention.

Keywords: *criminal justice, cybercrime, cybersecurity, data protectoin, digital society, digital criminology, information security*

1. INTRODUCTION

Cyber security is related to technological development that has never been more dynamic and comprehensive than in the field of communication and information technology. Since the first mention of cybernetics, the goal is always directed towards the rapid development and introduction of new services and products, while security aspects have generally had very little impact on the widespread acceptance of new technologies. (Obradović,2018, pp 158-163)Users of ICT systems within most companies usually have minimal knowledge of the technology they use, and the way the technology is applied is such that it is very difficult to assess the security features of most commercial products with regard to protecting the confidentiality or privacy of user data. All this has led to the fact that the attitude of companies towards communication and information technology is based almost exclusively on the use without evaluation of risk and business continuity. Cyberspace is a defining feature of modern life and a key area of the digital society in whole. Tens of thousands of more or less dangerous cyber attacks are recorded daily, and the world's leading countries, as well as international organizations, are showing a growing awareness of the need to act to increase the level of cyber security. Many of them already have their own national cyber security strategies and systems in place. Cyber security generally covers only the technical parts of security. Information security is only one part of information security that deals with technological protection (eg antiviruses, firewalls, encryption, etc.). Rapid development of new tehcnologies, such as the social networks, Big data and Internet of things,

have been inadequately considered by criminologies of computing and cyber crime. The goal of research in this area is focused on policing and investigations, legislative frameworks, and profiling cyber criminals, often in the context of individualised and 'rational offender' theories that seek to explain technology as merely a tool in the commission of otherwise familiar crimes. Moreover, the topics addressed by much computer and cyber crime research have remained relatively consistent over the last decade and predominantly include hacking; financial theft and identity fraud; stealing personal data, illicit online markets and networks; child sexual exploitation; cyberbullying; and, lately, information privacy and digital surveillance.(Stratton, Powell and Cameron, 2017, p 18)

2. CYBER SECURITY AND INFORMATION SECURITY

Users of ICT systems within most companies usually have minimal knowledge of the technology they use, and the way the technology is applied is such that it is very difficult to assess the security features of most commercial products with respect to the confidentiality or privacy of user data. All this has led to the fact that the attitude of companies towards communication and information technology is based almost exclusively on the use without evaluation of risk management methodology and business continuity. But todays information and communication technologies and fully developed e-business models have shown the great need of use information security and cybersecurity. In the most of academic debates the terms cyber security and information are set as security basics because their main goal is to maintain the integrity and confidentiality of information. Firstly, the difference between cyber security and information security will be stated (as shown on Figure 1).

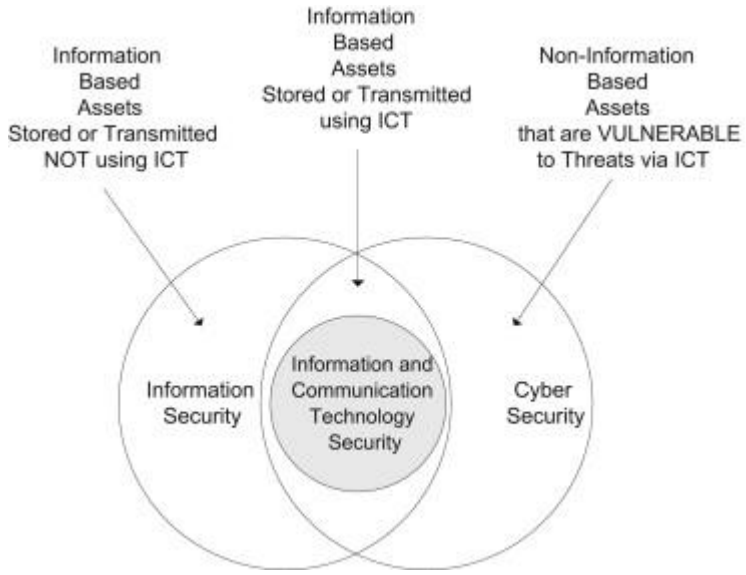


Figure 1: From information security to cyber security
(Source: von, Solms, and Niekerk, 2013)

Any institution that has a business record or a personal or royal statement can be retained you do not release from it any places or data belongs to information security - both in work and in paper records. There are two categories of information security; physical data protection through building safety methodology and the second access to electronic information is cyber information (stored in the information systems). Cyber security presumes the steps that the organization must take to protect information and reach vulnerabilities. It is possible for fraudsters to carry out attacks via the Internet or to plant malicious programs and e-mails instead of breaking into a building and security prevents the entry of a person into the organization, but cyber security reduces internal threats (Moise, 2014, pp 38-43).

Cyber security relies on physical security to reduce the likelihood of attack. So, the difference between cyber security and information security is explained, firstly, by given that cyber security is for protection of data from threats outside of the source and information security is related to protect information from unauthorized user and have an ability to remove or access. Secondly, cyber security is an ability to protect any data from any electronic attack (cyber crimes and cyber frauds) and any attack related to internet access. On the other hand, information security protects data in different fields and from any threats broadly said as prevention from any access to unauthorized data. In short, information security is a technique that protects digital information from any threat or theft but cyber security is a set of steps or ways to protect digital information through the security of information while protecting data and information from external sources in cyberspace. (Boban, 2019, p113). In most literature, cyber security is used as an all-inclusive term. Definitions of this term vary, for example the *Merriam Webster dictionary* defines it as "measures taken to protect a computer or computer system (as on the Internet) against unauthorized access or attack". The International Telecommunications Union (ITU) defines cybersecurity as the collection of tools, policies, security concepts, security safeguards, guidelines, risk management approaches, actions, training, best practices, assurance and technologies that can be used to protect the cyber environment and organization and user's assets. Organization and user's assets include connected computing devices, personnel, infrastructure, applications, services, telecommunications systems, and the totality of transmitted and/or stored information in the cyber environment. Cybersecurity strives to ensure the attainment and maintenance of the security properties of the organization and user's assets against relevant security risks in the cyber environment (Jaishankar, 2018, pp 1-8). The general security objectives comprise the following:

- Availability
- Integrity, which may include authenticity and non-repudiation
- Confidentiality (International Telecommunications Union, 2008)

These definitions are very similar to that of information security. The aim of information security is to ensure business continuity and minimise business damage by limiting the impact of security incidents (Von Solms, 1998). Information security can be defined in a number of ways, as highlighted below. This paper will explore the definition of information security in depth and then argue that the boundaries of cyber security as a concept are wider than those of information security in terms of how it is formally defined. This viewpoint is supported by the international standard ISO/IEC 27032:2012(E) (ISO/IEC 27032:2012, Information technology — Security techniques — Guidelines for cybersecurity).

3. CYBERCRIME VERSUS CYBERSECURITY

The terms cybercrime and cybersecurity are often used interchangeably. For the purpose of explanation, definitions of cybercrime and cybersecurity, as stated in the discussion paper 'Cybercrime strategies' (Seger, 2012, pp 6-7), will be given:

- Cybersecurity addresses non-intentional incidents caused by malfunctioning of technology, coincidental failures, human failures, natural disasters and others and intentional attacks by State and non-State actors, including botnet attacks to disrupt information infrastructure, unauthorised access and interception of data and communications (including computer espionage) or the manipulation or destruction of data and systems (including computer sabotage). (Boban, 2018,pp 541-553) Cybercrime (titles 1 and 2 of Budapest Convention) covers offences against the confidentiality, integrity and availability of computer data and systems, that is, offences against computer data and systems, including illegal access, illegal interception, data and system interference, misuse of devices and offences committed by means of computer systems.

This list is limited to those 'old' forms of crime that obtain a new quality through the use of computers, that is, computer-related forgery and fraud, child pornography and offences related to infringements of copyright and related rights on a commercial scale. (Budapest Convention on Cybercrime, 2011.)

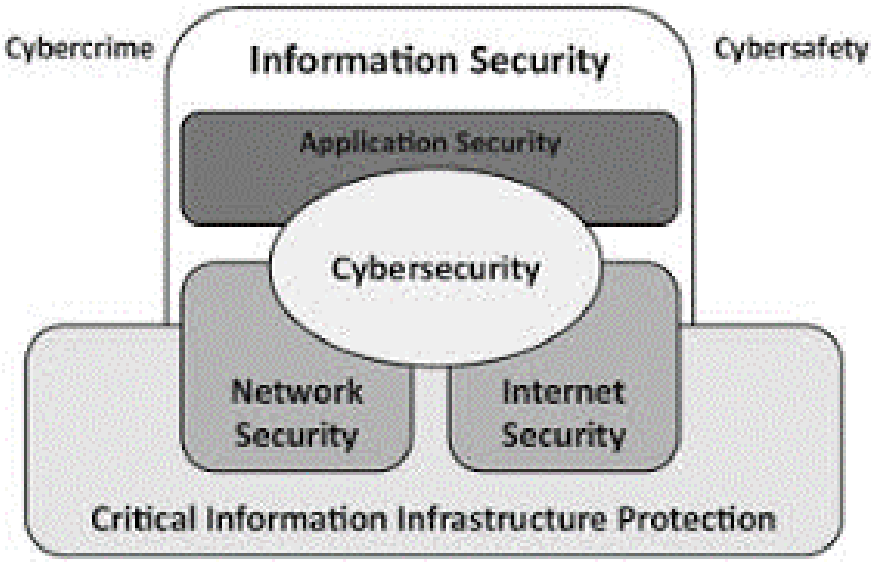


Figure 2: "Cybersecurity and information security – what goes where?" (Source: von Solms, 2018, https://doi.org/10.1108/ICS-04-2017-0025)

The questions of cybersecurity and cybercrime are thus closely connected with regard to intentional attacks against computer data and systems. Cybersecurity and cybercrime are mutually reinforcing even though they follow a different rationale. A cybersecurity strategy is primarily aimed at the protection of the confidentiality, integrity and availability of computer data and systems in order to enhance security, resilience, reliability and trust in ICT.(Proceedings of a Workshop on Deterring Cyber Attacks: Informing Strategies and Developing Options for U.S. Policy, 2010) They appear to give highest priority to the protection of public and private sector critical information infrastructure as well as of government computer systems against non-intentional incidents caused by malfunctioning of technology, coincidental failures, human failure, natural disasters and other intentional attacks by state and non-state actors, including botnet attacks to disrupt information infrastructure, unauthorised access and interception of data and communications (including computer espionage) or the manipulation or destruction of data and systems (including computer sabotage).This type of conduct is broadly covered by articles 2 to 6 of the Budapest Convention on Cybercrime, that is, illegal access, illegal interception, data and systems interference, and misuse of devices. (Budapest Convention, 2011, Art. 2-6) Intentional attacks seem to be the primary concern. Threat actors listed are states, terrorists or criminals, whereby attribution and the blurring line between state and non state actors are considered problems (Seger, 2012, pp 6-7).

4. CYBERSECURITY AND CRIMINAL JUSTICE - LEGAL REGULATION IN THE REPUBLIC OF CROATIA

The legislative framework for cyber security and cybercrime is based primarily on amendments to the Criminal law (NN 125/11, 144/12, 56/15, 61/15, 101/17, 118/18, 126/19 - hereinafter CL) and its harmonization with the European Convention on Cybercrime, which brought a new, high-quality, although not completely legal solution in this area in the Republic of Croatia. The most important novelty in the Criminal law is its harmonization with the obligations undertaken by the signing of the Convention on Cybercrime of the Council of Europe (NN-MU 9/02, 4/04).

The convention itself is the most important and comprehensive European document on this type of crime, signed by some non-European information superpowers, primarily the United States, Canada and Japan. Namely, the Convention was solemnly signed on November 23, 2001 in Budapest, and was presented as an international legal instrument which for the first time legally regulates the use and transmission of information and data through information and telecommunication systems. Namely, the progressive development of technologies has resulted in the integration of information and telecommunications technologies, which leads to increased connectivity and greater forms of their abuse, so the term "computer crime" is replaced by the broader term "cybercrime". That is why it is called the Convention on Cybercrime, not Computer Crime.

4.1. Convention on Cybercrime

The Convention on Cybercrime (Narodne novine–Međunarodni ugovori No. 9/2002, No. 4/2004 - hereinafter the Convention) is a form of international agreement. Also, this Convention is also the first international treaty on offenses committed via the Internet and other computer networks specifically dealing with copyright infringement, computer offenses related to fraud, child pornography and network security breaches. In a way, cybercrime, in today's modern age of unprecedented technological progress, can be defined by compressing the (Škrtić, 2009, pp 1-12) Preamble to the Convention, which states that the adoption of the Convention is a disincentive to deter their abuse, because it establishes, in the manner described in this Convention, the criminalization of such conduct. (Budapest Convention, Preamble, 2001)The Convention on Cybercrime has been amended by the Additional Protocol to the Convention on Cybercrime - International contracts No. 4/2008). According to the text of the Convention, cybercrime is defined as incriminations related to the Internet according to the following groups: group of acts against secrecy, inviolability and availability of data stored on computers and systems themselves (this includes such violations as unauthorized access to computers; unauthorized interception of data; data, misuse of computers and programs to commit criminal offenses, interference with the smooth operation of computers, etc.); criminal offenses such as computer fraud and forgery; criminal offenses related to the content of computer data, primarily the distribution and dissemination of child pornography; works related to copyright and related rights infringement. Also, criminal offenses are followed by provisions on sanctioning aiding and abetting in the commission of the above-mentioned offenses and on the criminal liability of legal persons for the aforementioned criminal offenses. What is common to all states and on which the Convention is based is the agreement that it is necessary to pursue a common criminal policy aimed at protecting society from cybercrime. punished with effective punishments, including imprisonment (Turkalj, 2007, pp 1-16). The Convention aims primarily at: harmonizing domestic substantive criminal law elements of the offense and related provisions in the field of cybercrime; providing authority for domestic criminal procedural law necessary for the investigation and prosecution of such criminal offenses, as well as other offenses committed by means of a computer system or evidence in connection with which in electronic form; establishing a rapid and effective regime of international cooperation.(Chan, 2019, pp 327-343) Prior to legislative reforms and criminal regulation of computer crime, criminal provisions on theft, fraud, embezzlement, business and other secrecy, and on the protection of intellectual property applied to this form (Horović, 2006, pp 63-76). A closer analysis of the penal provisions of the Convention leads to the conclusion that criminal offenses can be grouped into two groups. (Convention, Articles 2-10) The first group includes criminal offenses that can be applied to a computer system and to computer data. Within that group are two subgroups. Subgroup of incriminations against secrecy, integrity and availability of computer data and systems - illegal access (Article 2 of the Convention), illegal interception (Article 3), interference with data (Article 4), interference with the system (Article 5) and misuse of devices (Art. 6) and a subgroup

with two modified classic criminal offenses - computer forgery (Art. 7) and computer fraud (Art. 8). The second group consists of criminal offenses with the content of information as an essential component of their being, computer data related to communications, created by a computer system as part of the communication chain, which data indicate the origin of communication, its destination, path, time, date, size, duration and type and services ("traffic data" - Article 1.d of the Convention). Also, the above-mentioned offenses under Art. 2. - Art. 8 could also be defined as computer crime in a narrower sense, as a catalog of a traditional, existing catalog of criminal offenses. In the definition of computer crime in a broader sense, this catalog has been extended to criminal offenses related to child pornography (Article 9 of the Convention), because the spread of child pornography content and the association of this form with various forms of child sexual exploitation is particularly emphasized by the use of information technology that has made the spread of ideas and different material between people from different parts of the world easier, more cost-effective and faster than ever before (Horović, 2007, pp 76-83), and criminal offenses of copyright and related rights (Article 10 of the Convention).(Mittal and Sharma, 2017)

4.2. Amendments to the Criminal law and harmonization in accordance with the Convention from the moment of signing the Convention

The Republic of Croatia signed the Convention on Cybercrime on 23 November 2001, and the commitments thus made related to the amendment of the Criminal law, which was to introduce new criminal offenses, namely: illegal access, illegal interception, interference with data, interference with systems, device misuse, computer forgery, computer fraud, child pornography and copyright, in cases where computers and the Internet are used for crime, ie, precisely those acts which are said to be cybercrime not yet a single phenomenological a category with clearly defined and defined works that it should include. Actions involving attempting, aiding and abetting all of the above should also have been introduced. (Derenčinović,2003, pp 223-227) The biggest intervention was in introducing into the Criminal law a definition incriminating new abuses, so that since then with "*damage, alteration, deletion, destruction or other means of data misuse"* that make them unusable, punishable and all ways in which they seem inaccessible. This novelty is especially important in situations where the data is not deleted or damaged, but it cannot be accessed due to the action of malicious programs, primarily viruses, the so-called. worms and Trojan horses. This finally provides programs and data with the same protection as physical objects. (Derenčinović, 2004) Namely, until now, the theft of computer data was not considered theft, because the data was not physically stolen from the computer. The fact that they were copied and made available to others was not respected by the law. This amendment addresses the application of the CL in the practice of these cases (Vojković, and Štambuk-Sunjić,2006, pp 123-136). A novelty was the sanctioning of "disabling or making it difficult to work or use" computers or computer communication, primarily as another way of punishing the creation and transmission of malicious programs, but also all other ways of denying services, the so-called. Denial of Service (DoS) attacks. Interpretation of this norm also gives the possibility of punishing the so-called spamming, sending a large number of e-mails with the intention of clogging the recipient's server or machine, causing the system to stop working. Although the intention of the legislator is to solve the problem of spamming in a special law, this possibility should not be ruled out either. The envisaged punishment for all the above acts is a fine or imprisonment for up to three years (Button and Cross,2017). This brings us to another important novelty, the increase in sanctions for perpetrators, which now differ depending on whether the crime was committed on a private computer (fine or imprisonment for up to three years) or "computer, system, data or program of public authorities, a public institution or a company of special public interest ", in which case the sanction is exclusively a prison sentence of three months to five years. Further innovations relate to the punishment of unauthorized production and sale of devices and programs adapted for the commission of criminal offenses of

cyber (computer) crime, and the punishment for attempting any of the aforementioned criminal offenses (Boban, 2019.). The current CL, according to the changes from 2015, went a step further by introducing a new chapter and articles of the CL - Chapter XXV. entitled: Criminal offenses against computer systems, programs and data, and: Article 266: Unauthorized access; Article 267: Interference with the operation of a computer system; Article 268: Damage to computer data; Article 269: Unauthorized interception of computer data; Article 270: Computer forgery; Article 271: Computer fraud; Article 272: Misuse of devices; and Article 273: Serious offenses against computer systems, programs and data. This also resolved one of the issues that were not harmonized with the Convention in the previous amendments, and it was a criminal offense of unauthorized access to data or programs, the so-called hacking. Namely, the Convention provided for the sanctioning of unauthorized access itself, while our then Criminal law (in Article 223) punished "only" unauthorized access "despite protective measures". This solution was quite confusing, while today's definition defines in detail all forms of unauthorized access (Article 266 CL), interference with the computer system (Article 267 CL), damage to computer data (Article 268 CL), unauthorized interception of computer data (Article 269 CC) as well as serious criminal offenses against computer systems, programs and data (Article 273 CL), which is also a novelty in the CL. (Boban, 2019.)Until this is established, an assessment of the existence of safeguards will have to be given by the court in each particular case, leaving hackers with an excellent opportunity to defend themselves in court. In layman's terms, any hacker can defend himself that there were no safeguards in place, because if they were, he would not be able to break into the system. In addition to the listed newspapers, Articles 270 and 271 of the Criminal law list two criminal offenses previously introduced: computer forgery and computer fraud, which are the most common form of criminal offenses in this area. Thus, obtaining illegal property gain by altering someone else's computer data for the purpose of computer fraud will be punished by six months to five years in prison. In the same way, any other form of theft, fraud, embezzlement and other such acts through information technology will be punished by imprisonment as it is a completely new, special crime that could not be punished according to the classical interpretation of theft as was available in the previous Criminal law (Chawki, 2005). At the time of the expansion of e-commerce and e-business in general, in legal science and law enforcement, the emphasis must be placed on the protection of information security and cybersecurity meaning electronic documents as well as paper ones, because in the process of criminal processing electronic documents are electronic evidence nowdays.

5. CONCLUSION

As already pointed out in the introduction, technology is changing day by day. As the world moves forward and evolves, the legal regulations need to adapt and constantly monitor progress and change. In this paper the authors have given an overview of actual situation of cybersecurity and criminal justice in digital society based on Budapest convention and changes of Criminal Law. New concepts have been introduced and new situations adapted to the changes. But also, it is very important to be aware of all the negative aspects that technology brings us, and this can be achieved by education of citizens. Each person uses the Internet on a daily basis and in this way is exposed to numerous potential attacks that can happen with a single mouse click. The consequences can be truly fatal for both individuals and legal entities. Before each entry into something unknown, it is important to take cybersecurity measures but also to be educated and well informed about all the possible consequences that may result from it. People like technology, have to evolve and keep up with the new technologies in virtual surroundings.

LITERATURE:

1. Boban, M. (2019) Zaštita podataka i pravo na privatnost u informacijskom društvu, Veleučilište „Nikola Tesla“ u Gospiću, Gospić
2. Boban, M., (2018), Cyber security foundations for compliance within gdpr for business information systems, Economic and Social Development: Book of Proceedings, Varaždin: Varazdin Development and Entrepreneurship Agency (VADEA), pp 541-553
3. Budapest Convention on Cybercrime, (2001), European Treaty Series - No. 185, Budapest, 23.XI.2001.
4. Button, M., Cross, C. (2017). Cyber Frauds, Scams and their Victims. New York, Routledge.
5. Chan, L.Y.C., (2019) Legislative Frameworks Against Cybercrime: The Budapest Convention and Asia, The Palgrave Handbook of International Cybercrime and Cyberdeviance pp 327-343
6. Chawki, M. (2005). A Critical Look at the Regulation of Cybercrime: A Comparative Analysis with Suggestions for Legal Policy, http://www.droit-tic.com/pdf/chawki4.pdf
7. Konvencija o kibernetičkom kriminalu (Narodne novine – Međunarodni ugovori No. 9/2002, No. 4/2004)
8. Derenčinović, D. (2003), Prikaz kolokvija AIDP-a o kibernetičkom kriminalu, Hrvatski ljetopis za kazneno pravo i praksu (Zagreb), vol. 10, broj 1/2003, str. 223-227.
9. Derenčinović, D. (2004.) Neka zapažanja o utjecaju međunarodnih konvencija na razvitak hrvatskog kaznenog prava, Aktualna pitanja kaznenog zakonodavstva 2004., Inženjerski biro, Zagreb
10. Horović, S. (2006), Kaznena djela protiv sustava elektronske obrade podataka u Kaznenom zakonu FBiH, Zbornik radova Pravnog fakulteta Sveučilišta u Mostaru, br. XIX., 2006., str. 63.-76.
11. Horović, S., Kriminalizacija dječje *on line* pornografije, Motrišta, Glasilo Matice hrvatske, ljeto 2007, str.76.-83
12. International Telecommunications Union (ITU) (2008), ITU-TX.1205: series X: data networks, open system communications and security: telecommunication security: overview of cybersecurity, 2008
13. ISO/IEC 27032:2012, Information technology — Security techniques — Guidelines for cybersecurity, https://www.iso.org/standard/44375.html
14. Jaishankar, K. (2018). Cyber Criminology as an Academic Discipline: History, Contribution and Impact. International Journal of Cyber Criminology, 12 (1), 1-8.
15. Kazneni zakon, pročišćeni tekst zakona, Narodne novine br. 125/11, 144/12, 56/15, 61/15, 101/17, 118/18, 126/19 (Criminal Law of Republic of Croatia – CL)
16. Mittal, S. and Sharma, P. (2017) A Review of International Legal Framework to Combat Cybercrime (June 20, 2017). International Journal of Advanced Research in Computer Science, ISSN No. 0976-5697, Volume 8, No. 5, May-June 2017, available at SSRN: https://ssrn.com/abstract=2978744 or http://dx.doi.org/10.2139/ssrn.2978744
17. Moise, A.C. (2014). Some considerations on the phenomenon of cybercrime. Journal od Advanced Research in Law and Economics, 5(1), pp38-43.
18. Obradović, D. (2018). Kibernetika–što je to?. In Common Foundations 2018-uniSTem: 6th Congress of Young Researchers in the Field of Civil Engineering and Related Sciences (pp. 158-163). Sveučilište u Splitu, Fakultet građevinarstva, arhitekture i geodezije
19. Options for U.S. Policy, (2010) Committee on Deterring Cyberattacks: Informing Strategies and Developing Options; National Research Council, ISBN: 0-309-16086-3, available at http://www.nap.edu/catalog/12997.html
20. Proceedings of a Workshop on Deterring CyberAttacks: Informing Strategies and Developing

21. Seger, A., Cybercrime strategies, Discussion paper, Strasbourg, France, 30 March 2012, 17-33, DOI: 10.5204/ijcjsd.v6i2.355, available at https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=09000016802fa3e1, pp. 6-7
22. Stratton G., Powell A. and Cameron R. (2017) Crime and Justice in Digital Society: Towards a 'Digital Criminology'? International Journal for Crime, Justice and Social Democracy 6(2):
23. ŠKRTIĆ, D. (2009) Implementacija odredbi Konvencije o kibernetičkom kriminalu u hrvatsko Kazneno i Kazneno procesno pravo, 10. SLOVENSKI DNEVI VARSTVOSLOVJA, Varstvoslovje med teorijo in prakso, UM, Fakulteta za varnostne vede, Ljubljana, 4. - 5. junij 2019., Zbornik prispevkov, str. 1 - 12
24. TURKALJ, K. (2007) Kako se Europska Unija suočila s modernom prijetnjom terorizma? Gdje je tu Hrvatska kao država u procesu pristupanja Europskoj Uniji?, Hrvatska pravna revija, br. 11., godina VII., studeni 2007., str. 1- 16
25. Vojković, G., Štambuk-Sunjić, M. (2006). Konvencija o kibernetičkom kriminalu i kazneni zakon Republike Hrvatske. Zbornik radova Pravnog fakulteta u Splitu, 43 (1), pp 123-136.
26. von Solms, B. and von Solms, R. (2018), "Cybersecurity and information security – what goes where?", Information and Computer Security, Vol. 26 No. 1, pp. 2-9. https://doi.org/10.1108/ICS-04-2017-0025
27. von Solms, R. and Niekerk, J., (2013) From information security to cyber security, Computers & Security, Volume 38, October 2013, Pages 97-102, https://doi.org/10.1016/j.cose.2013.04.004
28. von Solms, R., Information security management (3): the code of practice for information security management (BS 7799), (1998), Information Management & Computer Security, 6 (5) pp. 224-225

DETERMINING MOTIVATION AND STRESS AMONG HIGH SCHOOL STUDENTS

Ines Kozina
University of Zagreb, Faculty of Organization and Informatics Varaždin, Croatia
ikozina@foi.hr

Violeta Vidacek Hains
University of Zagreb, Faculty of Organization and Informatics Varaždin, Croatia
vvidacek@foi.hr

ABSTRACT

Motivation for school achievement is an important factor for learning and choosing professional career for high school students. Some students perceive learning and curriculum as factors of stress. The aim of this research is to explore factors of stress and to find solutions for creating learning environment with lower level of stress. The core sample are fourth grade high school students. The questionnaire „Assessment of motivation and stress among high school students" was designed for the purpose of this research. Results show that female and male students experienced similar level of stress. The following factors from lower towards higher level of stress are confirmed: disrespect from professors, students' self-expectation, exams, physical environment, bullying, homework, expectations from parents. For increasing level of motivation students suggest less demanding curriculum, more practical work, awards and praise for school achievement and induction of a new curriculum. Students suggestions for reducing stress in high school environment are decreasing level of pressure from parents and professors, less homework, improvement of exam schedule, higher objectivity in evaluation, abolishment of final high school graduation exam, more relaxing teaching methods. Results can be used for increasing motivation for learning among high school students and for decreasing level of stress, which will be useful for future general impact of school results. Limitations for research results interpretations are linked to lower number of participants and result can be applied only for gymnasium and economics curriculum.

Keywords: *gender differences motivation, stress*

1. INTRODUCTION

High school students are faced with different challenges during school years. One of the most common difficulties students encounter is stress. There are various factors that might be the cause of it. Stress is a perception of a threat resulting in anxiety discomfort, emotional tension and difficult adjusting to stress is negatively correlated with high school students' life satisfaction (Fink, 2017, pp. 4). Brdovčak et al. (2018) found that students' self-perception of higher economic pressure, lower self-esteem and less hope is negatively correlated with their life satisfaction. Lovenjak and Peklaj (2016) find that coping with self-efficacy and instrumental-interactive coping strategies are positive predictors of school satisfaction. There are some gender differences in strategies of coping with stress among high school students: female students are more focused on problem solving and social support in stressful situations while male students use lower strategies for problem solving in similar situations (Lončarić, 2007). Male and female students with lower school grades have problems in communication with friends as well as negative attitude towards school (Rajhvajn Bulat and Horvat, 2020). Stressful situations might cause lower school achievement in terms of lower school grades, conflicts with peers, teachers and parents as well as subjectivism towards school grades among high school students. There are gender and age differences in coping with stress. In stressful situations female students are more focused on emotions compared to their male colleagues

(Kalebić Maglica, 2006). Some students in elementary school are under stress because of the possible failure in school cause by having lower grades. There are no differences between pupils in town and countryside schools in terms of negative emotions caused by stress (Lapat et al, 2017). Sources of adolescents' stress might be their negative or lower than expected gradesand low quality relationships with parents and friends. Possible consequences of adolescents' stress can be psychosomatic disorders and emotional reactions (Rukavina and Nikčević-Milković, 2016). Chronic stress may have different consequences for adolescents; those consequences might be neurobiological changes, changes in behaviour and chronically psychiatric disorders such as depression or anxiety disorders (Sheth et al, 2017). Adolescents may response to stress-related psychological dysfunctions in stressful situations. These responses may be linked to anxiety, depression and drug abuse (Romeo, those 2013). Some students in first grade of high school (15-17%) have psychosomatic and emotional problems. Psychosomatic problems are not so often and are decreasing during the high school whereas emotional problems are more often and continue throughout the entire first grade (Kozjak Mikić et al., 2012). Scientist and professionals in the field of education and psychology have found some solutions that could be helpful in increasing motivation and developing strategies for copying with stress. It is important to find a methodology which will enable comparing different factors of risk behaviour among school students (Maglica and Jerković, 2014). Establishing good relations between teachers and students and organizing preventive programs that focus on quality of relations might reduce stress among adolescents (Rukavina and Nikčević-Milković, 2016). Acquiring learning skills at an early age might help in decreasing level of psychosomatic symptoms later in life (Kozjak-Mikić and Jokić Begić, 2013). Programs related to prevention of risky behaviour need to be prepared at different organizational levels - from level of school management, institution toclass and individual student level. These programs need to cover cognitive, emotional, behavioural and social components. Positive relations between students, teachers, parents, local community and management can result in higher levels of satisfaction and motivation for schooling (Kranželić Tavra, 2002). Students who attend workshops where learning strategies are being taught and through them acquire skills for successful stress management have better results in managing stress then their peers who are not attending such workshops (Stojčević and Rijavec, 2008).

2. RESEARCH METHODOLOGY

The methodology of research on motivation and stress among Ivanec High School students implies the selection of measuring instrument that will be used for research purposes, a sample of respondents together with the method of research that will include an explained process of conducting a complete research. All these elements will be explained separately below.

2.1. Measuring instrument

The questionnaire consists of 38 items. The initial items refer to some general data related to gender, age and school program (3), followed by items in form of multiple-choice questions (16) and Likert scale (12), and 7 open ended questions at the end. The content of items is related to students' perception of high school stress and motivation for reducing stress.

2.2. Respondents

Ivanec High School graduates were selected as a sample for this research. The total number of respondents is 90, 56 of which are gymnasium high school students and 34 of which are students attending economics class. Majority of participants are female (N= 60; 66.67%) and there are N=30 (33.33%) of male students. Participants are between 17 and 18 years old.

3. RESULTS AND INTERPRETATION OF RESULTS

Students reported the following sources of stress and have some recommendations for increasing motivation.

3.1. Sources of stress among high school students

According to results of this research, the main causes of school stress among students are exams (N = 59; 65.56%), non-compliance with individual differences (N = 8; 8.89 %), expectations from parents and own expectations (N =7; 7,78%), homework (N = 6; 6.67%) and physical conditions (N=3; 3.33%), while 7 students (7.78%) reported that they are not under stress. According to those answers it can be concluded that a large number of exams create the greatest amount of stress. One possible solution for solving this problem would be to better schedule or even reduce the number of exams throughout the school year.

3.2. How can the level of motivation be increased?

Students reported following suggestions for reducing stress: reducing the amount of learning materials (37.21%), new curriculum (25.58%), more practical work (20.93 %) and awards (16.28%). Results are presented in Figure 1 below.

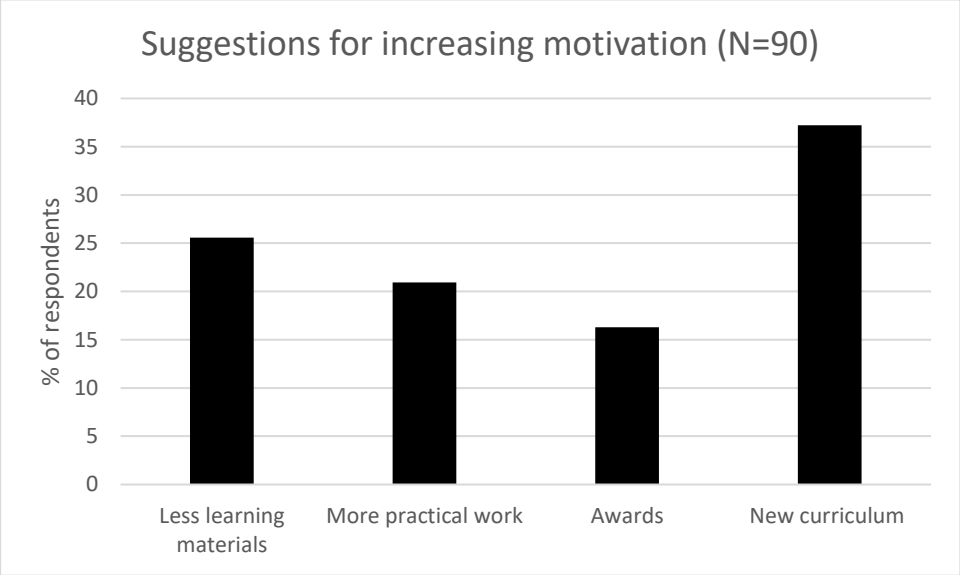


Figure 1: Suggestions for increasing motivation for studying

3.3. Students' suggestions for reducing stress

At the very end of the questionnaire students answered open ended questions and reported suggestions for reducing stress. Answers are grouped into several groups - less pressure from parents and teachers, less learning material and homework, better time schedule, objective grades, abolition of graduation and a more relaxing work condition (Figure 2).

Figure following on the next page

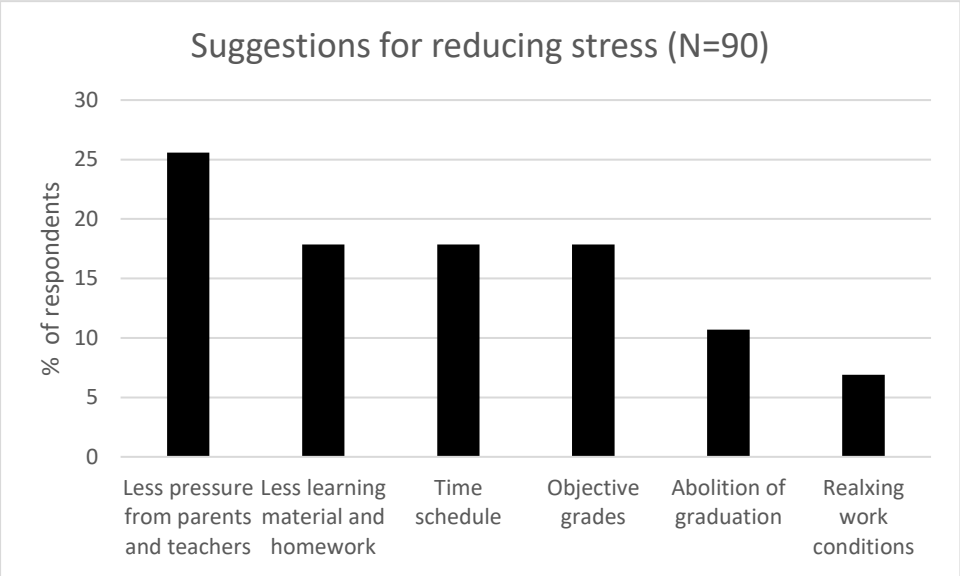


Figure 2: Suggestions for reducing stress (N=90)

3.4. Determining gender differences

The t-tests are used to determine the possible gender differences in opinion of male and female students towards different sources of stress (exams, homework, expectations from parents, own expectations, peer bulling, disregard for their individual differences and physical conditions).

Question (d'=88)	M_m	M_f	Sd_m	Sd_f	p	t-test
1. Exams (Q 29)	3,50	3,95	0,94	0,79	p<0.05*	2,25
3.Homework (Q 30)	2,67	2,53	1,09	0,93	p>0.05	0,60
2. Expectations from parents (Q 31)	3,03	3,52	1,19	1,07	p>0.05	1,98
4. Own expectations (Q32)	2,60	3,45	1,10	0,95	p<0.05*	3,61
7. Peer bulling (Q33)	1,60	2,57	0,89	1,37	p<0.05*	4,03
5. Disregard to individual differences (Q 34)	2,57	3,45	1,28	1,14	p<0.05*	3,19
6. Physical conditions (Q 35)	2,33	2,57	1,12	1,09	p>0.05	0,97

Table 1: Gender differences in students opinion about different sources of stress (N=90)

The first question concerns the frequency of exams as a cause of stress in school. Null hypotheses are there is no significant difference between the opinions of female and male students on the frequency of exams as a cause of stress in school. The arithmetic mean obtained for both genders is almost the same, indicating that on average students consider exams as an occasional source of stress in school. After that, it is necessary to determine the degrees of freedom, which are 88. Also, when calculating the t-test, the p value is crucial, for which 0.05, i.e. 5%, is most often used. In addition, a critical value is required, which for 5% of the risk according to the value table is 1.987 and a t value which is 2.25. According to the obtained values, it can be concluded that it is necessary to reject the null hypothesis because the t value is greater than the critical value from the table. This means there is a significant difference between the opinions of female and male students on the frequency of exams as a cause of stress in school meaning that female students are more under stress than male students. Another question is how often is homework a cause of stress at school. The set null hypothesis reads: there is no significant difference between the opinions of female and male students on the

frequency of occurrence of homework as a cause of stress in school. The arithmetic mean is also almost the same and homework on average rarely appears as a cause of stress in school. The critical value is 1.9873 while the t value is 0.60, whereby the null hypothesis is accepted because there is no significant difference in the opinion of both male and female students. The next question related to the expectations of parents and teachers as a cause of stress in school. The set null hypothesis reads: there is no significant difference between the opinions of female and male students on the expectations of parents and teachers as a cause of stress in school. According to the obtained arithmetic means, it can be said that on average male and female students believe that this cause of stress occurs only occasionally. The t value is 1.90, which is less than the critical value of 1.99, and it is concluded that there is no significant difference between students' opinions. The fourth question was linked to the frequency of students' own high expectations as a source of stress at school. The null hypothesis for this question is: there is no significant difference in the opinion of female and male students about the frequency of their own high expectations as a cause of stress in school. The obtained t value for this question is 3.61 and with 5% risk it is necessary to reject the null hypothesis and accept the alternative. The fifth question examined peer violence as a cause of stress at school, and the null hypothesis is: there is no significant difference between the opinions of male and female students on the frequency of peer violence as a cause of stress at school. The t value is 4.03 and it must be less than critical in order for the null hypothesis to be accepted. Since in this case it is not less than 1.987, the null hypothesis is rejected. This means there is significant difference between opinions of male and female students about frequency of peer violence as a cause of stress in school in terms that male students perceived more peer violence than their female colleagues. The next question refers to the frequency of non-compliance with individual differences by teachers as a cause of stress in school and the null hypothesis is that there is no significant difference between the opinions of male and female students on the frequency of this cause of stress in school. The obtained arithmetic mean for female students is 3.45, which means that they believe that this cause of stress occurs only occasionally, while for male students the arithmetic mean is 2.57, and therefore they believe that this cause of stress rarely occurs. The t value is 3.19 on the basis of which the null hypothesis is rejected and the alternative is accepted. The results show that there is significant difference between opinions of female and male students about non-compliance with individual differences by teachers as a cause of stress in school because female students think that this cause is presented more often in school than male students think so. The last selected question is about physical conditions as the source of stress in schools are, and the null hypothesis is: there is no significant difference between the opinions of male and female students on the frequency of physical conditions as stress in school. The obtained t value is 0.97 and is less than the critical value on the basis of which the null hypothesis is accepted.

4. CONCLUSION

The majority of high school students reported that they are under stress because of exams, non-compliance of individual differences, high level of expectations from parents and high level of their own expectations, to many homework and some physical conditions. According to the opinions of high school graduates, it would be necessary to reduce the pressure from parents and teachers, to reduce the amount of learning material, to adjust the schedule of taking exams for students as well as to introduce a better way of examining. There is a significant difference in the opinions of female and male students regarding the frequency of exams, their own high expectations and peer violence as a cause of stress. Motivation plays a big role in the life of every high school student and it is necessary to constantly use different motivational techniques to increase it. Students suggest some solutions for increasing motivation in terms of less pressure from parents and teachers, less material and homework, better time schedule, objective

grades, abolition of graduation and a more relaxing work condition. Possible limitations of this research are relatively small number of respondents. Results can be used for creating workshops where goals are to increase motivation and reduce stress among high school students.

LITERATURE:

1. Brdovčak, B., Merkaš, M., Šakić Velić, M. (2018). The Role of Hope and Self-Esteem in the Relation between Economic Pressure and Life Satisfaction of Adolescents**.** *Društvena istraživanja/ Journal for General Social Issues*, 27, 1, 87-108.
2. Fink, G. (2017) Ed.. Stress: Concept, definition and History. Elsevier, 1-9. Retrieved 02.10. 2021 from https://www.researchgate.net/publication/310767357_Stress_Concepts _Definition_History.
3. Kalebić Maglica, B. (2006). Age and Gender Differences in Coping with School- Related Stressful Situation in Adolescence**.** *Psihologijske teme / Psychological Topics*, 15, 1, 7-24.
4. Kozjak-Mikić, Z., Jokić Begić, N. (2013). The Adaptation of High School Requirements and Pupils' Psychosomatic Symptoms**.** *Clinical Psychology /Klinička psihologija*, 6, 1-2, 27-43.
5. Kozjak Mikić, Z. Jokić Begić, N., Bunjevac, T. (2012). Zdravstvene teškoće i izvori zabrinutosti adolescenata tijekom prilagodbe na srednju školu. *Psihologijske teme,* 21, 2, 317-336.
6. Kranželić Tavra, V. (2002). The Risk and Protective Factors in School Environment as the Base of Behavior Disorders Prevention in Children and Youth. *Croatian Review of Rehabilitation research / Hrvatska revija za rehabilitacijska istraživanja,* 38, 1, 1–12.
7. Lapat, G., Lukaček, N., Matijević, M. (2017). Differences in Student's Assessment of School Grades. *Životi škola / Life and School*, LXIII, 2, 75-86.
8. Lovenjak, I., Peklaj, C., (2016). Stress and Perception of School Satisfaction on a Sample of Slovene Primary School Students. *Psychological Topics*, 25, 3, 357-379.
9. Lončarić, D. (2008). The Pattern Analysis of Coping with School Failure: Stress Appraisals and Coping Outcomes. *Društvena istraživanja / Journal for General Social Issues*, 17, 3, (95), 573-592.
10. Lončarić, D. (2007). Identifying the Patterns of Coping with School Failure. *Suvremena psihologija /Contemporary Psychology*, 10, 1, 55-76.
11. Maglica, T. i Jerković, D. (2014). Procjena rizičnih i zaštitnih čimbenika za internalizirane probleme u školskom okruženju. *Školski vjesnik : Journal for Pedagogic Theory and Practice, /Školski vjesnik: časopis za pedagogijsku teoriju i praksu*, 63/3. 413–431.
12. Rajhvajn Bulat, L., Horvat, K. (2020). Internalising Problems of Adolescents in the Context of the School Environment. *Napredak*, 161, 1-2,7 -26.
13. Romeo, R.D. (2013). The Teenage Brain: The Stress Response and the Adolescent Brain. *Current Dirrections in Psychological Science*, 22, 2, 140–145.
14. Rukavina, M., Nikčević-Milković, A. (2016). Adolescent and School Stress. *Acta Iadertina,* 13, 2, 159-169.
15. Sheth, C., McGlade, E., Yurgelun-Todd, D. (2017). Chronic Stress in Adolescents and its Neurobiological and Psychopathological Consequences: An RDoC Perspective. Chronic Stress (Thousand Oaks), 1, 1, 1-22.
16. Stojčević, A., Rijavec, M. (2008). Provjera djelotvornosti programa učenja strategija suočavanja sa stresom zbog loše ocjene u osnovnoj školi. *Napredak*, 149, 3, 326-338.

IMPACT OF DEVALUATION OF NATIONAL CURRENCIES ON SUSTAINABLE ECONOMIC DEVELOPMENT

Ramiz Javadov
Associate professor at Azerbaijan State University of Economics,
Azerbaijan State Economic University, Baku
Street Istiqlalliyat-6, post office AZ1001, Azerbaijan
ramizjavad@gmail.com

Mushfig Feyzullaev
Candidate of Economic Sciences, Associate Professor at Surgut State University,
628400, Tyumen Region, Surgut, 1 Lenin Str., Russia
feyzullaev@bk.ru

Ayatulla Jabbbarov
Head of the Accounting and Audit Department at Baku Business University,
Baku, street H. Zardabi-88A, post office AZ1122, Azerbaijan
ayatulla.cabbarov@gmail.com

ABSTRACT

At present, issues of devaluation of national currencies are becoming relevant due to the need for many governments to stimulate economic development. Devaluation is primarily due to macroeconomic factors.The subjects of research are the current state of the monetary system of various countries, the reasons for the devaluation of national currencies, the impact of the change in the key rate of the US Federal Reserve on the economies of other countries. A direct depreciation of the currency is made on the basis of a decision of the central bank or other regulatory authority of the country. Such a decision can be made in the form of an official depreciation of the national currency, refusal to support the exchange rate, refusal from the currency corridor, or from pegging the national currency to other countries' exchange rates or to currency baskets. The main objectives of the devaluation are to reduce the deficit of payment balance, increase the competitiveness of national goods on the world market, and stimulate domestic production. A significant increase in the volatility of the national currency rate, caused by both the devaluation of national currencies and the change in key rates of central banks, requires more careful study. The monetary authorities of any country constantly have to choose how to conduct an independent monetary policy. In one case, they should refuse to regulate the exchange rate, in the other they should adhere to the fixed exchange rate regime at the price of abandoning independent monetary policy. The reasons for the devaluation are different in countries depending on the cost of raw materials extracted and countries where the economy is focused on the production of goods and their sale in foreign markets. In the first case, this is the execution of the budget, and in the second - the protection of domestic producers. The decision of the National Bank to devalue the national currency indicates that this method is resorted to when traditional levers of influence on the economy do not work. The devaluation of the national currencies of major economies suggests the beginning of currency wars between major economic powers. The current practice of devaluations suggests that, as in the past century, the main objectives are to increase competitiveness and the formation of a deficit-free budget. States with market economies always strive to balance their economies, including the way of devaluing the national currency. Devaluation becomes relevant in the context of uneven inflation in an open market economy, that is, due to macroeconomic factors. The goals and the level of devaluation are different in different countries.

The level of devaluation of the national currency is influenced by gold and foreign exchange reserves, the dependence of the country's budget on the cost of resources sold, diversification of the economy and other factors.
Keywords: *devaluation, hidden devaluation, national currency, exchange rate, inflation, monetary policy, budget deficit, central bank, gold and foreign exchange reserves*

1. INTRODUCTION

The Great Depression in the early 1930s led to the rapid refusal of all countries from the gold standard, with the exception of the United States. Although formally the gold content of the currency could be preserved, but only as an exchange rate indicator relative to other currencies. In the United States, however, during this period, gold was legally removed from private ownership. At the same time, trying to counter the deepening of the economic downturn, all participants of international trade took the path of sharply increasing tariff and non-tariff barriers, as well as restrictions on cross-border capital movements. In such conditions, the simplest way to ensure net exports was a competitive devaluation. Since practically all countries have taken this path, this phenomenon was later called currency wars [1]. However, a sharp rejection of the gold collateral for their currencies and competitive devaluations caused even greater difficulties in servicing foreign trade payments. As a result, the share of barter in international trade increased, and clearing unions were created to solve the problems of net-importers through the organization of offsets. In such conditions, the currency in international trade from an objective indicator of the balance of supply and demand for goods, services and capital between different countries gradually began to turn into a policy-based means of payment. The active use of the exchange rate of a number of countries as an instrument of the state's economic policy in order to establish macroeconomic equilibrium in the national economy requires studying how the causes, ways, and degree of goal achievement are achieved. At present, the issues of devaluation of national currencies are becoming relevant in connection with the emergence of the need in many governments to stimulate economic development. Devaluation is due to previous aggregate macroeconomic factors. Direct depreciation is based on a central decision of the bank or other regulatory body of the country. Such a decision can be made in the form of official devaluation of the national currency, refusal to support the exchange rate, currency corridor or pegging the national currency to other exchange rates of countries or to currency baskets. The main objectives of the devaluation are to reduce the balance of payments deficit, increase the competitiveness of domestic goods on the world market, and stimulate domestic production. The term "devaluation" refers to the process of depreciation of the national currency, that is, the main currency for settlements in one territory. Devaluation is the official state-recognized depreciation of the national currency against foreign currency rates. In a globalized world financial system, devaluation processes go beyond the limits of one country and describe the ratio of exchange rates relative to each other. This is the main difference from inflation, which describes the dynamics of prices strictly within one country. After the abolition of the gold money equivalent, devaluation became the main means of manipulating currency to increase the internal competitiveness of commodity producers. In the XX century. there were more than 400 devaluations of national currencies. In all countries, growth processes occur continuously, or currency depreciation occurs. It is believed that the depreciation of any currency can be called a devaluation if it is significant enough.

2. METHODOLOGY

Using the methods of observation, grouping, induction, deduction, and classification, we analyzed the devaluations in different countries.

3. LITERATURE REVIEW

Historically, devaluation analysis has focused on potential income and employment effects. Devaluation was primarily seen as a means of supporting national exports and improving the competitiveness of exported goods on the international market. In the 1930s. countries facing domestic pressure decided to devalue their national currencies in the hope of easing domestic pressure. There are a number of modern scientific research on the development and improvement of theories that study the devaluation of national currencies. If it is theoretically assumed that financial globalization will lead to full capital mobility, then, in accordance with economics, ideas about the effectiveness of monetary policy are primarily due to the chosen exchange rate regime. This presentation is mainly based on the Mandell-Fleming model, which is an extended version of the IS-LM model of neoclassical synthesis for an open economy [2]. It should be noted that the model of application of Mandell-Fleming is becoming traditional for assessing the effectiveness of monetary policy in the specified conditions. The monetary authorities of any country constantly have to choose how to conduct an independent monetary policy. In one case, they have to abandon the regulation of the exchange rate, in the other, to adhere to a fixed waiver of the exchange rate with the price of an independent monetary policy. This choice was a textbook and received the name of the position of the so-called impossible trinity (impossible trinity). This implies that the economy can not simultaneously be present at a fixed exchange rate, full capital mobility and monetary policy aimed at achieving domestic goals. The changing conditions in the global economy associated with the growth of capital between countries have responded to two main areas: the continuation of the line of R. Kahn and J.M. Keynes[3,4]. The influence of the central bank on economic activity in the short term is limited by the rapid growth of short-term mobile capital flows. When central banks lower interest rates, they leave the country in search of higher returns, which have a huge impact on economic development. In the long run, capital outflows due to monetary policy easing can lead to a fall in the exchange rate. As a result, on one hand, exports will be stimulated, and on the other, inflation will be accelerated, including through rising prices for imported goods. Therefore, we agree with those scientists who believe that the effectiveness of monetary policy is directly dependent on the choice of the exchange rate regime. This process itself plays an important role in the context of financial globalization, especially in that monetary policy, including the devaluation of the national currency, is becoming increasingly interconnected with the ongoing monetary policy in the country. Practice shows that the liberalization of currency restrictions should be carried out in a more balanced way, since it carries additional risks. At the same time, a double task falls on the national central banks: maintaining the stability of the domestic monetary sphere and the financial system. An important remark was made by M. Agliett and A. Orleans: the time of the inflation round was replaced by the volatility of prices for financial assets at the same time as the potentially deflationary effect for the economy in the event of a sharp fall in interest rates on financial markets [5]. According to the researchers, this is what contributes to resolving tensions in highly centralized national financial systems. These scholars are focusing on the deflationary nature of economic crises, noting that under these conditions there is a fall in asset prices, which means that we have to talk about trends in the rise of deflation. The situation in economically developed countries influences modern inflationary processes in other countries. This leads to the inability of national governments to service debt in foreign currency at current rates. The result is the likelihood that leading countries will be able to restructure the debt burden on their own budgets and thereby lose trust borrowers and investors. As a result, any budget deficit will sooner or later be monetized by currency devaluation. Some scholars are considering a new scheme; the functioning of monetary zones is not based on the demand for money, but on the supply and demand of borrowed funds provided by banks, and paying considerable attention to institutions.

Thus, according to their concept, there is the possibility of active monetary policy even in the context of financial globalization, leading to a gradual leveling of interest rates. The fact is that in these conditions the national central bank may provide funds to commercial banks in the country and thereby affect the loan offer. However, as Russian practice shows, interest rates on devaluation and interest rate deduction can lead to additional devaluation, since borrowing money from commercial banks of the central bank does not lend to the economy, and withdrawing money to the foreign exchange market for speculation. Therefore, in modern economics, trying to study the causes and consequences of changes in exchange rates, there are different directions, schools and directions. Nevertheless, we agree with the conclusions of M.A. Panilova that the whole diversity of exchange rate theories can be reduced to two approaches: regulatory and positive [6]. A positive approach assumes the exchange rate of research as a given goal, then its dynamics are studied and future values are predicted. The regulatory approach considers what the exchange rate should be in terms of optimal economic policy. Valuation issues are also addressed in the ever-improving balance of payments theories. E.M. Petrikova, having studied the existing basic billing theories of balance, comes to the conclusion that in the new world the monetary system should satisfy a number of conditions:

- its operation should not be dependent on any national or interstate financial institutions;
- it is designed to promote effective international payments and build financial and economic relations between countries;
- it should automatically smooth out payment imbalances and minimize the occurrence of financial crises in the global economy [7].

There are many reasons that cause the devaluation. Usually this phenomenon occurs under the influence of various macroeconomic factors. Reasons that lead to a fall in the value of the national currency include the payment deficit (the state does not have enough funds to pay its own obligations to other countries), deterioration in the country's trade balance when imports exceed exports, and high inflation. Devaluation can also occur due to the weakening of the state's economy as a result of crises, wars, natural disasters, and major technological accidents.

4. ANALYSIS OF THE PROBLEM

Consider how countries are oriented, resorting to the devaluation of the national currency. The Basel Bank for International Settlements has published a report stating that in a number of leading Western countries, basic discount rates are at a record low, which has already led to a certain imbalance in economic development, debt growth and, as a result, financial risks. Productivity becomes too weak, and the room for maneuver in macroeconomic policy is limited [7]. The report also notes that the decline in oil prices has already led to certain structural changes in the economy. Now it should take advantage of the central banks of the leading countries of the world and move away from policies that focused solely on monetary regulation. As you know, there is a Keynesian approach, and then the operational use of money as a tool for daily management of the economic situation and the pace of stimulating economic development. The Basel Bank for International Settlements proposes to limit the effect of spontaneous market stabilizers. One of the ways to stimulate the economic development maneuver is the devaluation of the national currency. The current practice of devaluation suggests that, as in the past century, the main objectives are improving competitiveness and the formation of an adequate budget. Market economies always strive to balance their economies, including by devaluing the national currency. For example, the National Bank of Switzerland (SNB) in early March 2009 took a number of measures to weaken the national currency. This happened after he stated that a strong national currency creates an “inadequate complication of monetary conditions” during a period when the central bank is struggling with a recession in the Swiss economy.

Pursuing the goal of supporting domestic producers in the current crisis conditions in the hope of increasing the competitiveness of the national economy, the Swiss central bank deliberately devalued the national currency. Thus, Switzerland deliberately went to the depreciation of its franc against other currencies. The intervention of such a large central market activity of the bank actually opened the way for other central banks to follow their example. Analysts say that this step contributed to the beginning of competition between countries in the field of devaluation. The central banks of different countries periodically implement various programs to stimulate their economies through monetary measures. However, the example of a Swiss bank that tied the franc to euro values of 1.2 showed that the use of hard pegs even for economically developed countries is fraught with risk. The fact is that the debt crisis in Europe made the Swiss franc an interesting currency for keeping funds. However, such a hard relationship required the acquisition by the National Bank of Switzerland of increasing the amount of the euro and spending its gold reserves. In the spring of 2015, the SNB abandoned the hard peg and intentionally went to strengthen the national currency. Such a rigid peg to any currency, even through devaluation, makes the currency of a given country dependent on the monetary policy of other countries. Japan is one of the most economically developed countries actively using the devaluation of the national currency to restore its economy. The peculiarity of the Japanese economy is that it has a minimum of natural resources. On one hand, this reduces the dependence of the national currency and budget on the cost of hydrocarbons. At the same time, the indirect costs of hydrocarbons affect the economy of Japan, as it is forced to buy oil products abroad. The economic revival under the leadership of Japanese Prime Minister Shinzo Abe has even been given the name “abenomics” when it emerges from deflation traps; the printing press is used as the main incentive measure. The essence of monetary policy was not to prevent inflation, but to overcome the negative consequences for deflation of the economy (inhibition of consumer and investment demand). As a result, the competitiveness of export-oriented producers increased in Japan. However, the monetary policy pursued in this direction forced investors to withdraw funds from Japanese securities and invest money in euro denominated bonds. At some point, this led to the creation of illusions for overcoming the crisis in a number of European countries (Italy, Spain, etc.). At the same time, Asian countries have reacted negatively to Japan’s monetary policy. Another reason for the devaluation is the need to form the country's budget deficit and its balance. This basis for devaluation is observed in countries where budgeting depends on hydrocarbon prices. Russia and the Republic of Azerbaijan belong to this group.

Figure following on the next page

Figure 1: The dynamics of the dollar-ruble [9]

In August-September 1998, the dollar exchange rate soared 3, 4 times in Russia from 6.18 to 21 rubles. In January 2000, it was already 29.5 (4.8 times as compared with August 1998). In the period from August 2008 to January 2009, the dollar soared 1.6 times from 23.40 to 36.45. July- December 2014 the rise of the USD / RUB rate 2.35 times from 33, 70 to 79.25 (see figure 1). The peculiarity of Russia lies in the fact that a model of economic growth has been formed, focused on the conversion of oil and gas in the form of super-profits in domestic demand. She was provided with a rapid increase in wages in all sectors and social transfers, increasing macroeconomic stability. But business strategies turned out to be focused on expanding production, and increasing efficiency did not become a priority. Devaluation in Turkey, Russia, Iran, Kazakhstan, Ukraine, Belarus, Georgia and other neighboring countries has resulted in an increase in the prices of products produced in Azerbaijan compared with the products produced in these countries, while reducing the volume of exports of such products from the country, the increase in imports from neighboring countries had a negative impact on the foreign trade balance and caused a currency outflow from the country. At the same time, domestic and foreign investors invested their assets in Azerbaijan by selling their assets in Azerbaijan, using high-valued assets in Azerbaijan to strengthen their foreign exchange flow. Increased import volumes, declining export volumes, increased foreign exchange demand in the foreign exchange market, in turn, increased the pressure on the manat [10]. The government hoping that oil prices would rise again soon as it was in 2008-2009,only the Central Bank's monetary reserves were only pursuing a policy aimed at maintaining the exchange rate of manat against foreign currencies in the foreign exchange market in January 2015 - January 2015 the Central Bank's foreign exchange reserves decreased by 16.5% in absolute terms and in absolute terms by US $ 2513.4 million to US $ 12680 million [8]. Consequently, the foreign exchange reserves of the Central Bank, saving stock and improving the competitiveness of products produced in the country, on February 21, 2015, the Central Bank decided to devalue the manat and converted 1 dollar to 1.05 manat, 1euro = 1.19 As a result of the devaluation, the US dollar appreciated by 34.6% against the manat,while euro by 33.7% . The rise in foreign currency caused some problems in the socio-economic life of the country. There were problems with payment of foreign currency loans, the prices of imported products began to rise.

Changes in exchange actualized the increase in prices for the products produced in the country. Devaluation has further aggravated existing problems in the agricultural sector. It turned out that the production of wheat flour produced in the country was inefficient, and both flour and wheat was imported from abroad to meet the demand. Therefore, at the end of March, a 25% drop in bread prices was observed, which touched the interests and resulted in dissatisfaction of the massive population whose nominal income remained unchanged. To eliminate this problem,value added tax(VAT) on wheat import was abolished according to the relevant decree of country's President. The measures taken by the President on the artificial price increases were strengthened. The devaluation of the manat will allow the State Budget to deduce from the Oil Fund. Thus, the amount of transfers from the Oil Fund in the budget draft for 2015 was estimated at 10388 million manats, which would have been $ 13317.95 million ($ 1 = 0.78 manats) in US dollars [11]. After the first devaluation of manat, the Oil Fund had to use $ 9893.33 million to get 10388 million manats to be transferred to the state budget, which would save 3424.62 million dollars. After the February devaluation, it was assumed that the pressure on the manat would end and the stability in the currency market would continue. But not everything was as expected. Thus, in March-December 2015, intervention of the Central Bank (CB) into the currency market was continued in order to preserve the new exchange rate of manat. As a result, during the month of February 2015, the CB's foreign exchange reserves in absolute terms amounted to 4758.8 million dollars, and relative expression decreased by 1.76 times. Negative processes in the currency market and exhaustion of foreign exchange reserves in the currency market forced the Azerbaijani government to make a decision on the new devaluation of the manat by shifting to floating exchange rate policy.On December 21, 2015, $1 = 1.55, and at 1 euro = 1.7 manats were assigned. According to the official data of the CB of Azerbaijan, the rate of manat on December 21, 2015 increased by 47.63% or 0.501 AZN compared to December 18 and accounted for 1.55 AZN [12,13]. As for the euro exchange rate, the single currency of the Euro Zone has increased by 47.88% or 0.5456 manat and accounted for 1.6850 manats. The rate of Russian ruble against the manat increased by 47.3% or 0.007 manats, which accounted for 0.0218 manats. In general, as a result of devaluations in 2015, the manat was 98.7% against the dollar and 91% against the euro.CB transition to floating exchange rate and re-devaluation of manat further aggravated the problem of credit debts in foreign currency in the banking sector. The devaluation of manat in some sense has caused a disturbance among the population, and those who lost their trust in the national currency decided to convert all that is left to foreign currency, which, in turn, increased foreign exchange demand in currency market. A similar model is used in the Venezuelan economy. Since currency regulation here has its specifics (the dollar circulation in the country is limited), a sharp decline in oil prices aggravated the situation in the economy. More than 90% of Venezuelan exports go to the oil, and when its price drops by more than 50%, the country is approaching default. Analysis of the largest oil exporters in the world in 2008 indicates that in different countries the exchange rate regime was different. The majority of the OPEC countries preferred saving a fixed exchange rate to the national currency of the United States. Thus, they haven't used devaluation even despite the fall in oil prices (Saudi Arabia, UAE) or used it, but at a minimum amount (Kuwait, Qatar). For them monetary stability turned out to be more important. A group of other countries (Venezuela, Iran, Malaysia, Turkmenistan) is not a market for national currency formation. The inability to convert national currency together with the possibility of manipulating trade and investment flows at various rates allowed this country to depreciate their currencies by no more than 3-3.5%. The countries in the third group, where a floating exchange rate was used, carried out a massive devaluation. In the group of oil exporters, the devaluation since mid-2008 was 24-27%, and in the group of gas exporters 21-25%. In our opinion, one of the important aspects of devaluation's success is its speed. The Central Banks of Norway and Australia rapidly devalued, and the rate was 0.25-0.31%.

The Russian ruble depreciated against the dollar by almost double- 0.18 per share. As the experience of Norway and Australia shows, a quick devaluation allows you to adapt to the changing conditions of international commodity markets. A cursory depreciation of the Norwegian and Australian currencies ended in the late 2008 and changed the stabilization and strengthening. A closed economy with a significant drop in commodity prices and budget imbalances, as well as the lack of reserve funds formed in the country during the period of high hydrocarbon prices, is forced to devalue the national currency. For example, in Venezuela in February 2013, the national currency devalued against the US dollar by 46.5%. This decision was made due to the need to increase the financial performance of the government and minimize budget expenditures. Devaluation is designed to optimize revenues, especially aimed at financing social programs for the poor in Venezuela. Most of the economic work devoted to the success of Norway and the positive experience in dealing with the "raw curse" was that the main reason for the success of the policy was the development of the institutional environment in the broadest sense of the word. Consequently, the Norwegian way is to create a developed economic environment with a low level of corruption while protecting market and competitive mechanisms. A number of countries that are not oil exporters also had to devalue the national currency in 2014. For example, the new Israeli shekel was devalued by 12.7% at the end of July 2014. Local economists point out that the country's economy was directly affected by the economic downturn in Russia. Israeli goods worth $ 3 billion were imported into the country annually, primarily agricultural products (fruits, vegetables, flowers). In 2014, the National Bank of Kazakhstan also devalued the tenge. The main reasons cited were the bad economic situation in the BRICS countries, capital outflows from developing countries, the transition to the free formation of the Russian ruble exchange rate. In 2014, in total imports to Kazakhstan, goods from Russia accounted for 36.2%. The export of goods from Kazakhstan to Russia is three times less than this volume. Thus, the National Bank of Kazakhstan devalued, pursuing the main goal-to protect domestic producers. As you can see, the devaluation of the national currencies of oil exporters leads to the need to devaluate the currencies of the countries economically related to them. And some spend it in order to preserve the supply of their products to the country's market, devaluing their currency, others - to protect domestic producers. About 20 developing countries devalued national currencies in 2014–2015.

02.11.2018	Спот	4 кв. 2018	1 кв. 2019	2 кв. 2019	3 кв. 2019	2019	2020
EURRUB	74,9177	75,87	76,03	77,05	78,06	79,01	87,80
USDRUB	65,5752	66,30	66,00	66,00	66,05	65,00	65,10
EURUSD	1,1424	1,16	1,18	1,20	1,22	1,24	1,28
GBPUSD	1,3007	1,30	1,33	1,35	1,36	1,40	1,46
USDJPY	112,99	112,00	112,00	110,50	109,00	108,00	100,00
USDCHF	1,0016	0,99	0,98	0,98	0,97	0,98	0,93
EURGBP	0,87831	0,89	0,88	0,89	0,88	0,89	0,90
EURJPY	129,07	130,00	131,00	133,00	133,50	135,00	132,00
EURCHF	1,14423	1,14	1,15	1,16	1,18	1,19	1,20
AUDUSD	0,7244	0,72	0,73	0,74	0,75	0,75	0,76
USDCAD	1,3071	1,29	1,28	1,26	1,25	1,25	1,20

Figure 2: Consolidated forecast of leading banks and investment companies [9]

Separately, the National Bank of China made a decision on the devaluation of the national currency. This was primarily due to the need to support the country's economy, since the traditional levers almost ceased to operate. The devaluation of the Yuan has become a tool that will solve economic problems. It should also be noted that the decision of the People's Bank of China followed the refusal of the International Monetary Fund to recognize the currency reserve of China. After that, the PRC became free in making decisions about promoting its exports. However, we believe that the Bank of China is ahead of the US Federal Reserve in the increase of interest rates in the fall of 2015. This allows you to talk about the beginning of currency wars between the largest economic powers in the world. Devaluation in developing countries in recent years has attracted the attention of economists of the Financial Times. Their study of changes in national exchange rates of 107 countries in 2013–2015 and their export and import in subsequent years showed that there is no statistical link between currency devaluation and export volume, so the former does not lead to an increase in the latter [14]. We believe that this study to some extent replaces the ultimate goal of the devaluation of the national currency, primarily as a result of the fact that in this case the volume of oil supplies was measured, not the value in national currency. The sale is carried out in dollars, and domestically this revenue is converted at a new rate, which allows the budget to be executed with a minimum deficit. An overview of national currencies shows that targets and levels of devaluation are not the same in different countries. However, the objectives of devaluation include:

- protection of domestic producers;
- ensuring the execution of a deficit-free budget;
- preservation of foreign exchange reserves.

The level of devaluation of the national currency is influenced by:

- the level of foreign exchange reserves and, accordingly, the ability to support the budget;
- the dependence of the country's budget on the cost of resources sold;
- economic diversification;
- the dependence of the national economy on the economic policies of countries devaluing their currencies.

5. CONCLUSIONS AND SUGGESTIONS

Devaluation, being an economic process, has its pros and cons. The emergence of devaluation entails a number of risks for the state economy.

The disadvantages include the consequences of devaluation:

- loss of business reputation, the country becomes less attractive for foreign partners;
- a significant decrease in the standard of living and purchasing power of citizens of the country;
- reduction of social payments;
- loss of confidence in the national currency;
- decline in imports. Due to the high price, imported goods become uncompetitive;
- reduction of investments and production resources attracted from abroad;
- withdrawal of funds abroad;
- acceleration of inflation. Usually, devaluation is accompanied by inflation — price increase for consumer goods are mainly imported;
- massive transfer of savings to more stable foreign currencies;
- early closure of bank deposits, unwillingness to keep funds in accounts;
- a significant weakening of the financial and banking services market.

The advantages include the consequences of devaluation:

- improving the country's balance of payments;
- a significant increase in revenue derived from export currency transactions. To sell goods for depreciating national currency in the domestic market becomes unprofitable, which leads to an increase in exports of goods. This, in turn, increases the inflow of "hard" currencies into the country;
- reduction of gold and foreign exchange reserves. With devaluation, there is no need to support the artificial exchange rate of the national currency at the expense of gold and foreign exchange reserves.
- a significant increase in demand for national products and goods of own production;
- a significant increase and a significant increase in its own production.

Due to the realization of any part of the above options, the value of foreign currency is artificially reduced, the population stops the mass exchange in US dollars and euro and starts to buy local goods for the national currency. Cashless payments by bank cards stimulate the process of returning the money supply to non-cash accounts. As the experience of devaluation shows, the functioning of the global financial system depends primarily on the conduct of monetary policy pursued in the interests of the economy of a particular state. The reasons for the devaluation in countries that depend on the cost of raw materials produced, and in countries where the economy is focused on the production of goods and their implementation in foreign markets, are different. In the first case, this is the execution of the budget, and in the second - the protection of domestic producers. The decision of the People's Bank of China to devalue the national currency suggests that this method is resorted to when traditional levers of influence on the economy do not work. The devaluation of the Yuan allows us to talk about the beginning of currency wars between the major economic powers. Devaluation becomes relevant in conditions of uneven inflation in an open market economy, that is, due to macroeconomic factors. The objectives and the level of devaluation are different in different countries. The level of national currency devaluation is influenced by gold reserves, the country's budget dependence on the cost of sold resources, economic diversification and other factors.

LITERATURE:

1. Rickards J. Currency Wars:the Making of the Next global crisis/James Rickards. – L.: Penguin Books Ltd., 2011, 304.
2. Lavrov E.I., Kapoguzov E.A. Economic Growth: Theories and Problems: A Training Manual. - Omsk: Publishing House of Omsk State University, 2006, 112-120PO
3. Kan R."Notes on Liquidity Preference":Some Notes on Liquidity Preference, 1954, 123.
4. Veselova N.V. Macroeconomics.Electronic training manual: http://window.edu.ru/resource.2012, 41-60.:
5. Aglietta M., Orleans A. "Money between violence and trust". M .: State University Higher School of Economics, 2006, 355.
6. Panilov M.A. "Development of exchange rate theories and the evolution of the principles of its modeling" // Audit and financial analysis. 2009. No. 4. p. 261–284.
7. Mankew N.G. Macroeconomics / Trans. from English M .: MGU, 1994, 217-219
8. Petrikova E.M. Payment Theories Trends balance//Economic analysis: theory and practice. 2012, № 15, 9–21.
9. http://www.profinance.ru/news/2018/11/09/bpl2-devalvatsiya-rublya-2019-strashilki-smi-ili-realnyj-risk-obvala.html
10. http://www.cbar.az/infoblocks/money_reserve_usd
11. http://maliyye.gov.az/node/
12. http://rtv.az/news/.

13. R.C.Javadov: "Statistical Assessment of Socio-Economic Implications of the National Currency Devalvation" Audit Magazine, Azerbaijan, Baku, 2016 №4, 33-38
14. Tret'yakova S.N., Shevchenko I.V. “The modern concept of monetary regulation housekeeper”// Economy of sustainable development. 2015. № 1, 183–189.

FINANCIAL ANALYSIS OF NETFLIX PLATFORM AT THE TIME OF COVID 19 PANDEMIC

Josko Lozic
University North, Croatia
jlozic@unin.hr

ABSTRACT

The economic crisis caused by the global Covid 19 pandemic has hit many industries and individual businesses globally. The media industry is already deep into the transition from the "old" to the "new" media industries, and Netflix is at the forefront of the "new" media industry. New media industries are based on the digitalization of the production system and the convergence of the system of distribution and consumption of content. Netflix is a platform for distributing video content in a streaming model and is a member of a completely new media industry based on high technologies. The technological dimension provides new media industries with less sensitivity to environmental crises, but they are not fully protected from global economic crises. The aim of this paper is to analyse the operations of Netflix Corporation during the Covid 19 pandemic. The research includes an analysis of financial results and subscriber trends in the period before and during the crisis.

Keywords*: Covid 19, Netflix, new media industry, platform economy*

1. INTRODUCTION

The development of the modern media industry, through the 20th century, is associated with the development of television and broadcasting. The television screen and video content that was broadcast became the most important segment of the media industry. It took over from the radio industry, but television revenues were incomparably higher than all other segments of the media industry. Television and broadcasting belong to the old media industries that will enter their mature phase at the end of the last century with the development of the Internet and the digitalization of the production system. The paradigm of a kind of television screen will continue in the era of new media industries. 2007 will mark the final turning point between the old and new media industries. The smartphone and the development of small screens will mark the death bells of the old media industry. Dramatic changes for the old media industry began with the development of Napster. Copyright in media content is slowly becoming an unknown category. Napster has been shut down, but the ability to copy digitized content has set up entirely new relationships in the media industry. The music industry has fundamentally changed the way it generates revenue. Music streaming platforms, and Spotify as the largest among them, have dictated new business terms. Netflix follows the Spotify business model, and transforms from a video cassette rental company into a corporation that distributes video content on a streaming platform. The distribution of content in the streaming platform model belongs to the platform economy model (Parker et.al. 2016; Moazed, Johnson 2016). According to the cost structure, it uses zero marginal cost models (Rifkin 2015; Lozić 2019). The new media industry has abandoned the old distribution system in the model of "brick-and-mortar" stores. On the one hand, the dramatic development of technology has enabled completely new ways of distributing and consuming content, and on the other hand Generation Z has grown up with the Internet and adopted the model of access instead of the model of ownership (Seemiller, Grace 2019).

2. LITERATURE REWIUV

Netflix is connected to the television screen industry, but the business model is the complete opposite of classic television and broadcasting and the old media industry. The history of

television can be divided into three basic periods: a) network-era; b) multichannel transition; and c) the post-network era (Lotz 2007). The period of the network era stretches from the 1950s to the 1980s, and is known for the dominance of three American television companies, ABC, NBS and CBS. These corporations were vertically integrated media corporations that directly influenced the global media industry. In the context of technological development, there were terrestrial televisions that broadcast radio and television programs. The multichannel transition began after the 1980s and was directly linked to market liberalization and the emergence of globalist management strategies. During this period, there was a rapid development of technology and the rapid development of the cassette industry on which media content is broadcast, and cable television, according to the size of advertising revenue, increasingly threatens "terrestrial television". What will mark this phase the most is the development of a "remote control" by which users control television and other platforms for the reproduction of media content. The post-network era is connected with the development of Internet television and the distribution of media content without any form of the "old media" industry remaining a mediator in the process. "New" media content is distributed and broadcast on digital platforms that use screens, but the model of distribution and monetization is completely different from the models that were present in the network and "multi-channel" period. Pearson (2011) points out that the “post-network” period begins after the 1990s (Pearson 2011). In the context of the transition from the “multi-channel” to the “post-network” period, Brown (2013) emphasizes the importance of technology development, and the focus of activity shifts from production to distribution (Brown 2013). Digital technology has enabled completely new forms of distribution and consumption of media content. The development of high-speed internet, at the beginning of the 21st century, and the digitalization of all forms of industrial production, have enabled the process of convergence in the production and distribution of media content. Havens (2007) first mentions the term "industry lore" or industrial knowledge (Havens 2007). The Cambridge dictionary defines the term "lore" as traditional knowledge, stories and lectures about a well-known subject. In the context of technology development and digitalization of the media industry, Havens defines it as traditional knowledge that spreads among industrial development stakeholders about what is currently acceptable or not acceptable media culture to a selected audience segment, and what media culture will attract a particular target audience (Havens 2007). As a direct consequence of the digitalization of production processes and the convergence of production and distribution systems, new forms of digitized content have been developed for reproduction on television screens. Classic television production and distribution, from the "network period", gave way under the pressure of new media content and the habit of consuming content in the "post-network period". Media content was distributed on all forms of screens, from smartphones and tablets, to large flat screen television, and a bitter controversy developed among scientists as to whether it was still television, and if not, how to define it. Netflix defines its mission with the slogan "leading global Internet television network". Within that definition, the corporation's management defined the mission even more precisely as "Internet television," emphasizing that it is all television, but Netflix is a streaming service that seeks to be “your television” (Burroughs 2019). Lotz (2007) analyses the development of digital video recorders (DVRs), video-on-demand (VOD) and TiVo technology in the “post-network” era, at a time when this technology is beginning to take deep roots among audiences (Burroughs 2019). However, as early as 2014, Hallinan and Striphas talked about the concept of "algorithm culture" (Hallinan, Striphas 2014). Netflix, as well as other corporations that base their development on high technologies, are developing their own system of "big-data" data processing, ie an algorithm that recognizes the tastes of the audience. The impact on viewers' expectations about "what they will watch, when they will watch and how they will watch" is called the "Netflix effect" (Matrix 2014). Lotz defined the remote control as the trigger for a change from the "network" to the "multi-channel" era.

The Matrix goes a step further and points out that in the "post-network" era, in addition to advances in technology, the habits of consuming media content have also changed. The biggest changes in the way of consuming media content were made by Generation Z. The fundamental change in the way of consumption is directly related to the "Netflix effect". Generation Z, who grew up with the Internet, is abandoning the model of owning media content in favour of subscribing to media content or streaming platform (Seemiller, Grace, 2019). Waldfogel (2018) calls them "all-you-can-eat" without paying for an additional service or paying as little as possible for an additional song or film (Waldfogel 2018). Another equally important process, in the context of abandoning the classical television paradigm, is related to the decline in demand for cable television, which accounted for the dominant share of revenues associated with the television industry. Streaming services took over the audience of cable television precisely because of the "Netflix effect". The metaphor of "cable" abounds in a very strong connection with modern technology. Not only that, but the coaxial cable that passes through the walls and allows access to the signal in the central room determines a very strong presence of technology in everyday life (Burroughs 2019). Jenkins (2006) in Convergence culture emphasizes the excessive influence of "cables" in everyday life (Jenkins 2006). Generation Z and the development of technology in the form of streaming platforms began with the deconstruction of this form of technological presence in everyday life. Cancelling a subscription to cable television is symbolically called "cord-cutters", ie those who "cut" the cable. A situation that was even more dramatic for classic television corporations is marked by the term "cord-nevers", i.e. those who will never subscribe to cable television. This group primarily includes members of Generation Z. As early as 2014, Jenner studied the way Netflix shapes its own television program and emphasized that the broadcasting model, i.e. the management model, is completely different from cable and classic television (Jenner 2014). The development of the streaming industry has directly affected tectonic disturbances within the old media industries. The newspaper industry was the first to be hit, followed by all other segments of the media industry. Within all segments of the "old" media industry, a process of takeover and consolidation has taken place. In the music industry segment, under pressure from the streaming industry, Universal Music, Time Warner Music and Sony have taken over all other music publishers except a few independent publishers. Through the evaluation and takeover process, Comcast has become the largest media corporation in the world. It is also the largest cable operator as well as the largest Internet service provider, and has acquired NBC Universal Corporation [Burroughs 2019]. Netflix has positioned itself as the largest global distributor of video content on the platform, with Spotify as the largest distributor of music content on the platform (Lozić 2020a). The streaming industry generates the highest revenues within the new media industries (Lozić 2020b).

3. METHODOLOGY AND HYPOTHESES

The Netflix platform's business research and analysis will be made based on the corporation's published financial statements. The business report was published in the document "Form 10-K". The research is divided into two basic segments: a) analysis of financial operations and b) analysis of the trend in the number of platform users. The third part is the analysis of comparisons of research results and determining the correlation between the analysed statistical sets. The research is based on two hypotheses:

1) The Covid 19 crisis has significantly affected Netflix's financial operations, as has other entities in the media industry.
2) The Covid 19 crisis significantly affected the change in the trend of Netflix subscribers.

4. DATA ANALYSIS

Data analysis is divided into analysis of data from financial reports and trend analysis of the user community.

4.1. Financial analysis

The analysis of Netflix's financial operations covered a period of seven years. In the analysed period, revenues grew from $ 5.504 billion in 2014 to $ 24.996 billion in 2020, an increase of 354.1%. In the same period, the cost of revenue increased from $ 3,752 billion to $ 15.276 billion, an increase of 307.1%. The increase in revenue above the increase in the cost of revenue resulted in a 484.5% increase in gross profit. Gross profit increased from $ 1.751 billion in 2014, to $ 9.719 billion in 2020. Analysis of gross profit results indicates an increase in average gross profit towards the end of the analysed period. The average share of gross profit in the analysed period of seven years was 34.5%. In the last three analysed periods, the average gross profit was above the average for the total period. According to the end of the analysed period, gross profit is growing and is the highest in 2020. The results of the analysis are shown in Table 1.

Table 1: Consolidated statements of operations (000; $)

	2014	2015	2016	2017	2018	2019	2020
Revenues	**5.504.656**	**6.779.511**	**8.830.669**	**11.692.713**	**15.794.341**	**20.156.447**	**24.996.056**
Cost of revenues	3.752.760	4.591.476	6.029.901	8.033.000	9.967.538	12.440.213	15.276.319
Gross profit	1.751.896	2.188.035	2.800.768	3.659.713	5.826.803	7.716.234	9.719.737
%	**31,8%**	**32,3%**	**31,7%**	**31,3%**	**36,9%**	**38,3%**	**38,9%**
Operating costs	1.349.248	1.882.209	2.420.975	2.821.034	4.221.577	5.111.980	5.134.448
Operating income	**402.648**	**305.826**	**379.793**	**838.679**	**1.605.226**	**2.604.254**	**4.585.289**
Net income	266.799	122.641	186.679	558.929	1.211.242	1.866.916	2.761.395

Source: own illustration (selected items „Form 10-K“)

Table 2: Percentage changes of items

% (n+1)/n	Revenue	Cost of revenue	Gross profit	Operating income	Net profit
2014	-	-	-	-	-
2015	23,2%	22,3%	24,9%	-24,0%	-54,0%
2016	30,3%	31,3%	28,0%	24,2%	52,2%
2017	32,4%	33,2%	30,7%	120,8%	199,4%
2018	35,1%	24,1%	59,2%	91,4%	116,7%
2019	**27,6%**	24,8%	**32,4%**	62,2%	**54,1%**
2020	**24,0%**	22,8%	**26,0%**	76,1%	**47,9%**

Source: own illustration

In the analysed period, operating costs increased from $ 1.349 billion in 2014 to $ 5.134 billion in 2020. The increase was 208.5%, which is less than the increase in the cost of revenue and total revenue. The slower growth of operating revenue relative to the cost of revenue results is the stabilization of the platform's operations. Operating income rose from $ 402.65 million to $ 4.585 billion, an increase of 1038.8%. For the purposes of the research, an analysis of the movement of individual items from the profit and loss account by years was made. All items are continuously growing, except that operating income and net profit recorded negative growth in 2015. In the context of the first hypothesis, we cannot fully confirm the first hypothesis. Revenues, gross profit and net profit have lower growth in 2020 than the previous year, but growth is continuous. In addition, operating income has higher growth in 2020 than growth in 2019.

Revenue growth and net profit have slowed, but this may not be solely due to the Covid 19 crisis. In the last analysed period, American presidential elections were held, which could direct part of the audience towards watching other video content. The results of the analysis are shown in Table 2.

Table 3: Regression analysis

	Regression equation	R^2	%
Revenue	$y = 5E+06e^{0,2607x}$	0,9977	29,84
Cost of revenue	$y = 4E+06e^{0,2396x}$	0,9971	27,07
Gross profit	$y = 2E+06e^{0,2998x}$	0,9900	34,96
Operating income	$y = 237866e^{0,4651x}$	0,9112	59,22
Net profit	$y = 124341e^{0,5117x}$	0,8477	66,81

Source: own illustration

Regression analysis is focused on investigating the average growth rates of selected items. The analysis was made for a period of seven years as well as the financial analysis. The growth rate of total revenues was interpreted by the regression equation y = 5E + 06e0.2607x. The average growth rate was 29.84% (s = 29.84) with a coefficient of determination of R2 = 0.9977. The average growth rate of cost of revenue was 27.07 with a coefficient of determination of R2 = 0.9971. The average growth rate of gross profit was 34.96% with a coefficient of determination of R2 = 0.9900. The average growth rate of operating income was 59.22% with a coefficient of determination R2 = 0.9112. The average growth rate of net profit was 66.81% with a coefficient of determination R2 = 0.8477. The coefficient of determination is slightly lower for net profit due to the negative growth rate in 2015, however, it is still in the acceptance zone for the results of the analysis (R2> 0.8). Cost of revenue has the lowest average annual growth of all analysed items. By declining profit and loss account items, average increases are increasing, indicating the stability of the Netflix platform. The results of the analysis are shown in Table 3.

4.2. User trend analysis

The descriptive statistical analysis of the user community covers a period of seven years as well as the financial analysis. In the analysed period, the number of subscribers to the platform increased from 54.58 million in 2014, to 203.67 million in 2020, which is an increase of 273.2%. The trend of increasing the number of users is smaller than the trend of increasing revenue. The average number of users in the analysed period was 119.31 million, and Median 110.64. Kurtosis is negative, which indicates a slowdown in the exponential trend. In the last analysed period, the regression point is below the regression direction. Skewness is positive, which shows the dominance of higher values within the statistical set, i.e. the distribution is tilted slightly to the right. The results of the analysis are shown in Table 4.

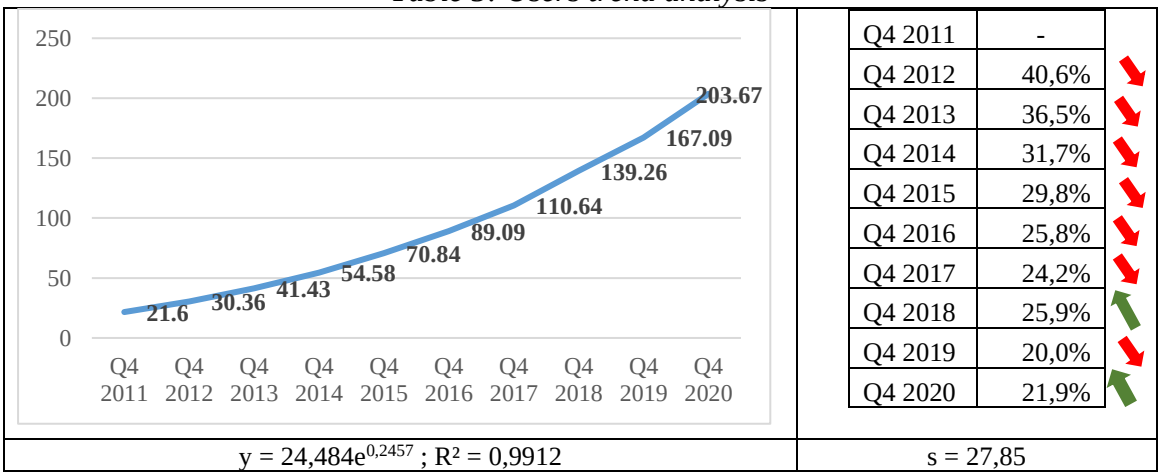
Table following on the next page

Table 4: Descriptive analysis of user trends

Users	
Mean	119,31
Standard Error	20,310255
Median	110,64
Mode	#N/D
Standard Deviation	53,735884
Sample Variance	2887,5453
Kurtosis	-0,926311
Skewness	0,4572026
Range	149,09
Minimum	54,58
Maximum	203,67
Sum	835,17
Count	7
Confidence Level(95,0%)	49,697404

Source: own illustration

Table 5: Users trend analysis



Q4 2011	-
Q4 2012	40,6%
Q4 2013	36,5%
Q4 2014	31,7%
Q4 2015	29,8%
Q4 2016	25,8%
Q4 2017	24,2%
Q4 2018	25,9%
Q4 2019	20,0%
Q4 2020	21,9%

$y = 24{,}484e^{0{,}2457}$; $R^2 = 0{,}9912$ | s = 27,85

Source: own illustration

The user community trend survey covered a period of ten years. Analysis of changes from period to period indicates a declining growth in the number of users. The largest increase of 40% was recorded in 2012, and the 2019 increase was 20%, which is the smallest increase in all analysed frequencies. In 2020, the increase in the number of users recovered slightly to 21.9, i.e. the increase was higher than in the previous period. The growth in the number of users in the ten-year period was explained by the regression equation y = 24.484e0.2457 with the coefficient of determination $R^2 = 0.9912$. The average annual growth was 27.85%. The average annual growth in the number of users is lower than the average annual growth in total revenue. The first four analysed periods have an average annual change higher than the average growth, and after 2015 the average annual change falls below the average annual growth. Based on the results of the user community trend analysis, we reject the second hypothesis entirely. The trend in the number of users is unchanged regardless of the Covid 19 crisis. The increase of 1.9% in the last analysed period does not significantly affect the change in the trend in the number of users. The results of the analysis are shown in Table 5.

4.3. Comparison of financial and user trend results

In the third part of the analysis, a comparison of revenue trends and the trend in the number of users in the last seven years was made. The analysis was made in the table ANOVA. The correlation between the two statistical sets shows a very strong correlation (Multiple R = 0.9976). The coefficient of determination is $R^2 = 0.9953$, i.e. for smaller data groups such as our Adjusted R Square 0.9944 which is a very strong relationship. The analysis was performed on data sets of seven frequencies.

Table 6: Table ANOVA

SUMMARY OUTPUT					
Regression Statistics					
Multiple R	0,997671379				
R Square	0,995348181				
Adjusted R Square	0,994417817				
Standard Error	542051,3607				
Observations	7				
ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	3,14343E+14	3,14343E+14	1069,848394	5,01948E-07
Residual	5	1,4691E+12	2,9382E+11		
Total	6	3,15812E+14			
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	-2677347,927	532338,078	-5,029412768	0,004002837	-4045766,52
Users	134698,1195	4118,133423	32,70853702	5,01948E-07	124112,1206

Source: own illustration

The survey results prove a significant impact of the Users variable on revenues. The research results show Significance F 5.01946E-07 and P-value 5.01946E-07, which proves the great interconnection of the tested data sets. The change in the number of users significantly affects the changes in the amount of income. The average change in the amount of revenue per analysed period is higher than the average change in the number of users, which shows that the platform has other revenues in addition to subscription revenues. However, the value of P-value proves that the change in the number of users has a significant effect on the amount of total revenue and profit. The results of the analysis are shown in Table 6.

5. DISCUSSION

The results of the research showed the stability of the financial position of the platform as well as the continuous growth of the number of users. In the context of the hypotheses, we can conclude the following:

- Revenues and gross profit grow from year to year and the platform has not yet reached the point of revenue saturation. In the last analysed period, the corporation recorded a slowdown in revenue growth and net profit, but this did not significantly affect the financial operations of the corporation. We cannot confirm the first hypothesis.
- The average annual growth of cost of revenue is the smallest of all increases in the analysed items. And this result speaks in favour of the claim that we cannot accept the first hypothesis.

- The growth trend in the number of Netflix users has been declining for ten years and has not changed significantly in the Covid 19 pandemic. We can conclude that the pandemic does not significantly affect the trend in the number of users. We completely reject the second hypothesis.
- The survey results in the anova table confirm the strong correlation between the two data groups.

6. CONCLUSION

Netflix took advantage of first-mover-advantage and became the largest global video streaming platform. He thus took the position of the leader of the new media industry, i.e., along with Spotify, one of the two most famous streaming distributors of media content. Revenues, operating income and net profit are growing continuously, and the average annual growth rate is higher than the cost growth rate. The trend of increasing the number of users is digressive, but the increase in the number of users from year to year is still very significant and further growth in the number of users can be expected. The platform is still far from the revenue saturation zone and the number of users. In the context of the first hypothesis, we can conclude that the financial crisis has not had a significant impact on Netflix. In the year of the crisis, revenues grew less than in the previous period, but operating income had the opposite trend. The number of users had the opposite trend, i.e. the increase in the last period was slightly higher than in the previous one. Netflix has a stable user community and achieves continuous revenue growth. Future research should focus on the platform's position in the emerging industry.

LITERATURE:

1. Braun, J. (2013). "Going over the top: Online television distribution as sociotechnical system". *Communication, Culture & Critique*, 6[3], 432–458. doi:10.1111/cccr.12015.
2. Burroughs. B. (2019). „House of Netflix: Streaming media and digital lore". *Popular Communication: The International Journal of Media and Culture.* 17:1. Routlegde. Taylor&Francis Group. doi: 10.1080/15405702.2017.1343948.
3. Hallinan, B.; Striphas, T. (2014). „Recommended for you: The Netflix Prize and the production of algorithmic culture". *New Media & Society*. doi:10.1177/1461444814538646.
4. Havens, T. (2007). „The hybrid grid: Globalization, cultural power and Hungarian television schedules". *Media, Culture & Society*, 29[2], 219–239. doi:10.1177/0163443707074254.
5. Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York, NY: NYU Press. ISBN-13: 978-0-8147-4281-5.
6. Jenner, M. (2014). „Is this TVIV? On Netflix, TVIII and binge-watching". *New Media & Society*. doi:10.1177/1461444814541523.
7. Lotz, A. (2007). *The television will be revolutionized*. New York, NY: NYU Press. ISBN-13: 978-0-8147-5219-7.
8. Lozić, J. (2019). „Zero marginal cost in magazine industry: Changing of cost paradigm in "new" magazine industry. *44th International Scientific Conference on Economic and Social Development. ESD Conference Split*., p.p. 125-136.
9. Lozić, J. (2020a). "Comparison of business models of the streaming platforms Spotify and Netflix". *61st International Scientific Conference on Economic and Social Development*. Rabat, pp.110-120.
10. Lozić, J. (2020b). „The revenue recovery of the music industry as a result of revenue growth from streaming". *63rd International Scientific Conference on Economic and Social Development – „Building Resilient Society*, Zagreb, pp. 203-214.

11. Matrix, S. (2014). „The Netflix effect: Teens, binge watching, and on-demand digital media trends“. *Jeunesse: Young People, Texts, Cultures*, 6[1], 119–138. doi:10.1353/jeu.2014.0002.
12. Moazed, A.; Johnson, N.L. (2016) *Modern Monopolies – What it takes to Dominate the 21st Century Economy*, Applico, LLC. ISBN 9781250091895.
13. Netflix, Inc. https://www.annualreports.com/HostedData/AnnualReports/PDF/NASDAQ_NFLX_2019.pdf. [02.03.2021.]
14. Parker, G.G.; Van Alstyne, M.W.; Choudary, S.P. (2016) *Platform Revolution: How Networked Markets are Transforming the Economy and How to Make Them Work forYou*, W.W. Norton & Company Ltd. ISBN 978-0-393-24913-2.
15. Pearson, R. (2011). „Cult television as digital television's cutting edge“. (Eds.) Bennett, J.; Strange, N. *Television as digital media (console-ing passions)*. pp. 105–131. Durham, NC and London: Duke University Press. ISBN**:** 978-0-8223-4910-5.
16. Rifkin, J. (2015). *The zero marginal cost society: The Internet of things, the collaborative commons, and the eclipse of capitalism*, Palgrave Macmillan, St. Martin's Press LLC. ISBN 978-1-137-28011-4.
17. Seemiller, C.; Grace, M. (2019). *Generation Z: A century in a making*. Routledge.
18. Waldfogel, J. (2018). *Digital Renaissance: What Data and Economics Tell Us about the Future of Popular Culture*. Princeton University Press. ISBN 978-0-691-16282-9.

BETA AND SIGMA CONVERGENCE OF CEE COUNTRIES TO THE EURO AREA WITH RESPECT TO THE EMPLOYMENT STRUCTURE OF ECONOMIC SECTORS

Kristina Stefanova
University of National and World Economy, Bulgaria
k.petrova@unwe.bg

Petar Peshev
University of National and World Economy, Bulgaria
p.peshev@unwe.bg

ABSTRACT

The paper examines the existence of the beta and sigma convergence in the countries from Central and Eastern Europe to the euro area with respect to the distribution of employment between the economic sectors during the period 2000 – 2019. Through the application of a fixed-effects panel ordinary least squares regression, it is identified that the employment structure of CEE countries converges with the euro area in the three economic sectors. The convergence process is proved by sigma convergence analysis in agriculture, forestry, and fishing and service sectors, but not in the industry sector. Furthermore, in some countries, deviations from the general trend are indicated by the results of sigma convergence analysis. A divergence process with the euro area in the three economic sectors exists only in the Czech Republic and Slovakia. Despite the observed convergence, the dissimilarities between CEE countries and the euro area remain at a high level. They are most significant in some countries that have not yet adopted the euro - Poland, Romania, and Bulgaria.

Keywords: *CEE countries, Employment structure, Euro area, Panel data model, Structural convergence*

1. INTRODUCTION

Structural convergence has established as an essential part of the research of the overall convergence process in the European Union in recent years. Common policies, institutions, regulations, and the Economic and Monetary Union (EMU) existence provide an appropriate framework for analysing structural convergence between countries within the European Union. The functioning of the common European market, the pursuit of common EU goals, the transfer of knowledge and technology can contribute to the manifestation of this type of convergence between the EU member states. The existence of a common currency links the economies of the countries that have adopted the euro even more. In general, structural convergence occurs when a convergence over time between countries regarding the indicators describing the structure of the economy (the share of employment, GDP or GVA in the economic sectors, the structure of consumption, distribution of income, etc.) exists. For this reason, structural convergence can be defined differently depending on the indicators used to measure it.[1] For structural convergence between individual countries, a structural change in their economies should exist. Of course, the type and direction of the change are essential, as not every change can lead to a convergent process. Structural change, in turn, is generally defined as a change in the economic structure over time and is caused by the process of economic development.

[1] For structural convergence of the GDP production structure see for example Raleva and Damyanov (2019), Stattev and Raleva (2006), Darvas and Szapary (2004), etc. For structural convergence of the GDP expenditure components see for example Stattev and Raleva (2006), Velichkov and Damyanov (2021), etc. For convergence of productivity see for example Sondermann (2012), Naveed and Ahmad (2016), Peshev and Pirimova (2020), etc.

According to Alexoaei and R. Robu (2018), the concept of structural change is used to identify, interpret and understand the relationship between economic development and changes in the size and composition of economic sectors. The distribution of employment between economic sectors is an essential projection of the economic structure of a country. It is namely through employment in the different sectors that the present study, as well as a number of other studies[2], measure the structure of the economy. The purpose of the paper is to investigate whether a convergence of CEE countries to the euro area occurs in terms of the distribution of employment among economic sectors. The existence of this type of convergence is essential for integration into the euro area. Some of CEE countries have already adopted the euro, while others should adopt it as part of the European Union. Achieving structural convergence is crucial as it facilitates the business cycles synchronisation and mitigation of the asymmetric impact of shocks on the economy. There is evidence in the literature for the significant positive impact of structural similarities between the economies of groups of countries within the European Union on the business cycles synchronisation[3]. Structural convergence is not automatically triggered by the presence of nominal convergence, but its absence affects the effectiveness of the monetary policy. Therefore, structural aspect of economic convergence must also be considered when assessing the readiness of the economies of the CEE Member States to join the Monetary Union and adopt the euro. The paper is structured as follows: The next section provides a brief review of relevant literature in the field. The third part describes the methodology adopted. The fourth part presents the main results of the study conducted, identifying the existence of beta and sigma convergence of CEE countries to the euro area and the magnitude of the dissimilarities between them concerning the employment structure. The last part presents the main conclusions drawn from the analysis.

2. LITERATURE REVIEW

In the corresponding scientific literature exists some researches devoted to the structural convergence between different groups of European Union countries, measuring the economy's structure through the distribution of employment among economic sectors. M. Olczyk and E. Lechman (2011) examine the existence of structural convergence during the period 2000–2007 in the three main sectors of the economy (agriculture, industry and services), as well as in low-tech sectors in the industry sector in four CEE countries (Poland, the Czech Republic, Hungary and Slovakia) to Germany. The authors choose these four countries since they have similar characteristics of economic systems. The study applies multidimensional analysis by calculating the Euclidean index in four-dimensional Euclidean space in the last and the first year of the researched period. The paper concludes that, during the period considered, only Hungary registered a convergent process to Germany regarding the employment structure in the three economic sectors, while the other countries diverged. The most significant differences in both years are observed in Poland, followed by the Czech Republic. L. Albu (2012) examines the existence of structural convergence in the share of employment between the EU-27 Member States during the period 2000-2011, as well as between the countries of Eastern Europe (EU-10) and the countries of Western Europe (EU-15), which includes all the old Member States before the Eastern Enlargement. The methodology of the study encompasses the Lorentz curve, the Gini coefficient (measured in two ways), the RH index (Robin Hood coefficient) and the coefficient of variation. The author proves the existence of a convergent process in the employment share, which is valid at EU-27 level as well as at EU-15 and EU-10 level. Results from applying the same methodology in the services sector show convergence in employment share in the EU-10, but not in the EU-27 and EU-15 groups.

[2]See Wacziarg (2004), Höhenberger and Schmiedeberg (2008), Doyle and O'Leary (1999), Naveed and Ahmad (2016), etc.
[3]See Beck (2013), Imbs (2001), etc.

Trends in the agriculture, forestry and fishing sector are opposite and reveal convergence in EU-27 and EU-15 and divergence in the EU-10. Other authors that explore structural convergence through data on employment shares in individual sectors are N. Höhenberger and C. Schmiedeberg (2008). Their study analyses the structural convergence between 14 EU Member States[4] for the period 1970-2004/2005 by applying the σ and β convergence methods. The beta convergence approach uses the deviation of employment in a country from the EU average as a benchmark instead of the share of employment in a given country to control structural changes that affect all Member States covered in the same way. The authors expect the presence of convergence in the period under review, based on the three-sector-hypothesis, the new theory of trade, and the new economic geography theory and on the existence of structural changes. They do not expect complete convergence due to the differences in the endowment of natural resources, cultural features, the country's size, the institutional framework, etc. The conclusions derived both from applying the σ-convergence and the β-convergence approach indicate significant and robust structural convergence in the group of countries considered. Stefanova (2020) studies convergent and divergent tendencies in the economic structure, measured by employment distribution among economic sectors in CEE countries during the period 2000 – 2018. The study applies sigma convergence analysis through the calculation of the divergence index. The paper concludes that convergence in 2018 compared to 2000 in the employment structure is registered in most CEE countries. A divergence process exists only in three countries – the Czech Republic, Estonia and Slovakia. The study of structural convergence in the European Union is an interesting field of analysis, which is not yet so widely represented in the scientific literature compared to nominal and real convergence processes. Regardless of the applied different time horizon and geographical scope, all the empirical studies considered prove the existence of a certain degree of structural convergence in employment within the European Union.

3. METHODOLOGY

Classical approaches of sigma and beta convergence, introduced by Barro and Sala-I-Martin (1991) in the study of income convergence, are applied to examine the structural convergence/divergence process in the distribution of employment among economic sectors in the CEE countries to the euro area. The main specificity of the approach adopted in the paper is the study of the convergence of the countries of Central and Eastern Europe to the euro area as a benchmark. The relative shares of employment in the three economic sectors in the total employment are calculated in the euro area (19 countries) and in the countries of Central and Eastern Europe (Bulgaria, the Czech Republic, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia and Slovakia) to measure the structure of the economy. To distinguish the economic sectors, the NACE Rev. 2 classification is used - agriculture, forestry and fishing (activity A); industry, incl. construction (activities from C to F); and services (activities from G to U). The study uses data on the thousand hours worked in the three economic sectors instead of data on thousand persons to measure the employment. Thus, the impact of different definition of part-time work and self-employment at the national level is eliminated. The data covers the period from 2000 to 2019 and is collected from Eurostat as a single EU statistical system. Annual data is used for the selected indicators. A fixed-effect panel of ordinary least squares (OLS) regression is used to investigate the beta convergence. Three separate models are applied in the three economic sectors. The adequacy of the fixed effects models is confirmed after performing a Hausman test. Applying the Redundant Fixed Effects Tests supports the selection of a panel fixed-effects technique as well, since the null Hypothesis of no fixed effects evidence is rejected with low p-values (below 0,05).

[4] The study includes all old EU Member States before the Eastern Enlargement except Luxembourg.

Following formal representation of a fixed-effects model has been applied:

$$Y_{it} = \alpha_i + \beta X_{it} + u_{it} \quad (1)$$

Where:
Y_{it} - the dependent variable for country "i" at period "t";
α_i - time invariant individual (country specific) factors;
β - kx1 matrix of parameters, representing the association between the explanatory variable X_{it} and the dependent variable Y_{it};
X_{it} - the explanatory variable for country "i" at time "t";
T -a time period variable accepting values between 1 and T;
u_{it} - the error term;
The implementation of a fixed effect panel ordinary least squares (OLS) regression allows identifying fixed-effect for each country from Central and Eastern Europe.
For investigating the beta convergence, the following equation is used:

$$\frac{ES_{sit}/ES_{sit-1}}{ES_{EAst}/ES_{EAst-1}} = \alpha_i + \beta \frac{ES_{sit-1}}{ES_{EAst-1}} + \varepsilon_{it} \quad (2)$$

Where:
ES_{sit}/ ES_{sit-1}–the annual change in the employment share (ES) in country "i" in sector "s" at time "t"
ES_{EAst}/ES_{EAt-1} – the annual change in the employment share (ES) in euro area in sector "s" at time "t"
ES_{sit-1}– the employment share (ES) in country "i" in sector "s" at time "t-1"
ES_{EAt-1}– the employment share (ES) in euro area in sector "s" at time "t-1"
α_i - country „i" specific time invariant factors;
β - the kx1 matrix of parameters, representing the association between $\frac{ES_{sit-1}}{ES_{EAst-1}}$ and the $\frac{ES_{sit}/ES_{sit-1}}{ES_{EAst}/ES_{EAst-1}}$;
ε_{it}-the error term;

The presence of beta convergence generally means that the change in an indicator is negatively affected by its initial value or the value in the previous year. Hence, a larger earlier value results in a smaller change. The paper follows similar logic while examining the convergence in the CEE countries' employment structure to the euro area. Thus, the difference in the change in the employment shares between the CEE countries and the euro area must be negatively associated with the initial difference of the indicators. The scale of the differences is measured by the ratio between an indicator in the CEE countries and its value in the euro area. Applying beta-convergence analysis through equation (2) aims to examine whether, in the countries with higher (lower) employment rates in year t-1 compared to the euro area, a higher annual decrease (increase) in this share compared to the euro area exists. In particular, beta convergence occurs if the ratio between the employment share in CEE countries and the employment share in the euro area in year t-1 has a significant and negative impact on the ratio between the annual change in the employment share in the CEE Member States and the annual change in the share of employment in the euro area. The beta convergence analysis is applied separately in each of the three economic sectors of the economy to consider structural convergence/divergence drivers between the CEE countries and the euro area. During the period under investigation, in the agriculture, forestry and fishing sectors in most CEE countries and in the industry sector in all states, employment rates were higher than in the euro area.

Therefore, the independent variable is greater than one in agriculture, forestry and fishing and industry sectors. If a beta convergence is observed, it must have a significant and negative impact on the dependent variable, which should be less than one. Conversely, in the services sector, the employment rate in the euro area is higher than in the CEE countries during the researched period, and the independent variable is less than one. If beta convergence occurs in this sector, there should be a significant and negative impact on the independent variable, which should be greater than one. Sigma convergence analysis generally analyses whether the differences between a given number of objects according to a given feature have decreased or increased over time. The present study examines whether diminishing deviation between the CEE countries and the euro area occurs regarding employment structure in economic sectors. To identify the sigma convergence/divergence between the CEE countries and the euro area, the dynamics in the coefficient of variation, calculated as a ratio of the standard deviation and the mean and converted into a percentage, is used. This is a standard approach used by many researchers of sigma convergence in income and other areas of the economy. The coefficient of variation is calculated between the CEE countries average and the euro area, as well as between each of the CEE countries and the euro area for all years of the period considered for the indicators selected for the tree economic sectors. Based on the calculated coefficients of variation, a sigma convergence analysis is applied. In particular, it is assessed whether convergence between CEE countries and the euro area exists at the end of the period under investigation compared to its beginning.

4. RESULTS

The results of the performed beta and sigma-convergence investigation are analysed successively in the three economic sectors. Table 1 summarises the main results of applying a fixed-effects panel ordinary least squares regression in the agriculture, forestry and fishing sector[5]. The main findings of the study reveal that the CEE countries converged to the euro area in the period 2000 – 2019, in terms of the relative share of employment in the agriculture, forestry and fishing sector. There is a significant and negative impact of the ratio between the employment share in the CEE and the indicator in the euro area in year t-1 on the ratio between the CEE countries and the euro area annual decline in employment share in the agriculture, forestry and fishing sector. Therefore, the larger the deviation from the euro area at the beginning of the period is, the faster the observed decline in the CEE countries compared to the euro area.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.091705	0.039319	27.76506	0.0000
X (expl.var.)	-0.037164	0.013934	2.667093	0.0085
Total panel (balanced) observations: 159				
Correlated Random Effects - Hausman Test				
Test cross-section random effects				
		Chi-Sq.	Chi-Sq.	
Test Summary		Statistic	d.f.	Prob.
Cross-section random		6.649576	1	0.0099

Table 1: Main results: fixed-effects panel ordinary least squares regression in the agriculture, forestry and fishing sector (Source: Eurostat and application of the model in E-views)

[5]The Czech Republic, Estonia and Slovakia are not included in the analysis. In some years of the studied period, lower shares of employment in the agriculture, forestry and fishing sector are observed compared to the euro area, which is a deviation from the general trend.

The application of sigma convergence analysis in the agriculture, forestry and fishing sector confirms a convergent process in the share of employment in the CEE countries on average to the euro area (see Table 2). However, in some countries, there are deviations from the general trend. Divergence with the euro area is observed in Slovakia and two countries that have not yet adopted the euro - Bulgaria and the Czech Republic. However, the differences with the euro area in Bulgaria are significantly larger than those registered in the Czech Republic and Slovakia, which are among the lowest in the CEE countries both at the beginning and at the end of the period. In all other countries, the differences with the euro area, measured by the coefficient of variation, decreased in 2019 compared to 2000. The most significant convergence with the euro area is observed in Hungary and Lithuania.

Country		σ convergence (coefficient of variation)			
	Average CV 2000-2019	2000	2019	Δ 2019-2000	σ Conv.
Bulgaria	81,29	77,14	81,16	0,05	No
The Czech Republic	18,22	15,32	16,01	0,04	No
Estonia	7,24	19,14	14,93	-0,22	Yes
Croatia	50,12	50,78	31,66	-0,38	Yes
Latvia	46,38	56,07	45,95	-0,18	Yes
Lithuania	51,48	67,71	35,10	-0,48	Yes
Hungary	36,35	50,58	24,31	-0,52	Yes
Poland	65,43	67,43	55,10	-0,18	Yes
Romania	97,81	105,13	88,95	-0,15	Yes
Slovenia	53,66	63,17	51,49	-0,18	Yes
Slovakia	13,37	3,52	17,52	3,97	No
CEE	54,50	62,02	45,71	-0,26	Yes

Table 2: Sigma convergence in the agriculture, forestry and fishing sector
(Source: Author's calculations based on Eurostat data)

The highest differences with the euro area regarding agriculture, forestry and fishing sector are observed both on average and at the end of the period in three countries, which are not a part of the euro area – Romania, Bulgaria and Poland. In the industry sector, a beta convergence of the CEE countries to the euro area in the period 2000 - 2019 regarding employment is also observed. The coefficient of the explanatory variable is significant and negative (see Table 3). This indicates that the presence of a higher difference in the relative share of employment between CEE countries and the euro area leads to a more substantial decrease in employment share in CEE countries than the decline of the indicator in the euro area.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.153236	0.029014	39.74717	0.0000
X (expl.var.)	-0.113772	0.022896	-4.969131	0.0000
Total panel (balanced) observations: 209				
Correlated Random Effects - Hausman Test				
Test cross-section random effects				
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	
Cross-section random	18.581373	1	0.0000	

Table 3: Main results: fixed-effects panel ordinary least squares regression in the industry sector
(Source: Eurostat and application of the model in E-views)

The application of sigma convergence analysis leads to the opposite conclusion for divergence in employment share between the CEE countries and the euro area. Furthermore, divergence is also observed between all separate countries and the euro area. The weakest divergence is registered in some countries that have already adopted the euro – Slovenia and Latvia. The simultaneous existence of beta-convergence and sigma-divergence is possible because β-convergence is necessary but not a sufficient condition for the existence of σ-convergence. However, it should be noted that compared to the agriculture, forestry and fishing sectors, the differences between the euro area and CEE countries on average, as well as the deviation between the euro area and most of the separate countries in the industry sector, are significantly lower (see Table 4).

Country		σ convergence (coefficient of variation)			
	Average 2000-2019	2000	2019	Δ 2019-2000	σ Conv.
Bulgaria	9,41	3,28	13,71	10,43	No
The Czech Republic	30,54	24,64	34,57	9,93	No
Estonia	18,77	11,87	19,76	7,88	No
Croatia	14,90	12,00	19,46	7,46	No
Latvia	5,13	0,65	7,89	7,24	No
Lithuania	9,96	0,05	14,40	14,35	No
Hungary	13,28	8,90	18,72	9,82	No
Poland	19,03	7,65	28,31	20,66	No
Romania	17,26	2,09	25,83	23,74	No
Slovenia	19,25	17,93	22,07	4,14	No
Slovakia	22,07	14,27	27,60	13,34	No
CEE	16,72	9,72	21,56	11,84	No

Table 4: Sigma convergence in the industry sector
(Source: Author's calculations based on Eurostat data)

In the industry sector, the largest differences with the euro area are registered both on average and at the end of the period in countries, which are not a part of the euro area – the Czech Republic and Poland. The same dependence exists in the agriculture, forestry and fishing sector. The services sector is also characterised by beta structural convergence in employment share between CEE countries and the euro area. A significant and negative beta coefficient is registered in the period under investigation (see Table 5). Its absolute value is higher than the reported coefficients in the agriculture, forestry and fishing, and industry sectors.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.189220	0.032302	36.81608	0.0000
X (expl.var.)	-0.226164	0.039391	-5.741492	0.0000
Total panel (balanced) observations: 209				
Correlated Random Effects - Hausman Test				
Test cross-section random effects				
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	
Cross-section random	15.610361	1	0.0001	

Table 5: Main results: fixed-effects panel ordinary least squares regression in the service sector
(Source: Eurostat and application of the model in E-views)

The conducted sigma convergence analysis in the services sector confirms the existence of convergence of the CEE countries to the euro area (see Table 6). In all separate Member States, except The Czech Republic, Poland and Slovakia, sigma convergence is also registered. The most significant convergence with the euro area is observed in Romania, as well as in two countries that have already adopted the euro – Slovenia and Lithuania.

	σ convergence (coefficient of variation)				
Country	Average 2000-2019	2000	2019	Δ 2019-2000	σ Conv.
Bulgaria	18,73	19,58	16,80	-2,78	Yes
The Czech Republic	13,11	11,84	13,82	1,98	No
Estonia	7,94	7,78	6,23	-1,54	Yes
Croatia	12,34	14,02	9,46	-4,56	Yes
Latvia	7,20	8,93	6,51	-2,42	Yes
Lithuania	10,52	13,27	7,68	-5,59	Yes
Hungary	9,07	12,20	8,42	-3,79	Yes
Poland	18,10	17,20	17,25	0,05	No
Romania	37,25	54,00	26,84	-27,17	Yes
Slovenia	15,25	22,03	13,29	-8,74	Yes
Slovakia	8,52	7,18	9,81	2,63	No
CEE	13,95	16,25	12,16	-4,09	Yes

Table 6: Sigma convergence in the service sector
(Source: Author's calculations based on Eurostat data)

It is also important to note that as in other sectors, in the service sector, the highest differences with the euro area, measured by the coefficient of variation, are observed in countries that have not yet adopted the euro - Romania, Poland, Bulgaria.

5. CONCLUSION

By applying a fixed-effects panel ordinary least squares regression, it is identified that the employment structure of CEE countries converges with the euro area in the three economic sectors. Conducted sigma convergence analysis confirms these results in the agriculture, forestry and fishing and services sectors. At the same time, divergence is observed in the industry sector, but this is possible because β-convergence is a necessary but not sufficient condition for the existence of σ-convergence. Furthermore, the conducted sigma convergence analysis results demonstrate that some countries show deviations from the general trend. A divergence process with the euro area in the three economic sectors exists only in the Czech Republic and Slovakia. Despite the observed convergence, it should be considered that the restructuring of employment among economic sectors is a process that is characterised usually by a long duration. Thus, in some countries, the dissimilarities with the euro area remain high. They are most significant in some Member States that have not yet adopted the euro - Poland, Romania, and Bulgaria. Furthermore, except in Slovakia, only non-members of the euro area register divergence during the researched period in the agriculture, forestry, and fishing and the service sectors.

LITERATURE:

1. Albu, L. (2012). Structural Convergence in European Union. *Annals of the Constantin Brâncuşi, University of Târgu Jiu, Economy Series*, Issue 4, pp. 1-10.
2. Alexoaei, A., Robu, R. (2018). A Theoretical Review on the Structural Convergence Issue and the Relation to Economic Development in Integration Areas. *Proceedings of the International Conference on Business Excellence*, pp. 34-44.

3. Barro, R., Sala-I-Martin, X. (1991). Convergence across states and regions. *Brookings Papers on Economic Activity*, 1:1991, pp. 107-182.
4. Beck, K. (2013). Structural Similarity as a Determinant of Business Cycle Synchronization in the European Union: A Robust Analysis. *Research in Economics and Business: Central and Eastern Europe*, 5 (2), pp. 31-54.
5. Darvas, Z., Szapary, G. (2004). Business Cycle Synchronization in the Enlarged EU: Comovements in the New and Old Members. Magyar Nemzeti Bank Working Paper No.1.
6. Doyle, E., O'Leary, E. (1999). The Role of Structural Change in Labour Productivity Convergence among European Union Countries: 1970-1990. *Journal of Economic Studies*, 26 (2), pp. 106-122.
7. Höhenberger, N., Schmiedeberg, C. (2008). Structural Convergence of European Countries. *CeGE Discussion Paper, №. 75*. Center for European, Governance and Economic Development Research, Göttingen.
8. Imbs, J. (2001). Sectors and the OECD Business Cycle. *CEPR Discussion Papers № 2473*.
9. Naveed, A., Ahmad, N. (2016). Labour Productivity Convergence and Structural Changes: Simultaneous Analysis at Country, Regional and Industry Levels. *Journal of* Economic Structures, 5 (1), pp. 1-17.
10. Olczyk, M., Lechman, E. (2011). Structural Convergence among Selected European Countries. Multidimensional Analysis. *MPRA Paper No. 33656*.
11. Peshev, P., Pirimova, V. (2020). Beta and Sigma – Convergence of Productivity of NUTS 2 Regions in the (EU) Member States from the CEE Region. *Economic Alternatives*, Issue 1, pp. 79-90.
12. Raleva, St., Damyanov, D., (2019). GDP Production Structure Convergence of Selected CEE Countries with the Eurozone. *Sustainable Development Goals 2030: Challenges for South and Eastern European Countries and the Black Sea Region*, UNWE Publishing Complex, pp. 29-41.
13. Stattev St., Raleva, St. (2006). Bulgarian GDP Structures – Convergence with the EU. *South-Eastern Europe Journal of Economics*, 2, pp. 193-207.
14. Stefanova, Kr. (2020). Structural Convergence of the CEE Countries with the Euro Area: Evidence from the Distribution of Employment between the Economic Sectors. *Yearbook of UNWE* , 2020 (1), pp. 49-63.
15. Velichkov, N., Damyanov, D. (2021). Structural Convergence of Selected South-East European Economies to the Eurozone, *Book of Proceedings of 65th International Scientific Conference on Economic and Social Development*, Varazdin Development and Entrepreneurship Agency, Croatia, pp. 50-60.
16. Wacziarg, R. (2004). Structural Convergence. *CDDRL Working Papers*.

WESTERN BALKANS COUNTRIES AS A PART OF SOUTH-EASTERN EUROPE: EXPERIENCES OF ACCESSING THE EUROPEAN UNION AND PROSPECTS FOR FUTURE ENLARGEMENT

Petar Kurecic
University North, Department of Economics, Varazdin, Croatia
pkurecic@unin.hr

Marina Brodanac
University North, Department of Economics, Varazdin, Croatia
marina.tolo188@gmail.com

ABSTRACT

South-eastern Europe is a region of rather small countries, covered by the Stability Pact, which allows them easier access to the European Union. Part of South-eastern Europe is called the Western Balkans which is referred to as the region of Southeast Europe. The Western Balkans are marked by negativity and violence. Some countries located in a small part of the Balkans, as well as those that are marginal countries of the Balkans, believe that they are not part of the Balkans and do not want to be called Balkan countries because their name is derogatory given the past of the Western Balkans. The Republic of Croatia also belongs to these countries, which usually deny that they are in any way connected to the (Western) Balkans. Given the past and low development, it is very difficult for small countries to meet all the criteria for joining the European Union. Croatia has managed to become a full member of the EU and can provide other countries with extensive experience and advice in the same. The European Union wants the countries of Southeast Europe to join the EU, but it has set important criteria to ensure that certain countries become stronger by joining them and join the European Union. It is a great struggle, but every country, with a certain help and guidance of the EU, should have enough time and space.

Keywords: *South-eastern Europe, the Western Balkans, the European Union, enlargement processes, Croatia*

1. INTRODUCTION

One of the most important goals of every country is to join the European Union. Countries believe that accession can achieve good neighborly relations, improve the country's existing economy, economic development and further strengthen their priorities as well as the country's advantages. The countries of Southeast Europe, the countries of the Western Balkans, or as they are called, “small states, have certain advantages for joining the European Union, but they also have certain disadvantages compared to larger and better developed countries. Based on the above, it can be pointed out that they were “enabled” to fight when entering the European Union. As they say, some countries in Southeast Europe, the countries of the Western Balkans, are colored by negative comments given that the Balkan area was surrounded by violence, division and great negativity in most segments. The Republic of Croatia is part of the Balkans, but most deny the above, given that Croatia is the edge of the Western Balkans. The question is often asked whether at least a part of Croatia culturally “naturally” belongs to the Balkans or is that identity imposed? By increasing EU membership, the European Union would strengthen cooperation among countries within Southeast Europe, donate funds through various projects, help develop countries and strengthen foreign policy effectiveness, and help achieve many countries' goals affecting regional relations and other factors of improvement. If, after all, South East Europe developed very well and began to progress in various areas, it would also help to develop good cooperation with other regions within Europe and beyond.

2. STABILITY PACT AND THE WESTERN BALKANS

As a rule, the Stability Pact for South Eastern Europe also contains the Stabilization and Association Agreement with the European Union. By appealing and helping the European Union to achieve as many EU membership as possible, the Stabilization and Association Agreement mostly applies to Albania, Macedonia, Bosnia and Herzegovina and Serbia (Kerim, 2007: 165). Southeast Europe certainly has a huge burden conditioned by the historical legacy of complex relationships. It is this historical heritage that further burdens this political landscape of the region with a large number of open questions. Despite a number of open political and historical issues, the entire region is making some progress. This has somewhat slowed down the political issue and status of Kosovo and the different interpretations of its status and the decisions taken. Despite the potentially bad impact, this issue has not significantly disrupted the stability or security of this part of Europe. The previously mentioned Stability Pact, which was extremely useful for promoting co-operation in Southeast Europe, had a major impact on the stability of this part of Europe. These processes are now overseen by the Regional Cooperation Council, supporting the countries of the region on their path to the European Union. The Republic of Croatia belongs to Southeast Europe, so it is calculated that the Stability Pact for Southeast Europe contributed in part to Croatia's membership in the European Union.

Apart from the European Union, the stability of the countries of Southeast Europe is also influenced by Russia and the United States. This primarily affected Serbia. In the 2000ies, Serbia tried to successfully maneuver between two foreign policy options: EU integration and close ties with longtime partner Russia. So far, Serbia has managed to adhere to the policy of neutrality (Nelaeva, Semenov, 2016: 68). The entire region is greatly influenced by the current policy of the United States and its approach can be seen through several dimensions, primarily in the context of a complex diplomatic and military approach, which aimed to establish a new geopolitical configuration of Southeast Europe. The shifting of the West's borders to the East, or the expansion of the Western economic, political, and security order, a process strongly controlled by the United States, brought together very different strategies to promote democracy, including the imposition of democracy by force. Over the past twenty years, the countries of the region have become the object of the geopolitics of enlargement, as well as the influence of the US and the EU, which as external actors moderate the political, economic and security transformation of the region (https://narod.hr/svijet/jugoistocna-europa-zasto-je-ovo-podrucje-stoljecima-barutana-europe). The influence of these strong and fully economically and politically developed countries has led to questionable political solutions. Instead of promising political stability and economic prosperity, they have made most countries in the region security-unstable and economically and politically completely dependent on the West.

One of the most important political goals of Southeast Europe was the accession of its countries to the European Union. As stated in the previous chapter, there were clear objectives for accession to the European Union. After the Stability Pact, four countries of Southeast Europe joined the European Union: Bulgaria, Romania, Greece and Croatia, which greatly marked the operation and launch of the pact and the achievement of the set goal. The plan is that as many countries of Southeast Europe as possible also join the EU in order to improve the economy and cooperation among the countries of Southeast Europe, but also effective cooperation with the countries of other parts of Europe. The conditions for joining the European Union are very demanding, so some countries in Southeast Europe are still trying to improve the criteria in order to meet the necessary goals. Some countries find it very difficult to meet the criteria given the poor political situation and the consequences of the war. The Republic of Croatia, as a member of the EU and a neighboring country of certain countries in Southeast Europe, supports and expects the accession of certain countries of the Southeast to the European Union, mostly expecting the imminent accession of neighboring countries. With the above, Croatia believes that special and more effective cooperation with neighboring countries in all segments will be

achieved, which is the goal of the country. One of the criteria for EU accession is that the region needs to ensure the independence, quality and efficiency of the judicial system in order to ensure the fairness of the executive and the legislature. This is a prerequisite for any democratic society based on the rule of law and economic development. Countries must eliminate corruption completely. They must have strong and independent institutions key to preventing and tackling corruption. States must remove all obstacles and problems and compile progress reports (European Commission, 2018: 5). Before applying for membership, it is necessary to meet the conditions for membership, better known as the "Copenhagen Criteria", which include a market economy, stable democracy and the rule of law, as well as the adoption of European Union legislation, including the euro. After fulfilling the above criteria and submitting the application for membership, the European Commission submits an opinion. If the said opinion is positive, the negotiating mandate is approved. Negotiations can take a very long time given that the EU has a large number of rules and regulations that countries must adapt to. During the negotiations, i.e. the pre-accession period, the candidate countries receive technical, financial and administrative assistance.

3. CROATIA AND THE EUROPEAN UNION: DIFFICULTIES IN THE ACCESSION PROCESS

Just at the period when the European Commission, at the request of the European Council, began to prepare the foundations of the document for the meeting of leaders in Copenhagen, the Republic of Croatia was (only) a year internationally recognized and, in its entirety, much more aware of territory. Unlike the Republic of Croatia, which until then was focused exclusively on war events on its territory, other transition countries were busy focusing on the future - implementing their own social and economic reforms, in intensive interaction with Brussels. It was at the European Council session aimed at considering the European future that part of the analytical background and discussion focused on the possibilities and conditions for further enlargement of the European Community. The conclusions from that meeting published, today and for Croatia, fundamentally important views on the criteria that member states must meet. It is about (Vedriš, 2007: 87):

- Political criteria - refer to the stability of institutions aimed at enabling democracy, the rule of law, respect for human rights and minority rights and acceptance of the political goals of the entire European Union,
- Economic criteria - refer to the existence of an efficient market economy and the ability of key market factors to cope with increasing competitive pressures and market laws within the European Union,
- Legal criteria - refer to the ability and obligation to adopt the entire *acquis communitaire* of the European Union,
- The Madrid criterion, for adjusting the administrative structure.

The Republic of Croatia finally faced the overall complexity of the content of these criteria a decade later, when it received a positive opinion from the European Commission on the request for candidate status in the further process of negotiations on full membership. By joining the European Union, the Republic of Croatia has become part of the EU's single internal market in which all customs and non-customs barriers disappear, cross-border business costs are reduced, competition increases and Croatian businessmen are given free access to the market of all EU member states. has concluded trade agreements. Also, Croatian institutions and businessmen were provided with access to EU funds to support economic projects aimed at new investments and programs, employment, retraining and infrastructure construction (http://www.dutp.hr/default.aspx?id=37).

Furthermore, the Republic of Croatia takes over the provisions of free trade agreements concluded by the European Union with individual countries or groups of countries, which include, inter alia, the liberalization of trade in agri-food and industrial products and protocols on the origin of goods. Therefore, the Republic of Croatia will withdraw from the existing free trade agreements it applies with the European Union, the EFTA countries, CEFTA and the Republic of Turkey, and the Republic of Croatia will be a Contracting Party - Member State in relation to the aforementioned countries or groups of countries. European Union (Bilas, 2007: 69). With membership in the European Union, the Republic of Croatia also transposes legislation from the part of trade mechanisms that include trade protection mechanisms and trade barriers, and on the website of the State Office for Trade Policy / EU trade policy / trade protection mechanisms and obstacles, more detailed information on Council Regulations European Union. With membership in the European Union, Croatian trade interests in the WTO are represented by the European Commission, and Croatian institutions with their active membership in European Union bodies represent the interests of the Croatian economy which will be integrated into the European economy as an independent and equal partner (Bilas, ibid.). As of 1 July 2013, Croatia has become part of a large European family of 28 members, with more than 4 million km2 and a population of around 508 million (2013). Croatian representatives actively participate in decision-making that directly affects the daily lives of Croatian citizens, such as transport, environmental protection, health, employment and the like (Republic of Croatia, 2014: 2). Membership in the European Union enables mobility, i.e. the possibility of traveling without visas and passports. Young people are provided with employment in the EU without special work permits. However, in the transitional period, some members retained the obligation to issue work permits for Croatian citizens, which are also being phased out. Croatian citizens can directly influence the policy of the European Union, by voting and running in the elections for the European Parliament, but also through the European Citizens' Initiative. It is important to mention that the better the protection of consumer rights, the stronger the control of product quality (food safety), the greater the possibilities of access to information about goods and services on the market. Croatia's membership in the Union brings significant progress in the field of environmental protection due to raising standards, but also the introduction of modern infrastructure in waste and water management systems and air protection (Republic of Croatia, 2014: 2). It is very important to emphasize that by joining the European Union, Croatia has the opportunity to operate Croatian entrepreneurs in the internal market of the Union with more than five hundred million consumers, as well as in the markets of countries with which the EU has trade agreements. By joining the full membership of the Union, Croatia has become a beneficiary of European funds. The problems and disputes that Croatia has with neighboring countries, i. e. the countries of the former Yugoslavia, which is a consequence of wars, hatred, division, etc., i.e. balkanization, have endangered Croatia's perspective, i. e, its accession to the European Union. By joining the European Union, the Republic of Croatia, thus endangered, sends a very bad message to the countries of the Western Balkans, i.e. the awareness that their entry into the European Union depends not only on themselves but also on their relations with the neighborhood (Kurečić, Crljenko, 2013: 549). It has been four years since Croatia's accession to the European Union. Croatia's accession to the European Union should have had a strong impact on creating a more favorable economic climate. Despite the economic crisis in 2008 and Croatia's struggle to recover from major recessions, EU membership is expected to contribute to large inflows from foreign direct investment. This should stabilize the impact on the public debt of the Republic of Croatia and ensure the budget deficit. Given the negativity that Croatia has after joining the European Union, the so-called. The "brain drain" or emigration of young highly educated people, experts, scientists, etc., which is also caused by the long-term recession, seriously reduces the perspective of future development and doubts about the sustainability of Croatian health and

pension systems. Almost five years have passed since Croatia accessed the EU (July 1st, 2013). High expectations that have arisen long before the accession have given way to reality, especially after the outbreak of the economic crisis. Croatia has experienced six years of recession (2009-2014), the longest of all EU member states. Croatia is currently experiencing high levels of workforce emigration towards the EU countries (Germany, Ireland, Austria etc.).

Table 1: The population, total population change, and net migration of the post-socialist EU member states and the Western Balkans countries 1988-2019

Post-socialist EU member state	Population, thousands, 2019	Population, thousands (peak year)	Total demographic loss, peak year – end of 2019, thousands (percentage)	Net migration, 1988-end of 2017
Bulgaria	6 976	8 981 (1988)	-2 005 (-22.3)	-732 034
Croatia	4 068	4 780 (1990)	-712 (-14.9)	-457 563
Czech Republic	10 670	/	/	604 343
Estonia	1 327	1 569 (1990)	-242 (-15.4)	-181 700
Hungary	9 770	10 712 (1981)	-942 (-8.8)	355 278
Latvia	1 913	2 667 (1989)	-754 (-28.2)	-529 670
Lithuania	2 787	3 704 (1991)	-917 (-24.8)	-779 379
Poland	37 971	38 660 (1999)	-689 (-1.8)	-878 100
Romania	19 357	23 202 (1990)	-3 845 (-16.6)	-3 192 850
Slovak Republic	5 454	/	/	16 806
Slovenia	2 088	/	/	70 944
Albania	2 854	3 287 (1990)	-433 (-13.2)	-1 220 373
Bosnia and Herzegovina	3 301	4 508 (1988)	-1 207 (-26.8)	-1 220 310
Kosovo	1 794	2 086 (1997)	-292 (-14.0)	n/a
Montenegro	622	/	/	-58 431
North Macedonia	2 083	/	/	-145 928
Serbia	6 945	7 735 (1994)	-790 (-10.2)	-880 269

Source of data: World Bank Country Indicators

From Table 1, it is visible that more than half of the post-communist EU members are facing serious demographic challenges, with the Western Balkans states facing mostly similar challenges, with North Macedonia and Montenegro as the hitherto exceptions. In the Baltic States, the influence of de facto decolonization, resulting in the beginning of the return of significant portions of Russian populations back to Russia. Besides these processes that are a product of historical events and had nothing to do with the accession to the EU, gradual or instant opening of the EU labour market (depending on the decisions of the particular EU member states after the EU enlargements of 2004, 2007, and 2013, respectively) has been the most significant factor that influences the demographic characteristics. With the possible future accession to the EU, the emigration from all Western Balkans states will probably increase, if these states will follow the path of the post-communist EU members, hence gradual or instant opening of the EU labour market has been the most significant factor that influences the demographic characteristics of the post-communist EU members. The second factor with primarily economic implications (besides the EU accession) that has negatively influenced the demographics of the analysed countries was the Great Recession that hit the Baltic States the worst (in the most challenging year for the economies, 2009) and Croatia the longest (six years of continuous recession). When it comes to Croatia, in the first phase of the gradual EU labour market opening-related outmigration, mostly the unemployed migrated, many of whom had

their bank accounts blocked and were undergoing distraints or even foreclosures. Most of them successfully eluded distraints by moving from Croatia, mostly to Germany and Ireland. The introduction of private distraint enforcers was successfully abolished when the new centre-left government took power in the late 2011. However, disproportionately high expenses of the procedure of account distraints were kept, hence the lobby of notaries is very strong. The demographic exodus from Bulgaria, Croatia, Romania, and the Baltic States should be used as a precursor and a warning what the EU should try to reduce with compensatory mechanisms – prolonging the process of freedom of movement of workforce, and investing in the Western Balkans states' economies through FDI. The demographic exodus from the Western Balkans, present and future, is a reality, which will only be more serious, considering the region's economic stagnation and backwardness, compared to the EU (even to the most its post-socialist members) and the lower level of wages, higher level of corruption and nepotism (clientelism), and social insecurity (all these parameters have to be compared with the EU in general and especially its most developed member states). Compensatory mechanisms for avoiding a total demographic disaster and thereby giving a region at least some economic and in general social perspective, provided by the EU in pre-accession and post-accession period, should be comprehensive, rationalized and rational, targeting the most vulnerable groups in the societies and giving them incentives to stay in their home countries.

4. THE WESTERN BALKANS AND THE EUROPEAN UNION

The Western Balkans can politically mean accepting part of the former Yugoslavia as a Balkan country, part of Western civilization, so by accepting the values and content of the West, the Balkans is called the Western Balkans, although this is an insufficient measure for that name. But if "the strategy of EU enlargement is considered, no country of the former common space of the failed state of Yugoslavia meets the conditions for Western economic and political integration. As far as Croatia is concerned, the prospects for military integration are higher due to the geopolitical position and the situation that arose after the Operations Bljesak (Flash) and Oluja (Storm) (Milardović, 1998: 46). The enlargement of Southeast Europe is also the acceptance of those countries that make up Southeast Europe and share the same norms, values and identity, especially in terms of market economy, democracy, respect for the rule of law, religious and cultural habits, etc. It can be argued that enlargements to Southeast Europe already achieved with the accession of Croatia to the European Union. The European Union sets the limits of enlargement according to its capabilities and because of the organization of the EU in order to successfully meet the needs of the people and to improve their well-being (Petrović, Ross Smith, 2013). When discussing the relationship between the European Union and the Western Balkans, it should be pointed out firstly that, although it might not seem that way sometimes, and due to the Union's internal's problems and objective challenges, such as the current COVID-19 pandemic, the accession of the countries of the Western Balkans is a long-term goal of the European Union and is currently being worked on continuously in order to find an appropriate way to further speed up the process. The current candidate countries for the accession to the European Union are Montenegro, Albania, Serbia and the former Yugoslav Republic of Macedonia, and Kosovo and Bosnia and Herzegovina are potential candidates. The countries of the Western Balkans, as the countries of Southeast Europe, wanted to join the European Union, and the Stability Pact sought to achieve the same. The only plan and program for the countries of the Western Balkans was to join the European Union (Plevnik, 2009: 94). It is important to note that the European Union's foreign policy towards the countries of the Western Balkans has the characteristics of inconsistency, which can be recognized not only at the level of access to the region of Southeast Europe as a whole, but also in relations with individual countries. The accession of the countries of the Western Balkans to the European Union will also depend on the criteria that operate outside the region, and which also operate

within the European Union (Kurečić, Crljenko, 2013: 551). In order to meet certain membership criteria, the countries of the Western Balkans need to implement certain reforms in key areas. Fundamental rights and governance as well as the rule of law need to be strengthened, followed by judicial reforms, the fight against corruption and organized crime (European Commission, 2018). The Republic of Croatia saw its "refuge" from the Balkans in accessing the European Union. It had a difficult path to accession, as it could not receive concrete support from individual countries and found it difficult to meet certain criteria. However, Croatia managed to achieve its goal and thus in 2013 became a full member of the EU. Today, it is called a "natural member" of the Union and is an example for other countries in Southeast Europe (Plevnik, 2009: 95). One of the conditions for the accession of the Western Balkans to the European Union is the strengthening of the connection between the countries. It is necessary to increase the transport infrastructure and all connections that will certainly contribute to the development of trade, economy, communication, etc. Given that the Western Balkans is limited to EU member states, this condition of connectivity is very important for further cooperation. Thus, investing in infrastructure provides concrete benefits for business purposes, but also for citizens (European Commission, 2018). Given that Romania and Bulgaria joined the European Union in a bad position even though they met the criteria, the European Union had recessionary moments. In accordance with the experience gained by the European Union, Croatia has increased the conditions and requirements for EU membership (Kurečić P., Crljenko, 2013: 548). There are large comparisons of the Western Balkans with the countries that are the newest members of the EU (Bulgaria, Romania and Croatia). The Balkan countries should not be a big burden, etc. when joining the European Union. The countries of the Western Balkans were subject to additional conditions in addition to the Copenhagen criteria. Successes in meeting the criteria imposed on the countries of the Western Balkans are studied, as is the development of their economies, market capacity and institutions and policies, after which an objective criterion can be developed to measure whether those countries are eligible to join the European Union. and what potential they represent (Petrović, Ross Smith, 2013). The countries of the Western Balkans should intensify their efforts to address reforms and try to complete their economic, social and political transformations, which would increase interest in political work, but also in civil society. It is believed that all Balkan countries in the coming period have the opportunity to move as efficiently as possible towards European paths, but only on the basis of their own merits and the speed with which they achieve merit and meet certain criteria (European Commission, 2018). In order for potential Balkan states to apply for membership in the European Union, it is very important that the country be European and that it fully respect the democratic values of the European Union. In this process, the presence of stable institutions that are a guarantee of democracy and the rule of law, the existence of a market economy and the ability of the state to assume and continuously fully implement the obligations arising from EU membership is very important. It is very important to point out that potential member countries are already using available EU funds, receiving detailed instructions on policy measures, taking advantage of the Stabilization and Association Agreement, which gives them access to the European Union market. These countries have a key advantage in meeting the accession criteria, but there is growing skepticism in some parts of the European Union about future enlargements, with particular concern about corruption and organized crime, so some changes are needed to "keep the system afloat". One of the most important steps for advancing economic integration between the Western Balkans and the European Union is precisely the promotion of a more efficient economic area of the countries, thus increasing the attractiveness of the regional market. It should also be noted that in order for the countries of the Western Balkans to successfully join the European Union, they need help given that they are finding it very difficult to develop, as a result of wars and unrest. The European Commission is handing over an instrument of pre-accession assistance to such countries as to the Western Balkans,

supporting them in preparing for accession to the European Union and facilitating regional as well as cross-border cooperation (European Commission, 2018). The state GDP per capita, which is adjusted according to purchasing power parity, is also used as a criterion that is met. GDP per capita is the most common indicator used for national economic activities, which also shows the size of a country's economy. GDP per capita shows both development and living standards in a given country. Countries with low GDP per capita would be a burden in the financial operations and budget of the European Union. Thus, the Western Balkans countries, with a lower level of GDP per capita, are less attractive to the European Union (Petrović M., Ross Smith N., 2013). The achievement of the criteria of the Western Balkan countries upon accession to the EU is compared with the criteria of the last three EU members from the area of the Southeast and the Western Balkans (Bulgaria, Romania and Croatia). The European Commission for the path to EU membership gives the countries of the Western Balkans guidelines that enable them to meet the criteria and conditions of EU membership as soon as possible. (Nakić, 2013: 37-39) Integration in the world economy, especially through trade and capital flows, is a key element. A particularly important element of economic integration is foreign direct investment (FDI) because it opens up opportunities for growth, innovation and enterprise reconstruction. Countries with high savings rates and open trade regimes would benefit more from foreign direct investment in the economy (Kurečić, Luburić, Šimović, 2015: 196-197). Western European countries, as they bring with them historical facts, have so far reached the highest degree of regional integration, and therefore the European Union wants the countries of Western Europe as its full members and supports them in this regard. The European Union wants to achieve stock integration or cooperation on securities. In order to achieve European integration, attention needs to be paid to the overall institutional framework, which has its own direction and pace. The European Union has introduced the Investment Services Directive, which is also the EU's general framework, and which member states have been adhering to in negotiations for several years. In certain countries, this directive has achieved the required achievement. When it comes to the integration of the stock market in Europe, it can be said that the final number of capital markets has increased recently. The integration process is an integral part of the broader process of economic and political integration that EU countries have been pursuing for many years (Halilović, Ergűn 2015: 3). It should certainly be noted that the European Union is continuously working to improve cooperation with the Western Balkans. The measures additionally adopted by the European Union, in order to enable additional cooperation, are the following:

- greater financing of transport, energy, social sector, environment, private sector, digital economy,
- providing guarantees for private investments,
- facilitating trade,
- encouraging the competitiveness of companies,
- support for technology transfer and new companies,
- support for the establishment of circular economies,
- stronger social dimension,
- investing in education and health,
- greater support for vocational education,
- Erasmus plus funding will be doubled.

In order for these programs to be realized in reality, the most important thing is the cooperation of countries in need with the bodies of the European Union.

5. CONCLUSION

The countries of the Western Balkans are less developed countries compared to other regions of Europe. All are covered by the Stability Pact as the European Union seeks to attract Southeast Europe to join the European Union. The Balkans countries, given the previous process of Balkanization, wars, poverty and recession, find it very difficult to establish good neighborly relations with the countries they have been at war with, and find it more difficult to recover their resources and meet EU accession criteria. As noted in the paper, Western Balkans countries are seeking to join the European Union. The Republic of Croatia has succeeded in that, but it is obvious that it has not been brought into great positive circumstances and opportunities. "Brain drain" or "normal" emigration, the environment of neighboring countries that are suitable for various crises and recessions, poor sustainability of public sectors, social services, health and pension system, are just some of the negatives of today's Croatia. The European Union aims to create the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic development, more quality jobs and stronger social integration. Aware of the fact that small and medium-sized enterprises are drivers of innovation, sources of employment and builders of cross-border links, the European Union is placing increasing emphasis on policies that help and encourage their development and the entrepreneurial capacity of individuals and industry. Although the European Union has opened the door to many positive circumstances for Croatia, it is believed that Croatia is exposed to many negatives. Croatia is a great example to other countries in the Western Balkans in their desire to join the European Union. Of course, everything has its advantages and disadvantages. However, given the difficult situation of some Western Balkan countries that are exposed to high unemployment, poor GDP, weak foreign investment, etc., joining the European Union can result in even greater negative factors. Each country should consider joining the EU and analyze all its advantages and disadvantages before applying for accession to the European Union.

LITERATURE:

1. Bilas, V. (2007) Trgovinska povezanost Hrvatske i EU, *Zbornik Ekonomskoga fakulteta u Zagrebu*, 5 (1) 67-78.
2. Halilović, A., Ergűn, U. (2015) *Speed of financial integration before and after European union membership*, 66 (3) 252-272.
3. Kerim, S. (2007) *Balkan, Europa i UN: mostovi prema budućnosti*, Zagreb: Prometej, 139-165.
4. Kurečić, P., Crljenko, B. (2013) Republika Hrvatska: promjene geopolitičkog položaja u odnosu na Zapadni Balkan od 1990-ih do ulaska u Europsku uniju. In: Grmuša, T. (ed.) *Zbornik Prve međunarodne znanstveno-stručne konferencije „Fedor Rocco*" iz područja marketinga i komunikacija, Visoka poslovna škola Zagreb, 540-552.
5. Kurečić, P., Luburić, G., Šimović, V. (2015) The Interdependence of GDP per capita and Foreign Direct Investment in the Transitional Economies of Central and Eastern Europe. In: Vrankic, I., Kozina, G., Kovsca, V. (eds.) *Proceedings of the 9th Economic and Social Development Conference*, Varaždin, 192-199.
6. Kurečić, P. (2017) *Four Years in the EU: An Analysis of the EU Membership Impacts on the Croatian Economy and Developmental Perspective.* Fulfilling the Vision: European Union Futures Conference Proceedings, RMIT University, Melbourne.
7. Milardović, A. (1998) Srednja Europa između mita i zbilje. Osijek: Pan Liber.
8. Nakić, M. (2013) *Europska unija i Zapadni Balkan: između želja i realnosti*, *Međunarodne studije*, 13 (1) 33-44.
9. Nelaeva, G., Semenov, A. (2016) EU-Russia Rivalry in the Balkans: Linkage, Leverage and Competition (The Case of Serbia). R*omanian Journal of European Affairs*, 16 (3) 56-71.

10. Plevnik, J. (2009) *Cijena novog poretka: svjetski izazovi nacionalnim interesima*, Zagreb: Golden marketing-Tehnička knjiga.
11. Petrović, M., Ross Smith, N. (2013) In Croatia's slipstream or on an alternative road? Assessing the objective case for the remaining Western Balkan states acceding into the EU. *Southeast European and Black Sea Studies,* 13 (4) 553-573.
12. Vedriš, M. (2007) Hrvatska i Europska unija Kopenhaški kriteriji konvergencije i nacionalna konkurentnost. *Ekonomija,* 14 (1) 79-106.
13. European Commission (2018) Communication from the commission to the European parliament, the Council, the European economic and social committee and the Committee of the Regions-A credible enlargement perspective for and enhanced EU engagement with the Western Balkans. Strasbourg: European Commission.
14. European Parliament. Available at: http://www.europarl.europa.eu/news/hr/headlines/world/20180126STO94113/zapadni-balkan-iduci-val-prosirenja-europske-unije (accessed April 20, 2018).
15. Inicijativa za monitoring evropskih integracija BIH. Available at: http://eu-monitoring.ba/kako-je-tekao-proces-integracija-republike-hrvatske-u-eu/ (accessed April 20, 2018)
16. Jugoistočna Europa – zašto je ovo područje stoljećima barutana Europe? Available at: https://narod.hr/svijet/jugoistocna-europa-zasto-je-ovo-podrucje-stoljecima-barutana-europe (accessed April 18, 2018).
17. Net migration, World Bank, 1988-2018, https://data.worldbank.org/indicator/SM.POP.NETM (accessed December 21, 2019).
18. Population, total, World Bank, 1988-2018, https://data.worldbank.org/indicator/SP.POP.TOTL (accessed December 21, 2019).
19. Republic of Croatia, Ministarstvo vanjskih i europskih poslova (2014) Hrvatska 28. članica Europske unije, Zagreb: Ministarstvo vanjskih i europskih poslova.

CONSEQUENCES OF COVID PANDEMIC ON CROATIAN LEATHER AND FOOTWEAR INDUSTRY

Mario Lesina
University North, Croatia
mario.lesina@gmail.com

Lovorka Gotal Dmitrovic
University North, Croatia
lgotaldmitrovic@unin.hr

Hrvoje Selec
University North, Croatia
hrselec@unin.hr

ABSTRACT

Croatian leather and footwear industry was showing slightly negative trends within last years, and eves since all time high results in 2015 both in number of employed and total revenue, the industry, marked according National Classification of Activities as C15 is constantly declining. Considering that C15 consist of tanning and dressing of leather, manufacture of travel and handbags, saddle and harness products and footwear manufacturers. The trends are different. Decline entirely refers on tanning but footwear manufacturing is still showing good, increasing, trends, until end of the first quarter of year 2020. After outbreak of COVID 19 pandemic and introduction of harsh measure's in order to prevent its further spread, including the measures which disrupted supply chains, and distribution channels as well, the future seams uncertain. This paper is written at the time when the harsh measures are about to be alleviated and managements of companies are about to face the consequences of lock out that has been enforced all over the world. The purpose of the paper is to determine how unprecedented measures to prevent and bound the pandemic affects on potential week points in industry.

Keywords: *introduction of harsh measures, negative impact on retail, non-parametric statistics, predicting and forecasting*

1. INTRODUCTION

Despite general view that it goes about declining industry (Anić at. all. 2008), substantial growth has been achieved within last 10 years. Number of employees have risen for 12,34% and total income have risen for 34,14% as shown in table 1.

Table 1: Number of employees, total income and income per capita

Year	Nr. of employees	Total income in HRK	Income per capita
2008.	8.583	2.364.973.135	275.541,55
2010.	8.781	2.556.027.748	291.086,18
2012.	8.547	3.000.752.156	351.088,35
2014.	10.611	3.772.515.477	355.528,74
2016.	10.350	3.401.438.851	328.641,43
2018.	9.642	3.172.315.566	329.010,12

Source: Croatian Chamber of Commerce 2020

2. THEORETICAL FRAMEWORK

Apparel industry, and footwear industry as the part of it, is worlds most globalized industry and process of moving the production function over the national borders actually started in this industry (Dicken, 2011) first in 1950-ies from USA to Japan, after that, in 1970-ies from Japan to Hong Kong, South Korea and Taiwan. The process continued in 1980-ies trough moving the production to China, India and Indochina. At the same time West European companies intensified moving of the production toward East Europe (Gereffi, 1999). Continuous migration of production trough the world caused the globalization of supply chains as well. Such process is later on, in 1990. named as outsourcing and defined as the business model in which the companies are gaining comparative advantages by transferring some activities on other companies (Barney, 1995, Kippenberger, 1997). Sides involved in such model are outsourced, company that is transferring some activities to another company, and outsourcer, company that the activities are transferred to (Saunders & Gebelt1997). Globalised production is, due the fact that development, sales, marketing and production often are in different countries and the parts of the world, as well as globalised supply chains are making the companies very sensitive and vulnerable to economic disturbances on local and global scale. Leather and footwear industry in Croatia is mainly based on outsourcing as the business model, as the foreign outsourcers or as the Direct foreign investment rather than. Previously conducted researches have shown that Croatian leather and leather products sector is highly dependent on export, and most of its export is realized through outsourcing rather than through our own brands Such business model have helped Croatian companies to overcome Global Financial Crisis after 2008. (Renko at all. 2014). Second characteristic of apparel and footwear industry that makes it sensitive and vulnerable is the seasonality. Retailers had to place orders large enough to meet an entire winter or summer season's, demand, meaning large inventories that needed storage. This did not give enough time for consumer demand to be understood and often led to end-of-season markdowns and sales (Doeringer & Crean 2005). These retailers sold products for two or four retail seasons, which meant that new products were only put out on the store's floor up to four times a year. Retailers were not concerned with consumer demands but more concerned with placing their orders to the manufacturer on time to reduce production costs (Taplin 2014; 249). The dialectic of time has become faster within last years, what demanded supplier and retailers to change in order to shorten the time between order and delivery. The new apparel industry order consisted of small craft shops, manufacturers, and contractors quickly and flexibly producing garments for mass retailers (Doeringer & Crean 2005). Therefore is developed the "fast fashion model" as the streamlined system involving rapid design, production, distribution, and marketing (Cohen 2011). The system is focused on low pre-season buyer ordering and using speed and flexibility during the seasons to place more orders similar to just-in-time (Barnes & Lea-Greenwood 2006). Traditional system of pre-ordering is extremely sensitive to market disturbances because the orders are placed six months before delivery, and there are six months more for products to be sold. In such long time frame lot of unexpected and unpredictable things can happened. Fast fashion model fully depends on flexibility and velocity od supply chains which are globalized and which are functioning in different environment.

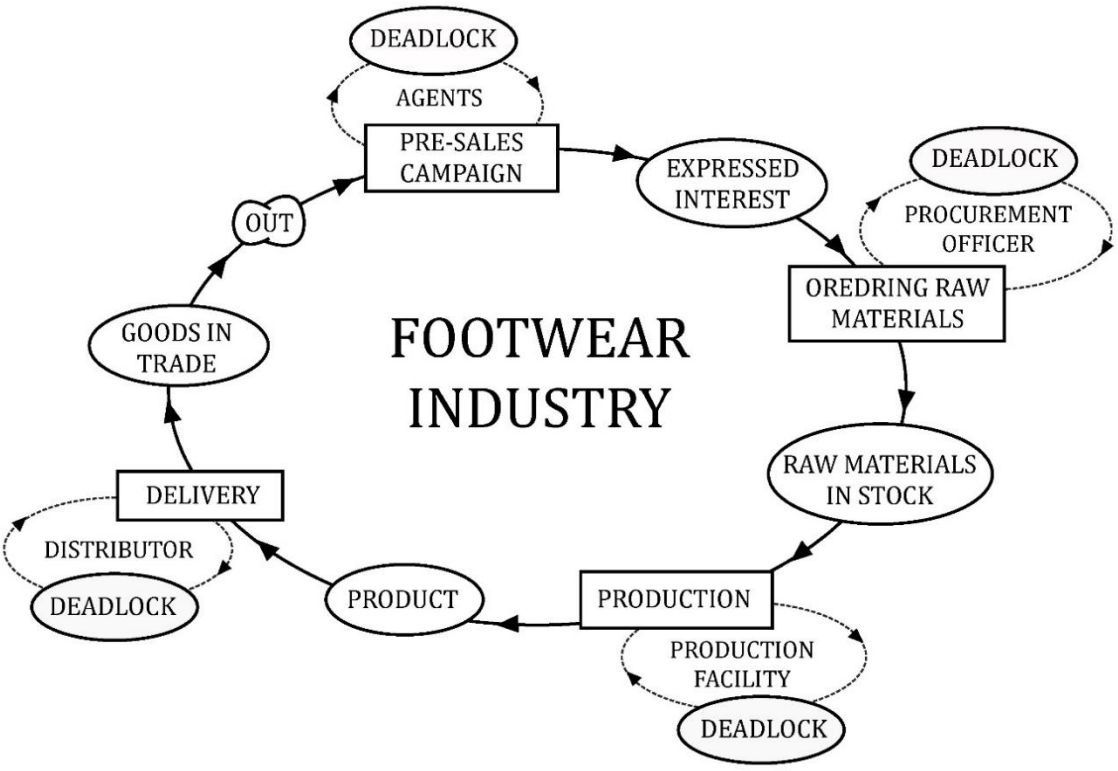
3. MODEL DEVELOPMENT

3.1. The Activity Cycle Diagram (ACD)

The activity cycle diagram is the most important conceptual model in discrete simulation. It is especially suitable for problems that show queues (Dmitrović at all. 2019a). The activity cycle diagram describes the active and passive states of resources or entities in the system. The active state of a resource or entity is a rectangle, and the passive state is a circle. The bow is used to connect activities and order.

Activity is the interaction between entities and resources (Dmitrović at all, 2015). Conceptual model the Activity Cycle Diagram (ACD) shows the active and passive states of the entity - the footwear industry (Figure 1).

Figure 1: The activity cycle diagram of footwear industry



With each active state, sub-entities (Agents; Procurement Officer; Production Facility; Distributor) appear that come into a passive state with a deadlock (in this case lockdown).

3.2. The Cause - Effect diagram

A cause-and-effect diagram is a tool that helps identify, sort, and display possible causes of specific problems. It graphically illustrates the relationship between a given output and all the factors that affect the output (Figure 2). This type of diagram is called the “Ishikawa diagram” after Kaoru Ishikawa, or the “Herringbone Diagram” because of its appearance (Dmitrović at all. 2019b).

Figure following on the next page

Figure 2: Ishikawa diagram of footwear industry

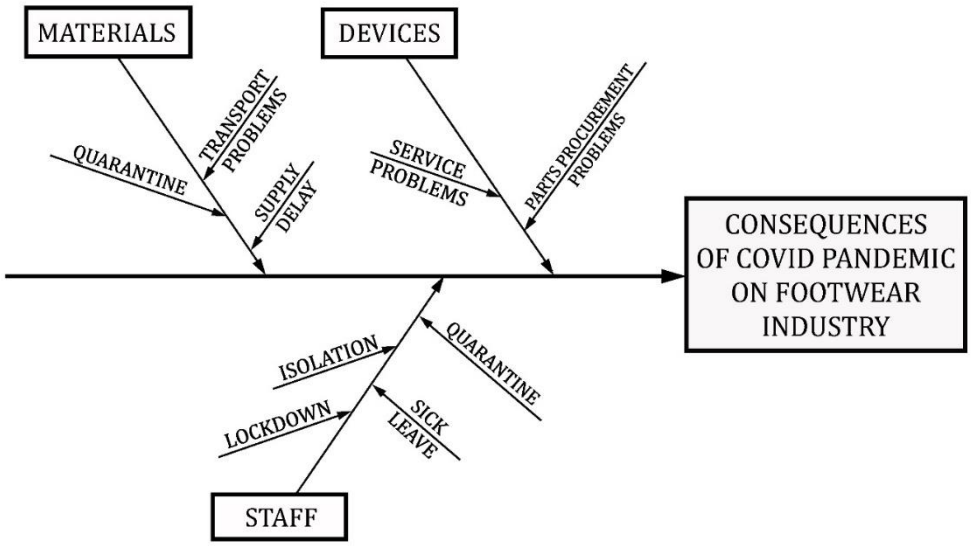


Diagram analysis helps identify the causes that justify further research. When analyzing the diagram, the balance of the diagram is checked. The most important thing is to determine the causes on which action can be taken. The analysis of the developed diagram indicates that the level of detail is not balanced. In the case of the cause, the staff has the most sub-causes (four), while in the case of the devices only two. The causes that are easiest to take action are in the part of staff and materials.

4. RESEARCH

Research about possible and expected consequences of COVID 19 pandemic was performed troughout 2020. The method in-depth interview is chosen in order to gain deep idiographic knowledge using authors deep involvement in the issue (Kitchin & Tate 2000), and authors close, collegial and friendly relation with the interviewed managers. Qualitative approach instead of quantitative is chosen for several reasons. First reason is sectorial approach and intention to gain exact knowledge about anticipation of the possible consequences and to compare those anticipations with what happened afterwards. For such research is qualitative approach more appropriate than quantitative (Crouch at all. 2006). Second reason is that the pattern was repeating and no further involvement of other companies brought no now and different informations (Ritchie; Lewis and Elam, 2003). Third reason is that similarity of business models in different companies brought to saturation on small sample (Atran at all. 2005). The sample consist of more than 4.000 employed, and another 900 that are closely attached with the directly interviewed as the subcontractors what makes nearly 65% of population. Thus, saturation is achieved. Considering that all of the interviewed demanded to stay anonymous for the purpose of this paper author shall use the NATO alphabet to name them. Alfa is the leading Croatian company that produces own brand and operates as the outsourcer in ratio 50-50%. Alfa employs 1.100 laborers and further 300 in Small and Micro companies that are producing uppers as the subcontractor. Bravo is foreign direct investment and operates as the outsourcer for the parent company. Bravo employs 500 laborers, and further 500 in Small and Micro companies that are producing uppers as the subcontractor. Charlie is independent Croatian company that operates exclusively as the outsourcer based on long term contract with the outsourced. Charlie employs 450 laborers, and further 100 in Small and Micro companies that are producing uppers as the subcontractor.

Delta is FDI and the part of the multinational company that operates world wide. All of the companies are basing the production on pre-ordering, what makes bout 50% of complete sale and some key accounts that are ordering constantly trough the year. Delta is FDI that operates for the parent company based on just in time deliveries, employs 2.000 laborers. Dinamics of the interviews is shown in Table 2.

Table 2: Overview of interviews conducted

Date	Interviewed	Motive/Problem	Main question	Pages of transcript data
Sept. 1	Alpha, Bravo, Charlie, Delta	Launch of Spring Summer 2021 pre-sale campaign	Expectations of pre-sale campaign	4
Oct.15.	Alpha, Bravo, Charlie, Delta	First results of pre-sale campaign	How is the campaign going	2
Nov.14.	Alpha, Bravo, Charlie, Delta	Announcement of second Lock Down in Germany and Austria	What are the expectations	2
Nov.26.	Alpha, Bravo, Charlie, Delta	Second Lock down extension	What are the expectations	4
Feb.10	Alpha, Bravo, Charlie, Delta	Launch of Fall Winter 2021. pre-sale campaign and new extension of Lock Down until March 7.	What are the expectations	8

5. RESULTS

- Interview March 5. - This interview is driven by first disruptions in supply chains, still not quite clear weather or not the cause is COVID 19. According to interviewed first contractions in supply chains where not perceived as something that could make some large disruptions in business, even do the COVID 19 was already largely outspread in China. All of the interviewed stated that changing of the supplier shall be no problem at all. Materials that lacked at the time where fleece tape, hook tape, zippers and pig leather lining are commonly imported from China to as the semi-product, processed and prefabricated in Italy, and, after that, exported to third countries. All interviewed considered that situation in China at the time where under control, and that it shall have no further impact outside China. They also considered the Chinese New Year as cause with more impact on delivery delays than the COVID 19 virus.
- Interview March 9. –This interview is driven by lockdown in Italy. Lockdown in Italy was the occurrence that caused much more worry than the previous one. Even do the factories use to operate normally at the time, first worrying thin was the cancelation of the MICAM fair in Milan because of outspread of COVID 19[1], especially Alfa and Bravo because they use to sell their goods to overseas clients on this fair event. All of the interviewed emphasized extreme difficulties in maintaining the supply chains, especially leather and soles. Delta even considered about closing down the factory until situation in Italy sorts out. All of the interviewed concluded that bed times came all ready, but no one still could not realize the size and scope of upcoming events.
- Interview March 15. – This interview is driven by lockdown in Croatia. At the moment as the interviews where conducted, situation was very anxious. The bars, restaurants, gyms and all of the services with direct social contact where forbidden to operate starting midnight March 16, until April 16, and all of the interviewed declare to work until further restrictions. All supply chains were closed as the measure for restrain of COVID 19 outspread. Delta closes the factory because of lack of materials and about 1.800 employees are sent to forced vacation for one week. Other interviewed continue to operate as long as there are enough materials.

[1] https://www.worldfootwear.com/events/micam-milano-italy-feb-16-2020/3005.html

- Interview March 22. – This interview is driven by lockdown in Germany. Word to describe situation is complete disaster. Meanwhile, Italy intensifies anti-pandemic measures and all the factories, excluding strategic ones, are closed until further. Germany declared lockdown, and all of the shops are closed. France and Spain did the same soon after. Interviewed have lost main procurement and selling market because of lockdown. Delta immediately extends forced vacation for another two weeks, Alfa and Bravo are announcing closing of the operations on March 23. for at least two weaks, Alfa puts 900 employees, and Bravo 450 employees on forced vacation. Charlie delayed this until Easter, but immediately after, they shall send another 400 employees to forced vacation. According to informations that author gained of the interviewed, all of the factories in leather and footwear industry in Croatia are closed, respectively, more than 8.000 employees within the sector are sent to forced vacation. All undelivered goods by Alfa, Bravo and Charlie are canceled, and clients want no deliveries until June. All the clients demand longer payment deadlines because of lockdown and inability to sell the goods. Pre-selling campaigns are interrupted, and achieved results are 50% less than planned at Alfa and Bravo, and 35% at Charlie. Delta still gains no orders. Considering that pre-orders are base for planning next six months by Alfa, Bravo and Charlie are not seeing the future bright. Another problem is to fulfill the orders already gained because of lockdown in main procurement market and no ability to find alternative suppliers because of worldwide lockdown.
- Interview April 20. - This interview is driven by first relaxing measures in Austria, Germany and Italy, as the good news, and survey issued on 13.4. in " World Footwear", journal specialized for international leather and footwear industry, that COVID-19 pandemic shall cause decline of 20-25% in footwear sale, especially in Europe[2]
- On 14th April, Austrian government decided to reopen the small shops, as well as Do-it-yourself stores and garden centers[3]. Germany announced relaxation of anti-corona measures on 20th April[4], at the same time, Italy is extending the country's lockdown to early May, with only minimal concessions to business demands to allow more companies to resume normal operations.[5] So, the selling market for interviewed is about to be functional again, and the procurement market is still locked down.

Alfa, Bravo and Charlie stated that opening of the markets in Germany and Austria have brought some good news after long time, and they are hoping that three or four weeks of lockdown shall not completely destroy sale in the shops for season spring-summer, but some decrease for about 20% is any how expected. Main problem at the moment, according to interviwed, is how to maintain regular production despite disrupted supply chain from Italy because of extended lockdown in Italy. Production of merchandise for fall-winter season should be in full force, and some of them already delivered. Due to lockdown and disrupted cash flow at the buyers, they are canceling all of the ordered merchandise that is in delivery delay, and situation as it, at the moment is, caused by lockdown in Italy, could cause large delays in delivery and, as the consequence, large amount of cancelations, what causes large pressure on cash flow. Further problem is loss of working hours because lack of materials needed for production. Stored material is spent, and new orders, that are not new anymore, are in huge delivery delay. According to available information's, factories are about to be restarted at May 4.

[2] https://www.worldfootwear.com/news/footwear-consumption-to-decline-225-in-2020/4746.html?utm_source=sendinblue&utm_campaign=Italy_entire_footwear_supply_chain_in_lockdown&utm_medium=email

[3] https://www.dw.com/en/austria-relaxes-coronavirus-lockdown-measures/a-53086547

[4] https://www.theguardian.com/world/2020/apr/20/germany-takes-tentative-steps-back-to-normality-as-coronavirus-lockdown-eases

[5] https://time.com/5819001/italy-lockdown-may/

All of the interviewed are emphasizing that the size and scope of the problem caused by pandemic and consequences of the measures implemented in order to suppress it shall be visible first in August or September. Lockdown of the shops in April shall cause large amount of unsold merchandise, how large, no one can say at the moment. This amount shall determine the orders in next spring-summer pre-sale campaign that is about to be launched in late August this year. The results of this campaign are basis for planning the production for next six months and the purchase as well. What determines success of this campaign is the amount of unsold merchandise and how this affected financial strength of our buyers. If sale goes well after reopening in Germany and Austria, problems in September shall be more moderate, if not, worst in still to happen. Even do all of the interviewed are operating on similar business model, the method to resolve newly formed situation was very different. Alpha canceled all of the orders to outsourcers in order to maintain level of employment in own facility. Bravo is FDI that operates for parent company. In order to maintain own facility operational, parent company canceled other outsourcers and gave full priority to Bravo, so Bravo shall take no consequences in period to come considering lower sale as expected. Charlie shall take the consequences od decline expected in solidarity with other outsourcers that are producing for same brand. Outsourced decided to spread the sale decline equally on all of the outsourcers for about 20% in order to maintain production facilities when market stabilizes and the sale reach pre-pandemic figures. Deltas parent company closed facility in Slovenia and placed all of the orders to Croatian facility which so can maintain level of production. Following this, Charlie is the only company that expect harsh consequences of COVID 19 pandemic and decline of about 30% in time frame May - October. Alfa shall decline in revenue, but the costs shall also decline in the same amount, so maintaining of the stability is expected. Bravo and Delta shall take no further consequences at all.

Table 3: Overview of the lost work days during first lock down

Company	Nr. of labourers	Closing date	Reopening	Nr. of day lost
Alpha	900	23.3.	20.4	19
Bravo	450	23.3.	20.4.	19
Charlie	550	12.4.	20.4.	5
Delta	1.800	15.3.	20.4	29

- Interview on September 1. was driven by start of new pre-selling campaign. All of the interviewed emphasised that the first Lock Down enforced in spring 2020. caused large losses in retail considering that one of two main selling periods, soon before and soon after Easter shops where locked down. On line sale did, however, compensate lack of conventional distribution channels and did considerably grew, but still not enough to compensate conventional channels. What all of the interviewed especially emphasised is large caution by the buyers and the results of pre-sale campaign, even do expected, 20% less than earlier, where much lower than, pessimistically, expected.
- Interview on October 15. was driven by closing of the pre-selling campaign. Despite first disappointments in September, results of pre-sale campaign have reached good figures. Alpha gained unexpected orders because deliveries from Asia and South America where absent, and clients placed orders to Alpha in order to compensate shortcomings. Bravo retained earlier given priority amongst outsourcers, same as Delta. Charlie had decline of 20% as expected.
- Interview on November 14. was driven by German government's announcement of the second Lock Down which is about to be enforced later on. All of the interviewed asserted that such soft lock down as announced shall not considerably effect on footwear sale.

- Interview on November 26. was driven by announcement of more European governments to intensify the anti-pandemic measures or extension of existing harsh measures until the end of the year. This included closing of shops and restriction of movement, among other measures. All of the interviewed have shown huge concern because of such measures. Second main selling period, time before Christmas, is lost, what shall cause large losses in sale, especially winter footwear. Furthermore, in February is the new Fall Winter season about to be launched, but no one can predict how much goods shall remain on stock unsold, and how many shops are going to reopen after lockdown. Pessimistic atmosphere, such as in April, appeared again, but this time on much larger scale. No one of the interviewed dares to predict what shall happen in the year 2021.
- Interview on February 10. was driven by launch of the Fall Winter 2021. pre-selling campaign and another extension of Lock Down until March 7. The impression after interviews conducted was despair. Shops shall remain closed until March, and they are not accepting deliveries of pre-ordered goods for Spring Summer 2021. season simply because they are closed and they do not know for how long further they shall remain closed. Main problem at the time is the traveling restrictions in whole Europe. No sales representatives are allowed to travel and close the deals, or even to present new models to customers. The pre-sale campaign is standing still. Furthermore, in show rooms is one single person allowed, so all of the clients are postponing the meetings and they wait until some restriction releases. In the absence of orders, purchase cannot be done, what shall cause huge delays in deliveries later. All of the fairs that were about to be held in February and March are cancelled No one dares to give any prediction of how shall the upcoming Fall Winter Saison be. The amount of unsold footwear in shops is presently unknown, but Christmas sale is lost and clearance sale in January and February is also lost. Presently is also unknown how many shops shall not reopen after the end of Lock Down.

6. CONCLUSION

Affects and consequences that COVID 19 pandemic shall have on Croatian leather and footwear industry can be perceived as short term, mid-term and long term, and all of them shall bring to deep irreversible changes in business models. Short-term shock caused by disrupted supply chains have brought huge financial losses in April alone. Footwear is complexed product made out of more than 30 components, brought to manufacturer trough supply chains, and each of them is someone else's finished product, which is also provided with supply chains. In now days globalized world, all of the supply chains are also globalized. In the other words, buyer cannot know where some component of products has been made, or where are the products really coming from. In such complexed interconnections, contractions in any part of the world can be noticed in supply chain elsewhere in the world. This is evident from interview conducted on March 5, when producers realized that components that should be delivered from Italy are actually made in China, which was at this time locked down because of COVID 19 epidemic. In order to avoid such disruption in the future, manufacturers shall look for more traceable supply chains. Beside quality, price and reliability, fundamental criterion that supplier needs to fulfill (Lesina, 2014.), traceability is the fourth criterion that must be fulfilled in order to gain additional certitude in supplier. Financial shock caused by disrupted supply chains is about to be compensated trough the Measures for sustaining the employment, proclaimed on March 19. Mid-term negative affect shall cause expected decline in footwear consumption of 20-25%. This decline is evident from interview conducted on March 22, when all of the interviewed declares substantial underachievement of pre-sale campaign for season Fall-Winter. Cause of increased caution by buyers is most certainly the fact that at the moment when campaign was launched, stores where closed, and no one could tell when and under what conditions they shall be reopened.

In order to regain lost quantity in sales, manufacturers must change the model of sale from pre-sale to just-in-time model, and, in order to make this possible, supply chains must become more agile and shorten the delivery times. Second negative mid-term affect will be the fact that stores were closed for some weeks, and that there will be large amount of unsold merchandise, that will reduce orders for Spring-Summer season 2021, ant that means further decline in business-to-business sale. The scale of this decline is not possible to estimate, especially as another lockdown is possible in September in case if the pandemic spreads again. Alfa, Bravo and Charlie, companies that practice pre-sale model are facing harsh consequences of pandemic, but Delta, company that practices just-in-time sale is also stroked by the pandemic. The only mode of sale which worked well despite everything is on-line sale. That bring us to the conclusion that all of the companies should look for more on-line solutions in the future. Long-term affects are extremely complexed, and demands the whole new business model. According to Anic at. all. (2008) full manufacturing model that includes research and development, purchase, production and sale under own brand is much more sustainable and profitable than outsourcing because includes operations with higher value added, such as research and development and marketing. The operation that outsourced usually keeps "in house". Some years later Renko at. all. (2014) have determined that outsourcing model was much more affective in overcoming the consequences of financial crises 2008. then full manufacturing model. According to them, the full manufacturing model is more profitable, bit it brings much more risks. Such model functions in conjuncture, but in crises, all of the risks fall on the burden of one company who hardly deals with all of them. In the outsourcing model, burden of the risks is divided among companies included in model, so each of them deals with specific problem, which is easier to handle and overcome. Outsourcing model relays on mutual trust end a prerequisite that outsourced shall not misappropriate his position even if he could (Barney & Hansen, 1994), but that is exactly what happen to Alfa, since the outsourced cancelled orders in order to fulfil capacities in own daughter company. Alfa is also taking all of the realized risks of full manufacturing, what brought Alfa form the leading company in Croatia to the company faced with biggest problems within fortnight.

7. LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCHES

The limitation of this paper is sectorial and regional approach. Research applies on Leather and Footwear in Croatia only, and includes some sectorial and regional particularities, which does not necessarily apply on other sectors. Second limitation is small time frame that refers on the beginning of the crises, and the results that we have are the predictions and anticipations buy the interviewed. Suggestion is to perform similar or same research in other sectors and Countries. Second suggestion is to repeat the same research in three months in order to confirm or refute predictions and anticipations gained in this paper.

LITERATURE:

1. Anić, I-D., Rajh, E. & Teodorović, I. (2008). *Full manufacturing versus subcontracting business models in the Croatian textile and clothing industry*, Economic review, 59 (7-8), pp. 325-343.
2. Atran, S.; Medin, Douglas L., Ross, N. O. (2005). *The cultural mind: Environmental decision making and cultural modeling within and across populations.* Psychological Review, 112 (4), 744–776
3. Barnes, L., & Lea-Greenwood, G. (2006). *Fast fashioning the supply chain: shaping the research agenda*. Journal of Fashion Marketing and Management: An International Journal, 10(3), 259-271.
4. Barney, J.B., (1995). *Looking inside for competitive advantage*. Academy of Management Executive 9 (4), pp. 49–61.

5. Barney, J.B., Hansen, M.H., (1994). *Trustworthiness as a source of competitive advantage*. Strategic Management Journal 15, 175–190 (Special Issue).
6. Cohen, A. M. (2011). *Fast fashion: Tale of two markets*. The Futurist, 45(5), 12
7. Crouch, Mira & McKenzie, Heather (2006). *The logic of small samples in interview based qualitative research*. Social Science Information, 45(4), 483-499
8. Dicken, P. (2011) *Global Shift Mapping the Changing Contours of the World Economy* Sixth Edition; SAGE Publications, London. ISBN 978-1-84920-766-9 pp. 49
9. Doeringer, P., & Crean, S. (2006). *Can fast fashion save the US apparel industry?*. Socio-Economic Review, 4(3), 353-377.
10. Gerefi G. (1999) *International Trade and Industrial Upgrading in Apparel Comoditty Chain*. Journal of International Economics 48. pp. 37-70
11. Gotal Dmitrović L., Dušak V., Anić Vučinić A. (2015) *The Development Of Conceptual, Mathematical And System Dynamics Model For Food Industry Wastewater*, Journal of Information and Organizational Sciences, vol.39, No.2
12. Gotal Dmitrović, L., Kos, Ž., Klimenko, Y., (2019) *The Development of Prediction Model for Failure Force of Damaged Reinforced-Concrete Slender Columns*, Technical Gazette 26, 61635-1641
13. Gotal Dmitrović, L., Lešina, M., Selec, H. (2019) *Appliance of Simulation Modelling in Wastewater Treatment*, International Journal of Environmental Science and Development, Vol. 10, No. 12
14. Hagel, J., Brown, J.S. (2005) *The Only Sustainable Edge. Why Business Strategy Depends on Productive Friction and Dynamic Specialisation*. Harvard Business School Press,Boston MA.
15. Kippenberger, T. (1997), *Part 2. Some hidden costs of outsourcing*, The Antidote, Vol. 2 No. 6, pp. 22-3
16. Kitchin, R. and N. J. Tate (2000), *Conducting Research into Human Geography*. Prentice Hall, Harlow, England
17. Lesina M. *Business Inteligence in Manufacturing Industry*, Interdisciplinary Management Research | IMR IX pp. 239-248
18. Renko, S.; Grilec , A.; Lešina, M.(2014) *Dealing with crisis: using subcontracting for the development of the Croatian leather manufacturing and processing industry*; 10th Interdisciplinary Management Research (IMR) Conference 469-480 (Bala Subrahmanya, 2008)
19. Ritchie, J.; Lewis, J. i Elam, G. (2003). *Designing and selecting samples*. U Jane Ritchie & Jane Lewis (Eds.), Qualitative research practice. A guide for social science students and researchers (pp.77-108) Thousand Oaks, CA: Sage
20. Saunders, C. and Gebelt, M. (1997), *Achieving success in information systems outsourcing*, California Management Review, Vol. 39 No. 2, pp. 63-77
21. Taplin, I. M. (2014). *Global Commodity Chains and Fast Fashion: How the apparel industry continues to re-invent itself*. Competition & Change, 18(3), 246-264.

INTER-INDUSTRY CO-OPERATION IN RESEARCH AND INNOVATION - MAPPING RESEARCH AND INNOVATION NETWORKS IN SLOVAKIA

Vladimir Balaz
Institute for Forecasting, Centre of Social and Psychological Sciences, Slovak Academy of Sciences, Slovak Republic
vbalaz@yahoo.com

Tomas Jeck
Institute of Economics, Slovak Academy of Sciences, Šancová 56, 813 64 Bratislava, Slovak Republic
tomas.jeck@savba.sk

Miroslav Balog
Institute for Forecasting, Centre of Social and Psychological Sciences, Slovak Academy of Sciences, Slovak Republic
progmiba@savba.sk

ABSTRACT
This paper has analysed a network of R&I projects in Slovakia. The projects were supported by the European Structural and Investment Funds. The total value of the projects in programming periods 2007–2013 and 2014–2020 was €658.761m and €685.548m respectively. A project can take place in the same industry as where the beneficiary is established or in a different industry. This research distinguishes between an industry of project beneficiaries and a project target industry. We study the time dynamic of the R&I project network over a period of 13 years. Network science was used to identify the overall structure and the major components of the network. The topology of the network accounted for (a) low density, (b) high modularity and (c) high diversity of interconnections by individual firms. The underlying architecture of the network displayed distinct modules of public research institutions and private firms. A network layout was established in which inter-industry co-operation takes place within (rather than between) modules. The modules are weakly interconnected. The network's layout remained similar in the two programming periods. Some positive trends, however, were detected. The overall architecture of the network was rather less modular in 2014–2020 than in 2007–2013. The whole network became slightly more interconnected. From an economic point of view, the important finding is that the key Slovak export industries integrated into module centred on university research. There is a chance of increasing the competitiveness of these industries within international markets.
Keywords: *research and innovation, inter-industry co-operation, network science, network centrality measures*

1. INTRODUCTION

1.1. Literature review

The theory of recombinant growth proposes that technological advancement and economic growth are not so much limited by the ability to generate new ideas, but rather the 'ability to process an abundance of potentially new seed ideas into usable form' (Weitzman 1998: 333). The concept of recombinant innovation assumes that old ideas can be reconfigured in new ways to make new ideas. The relatedness and diversity of recombined knowledge may determine the degree of innovation. Steurs (1995: 268), for example, demonstrated that inter-industry R&D co-operation promotes higher R&D investment, output and total welfare than does intra-

industry R&D co-operation. Stephan et al. (2019: 14) analysed inter-sectoral knowledge spillovers in the lithium-ion battery industry. They concluded that higher sectoral diversity of prior knowledge is conducive to creating new knowledge. Patent databases frequently are used to study knowledge recombination and the emergence of incremental and radical innovations (Antonelli et al. 2010; Schoenmakers and Duysters 2010; Castaldi et al. 2014; Battke et al. 2016; Stephan et al. 2019). Castaldi et al. (2014), for example, used patent data for US states in the period 1977–1999 and associated citation data to explore how related variety transfers to incremental versus radical innovations. They concluded that more incremental innovations benefitted from the recombination of closely related technologies. The high degree of unrelated variety (the recombination of very different technologies), on the other hand, resulted in higher shares of breakthrough innovations. Antonelli et al. (2010: 67) studied the co-occurrence of technological classes within patents issued by the European Patent Office in the period 1981–2003. They concluded that evolution of recombinant knowledge, 'has favoured economic growth through the application of new highly complementary technologies'. The other stream of research used network science. It concentrated on the network topology and co-operation between firms and industries. Research on the topology of the R&D networks indicated that these networks usually account for (a) low density, (b) high modularity and (c) high diversity of interconnections by individual firms. Low density means that the number of actual connections is much lower than the total potential connections (Hanaki et al. 2010: 391; König et al. 2011: 152). Modularity refers to a network layout with many connections within a module but few connections between modules. Finally, the R&D networks evolve unevenly and the core–periphery structure develops over time. Some 'star' firms develop many connections with their collaborators, but the majority of firms account for few connections. The structure of the R&D networks may change over time. Some authors point towards a 'rise and fall' trend with regard to the core–periphery structure of the sectoral R&D networks (Tomasello et al. 2016).

1.2. Research gap

The majority of research on inter-industry and inter-sectoral co-operation in research and innovation (R&I) has concentrated on patents or institutions. Actual co-operation takes the form of R&I projects. This study associates project beneficiaries with their research projects. A project can take place in the same industry as where the beneficiary is established or in a different industry. We study the time dynamic of the R&I project network over a period of 13 years. We cover a substantial proportion of the total R&I finance in Slovakia in the period 2007–2020.

1.3. Novelty and originality

Novel and original features of this research relate to data sources and research methods. The authors have performed a large-scale evaluation of European projects for the Deputy Prime Minister's Office of the Slovak Republic since 2014. They benefitted from privileged access to unpublished data. Previous research on inter-industry and inter-sectoral knowledge transfer explored patent and patent citation networks. This research applied network science to explore links between the industry of beneficiary with industry of project implementation. This method helps to identify industries with high potential for the generation of recombinant knowledge and radical innovations. These methods have, to the authors' best knowledge, been used for the first time to analyse networking benefits of the EU-assisted R&I projects.

2. DATA SOURCES AND DATA PROCESSING

2.1. Programming period 2007–2013

The authors accessed databases of the Ministry of Investment, Regional Development and Informatisation (MIRRI). Data were taken from the National Strategic Reference Framework

database. The primary data covered the whole sample of beneficiaries (firms and public institutions). The research and innovation were supported by the following operational programmes:

1) Operational Programme Competitiveness and Economic Growth (OPCEG) – Priority Axis 1: Policy Measures 1.1 and 1.3;
2) Operational Programme Research and Development (OPRD) – all five Priority Axes;
3) Operational Programme Education (OPE) – Policy Measures 2.2 and 4.2;
4) Operational Programme Bratislava Region – Policy Measure 2;
5) The Cross-border Co-operation Programme – Priority Axis 1.

Some 1,784 R&I projects were identified. The total amount of contracted projects constituted €2,218.318m by the end of 2015[1]. The amount included combined European and national public resources (but not the technical assistance projects). The JEREMIE and JESSICA financial engineering tools (10 projects, €220.084m) could not be associated with specific industries and were excluded from further analysis. The remaining 1,774 projects (€1,998.235m) contained information on the NACE code[2] of beneficiary and the NACE code of industry in which the projects were implemented. In the majority of cases the two codes were identical. The project beneficiary implemented projects in its own industry. In some cases, however, the project beneficiary implemented projects in a different industry. A producer of office machines (NACE C28), for example, developed a project in the manufacture of computer, electronic and optical products (NACE C26). Special attention was paid to projects implemented in the industry M72 (Scientific research and development). Many project beneficiaries stated that their project targeted M72, simply because they implemented a research project. In some cases, R&I projects targeted specific target industries. A manufacturer of electrical motors (NACE C72), for example, reported a scientific project in the M72 industry. The project concerned energy-saving components for public transport vehicles (NACE C30). The authors scrutinised the descriptions of all 1,784 projects. Target industries were reclassified for some 85 projects. The final database contained 233 projects (€658.761m) with NACE codes different for the project beneficiary and target industry.

2.2. Programming period 2014–2020

Operational Programme Research and Innovation (OPRI) was a key source of European assistance to the Slovak national R&I system. There were 1,252 OPRI projects contracted as of 20 August 2020. The total sum of €1,396.46m represented 73.5% of the total OPRI resources envisaged for the period 2014–2023[3] (fewer technical assistance projects). The financial engineering tools (€268.204m) and projects with identical NACE codes of beneficiary and target industry (€432.707m) were excluded from further analysis. Similar to the 2007–2013 programming period, the authors scrutinised the descriptions of all projects. Target industries were reclassified for some 26 projects. The final database contained 221 projects (€685.761m) with NACE codes different for the project beneficiary and target industry.

3. THE ANALYSIS

3.1. The network and centrality measures

Networks of the project beneficiaries are displayed in Figure 1 (programming period 2007–2013) and Figure 2 (programming period 2014–2020). Each network consists of nodes and edges. The nodes in the network (circles in figures) are industries sending/receiving R&I

[1] The programming period ended in 2013, but a project initiated before 2013 could run until 2015.
[2] NACE is the statistical classification of economic activities in the European Community. A detailed list of NACE codes is provided on the European Commission website: https://ec.europa.eu/competition/mergers/cases/index/nace_all.html.
[3] The programming period ended in 2020, but a project initiated before 2020 could run until 2023.

projects. Node sizes correspond to their absolute values of the project assistance received in €m. Node labels correspond to NACE classification codes. The node labelled 'Q86', for example, corresponds to 'Human health activities'. Each node has a degree that concerns the number of edges (connecting lines) that it has with other nodes. Degrees are weighted by edge thickness (volumes of project assistance). The thicker the edge, the higher the assistance from the industry of beneficiary to the target industry. The figures identify the gravitation centres of assistance inflows and important communities (modules). Modules are characterised by dense connections between nodes within the communities and sparse connections with other nodes. The figures were produced using Gephi software. The ForceAtlas2 layout algorithm arranged the nodes and edges in the network[4]. Specific nodes may have different importance within the network. Network science applies centrality measures to analyse the network layout and calculate the importance of any given node in a network. There were more than 200 centrality measures used within the network science (Jalili et al. 2015). This paper applies the four most popular measures in analysing the network structure and the importance of specific nodes (industries):

- *Closeness centrality* measures the mean distance of a node from other nodes in the network. The distance is measured as the average farness (inverse distance) and is computed as the average of the shortest path length from the node to every other node in the network (Glebeck 2013). Nodes high in closeness centrality usually have many short paths to other nodes.
- *Betweenness centrality* measures the extent to which a certain node lies on the shortest paths between other nodes. The highest-possible value of the betweenness centrality coefficient (=1) is achieved when connections between any two nodes in the network pass through this node. Nodes high in betweenness centrality are important for interconnecting remote parts of the network. They may act as brokers and bottlenecks. Nodes with high betweenness centrality scores may have more control over the whole network than may other nodes.
- *Bridging centrality* of a node is the product of betweenness centrality and the bridging coefficient (Hwang et al. 2006). The bridging coefficient of a node determines the extent of how well the node is located between high-degree nodes. The bridging node lies between graph modules. Betweenness and bridging centralities capture slightly different properties of a network. Betweenness centrality measures the global importance of a node, as it computes the proportion of the shortest paths between all node pairs that pass through a specific node. Bridging centrality measures the local importance of a node — how much the node is connected to high-degree nodes.
- *Eigenvector centrality* applies the following principle: 'It is not what you are but who you know.' Eigenvector centrality takes into account the centrality of neighbours. Connections to two well-connected nodes with thousands of other connections are more important than connections to 20 isolated nodes.

Complex networks often are divided into separate blocks — modules. Centrality measures perform differently in highly connected versus highly modular networks (Oldham et al. 2019: 9). In highly connected networks the majority of nodes may have similar scores with regard to closeness centrality. In highly modular networks, nodes with high closeness centrality coefficients likely have many within-module connections but fewer between-module connections. Nodes with high coefficients of betweenness centrality may have fewer within-module connections but more between-module connections. Numerous connections with other nodes indicate some potential for recombining knowledge from diverse industries or sectors.

[4] ForceAtlas2 is a force-directed layout. Nodes repulse each other, like charged particles, while edges attract their nodes, like springs (Jacomy et al. 2014). This algorithm configures nodes and edges in a way that helps the interpretation of the data.

Nodes (industries) high in closeness centrality may be influential in the inter-industry transfer of knowledge within a specific sector (module). Nodes high in betweenness centrality may be well positioned for inter-sectoral knowledge transfer (between modules). The betweenness centrality scores should be interpreted with care. A high score with respect to betweenness centrality may indicate not only a node (industry) with high authority over the whole network, but also a node (industry) on the periphery of all modules. The number of connections is important but not a sufficient precondition for generating radical innovations. The success of radical innovations many times depends on available resources. An industry with substantial potential for the inter-sectoral transfer of knowledge must account for both a high score with regard to betweenness centrality and a substantial research capacity. In this paper the research capacity is approximated by weighted indegree, i.e. the sum of research finance allocated to this industry by other industries. We identify nodes high both in specific centrality measures and in weighted indegree (Appendix, Table 2).

3.2. Network architecture in programming period 2007–2013

Pairs of project beneficiaries and target industries were found in 60 industries. If each project beneficiary develops co-operation with all other industries, then 3,540 industry pairs will emerge. In fact, 233 industry pairs formed, some 6.58% of the maximal potential number. The network therefore accounted for very low density (Table 1). The network was typical with high modularity and quite sparse connections between modules (Figure 1). Five distinct modules were established in the programming period 2007–2013:

- The largest (green) module (in terms of assistance received, €363.782m) consisted of 18 industries. The most important nodes included M72 (Scientific research and development), P85 (Education) and Q86 (Health care) industries. Public research institutions (Slovak universities and the Slovak Academy of Sciences) were the main beneficiaries of the European projects in both programming periods. The flow from P85 to M72 (€211.68m) was, by far, the largest within the whole network. It provided 91.3% of the total project finance for the M72 industry. Other important contributors to the M72 industry included Q86 (€61.99m) and A1 (Crop and animal production).
- The red module consisted of 31 (mostly manufacturing) industries. The module constituted €175.080m in total project assistance (of which €45.61m was in C25, i.e. Manufacture of fabricated metal products). The red module refers to projects on product and process innovations by Slovak firms.
- The blue module attracted €111.796m in project assistance and consisted of three industries, i.e. M74 (Other professional, scientific and technical activities), R91 (Libraries, archives, museums) and O84 (Public administration). Flows of the project finance mainly referred to National Projects for central government institutions. The projects aimed at building national data centres, infrastructure for technology transfer, and payments for access to scientific databases. The module therefore connected public institutions and was of limited importance for the direct creation of radical innovations.

The network also contained two small modules. The yellow module allocated €7.331m and interconnected various service and manufacturing industries. The grey module allocated €0.043m and connected J63 (Information services) with N79 (Travel agencies). The striking features of the network architecture include the isolation of public and private sectors and the separation of research from innovation. Key Slovak industries (C29 (Manufacture of motor vehicles) and C26 (Manufacture of computer, electronic and optical products)) were sparsely connected to the M72-centred module in the programming period 2007–2013. A similar conclusion applies to the module connecting M74 to R91. Values of closeness, betweenness, bridging and eigenvector centralities were quite low for the majority of industries (Appendix,

Table 2). Industries with somewhat higher betweenness scores accounted for too low allocations (weighted indegree value) to act as brokers between industries and generate radical innovations. The notable exception was C25 (Manufacture of fabricated metal products). The industry combined above-average values of closeness, betweenness and eigenvector centralities with high assistance (€45.61m) received from other sectors and industries.

3.3. Network architecture in programming period 2014–2020

Pairs of project beneficiaries and target industries were found in 55 industries. If each project beneficiary develops co-operation with all other industries, then 3,970 industry pairs will emerge. In fact, 221 industry pairs formed, some 7.44% of the maximal potential number. The network density increased by a small degree in comparison to the previous programming period (Table 1). High modularity and sparse connections between modules remained important features of the network, but some industries (J62, M72) developed thicker connections between modules (Figure 2). Similar to the 2007–2013 programming period, modularity of the network reflected separate funding flows to public and private bodies in the programming period 2014–2020. The division between public and private beneficiaries reflected, to a large degree, the division between funding for research and innovations. The correlation matrix for centrality measures was similar in the 2007–2013 and 2014–2020 programming periods (Appendix, Table 3). Five modules emerged in the programming period 2014–2020:

- The green M72-centred module consisted of 11 industries and attracted €306.370m in project assistance. The P85 and Q86 industries remained the most significant contributors to M72. The flow from P85 to M72 (€119.4m) was the single-largest one within the network. Like in the 2007–2013 programming period, these flows supported infrastructure and research in Slovak universities and the Slovak Academy of Sciences. The important new development referred to the inclusion of C20 (Manufacture of chemical products), C26 (C26, Manufacture of computer, electronic and optical products), C27 (Manufacture of electrical equipment) and C29 (Manufacture of motor vehicles). C26, C27 and C29 generate over half of the total Slovak exports.
- The red module attracted €208.937m in total project assistance. It consisted of M70 (Activities of head offices; management consultancy activities) and 29 other manufacturing and service industries. Module members benefitted from the innovation and technology transfer projects provided by Priority Axes 3 and 4 of OPRI.
- The blue module consisted of nine industries and attracted €179.796m in assistance. Thick edges between J62 (Computer programming), J63 (Information services) and M74 (Other professional, scientific and technical activities) on the one hand and R91 (Libraries, archives, museums) on the other hand refer to continuing national projects on data centres, infrastructure for technology transfer, and payments for access to scientific databases.

Two small modules (H52, C19) and R93 and S96 attracted quite low funding (€4.414m and €0.448m respectively). Some industries combined higher values of betweenness centrality with high values of the weighted indegree (C25, J62). J62 in particular has high potential for technology diffusion and the creation of radical innovation. Improving linkages between J62 and C29 is potentially highly important for the Slovak economy. The exports of cars and consumer electronics have been key components of the total Slovak exports since the early 2000s.

Figure following on the next page

Figure 1: Research and innovation finance in programming period 2007-2013/15 (MIRRI and authors' computations)

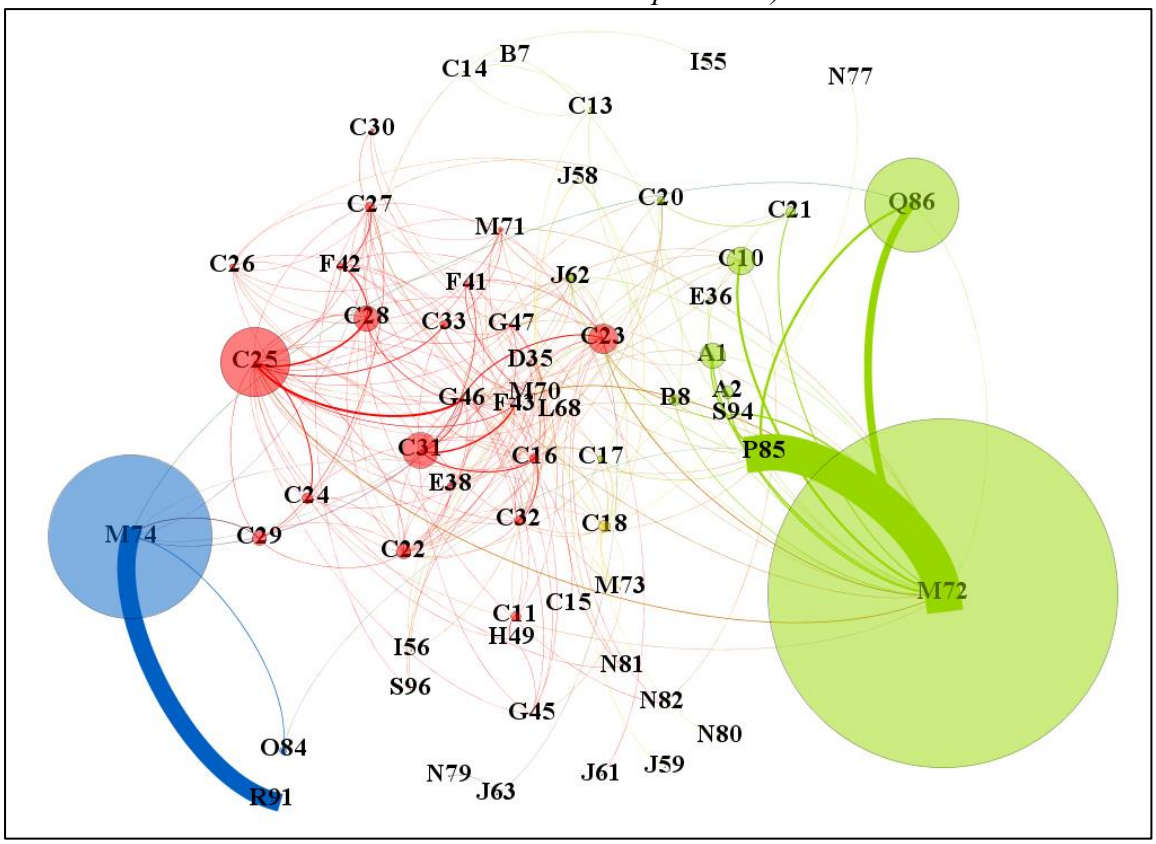


Figure 2: Research and innovation finance in porgramming period 2014-2020 (MIRRI and authors' computations)

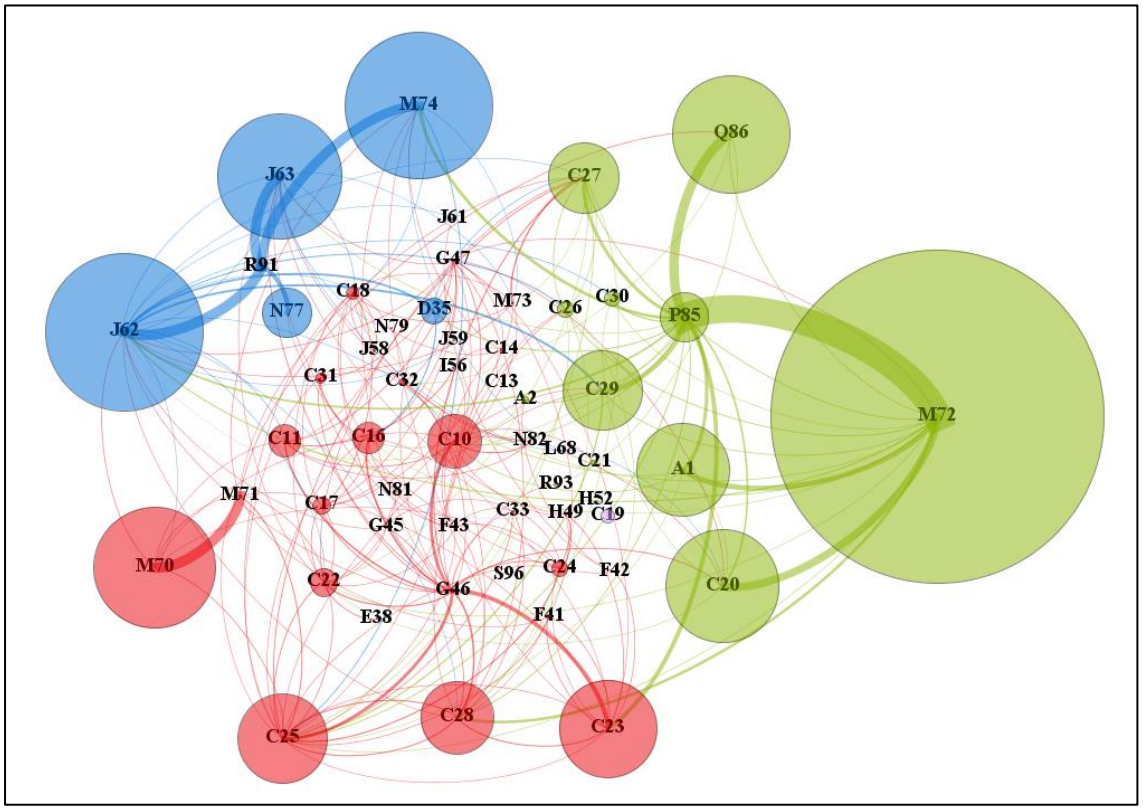


Table 1: Network overview (authors' computations)

statistics / programming period	2007-2013	2014-2020
nodes	60	55
edges	233	221
density	0.066	0.074
average degree	3.90	4.08
average weighted degree	10.979	12.646
modularity coefficient	0.525	0.473
no of modules	5	5
average clustering coefficient	0.145	0.149
average path length	3.022	2.826

4. CONCLUSIONS

4.1. Key findings

This paper analysed a network of R&I projects in Slovakia. Network science was used to identify the overall structure and the major components of the network. The topology of the network accounted for (a) low density, (b) high modularity and (c) high diversity of interconnections by individual firms. In this respect the research agreed with the findings of Hanaki et al. (2010) and König et al. (2011). We did not find explicit support for the hypothesis on the 'rise and fall' trend with regard to the core–periphery structure of the sectoral R&D networks (Tomasello et al. 2016) in the programming period 2007–2020. The basic architecture of the network remained similar in the two programming periods, with distinct modules of public research institutions and private firms. The architecture was largely determined by the institutional setup of support from European resources. The setup of European support was similar in the two programming periods. Support to R&I was channelled by separate Policy Measures. Some measures were designed for public bodies only. The institutional setup resulted in suboptimal outcomes. A network layout was established in which co-operation between industries takes place within (rather than between) modules. The modules are weakly interconnected. Some positive trends, however, were detected. The overall architecture of the network was less modular in 2014–2020 than in 2007–2013, as indicated by the lower values of modularity coefficients. The whole network became slightly more interconnected. The overall network density, the average degree, the average weighted degree and the average clustering coefficient increased, while the average path length decreased, over the two programming periods (Table 1). How these trends will propagate into the future is yet to be seen. Centrality measures helped to identify nodes high in closeness, betweenness, bridging and eigenvector centralities. The centrality measures were combined with weighted indegree scores (amount of funding received) in order to identify nodes (industries) with high potential for generating radical innovations. From an economic point of view, the important finding is that key Slovak export industries (C20, C26, C27 and C29) integrated into the M72-centred module. There is a chance of increasing the competitiveness of these industries within international markets.

4.2. Limitations

This research has some important limitations. Complete data on R&I projects were available for the 2007–2013 programming period. As for the 2014–2020 data on contracted projects covered, 73.5% of total funding was envisaged for the whole period. The R&I projects were supported also by national private and national public resources in Slovakia. The network-like data on these projects were not available. The authors therefore do not claim that the whole Slovak network of R&I assistance was mapped and analysed.

4.3. Directions for further research

This research analysed financial allocations in inter-industry R&I projects. It identified prospective industries for the creation of radical innovations. Innovation outputs, be they radical or incremental, were not a subject of this research. Slovakia ranks amongst the poorest performers on the European Innovation Scoreboard. Massive interventions from European resources aimed at building solid R&I infrastructure and creating collaborative partnerships between public and private sectors. Once a meaningful number of innovations emerge, the research may explore the key correlates of radical and incremental innovations. Inter-industry versus intra-industry co-operation projects, undoubtedly, would provide for interesting explanatory variables. What is more, further research may consider the stocks of researchers and the amount of total funding on the industry level. Rates of incremental and radical innovations on the industry level (dependent variable) can be proxied by numbers of patents and industrial designs.

ACKNOWLEDGEMENT: *This research was supported by VEGA grant no. 2/0002/18.*

LITERATURE:

1. Antonelli, C., Krafft, J., and Quatraro. F. (2010): Recombinant Knowledge and Growth: The Case of ICTs. *Structural Change and Economic Dynamics*, 21(1): 50-69. 10.1016/j/strueco.2009.12.001.
2. Battke, B., Schmidt, T.S., Stollenwerk, S., and Hoffmann, V.H. (2016): Internal or external spillovers – which kind of knowledge is more likely to flow within or across technologies. *Research Policy*, 45(1): 27-41. https://doi.org/10.1016/j.respol.2015.06.014
3. Castaldi, C., Frenken, K. and Los, B. (2014): Related Variety, Unrelated Variety and Technological Breakthroughs: An analysis of US State-Level Patenting, *Regional Studies*, 49(5): 767-781. doi:10.1080/00343404.2014.940305.
4. Easley, D., and Kleinberg, J. (2010): *Networks, crowds, and markets reasoning about a highly connected world*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511761942
5. Golebeck, J. (2013): *Analyzing the Social Web*, Morgan Kaufmann. https://doi.org/10.1016/C2012-0-00171-8
6. Hanaki, N., Nakajima, R., and Ogura, Y., (2010): The dynamics of R&D collaboration in the IT industry. *Research Policy* 39(3): 386–399.
7. Hwang W, Cho Y, Zhang A, Remanathan M. Bridging Centrality: Identifying Bridging Nodes In Scalefree Network (2008): Proc 14th ACM SIGKDD Int Conf Knowl Discov data Min. 2008; 336–344. https://doi.org/10.1145/1401890.1401934
8. Jacomy, M., Venturini, T., Heymann, S., and Bastian, M. (2014): ForceAtlas2, a continuous graph layout algorithm for handy network visualization designed for the Gephi software. *PLoS One*. 2014 Jun 10;9(6):e98679. doi:10.1371/journal.pone.0098679. PMID: 24914678; PMCID: PMC4051631.
9. König, M.D., Battistonm S., Napoletano, M., Schweitzer, F. (2010): Recombinant knowledge and the evolution of innovation networks. *Journal of Economic Behavior & Organization*, 79(3): 145-164. DOI: 10.1016/j.jebo.2011.01.007
10. Jalili, M., Salehzadeh-Yazdi, A, Asgari Y, Arab, S.S, Yaghmaie M, Ghavamzadeh, A., and Alimoghaddam, K. (2015): CentiServer: A comprehensive resource, web-based application and R package for centrality analysis. *PLoS One.* 2015; 10: 1–8. https://doi.org/10.1371/journal.pone.0143111 PMID: 26571275
11. Oldham, S., Fulcher, B., Parkes, L-, Arnatkevičiūtė- A, Suo, C., and Fornito. A. (2019): Consistency and differences between centrality measures across distinct classes networks. *PLoS ONE* 14(7): e0220061. https://doi.org/10.1371/journal.pone.0220061

12. Schoenmakers, W. and Duysters, G., (2010): The technological origins of radical inventions. *Research Policy*, 39(8): 1051-1059. https://doi.org/10.1016/j.respol.2010.05.013
13. Stephan, A., Bening, C.R., Schmidt, T.S., Schwarz, M. and Hoffmann, V.H., (2019): The role of inter-sectoral knowledge spillovers in technological innovations: The case of lithium-ion batteries. *Technological Forecasting and Social Change*. 148(C): 119718. DOI: 10.1016/j.techfore.2019.119718
14. Steuers, G. (1995): Inter-industry R&D spillovers: What difference do they make? *International Journal of Industrial Organization*, 13(2): 249-276. https://doi.org/10.1016/0167-7187(94)00455-B
15. Tomasello, M.V., Napoletao, M., Garas, A. and Schweitzer, F. (2016): The rise and fall of R&D networks. Industrial and Corporate Change, 26(4): 617–646, https://doi.org/10.1093/icc/dtw041
16. Weitzman, M.L. (1998): Recombinant growth. *Quarterly Journal of Economics*, 113(2): 331-360. https://doi.org/10.1162/003355398555595

APPENDIX

Centrality Measures and correlations

Table 2: Centrality measures (authors' computations)

NACE code	weighted indegree	Closenes centrality	Betweeness centrality	Bridging centrality	Eigen centrality	weighted indegree	Closeness centrality	Betweeness centrality	Bridging centrality	Eigen centrality
	Programming period 2007-2013					*Programming period 2014-2020*				
A1	16.126	0.350	0.009	0.004	0.093	33.032	0.389	0.000	0.000	0.007
A2	7.289	0.000	0.000	0.000	0.090	2.043	0.266	0.002	0.002	0.022
B7	0.000	0.191	0.000	0.000	0.000	x	x	x	x	x
B8	6.434	0.232	0.014	0.002	0.160	x	x	x	x	x
C10	17.963	0.318	0.043	0.003	0.187	18.717	0.254	0.029	0.001	0.258
C11	5.613	0.245	0.002	0.001	0.083	11.050	0.000	0.000	0.000	0.255
C13	1.454	0.667	0.007	0.005	0.115	0.000	0.237	0.000	0.000	0.000
C14	0.200	1.000	0.017	0.003	0.136	0.708	0.302	0.017	0.002	0.009
C15	0.425	0.000	0.000	0.000	0.055	x	x	x	x	x
C16	5.406	0.345	0.022	0.001	0.286	10.694	0.343	0.020	0.001	0.276
C17	3.249	0.324	0.016	0.003	0.264	5.733	0.315	0.010	0.002	0.525
C18	6.988	0.336	0.097	0.001	0.319	3.949	0.354	0.093	0.003	0.913
C19	x	x	x	x	x	4.414	0.000	0.000	0.000	0.002
C20	4.216	0.361	0.056	0.007	0.210	40.257	0.301	0.014	0.001	0.098
C21	5.983	0.270	0.006	0.002	0.070	1.452	0.000	0.000	0.000	0.070
C22	8.953	0.432	0.112	0.002	0.622	9.528	0.395	0.069	0.001	0.692
C23	18.811	0.300	0.047	0.001	0.698	34.731	0.378	0.040	0.002	0.399
C24	6.461	0.333	0.003	0.001	0.267	5.144	0.312	0.001	0.000	0.368
C25	45.612	0.417	0.194	0.002	1.000	31.688	0.447	0.131	0.002	1.000
C26	2.839	0.318	0.016	0.002	0.350	5.510	0.391	0.048	0.010	0.433
C27	5.329	0.407	0.105	0.003	0.593	24.938	0.405	0.037	0.003	0.753
C28	16.178	0.340	0.022	0.001	0.527	25.722	0.410	0.045	0.002	0.748
C29	8.863	0.318	0.009	0.004	0.348	28.312	0.312	0.002	0.001	0.318
C30	1.857	0.000	0.000	0.000	0.119	5.092	0.000	0.000	0.000	0.132
C31	22.828	0.304	0.005	0.001	0.356	3.271	0.298	0.008	0.003	0.299
C32	5.221	0.387	0.044	0.005	0.232	1.647	0.415	0.074	0.016	0.286
C33	4.390	0.338	0.006	0.001	0.146	0.575	0.370	0.001	0.000	0.020
D35	1.287	0.324	0.000	0.001	0.021	8.921	0.330	0.003	0.002	0.110
E36	1.516	0.000	0.000	0.000	0.028	x	x	x	x	x
E38	2.621	0.353	0.019	0.002	0.335	0.000	0.289	0.000	0.000	0.000
F41	2.957	0.350	0.004	0.001	0.031	1.041	0.347	0.002	0.003	0.088
F42	3.860	0.387	0.017	0.002	0.107	0.050	0.315	0.033	0.004	0.091
F43	0.608	0.397	0.016	0.002	0.274	0.000	0.468	0.000	0.000	0.000
G45	0.678	0.304	0.003	0.001	0.120	0.000	0.389	0.000	0.000	0.000
G46	0.809	0.585	0.142	0.002	0.315	0.445	0.667	0.059	0.001	0.063
G47	1.978	0.500	0.002	0.000	0.021	0.000	0.551	0.000	0.000	0.000
H49	0.000	0.316	0.000	0.000	0.000	0.000	0.376	0.000	0.000	0.000
H52	x	x	x	x	x	0.000	0.346	0.000	0.000	0.000
I55	0.121	0.000	0.000	0.000	0.025	x	x	x	x	x
I56	0.012	0.251	0.001	0.001	0.009	0.000	0.283	0.000	0.000	0.000
J58	0.168	0.271	0.003	0.001	0.139	0.193	0.268	0.003	0.007	0.195
J59	0.000	0.255	0.000	0.000	0.000	0.000	0.340	0.000	0.000	0.000
J61	0.053	0.000	0.000	0.000	0.022	0.263	0.000	0.000	0.000	0.113
J62	3.888	0.511	0.071	0.003	0.095	56.226	0.500	0.123	0.001	0.395
J63	0.043	0.000	0.000	0.000	0.023	44.514	0.370	0.041	0.001	0.274
L68	0.000	0.438	0.000	0.000	0.000	0.000	0.330	0.000	0.000	0.000
M70	0.095	0.449	0.032	0.004	0.040	43.221	0.436	0.017	0.004	0.150
M71	2.003	0.440	0.048	0.002	0.092	0.570	0.453	0.037	0.004	0.269
M72	231.847	0.516	0.098	0.001	0.105	119.566	0.563	0.003	0.000	0.004
M73	0.175	0.348	0.017	0.007	0.062	0.260	0.405	0.040	0.009	0.465
M74	107.890	0.343	0.054	0.003	0.186	52.529	0.382	0.027	0.002	0.175
N77	0.000	0.255	0.000	0.000	0.000	17.343	0.000	0.000	0.000	0.022
N79	0.000	1.000	0.000	0.000	0.000	0.000	0.276	0.000	0.000	0.000
N80	0.000	0.255	0.000	0.000	0.000	x	x	x	x	x
N81	0.000	0.333	0.000	0.000	0.000	0.000	0.289	0.000	0.000	0.000
N82	0.071	0.265	0.002	0.002	0.040	0.000	0.324	0.000	0.000	0.000
O84	3.906	0.316	0.016	0.035	0.034	x	x	x	x	x
P85	1.492	0.449	0.020	0.001	0.010	0.000	0.569	0.000	0.000	0.000
Q86	61.993	0.343	0.010	0.009	0.068	41.751	0.309	0.010	0.003	0.064
R91	0.000	0.259	0.000	0.000	0.000	0.000	0.385	0.000	0.000	0.000
R93	x	x	x	x	x	0.448	0.000	0.000	0.000	0.035
S94	0.000	0.377	0.000	0.000	0.000	x	x	x	x	x
S96	0.000	0.327	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000

Notes: x – industry was not included in the network

Table 3: Pearson correlation coefficients for centrality measures (authors' computations)

	Closeness centrality	Betweenness centrality	Bridging centrality	Eigen centrality
	Programming period 2007-2013			
Closeness centrality	1.000	0.292*	0.111	0.131
Betweenness centrality	0.292*	1.000	0.088	0.708**
Bridging centrality	0.111	0.088	1.000	0.016
Eigen centrality	0.131	0.708**	0.016	1.000
	Programming period 2014-2020			
Closeness centrality	1.000	0.287*	0.143	0.099
Betweenness centrality	0.287*	1.000	0.431**	0.753**
Bridging centrality	0.143	0.431**	1.000	0.348**
Eigen centrality	0.099	0.753**	0.348**	1.000

Notes: Correlation is significant at the 0.05 level (2-tailed). Correlation is significant at the 0.01 level (2-tailed)

COVID-19 CRISIS – EUROZONE AND WESTERN BALKANS POLICIES' RESPONCES

Mirjana Gligoric Matic
University of Belgrade, Faculty of Economics, Belgrade, Serbia
mirjana.gligoric@ekof.bg.ac.rs

Irena Jankovic
University of Belgrade, Faculty of Economics, Belgrade, Serbia
irena.jankovic@ekof.bg.ac.rs

ABSTRACT
The COVID-19 crisis represents a unique global threat in recent history that affects social and economic dynamics of different countries and regions. The aim of the paper is to provide an overview of economic policies' reactions to present crisis in the Eurozone and Western Balkans region. The paper tends to answer the question whether proposed policies' actions provide adequate risk mitigating tools for the current crisis.
Keywords: *COVID-19, Economic policies' responses, Eurozone, Western Balkans*

1. INTRODUCTION

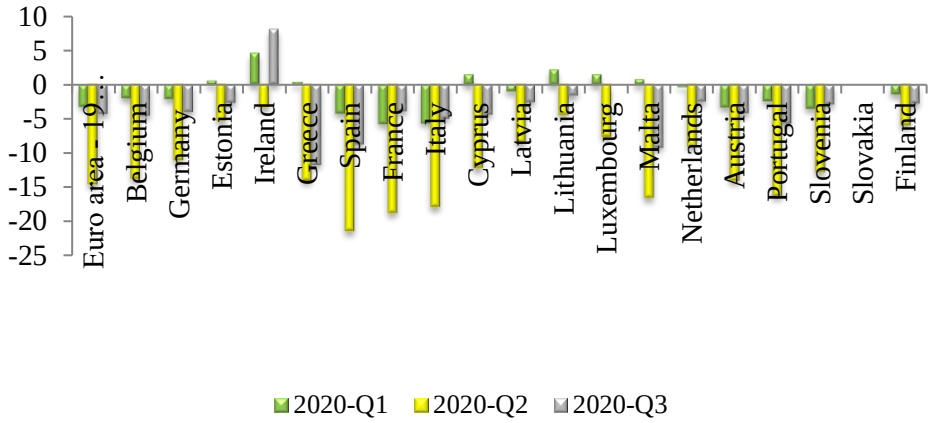
The ongoing social and economic crisis, triggered by the COVID-19 pandemic, represents an unprecedented threat in recent history for the Europe and the world. It affects social dynamics and economic activity of different countries and regions. The economic systems are slowing down. The COVID-19 crisis tests again the boundaries of the European currency union and challenges the EU accessing states. Corona crisis has its own unique characteristics. Its catastrophic potential is high while the external shock is said to be symmetric since it affects different economies and EU countries in a similar manner. This paper tries to answer whether proposed and implemented monetary and fiscal actions in the EU and Western Balkans represent viable risk mitigating tools for the present crisis. It is devoted to the analysis of already taken and potential anti-crisis policies' measures oriented to mitigate Corona crisis economic impact in analyzed countries. The paper is organized as follows – analysis begins with recent monetary decisions of the European Central Bank (ECB). It further focuses on the fiscal and economic strategies employed. Finally, the paper presents Western Balkans EU members and accessing countries' (with a special focus on Serbia) efforts to mitigate Corona crisis consequences.

2. EUROZONE INITIAL ECONOMIC POLICIES' RESPONSES TO COVID-19 CRISIS OUTBREAK

The challenges European economies are currently facing are specific as severe. They are caused by a symmetrical external shock. This type of crisis could potentially reduce the gap between the core and periphery member states of the Eurozone. Global financial crisis 2007-2008 and debt crisis in Eurozone 2010-2012 brought to light significant imbalances that Member States were facing for a long period. It appears that the ongoing COVID-19 crisis represents even a bigger challenge for the whole Union. The economic shock in the present crisis is severe and it is a fiscal rather than monetary challenge. As such it strikes the central weakness of the Eurozone – the absence of the fiscal union. The Corona crisis hits all Member States of the Economic and Monetary Union but also the whole Europe. The policy reactions to this pandemic are so far predominantly national. Thus, even in the presence of the symmetric shock the Eurozone responds asymmetrically. The substantial variety in policy responses is amplified by differences in initial conditions.

The longer the crisis lasts, the more visible these differences may become. Figure 1 presents the GDP volumes percentage changes during 2020 for Eurozone Member States indicating significant fall of economic activity during the year, in particular the second quarter.

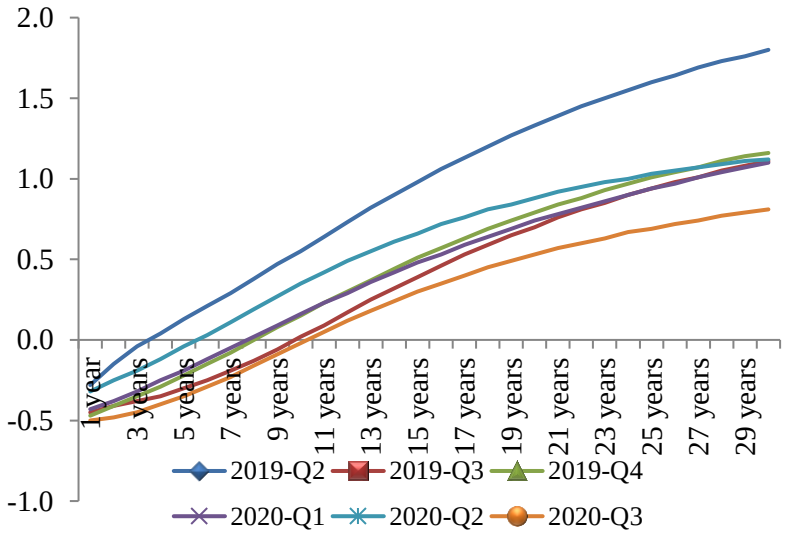
Figure 1: GDP volume changes for Eurozone member states during 2020, in %



** Growth rates with respect to the same quarter of the previous year are calculated from calendar and seasonally adjusted figures.*
(Source: Authors' presentation based on the Eurostat data)

Often delayed responses of the national governments during previous crises have imposed significant economic costs to their countries. Similar scenario happened at the beginning of the present crisis. Then, once the ECB announced a new programme of asset purchases to stabilise European markets, the markets started to calm and bond spreads narrowed [Tooze and Schularick, 2020]. The spot rate yield curve of the Euro area shifted downwards.

Figure 2: Spot rate yield curve – Euro area, in %*



** Euro area - All euro area central government bonds*
(Source: Authors' presentation based on the Eurostat data)

What becomes obvious from previous crises and the present one is that Eurozone needs a joint fiscal response to Corona crisis in addition to monetary policy measures. The in detail analysis is presented in continuation.

2.1. The ECB Anti-crisis Measures

The ECB liquidity provisions come in the form of targeted and non-targeted programmes. Monetary authority decision of March 12, 2020 announced additional longer-term refinancing operations to be conducted as prompt liquidity support to Eurozone financial system. The changes in the terms of targeted longer-term refinancing operations - TLTRO III (more favourable interest rate during the period from June 2020 to June 2021 and increase in the maximum amount that counterparties are entitled to borrow) were followed by a large expansion in the central bank funding. In the June 2020 banks bid for a total of €1,308 billion in TLTRO funds, which is the largest amount to date under any single lending operation. In relation to non-targeted programmes, the ECB announced in April 2020 a series of non-targeted pandemic emergency longer-term refinancing operations (PELTROs) to ensure sufficient liquidity and smooth money market conditions as response to the crisis [Hutchinson and Mee, 2020]. On March 18, 2020 the ECB introduced a new temporary asset purchase program of private and public sector securities in order to preserve monetary policy transmission mechanism. This Pandemic Emergency Purchase Programme (PEPP) initially based on the amount of €750 billion, was planned to be conducted until the end of 2020 and to include all the asset categories eligible under the existing asset purchase programmes [ECB, 2020]. The PEPP objective and means fall within the ECB's monetary policy mandate. Regarding prohibition of monetary financing defined in Article 123 of the Treaty on the Functioning of the European Union (TFEU) [Article 123], the European System of Central Banks (ESCB) does not have authority to purchase government bonds on secondary markets under conditions which would mean that its action has an effect equivalent to that of a direct purchase of government bonds from the public authorities and bodies of the Member States. The ECB should not purchase government bonds in primary markets either that would mean that it would effectively issue money to finance Member States' budget deficits during the crisis. The grant of financial assistance to the Member States does not fall within monetary policy. Member States are still obliged to conduct sound budgetary policies. The Governing Council of the ECB decided on June 4, 2020 to increase the size of the PEPP by €600 billion to €1,350 billion and to extend the purchase horizon until at least the end of June 2021. In addition, it decided to set up a new Eurosystem repo facility for non-euro area central banks (EUREP) providing precautionary euro repo lines to non-euro area central banks. EUREP complements the ECB's bilateral swap and repo lines which provide liquidity to non-euro area central banks. New bilateral repo lines with Romania, Serbia and Albania were announced during the review period [Forsyth and Lizarazo, 2020].

2.2. The Coordination of Fiscal Policy Responses within the Stability and Growth Pact (SGP)

Within the SGP framework fiscal reaction to COVID-19 crisis was firstly conducted in decentralised manner. Each Member State was using direct and indirect measures for their declining economies. However, the Eurogroup has offered platform for coordinated action and fiscal stimulus as reaction to crisis. In their public statements during March 2020 Ministers of Finance in EU have stressed out the need for coordinated policy actions. On March 16, 2020 the Eurogroup held discussion with non-Euro Area Members on necessary respond to human and economic crisis caused by Corona virus. The Eurogroup is committed to effectively address challenges, to restore confidence and support economic recovery. Exceptional circumstances require employment of all instruments necessary to limit the socio-economic consequences of the COVID-19 outbreak. Thus, Eurogroup has agreed a first set of national and European measures and set a framework for further actions to support economic recovery. Primary estimates of the European Commission have shown that the total necessary fiscal support will be very high.

Fiscal measures decided for economy reach 1% of the GDP, on average, for 2020 in addition to the impact of automatic stabilisers. Planed liquidity facilities consisting of public guarantee schemes and deferred tax payments are estimated on the level of at least 10% of the GDP. These figures could, however, be much higher till the end of the pandemic period. The following set of measures was announced to protect economies: national measures, coordinated efforts at the European level and measures to support the economic recovery [European Council, 16 March 2020]. European Commission has set up several temporary frameworks and significantly relaxed EU rules on state aid or competition law to support measures undertaken on the national level. On March 23, 2020 EU ministers of finance provided statement on the Stability and Growth Pact in light of the COVID-19 crisis. They see the importance of the coordinated policy response to limit the duration and the scope of the shock, protect economy and keep sustainability of public finances in the medium term. Ministers of Finance of the Member States agreed with the previously stated assessment of the European Commission that the conditions for the use of the general escape clause of the EU fiscal framework – a severe economic downturn in the euro area or the Union as a whole – are fulfilled. Member States remain obliged by the EU's fiscal rulebook, but they may depart from their 'normal' fiscal trajectory for the purposes of crisis management. The clause represents the most far-reaching form of flexibility under the SGP, and its activation is as significant as it is unprecedented [Dermine and Markakis, 2020, p. 3]. The use of this, so called, escape clause is ensuring the flexibility to undertake all necessary measures to support health systems, civil protection systems and economies, including further discretionary stimulus and coordinated action that should be timely, temporary and targeted by Member States. The goal is to address challenges, restore confidence and support fast recovery [European Council, 23 March 2020]. However, although EU seems to be very flexible in the ongoing situation, the long-lasting problem of economic and public finance divergence among Member States is still present. Notable is the difference in the capacity to support their economies [Tooze and Schularick, 2020]. Since the crisis is affecting all EU Member States, a significant increase in public debt levels in all EU countries seems inevitable. However, there is considerable divergence in available space that each country has in deficit spending [Heinemann, 2020, p. 2]. The past and present divergence is the reason why Europe requires a collective fiscal response at Eurozone level. Two options are proposed: relying on the European Stability Mechanism and/or issuing joint debt instruments.

2.3. The Latest Policy Actions

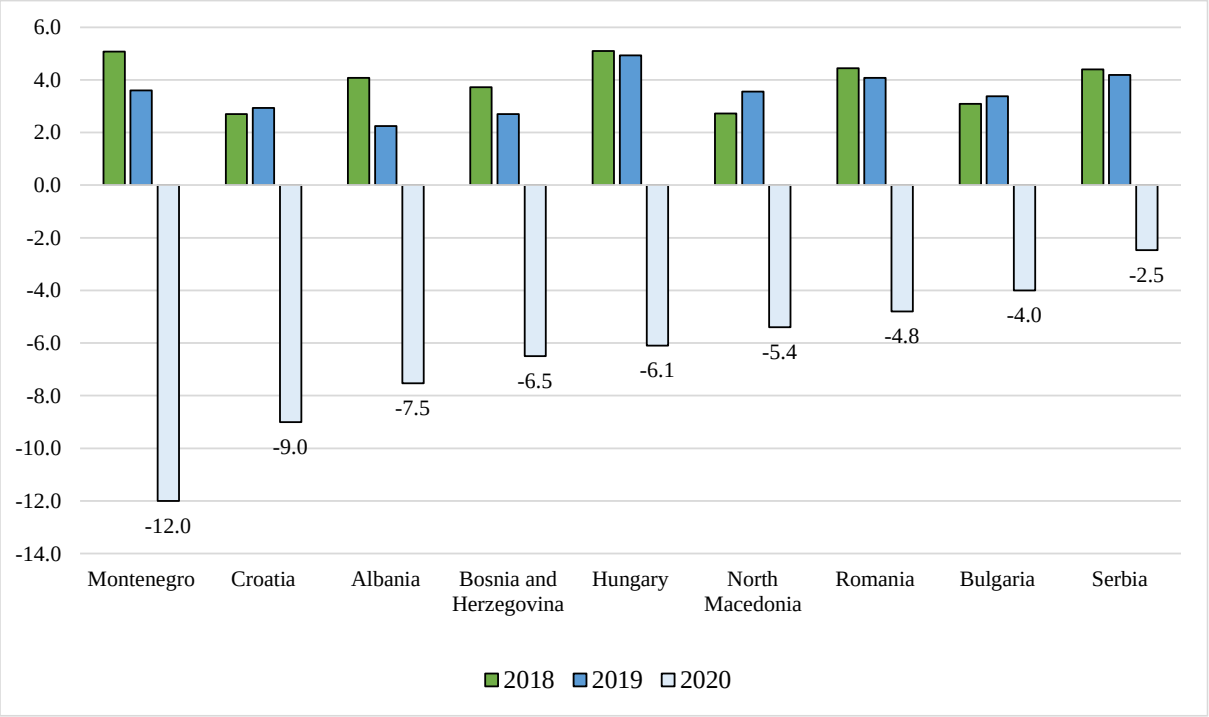
European Union leaders agreed in July 2020 on a €1.8 trillion spending package oriented at economic downturn in EU. They ultimately agreed on a €750 billion recovery plan. Of that, €390 billion is to be offered in grants and the rest in the form of loans. Additionally, the agreement was made on a seven year EU budget of over €1 trillion in the period 2021-2027 [Norman, 2020]. Despite long-standing opposition to joint debt issuance from the core Eurozone members, on October 20, 2020 the EU raised €17 billion from the sale of 10 and 20-year social bonds for its SURE unemployment scheme. It presented the first stage of the EU's plan to fund two support programmes for Member States that will channel funding to the countries hardest hit by the pandemic and consequent economic losses. The plan is to issue €100 billion of bonds under the SURE programme [European Commission, 25 November 2020]. These issuances bring EU closer than ever to debt mutualisation.

3. CORONA CRISIS CONSEQUENCES ON WESTERN BALKANS EU COUNTRIES AND CANDIDATE COUNTRIES

Western Balkans countries that are already EU members or are candidates for membership, put important effort to mitigate Corona crisis consequences. As the entire world, these countries recorded recession in 2020 as a result of COVID-19 pandemic.

The containment measures and external shocks have significantly influenced economic activity in those countries. This European region expects year on year negative economic growth of around 5% in 2020[1]. These countries have responded with containment measures in the spring, easing of measures over the summer and re-introduction of stricter measures at the end of 2020 (similar to those seen in the spring), following the trend of the number of COVID-19 infections. With that, after Q2 2020 – when many countries in the world introduced severe containment measures that led to a sudden stop of many economic activities due to lockdowns – a mild economic recovery ensued in Q3, but in Q4 a more severe pandemic will consequently lead to significant drop of economic activity in the region.

Figure 3: GDP, constant prices (year-on-year percentage change)



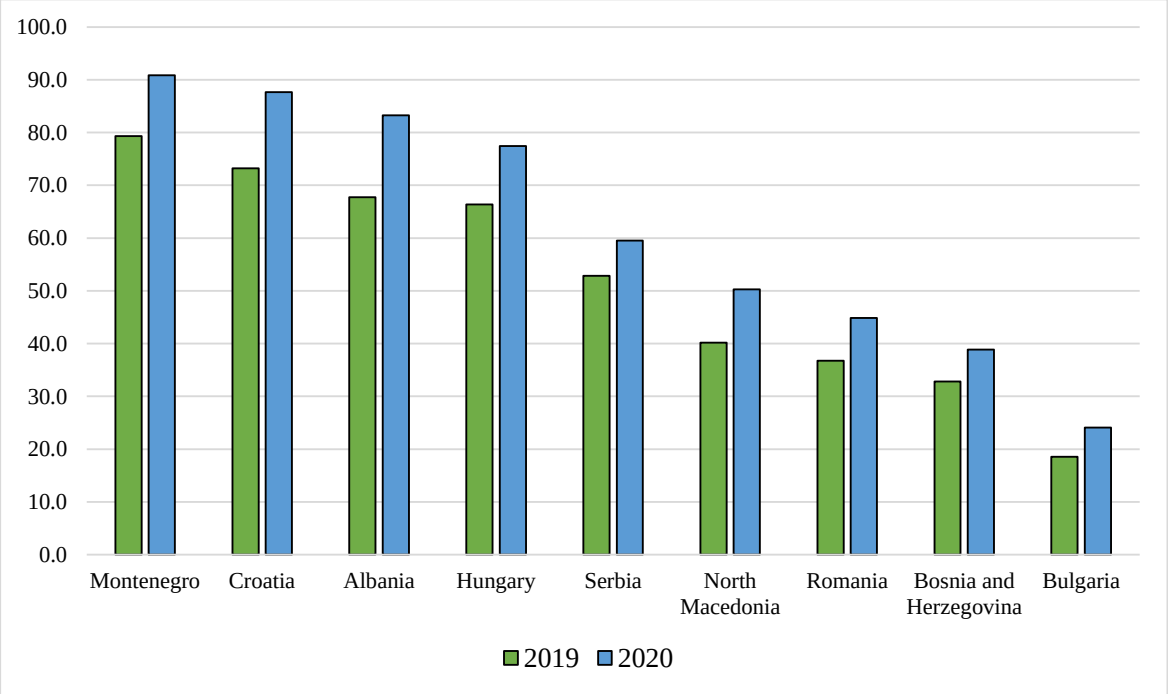
(Source: IMF, World Economic Outlook Database, October 2020)

Before pandemic outbreak, countries in the region were expected to achieve a solid growth between 2.5 and 4% (IMF World Economic outlook for Western Balkans countries from October 2019), continuing previously recorded favourable trend. Due to new circumstances, countries in the region fell into recession, while World Economic outlook (WEO) from October 2020 has anticipated that drop in GDP in this European region for that year would be between 2.5% and 12% (Figure 3). Thus, according to data, the highest drop is expected in countries that are substantial tourist destinations due to lower tourism activities: Montenegro (12%), Croatia (9%) and Albania (7.5%). On the other hand, among observed countries, the lowest drop is projected for Bulgaria (4%) and Serbia (2.5%[2]). Also, according to data [IMF WEO, October 2020] all selected countries have positive projected GDP growth rate in 2021, even though those projections should only be considered as a framework due to the fact that 2021 is (still) full of unknowns. It is expected that after pronounced drop in 2020, all these countries will have higher economic activity by 4-6% in 2021 compared to 2020. During 2020, as a result of the health crisis, Serbia recorded a moderate GDP drop (even though IMF WEO estimate was 2.5%,

[1] Authors' calculation, weighted average (by population) of annual negative GDP growth based on IMF WEO and Statistical Office of the Republic of Serbia (SORS) estimate.
[2] According to SORS estimated GDP drop in Serbia is 1,1% in 2020.

the drop was actually 1.1%, according to the newest estimate of the Statistical Office of the Republic of Serbia). This yearly data, as well as quarterly data for 2020 show that GDP drop in Serbia was smaller than that recorded in most European countries. Such result is achieved primarily due to the specific structure of Serbian economy which, unlike other European countries, has greater participation of industries producing existential goods and other products that were less affected by the drop in demand during the crisis (agriculture, food, tobacco and chemical industry) [*QM*62, July–September 2020, p. 14], as well as smaller service sector and less dependence on tourism. Smaller yearly drop is partly a consequence of Serbia entering the crisis with a higher economic growth rate compared to other countries, that is, in Q1 it logged a significant year on year GDP growth above 5%. Nevertheless, Serbia also recorded significant drop in industries highly affected by the crisis (tourism, traffic, automotive industry). In the Western Balkans region, the main cause for the initial GDP drop in Q2 2020 was the drop of domestic and foreign demand, as well as disruptions in supply chains. In 2020, recorded drop in the Western Balkans region was pronounced in private consumption, remittances inflow, foreign trade, industrial production, public and private investments, business activity of SMEs and self-employed. Private consumption in the years before the pandemic outbreak was the chief determinant of GDP growth in the region, but it fell considerably during the pandemic. Despite higher government spending, fall in private consumption led to drop in overall consumption in the countries of the region, which will be the main reason for negative growth in majority of these countries [World Bank, 2020, pp. 4-5]. Considerable drop in economic activity influenced the job market in the countries of Western Balkans. Most affected were small and medium enterprises (SMEs) and informal businesses. By April 2020, all countries of Western Balkans launched programs aimed at supporting job preservation. Despite that, all those countries recorded unemployment growth. Countries in the region focused on health protection measures, tax relief, guarantee schemes, subsidized credit lines and social assistance measures, but have also secured partial or full compensation for wage costs aimed at job preservation. Measures taken were generous and timely, but their scope differed greatly among countries. In the focus of these measures were different companies – from those whose closure was ordered by the government (BiH), over those that recorded drop of income of at least 30 percent (North Macedonia) to all SMEs and self-employed (Serbia). Depending on fiscal capability of a country, subsidies for employed ranged from 120 to 260 euros. Measures weren't exclusively aimed at certain sectors, but some of the countries in the region had more favourable terms for tourism, hospitality and transport companies (Montenegro, Albania, North Macedonia). Also, in Montenegro new employment was ensured by income subsidies. Since the official goal was prevention of layoffs, those in North Macedonia that received support had to keep their employees for two additional months, while in Serbia companies that let go more than 10 percent of workforce weren't eligible for support [World Bank, 2020, pp. 10-11]. Countries' governments responded with economic recovery packages that lead to increase in fiscal deficit as well as public debt, which will be one of the long-term consequences of COVID crisis. As a result of the pandemic, in 2020 fiscal deficit grew in all countries of Western Balkans. In 2019, unweighted average of the fiscal deficit level for candidate countries was 1.4% of GDP, while in 2020 it is expected to grow to 8% of GDP [World Bank, 2020, p. 19]. Figure 4 shows that the public debt was higher in 2020 compared to 2019 in all observed countries. Based on IMF data, public debt is the highest in Montenegro, Croatia and Albania – countries that recorded the highest growth during 2020 (12, 14 and 16 pp of GDP, respectively). According to data, level of public debt in Montenegro, Croatia and Albania will be above 80% of GDP. On the other hand, the smallest growth in 2020 was recorded in countries that have comparatively lower level of public debt in GDP – BiH (6 pp of GDP) and Bulgaria (5 pp of GDP).

Figure 4: General government gross debt (% of GDP)



(Source: IMF, World Economic Outlook Database, October 2020)

Considerable growth of fiscal imbalance is noted in Serbia, since that country recorded the best result in 2019 and in 2020 it launched a sizeable aid package that, subsequently, led to high public spending and fiscal deficit. Estimates are that fiscal deficit in 2020 amounts to 8% of GDP, higher than initially planned (0.5% of GDP). That points to a strong response to the pandemic crisis in terms of fiscal policy in Serbia. Very high fiscal deficit in 2020 on one side and drop in GDP on the other led to growth of public debt in Serbia in 2020, estimated to reach almost 60% of GDP, after 53% in 2019. Set of anti-crisis measures in Serbia consisted of wage subsidies, deferral of tax liabilities and approval of guaranteed loans. The first package consisted of the early liquidity loosening measures undertaken by the Serbia's National Bank. These measures were followed by government's support package and revised budget in April 2020 [Aspen Institute, 2020, p. 97]. The aid package in Serbia was similar in structure to other countries in the region, but more generous in scope. The program could have been more selective, because e.g. the state granted one-time assistance (of 100 euros) to all adult citizens, which is not the most efficient solution from the aspect of long-term economic growth and redistribution of income to vulnerable groups, and it significantly affected the growth of public expenditures and deficit. The newly adopted government package of economic measures from February 2021 aimed at helping citizens and the economy is worth 249 billion dinars. Combined with previous aid packages, it amounts to 953 billion dinars or approximately eight billion euros[3]. The new set of measures will include direct assistance to entrepreneurs, micro, small, medium and large companies, support to the hospitality sector, hotels, travel agencies, passenger and road transport sector. Also, this new package of measures includes one-time financial assistance to citizens and extension of the guarantee scheme aimed at maintaining private sector liquidity. When it comes to the further course of the pandemic, the effect on the economies of the region and the forecast of economic trends in 2021 has a lot of unknowns. The effects of the pandemic in the region are already severe, but still, Western Balkans governments will have to deal with many effects of the pandemic in the future: political,

[3] https://www.srbija.gov.rs/vest/en/167619/new-package-of-assistance-to-economy-citizens-adopted.php

economic, and social consequences in general, and growth of fiscal deficit and public debt in particular. During the next period of the coronavirus pandemic, economic support packages will continue to be relevant throughout the region in order to limit layoffs and insolvency and increase household income. Given their significant costs, governments should direct public spending to the most affected segments of the economy. The governments in the region could use these immediate challenges imposed by the pandemic as an opportunity to review structural constraints and steer their economies towards a successful recovery as well as sustainable growth in the future. The pace of Serbia's recovery will be determined by further course of the epidemic and the pace of recovery of European economies. It is certain that further recovery of Serbia will be influenced by the political will and public administration's capacity to implement differentiated and targeted support measures for the affected and endangered segments of Serbian economy.

4. CONCLUSION

The COVID-19 crisis represents an unprecedented global treat in recent history that strongly affects different countries and regions. The aim of this paper was to provide a critical overview of economic policies' responses to the ongoing crisis in the Eurozone and Western Balkans. The analysis began with Eurozone initial responses and recent monetary decisions of the ECB. In the further focus were relevant fiscal and economic strategies. The effects of the pandemic in Western Balkans countries are already severe, but economic support packages will continue to be relevant in order to limit negative effects of the pandemic on labor market, businesses and households. In the next period, the region countries will have to deal with many effects of the pandemic, especially rising fiscal deficit and public debt. Political, economic, and social consequences could be huge, therefore countries should focus on achieving successful recovery and sustainable growth in the future.

ACKNOWLEDGEMENT: *The authors acknowledge support from the Ministry of Education, Science and Technological Development of the Republic of Serbia.*

LITERATURE:

1. Aspen Institute. (2020). The covid-19 pandemic in the Western Balkans: consequences and policy approaches, Valeska Esch, Viktoria Palm (eds.), https://www.aspeninstitute.de/wp-content/uploads/2020-The-Covid-19-Pandemic-in-the-Western-Balkans.pdf
2. Dermine P., Markakis, M. (2020). Analysis – The EU fiscal, economic and monetary policy response to the COVID-19 crisis. https://ssrn.com/abstract=3563299
3. ECB. (2020). *DECISION (EU) 2020/440 of 24 March 2020 on a temporary Pandemic Emergency Purchase Programme* (ECB/2020/17), https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020D0440&from=EN
4. European Commission. (25 November 2020). Successful third issuance of EU SURE bonds by the European Commission. https://ec.europa.eu/commission/presscorner/detail/en/IP_20_2196
5. European Council. (16 March 2020). Statement on COVID-19 economic policy response. https://www.consilium.europa.eu/en/press/press-releases/2020/03/16/statement-on-covid-19-economic-policy-response/
6. European Council. (23 March 2020). Statement of EU ministers of finance on the Stability and Growth Pact in light of the COVID-19 crisis. https://www.consilium.europa.eu/en/press/press-releases/2020/03/23/statement-of-eu-ministers-of-finance-on-the-stability-and-growth-pact-in-light-of-the-covid-19-crisis/
7. Eurostat. Retrieved from https://ec.europa.eu/eurostat/data/database

8. Forsyth, S., Lizarazo, C. (2020). Liquidity conditions and monetary policy operations in the period from 6 May to 21 July 2020. *ECB Economic Bulletin*, Issue 6/2020. https://www.ecb.europa.eu/pub/economic-bulletin/focus/2020/html/ecb.ebbox202006_03~7a1d35b0f3.en.html
9. Heinemann, F. (2020). The search for the right European Financing Instruments in the Corona Pandemic - ESM Liquidity Assistance versus Corona Bonds. *SUERF Policy Note*, Issue No 157. https://www.suerf.org/docx/f_7fb89619c7a1215bebdd9f53c27fe39e_12501_suerf.pdf
10. Hutchinson. J., Mee, S. (2020). The impact of the ECB's monetary policy measures taken in response to the COVID-19 crisis. *ECB Economic Bulletin*, Issue 5/2020. https://www.ecb.europa.eu/pub/economic-bulletin/focus/2020/html/ecb.ebbox202005_03~12b5ff68bf.en.html
11. IMF WEO 2020, Retrieved from https://www.imf.org/en/Publications/WEO/weo-database/2020/October
12. IMF WEO 2019, Retrieved from https://www.imf.org/en/Publications/WEO/weo-database/2019/October
13. Norman, L. (2020). European Union Leaders Agree on Spending Plan for Recovery. *The Wall Street Journal*, 21 July 2020. https://www.wsj.com/articles/eu-leaders-close-in-on-coronavirus-recovery-plan-deal-11595274568?mod=article_inline
14. *QM*62 (July–September 2020). Quarterly Monitor of Economic Trends and Policy in Serbia, FREN.
15. Statistical Office of the Republic of Serbia (SORS), https://www.stat.gov.rs/en-US/
16. Tooze A., Schularick, M. (2020). The shock of coronavirus could split Europe – unless nations share the burden. *The Guardian*, 25 March 2020. https://www.theguardian.com/commentisfree/2020/mar/25/shock-coronavirus-split-europe-nations-share-burden
17. Treaty on the Functioning of the European Union, Part Three - Union Policies and Internal Actions, Title VIII - Economic and Monetary Policy, Chapter 1 - Economic Policy, Article 123, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12016E123
18. The Government of the Republic of Serbia, News, https://www.srbija.gov.rs/vest/en/167619/new-package-of-assistance-to-economy-citizens-adopted.php
19. World Bank (2020), Western Balkans Regular Economic Report, Fall 2020, No.18, https://www.worldbank.org/en/region/eca/publication/western-balkans-regular-economic-report

BASIC, SOCIAL CONTENT AND FUNCTIONS OF ELITE AND MASS CULTURES IN TERMS OF QUALITY AND QUANTITY CHANGES

Mahsati Jafarova
Azerbaijan National Academy of Sciences, Philosophy Institute, Azerbaijan
mahsaticafarovaa@gmail.com

ABSTRACT

The urgency of the question of the proportion and interrelation of elite and mass cultures experiencing today is determined by the fundamental changes. Changes between elite and mass culture are mainly characterized by qualitative features, the concentration of cultural ties and exchanges, the growth of cultural diversity, the tendency to move away from standardization in the era of mass industrialization, has created conditions for the rapid development of quantitative and qualitative changes in the elite. and mass cultures. Elite culture is often characterized by the development of critical awareness and creative potential, an excellent education, and proper display of skills and abilities. As a result of the developments in technology in modern times and the rapid spread of innovations in the socio-cultural field, representatives of mass culture have started to take an active role in cultural processes. Understanding its fundamental laws is a complex process, as the diversity of modern socio-cultural development is observed only in the phenomenological manifestations of culture. The complexity of the relationships and interactions of mass and elite cultures, their different functional nature, the ability to transform under the influence of social, technical, aesthetic and other factors - all this, taking into account previous experiences, theoretically understand the concepts of the elite. and a new critical level of mass culture required this. This article examines the characteristics, social nature and functions of elite and mass culture within the entirety of ontological, functional and genetic parameters.

Keywords: *elitist culture, mass culture, quality criterion, quantitative change, guide function*

1. INTRODUCTION

Elite culture is perfect in principle point of to view, moral values found in elite culture are the reflection of aristocratic values and elite culture is inherent in privileged societies characterized by self-sufficiency. Elite culture is an example of culture that is qualitatively superior to mass culture, opposes mass culture, preserves its subjective characteristics and provides a meaning-making function. Elite culture is a culture characterized by the production of higher cultural values. Elite culture embodies the intellectual, spiritual and artistic experience of generations.

2. RESEARCH

In general, the problem of the relationship between elite and popular culture originates mainly from historical circumstances. The first attempts to distinguish these forms of culture were observed in the late nineteenth and early twentieth centuries during the emergence of mass industrialization. The process of deepening the contradictions between elite culture and mass culture intensified in the twentieth century and took a very sharp and dramatic form. In general, many facts have emerged in the last century that clearly reflect the paradoxical dialectic of elite culture and mass culture; The most important of these was their transitions, interactions, and denial of each other in the interaction medium. The Famous cultural scientist Fuad Mammadov defined elite culture as the culture of the upper class and mass culture as part of the "lower class". "The individual representatives of the intelligentsia or their collectives and the masses as a whole act as subjects of cultural creativity. The mechanism for creating the spiritual culture of society occurs as a result of the interaction of two "classes"- the ordinary "public consciousness" ("lower class") and the intellectuals. Professional "spiritual production" class "

performed by ("upper class") (1, p.51). Elite culture is a term used to describe the tastes of the current aristocracy, bourgeoisie, intellectuals, and politicians. The elite culture that started to flourish in the 18th century reached its peak in the 20th century, not an easy task. Although all these cultural patterns have developed in modern times, it has not been easy to distinguish between elite culture and mass culture and to study quantitative and qualitative issues since the mid-twentieth century. The division of culture into elite and mass culture is characterized mainly by the fact that not everyone is the same by nature, some people are talanted and gifted by birth. These are the people who make up the elite. Elite culture is not about a particular social class, but about creative consciousness. Representatives of popular culture, unlike elite culture, are concerned with quantity rather than quality, mass culture stands out for its primitiveness and vulgarity, and mass culture representatives do not tend to be knowledgeable. In general, the leaders of any society are skilled and intelligent members of that society. For example, the works of a talented and educated artist, composer, actor and director contain the characteristics of an elite culture. From this point of view, the manifestation of elite culture is possible mainly through innate abilities. One of the hallmarks of the elite class, which can express a range of intelligent and hardworking people, is the use of cultural discourse. Representatives of this class express themselves correctly and have strong creative abilities. The concepts and functions of elite culture and mass culture being one of the main problems of aesthetics, have been studied by both cultural scientists and philosophers, and many serious works have been written on this field of culture. "The concept of elite and mass culture as a real problem of culture and aesthetics has been directly included in the research subject of philosophical science. The role of culture in the development of society and the formation of public consciousness have been emphasized by many philosophers. Therefore, culture participates in the formation of public consciousness in society. In this case, the problem is philosophically. The peculiarities of the production and consumption of cultural values have allowed cultural scientists to establish the existence of two forms of social culture: elite culture and mass culture”(2). When we look through historical processes, we see that mass culture turns out to be the opposite of elite,the latter being a higher level.The matter of elite culture was first dealt by Manneim's Essay on the Sociology of Culture (Sociology as a Political Education, 1930) (5), Ideology and Utopia (Ideology and Utopia), 1936 for the first time on the essence of elite culture.) (6), Man and Society in the Renaissance (Man and Society in the Age of Reconstruction), 1940) (7). Characteristic features of mass culture include Lebon Gustav's "Psychological Laws of the Evolution of Nations" (Les Lois Psychologiques de l'Évolution des Peuples (1894) (8), "Mass Psychology" (La Psychologie des Foules, 1895) (9), Sigmund Freud "Mass Psychology and Analysis of the Human Self (Massenpsychologie und Ich-Analyze, 1921) (10), LN Voytolovsky's Essays on Collective Psychology (11), Psychology of the Masses (12), Gabrel Tard" (13). Although sociologists define the power and importance of elites in closed cultural spaces as a social class, there is now a change and diversity in the tastes of elite culture, which uses all cultural styles broadly and freely. Especially since the 60s of the last century, new styles that blended elite culture and mass cultural forms began to emerge. In modern times, elite culture can be considered a form of culture or cultural institution that belongs to a higher social class and is characterized by a high level of quality. According to its social typology, culture is divided into elite culture and mass culture. Mass culture has become widespread in accordance with the sociological changes occurring in modern society. Mass culture is characterized by the emergence of a mass industrialized society.

Mass culture mainly has the following features:

- Permanent display of mass media and advertisements;
- Watch out for the masses;
- Adaptation to the needs of the masses;

- The ability to transform works created in other cultures, including elite cultures, into objects of mass consumption;
- Distribution and widespread use of media values.

The elite includes the intellectual and intelligentsia of society. Without the existence of an elite class, the spiritual progress of society is absolutely impossible. "Sources and institutions of distinguished culture: scientific institutions, universities, religious institutions, Masonic lodges, philosophical meetings, cultural societies and associations, literary and artistic structures, creative associations and foundations, science schools, parliamentary meetings, socio-political associations, etc.- dir" (1, p. 52). In elite culture, the dignity factor also plays an important role, as the main criterion is quality, not quantity. Dignity is essential for the healthy development of any society, and dignity is a sign of moral decline. It is wrong to equate the elite with aristocrats. The elite culture, which emerged with the creativity of intelligent, talented, intelligent, virtuous and business people, shows itself in the height of spiritual values, not material values. Education plays an important role in the development of distinguished culture. Talent and education must work together for an elite culture to emerge. In societies where this cooperation is lacking, culture is doomed to destruction. The main characteristics of popular culture are simple intervention in every field, research at the level of gossip about the subject, misinformation, lack of general knowledge on the subject and limited thinking. The elite constitute the aristocratic, knowledgeable, experienced and hardworking class of society. All these important features are reflected in the distinguished culture. Representatives of the elite are people who want the progress of their society. In general, society should be ruled by the elite. In societies that do not raise elites, the sovereignty of the people is questioned as well as the development of culture. The responsibility for bringing society to a better level also falls on the elite. It is difficult to determine that the cultural examples created in modern times are examples of elite and mass culture, and the characteristics of the differences between mass culture and elite culture are often controversial. The term elite culture is used to distinguish it from popular culture characterized by the creativity of people with no talent, talent and education. When examining cultural examples such as literature, fine arts, and performance, it is important to consider whether these examples are elite or popular. Unlike elite culture, the role of the media in spreading mass culture is enormous. In this respect, the emergence of the media and modern development criteria play a decisive role in the spread of mass culture. "Mass culture is a type of culture that targets the mass consumer and spreads with the help of the media especially for entertainment, consumption and commercial purposes. Popular culture affects the spread of spiritual and material values calculated on the basis of ordinary consumer thought and simple taste. The essence of mass culture is, by a personalized culture, that is, it is conditioned by the transfer of worldviews and norms of behavior through the transfer of the teacher's personal experience to the learner - the mass acculturation of people, that is, the ordinaryization of outstanding cultural achievements.The cultural language and mass circulation in society (1, p.52). Culture is a complex system with a high degree of complexity divided into many subsystems. All subsystems of culture are functionally interconnected, and the distribution of functions determines the configuration of culture within the boundaries of historical development as well as its culture. It is necessary to use a combination of structural-typological and historical-typological approaches to treat cultural processes in a generalized way. To determine whether a type of culture is elite or mass culture, it is necessary to pay attention to the unique characteristics of each. The grouping of culture under the name of elite culture and mass culture can be understood as two types of social existence and social management strategies. The cultural patterns created by the elite with limited self-management are qualitatively diverse in terms of dominant elites and fully dominant masses, self-management, different production, innovation, consumption, and different regulatory

relationships. Thus, the intellectual advantages of limited experience arise in elite culture, while in mass culture the intellectually lower collective has a weak creative ability. There are plans to create new forms and meanings for the future goal of elite culture. At the core of the elite culture is a social localization in the production, collection and transmission of cultural values. Mass culture focuses mainly on the consumption of material resources. Religious, philosophical, artistic and journalistic texts, rituals and symbols are reflected in the distinguished culture. Above all for mass culture, tradition prevailing in different social settings has a great influence on the masses. Currently, theories about the elite aim to resolve crises in bourgeois democracy. "Modern elite theories emerged in the late nineteenth and early twentieth centuries, when the popular masses could not govern in the crisis of bourgeois democracy and the ideas of the previous aristocracy began to spread. Elite theories include Italian sociologist and political scientist Vilfredo Pareto, Gaetano Mosca, Robert Michels, and Spanish political scientist It appears as a whole system in the work of Ortega-i-Gasset. G. Mosca and V. Pareto laid the foundation for the concept of an independently elite society for the first time. In general, the concept of "elite" has not been clearly defined by Western political scientists" (page 164-165). Elite culture is a form of culture that has universal value, always strives for excellence and combines innovative models. Like those who can manage various processes in society, the elite assume the role of "guiding" the globalization process, regulating national cultural boundaries globally, and trying to adapt national culture to the international environment. Besides the differences between elite culture and mass culture, there are similarities and commonalities. Both elite culture and mass culture play an active role in the formation of national culture. Elite culture participates in this process through educational, scientific and artistic institutions, using mechanisms to influence mass consciousness. Both elite and mass cultures create a single symbolic space necessary for the formation and functioning of national culture. Both elite and popular cultures have formed in different historical conditions. The period of development and formation of the elite culture is associated with the emergence of early civilizations, special skills and special knowledge are required to create a distinguished culture. The emergence of mass culture is associated with the formation of industrial relations and its mass emergence on the social ground. In mass culture, the adaptation of the individual, which are social norms in which personality is fully or partially regulated, is presented in the form of passive subordination, and the purpose of its development is not the identification of the individual, but its dissemination. worldwide individual policy. Elite culture contributes to the development of globalization by objectively trying to internationalize, mass culture may exist in national variants, although it contradicts elite culture in its functional manifestations, but is cosmopolitan in nature, and mass culture tends to form a national culture. It is very difficult to distinguish between elite and mass culture in the postmodern age. In this respect, it is necessary to examine the features of elite and mass culture in more depth. The process of studying the features of elite and popular culture is more appropriate when conducted in different sections. In general, methodologically, the process of studying elite and popular culture can be divided into the following sections:

- The first can be perceived as the taste or perspective of the elite and the masses, and the research process can be carried out within a psychological framework.
- The second research process can be conducted in line with relevant social norms and values.
- Third, the research process can be carried out as a behavioral observation. From this perspective, it is possible to distinguish between elite and mass cultural patterns by analyzing the cultural values of a particular social class and consumer group.

Marxist-Leninists opposed the division of culture into elite and mass culture, emphasizing that there is no such separation in the structure of socialism. In communist ideology, the concepts of "elite culture" and "mass culture" have been criticized for many years on the grounds that

they are foreign and foreign, and evidence has been presented that proves that such cultures are impossible under socialism. Socialist ideology theorists claim that elite culture belongs to the spiritual elite of creative activists in the field of culture as a result of the division of labor. In doing so, they affirm that in an opposing society, two opposing activities, material and spiritual production, are opposed"(15, p. 71). The concepts of elite and mass culture describe two types of modern culture in relation to the characteristics of the culture created by society. Both types of culture should be considered in the context of the production, reproduction and dissemination of culture in society, the position of culture in the social structure, the life and creators of culture and socio-political problems of society. Most researchers have concluded that elite culture precedes mass culture, but in modern society elite and mass culture coexist and interact in a complex way. Mass culture has various functions in modern scientific literature. In some, mass culture is associated with the development of new communication and reproductive systems in the twentieth century (mass media and book publishing, sound and video recording, radio and television, choreography, satellite communications, computer technology) and global information exchange. result of achievements. Another definition of mass culture emphasizes the connection with the development of a new kind of social structure of industrial and post-industrial society for the organization of its production and dissemination. The second concept of the functions of mass culture is more complete and comprehensive as it takes into account the socio-historical content of modern culture and trends in change. Mass culture is a type of cultural product that is produced in large quantities on a daily basis. It is a combination of the cultural events of the twentieth century and the production characteristics of cultural values prepared for mass consumption in modern industrial society. It is believed that mass culture is consumed by all people regardless of the region in which they live. Studies have shown that mass culture coexisted with early Christian civilization. Simplified versions of texts that are considered sacred to the general public in Christianity, especially children and the poor, are the first examples of popular culture. In the seventeenth and eighteenth centuries, adventure novels published in large numbers in Western Europe were aimed at a large number of readers. These novels are written in a simple style as they appeal to a wide readership. In the late nineteenth and early twentieth centuries a new stage emerged in the development of mass culture associated with mass production processes. The functions of elite culture are determined by the highest and most privileged segment of society, the elite, producer and consumer. It is wrong to accept the concept of the highest class, the elite as the ruling class, as a special class of society with its own spiritual abilities. Representatives of the elite can be found in all social classes. The elite is not the ruler, the intelligent and talented part of society, the elite with the highest moral and aesthetic abilities, can express themselves in the highest spiritual activity. Some researchers argue that the division of culture into elite and mass culture, the analysis of its different characteristics, is still discussed in ancient Greek philosophy. "The peculiarities of the production and consumption of cultural values allowed cultural scientists to demonstrate the existence of two forms of social culture: elite culture and mass culture. Many cultural scientists and philosophers have attempted to identify the solution of these two forms of social culture and their role in the development of society. Studies of well-known scientists such as Ortega-i-Gasset, M. McLuhan, E. Moren, D. Dui, E. Fromm, R. Mixels, G. Moska, B. Astafyev are interesting and scientific. The ethical doctrine created by the Sirenay school in the 5th century BC can be found in hedonism and its great representative, Aristotle, and later in the works of philosophers and psychologists such as A. Schopenhauer, F. Nietzsche, Z. Freud (16, p. 117). The great German philosopher Arthur Schopenhauer divided humanity generally into two parts:

- People of genius;
- People who benefit.

Those who fall into the first category, that is, geniuses, who can engage in aesthetic thinking and artistic activity, those who have some superior qualities, those who fall into the second category, that is, those who benefit, are utilitarian activity directed only to practice. Factors such as the development of urbanization, the emergence of printing technology, and the deepening of the gap between elite and popular taste in the arts have played an important role in the separation of elite and popular culture. Mass culture is often the result of the so-called middle class creative activity in society. For the middle class that has become the foundation of modern industrial society, the pursuit of success, the pursuit of private property, and individuality are characteristic. Popular culture examples include detective, western, melodrama, musical comedy, comedy, comedy, sketch, parody, vaudeville, etc. It manifests itself through such genres. Mass culture performs a number of social functions in art and artistic creation. These social functions include:

- Mass culture promotes a dominant lifestyle;
- Mass culture recognizes a person without talent, simple and simple creativity;
- Mass culture keeps the masses away from social activities and adapts to the social environment it spreads.

The strange expressions of mass consciousness are evident in examples of mass culture. In this respect, examples of mass culture are not directed towards real images, but artificially created images, that is, images and stereotypes. Currently available in the field of mass culture, children's subculture, mass secondary schools, mass media, national (state) ideology and propaganda system, mass social mythology, entertainment industry, physical image industry, standard interests and needs. Unlike popular culture, elite culture often emerges during a cultural crisis. This period of cultural crisis is often accompanied by the simultaneous establishment of old and new cultural traditions, the search for ways to produce and restore spiritual values, and the change of cultural and historical paradigms. Therefore, the representatives of the elite culture act as new creators standing above the times, and therefore the representatives of the elite culture are not understood by their contemporaries, because the masses do not have the ability to perceive elite culture. Unlike the mass culture where the quantity ratio is dominant, the quality factor prevails in the elite culture. In this respect, elite culture also contains esoteric features. The esoteric traits of the elite culture are not designed for the general public as they are observed through secret knowledge. The bearers of various forms of elite culture for limited social groups were religious figures, religious sects, monasteries, masonic lodges, art workshops, special literary-arts and intellectual circles, secret organizations. According to Vilfredo Pareto, author of the theory of elite transfer, the elite class is not stable but can change over time. "In any society, the elite try to change their class or position, and there is a constant interaction or exchange between the elite and the non-elite. The elites change within and between classes. Some individuals may join elite groups from non-elite groups. Also, some members of the elite are members of the society who are not elite. Depending on various factors (eg, repression, revolution, etc.), members of different elite groups may decrease in number, quality and importance. When this happens, the elite lose their elite status and gradually become non-elites. When some of its members achieve high results or have special power, they begin to form a special elite group"(17, p. 30). It is an undeniable fact that elite culture, defined as a subculture of privileged groups in society, is higher than the standard of living. Elite culture has a contradictory structure, acting as an innovative enzyme of the socio-cultural process, on the one hand, and on the other hand, it moves away from social reality and its existing problems in its idealized religious-philosophical and socio-political world. utopias. The passive form of protest against real events in the world can be characterized by the elite culture not affecting the socio-cultural life of the society. Despite this weakness of elite culture in the social sphere, elite culture promotes the renewal of culture under the slogan

"Art is Art" and contributes to the application of new cultural creation methods. Thinkers such as Arthur Schopenhauer, Friedrich Nietzsche, Nikolai Alexandrovich Berdyaev, Ortega-i-Gasset, Martin Heidegger and Jacques Ellul, who came up with a series of original ideas about elite culture, talked about the rich content of elite culture, its creative pursuits and its Innovation, the importance of its resistance.

3. RESULT

When we look at cultural history, the truth is that there are different forms of culture such as international and national, secular and religious, ancient and modern, Western and Eastern. In modern times, the distinction between elite and mass culture is of particular importance. Radio, television, communication, video and computer equipment and the Internet have given a significant impetus to the development of mass culture that takes place at the same time as mass production and consumer society. Unlike elite culture, mass culture dominates quantitatively rather than qualitatively due to its commercial nature. The producer and consumer of elite culture, which is the antipode of mass culture, is the most privileged class of society, that is, the elite. The interaction of distinguished culture and mass culture can contribute to the development of national cultures. The dialogue between elite culture and mass culture is an important process for mutual enrichment of cultures. As a result of this dialogue, universal cultural values, moral norms, humanism, compassion and mutual aid emerge. Unlike elite culture operating in a limited context, mass culture is a multifunctional, objective modern culture phenomenon in which all segments of the population are necessarily involved, and in this respect managing the dynamics of mass culture is a crucial step. The process of improving the quality of mass culture depends on the correct choice of this direction.

LITERATURE:

1. F.T. Mammadov. "Cultural science, culture, civilization". - Baku, “OL” LLC, 2016. 260 pages.
2. Alibeyli E. Elite and mass culture. http: //elchinalibeyli.blogspot. com /2013/05 /3. Ortega-i-Gasset H. Dehumanization of art. The uprising of the masses. // Ortega-i-Gasset H. Aesthetics. Philosophical culture. M., 1991.p. 218260; 309-350.
3. Ortega-i-Gasset H. Mass insurrection // Aesthetics. Philosophy. Culture. M., 1991.p. 315-319.
4. Mannheim K. Favorites: Sociology of Cultures. M .; St. Petersburg: University Book, 2000. 501 p. - (Book of Light). S.7-232.
5. Mannheim K. Ideology and utopia of FB2. Translation: M. Levina. - M .: Lawyer, 1994.-704 p. - c. 7-276 -
6. Mannheim K. Man and society in the century of change. M.: INION, 1991.-219 p.
7. Lebon Kustav. Psychology of nations and masses. Baku, Law Publishing House, p. 172
8. Lebon G. Psychology of the peoples and the masses. SPb.: Order, 1995.311 p.
9. Freud 3. Mass psychology and human "I" analysis // Freud 3. Selected. - Book. 1. M., 1990.
10. Voitolovsky L.N. Articles on collective psychology. In 2 pieces. 4.1. Mass psychology. M.-Pg .: Gos. edition, 1923.87p.
11. Voitolovsky L.N. Psychology of social movements. - 1925. - 118 p.
12. Tard G. People and crowd. Spb.: B-ka byvsh. Ivanova, 1899.48 p.
13. Tagiyev AM Political theory / A. M. Tagiyev, M. H. Seyidov; ed. M. Rzayev. - Baku, 2012, p. 261.
14. Cultural history and theory. Textbook for high schools with general editorship of MJ Manafova, NT Afandiyeva and SA Shahhuseynova. Baku: Sabah Publishing House (2008), 2010, 876 pages.

15. Alibeyli E. Creative features of television broadcasting of theater shows. Scientific Works of Azerbaijan State University of Culture and Arts. №12. Baku: AzTU Publishing House, 2011, ¬218 pages.
16. Hasanov R.M. Political sociology. Textbook for high schools. Baku, 2010, 208 s

SOCIAL MEDIA INFLUENCERS, DIGITAL MARKETING AND TOURISM IN MOROCCO

Wiam Lakbakbi El Yaagoubi
PhD student, Mohammed V University in Rabat,
Faculty of Law, Economics and Social Sciences Salé, Morocco
wiam.lakbakbi@gmail.com

Mustapha Machrafi
Full Professor at Mohammed V University in Rabat,
Faculty of Law, Economics and Social Sciences Salé, Morocco
mustapha.machrafi@um5.ac.ma

ABSTRACT

Tourism as we have known it for decades is long gone. The second coming of social media within the last 10 years have made a huge impact on how we perceive tourism, traveling habits, hotel booking and destination selecting. Lately, consumers relay more on social media to pick their next destination. Not only do they trust other consumers before they make up their minds about countries and cities to visit, but they also take their opinions in consideration when it comes to selecting hotels or tourism houses – Airbnb- to stay in during the trip. Now, this used to take place when family and friends gather around and exchange on where they went, how they did it and how good it was. Nowadays, anybody can check out social media profiles to get an idea. Some internet celebrities or what we call Influencers, especially on Instagram and Facebook, made a name for themselves doing just that. This paper tries to identify major tendencies and various matters that help the market grow wider. The aims of our research try to answer the following questions: could investing in digital marketing be the key to future successful marketing campaigns? What would become of traditional travel agencies still unmoved by the tidal wave of digital? Within the large specter of tourism's digital marketing, how can we identify the best agents to fulfill such vital/viral approach? And Influencing the public opinion using trust worthy representatives or public figures is it the way to go when it comes to promoting destinations? In order to answer this questions we use various analyses made by eminent specialists regarding digital marketing, social media (Instagram, Facebook, etc.) marketing, Influence marketing and Travel 2.0. Our methodology is confronting conclusions made by said analysis and studies; catalyzing discussions over the matter; referencing various field tests.

Keywords: *Digital Marketing, Influencers, Social Media, Tourism*

1. INTRODUCTION

Tourism as we have known it for decades is long gone. The second coming of social media within the last 10 years have made a huge impact on how we perceive tourism, traveling habits, hotel booking and destination selecting. Lately, consumers relay more on social media to pick their next destination. Not only do they trust other consumers before they make up their minds aboutcountries and cities to visit, but they also take their opinions in consideration when it comes to selecting hotels or tourism houses – Airbnb- to stay in during the trip. Now, this used to take place when family and friends gather around and exchange on where they went, how they did it and how good it was. Nowadays, anybody can check out social media profiles to get an idea. Some internet celebrities or what we call Influencers, especially on Instagram and Facebook, made a name for themselves doing just that. By sharing their personal experiences and handing over their opinion on the country/city/hotel/stay/overall experience, people are able to make informed choices, knowing exactly what to expect beforehand instead of throwing

themselves into the adventure and, maybe, end up regretting it and mourning money spent on a bad experience. For instance, Instagram and Facebook have given a new face to tourism in this day and age. Sometimes, it only takes one negative post from an influencer to take the attention off a particular hotel or destination. And having monthly around 100k new followers adding to theirexistent community only adds to the weight of such a platform. Truly, it is the advent of the "user-generated content" that gave tourism the socialpermeability that we are witnessing today.

2. THE LINK BETWEEN SOCIAL MEDIA AND TOURISM

The revolution of theInternet has enabled consumerto search for destinations worldwide more easily. An increasing number of consumers worldwide depend no longer on travel agencies to look for information and inspiration for their next holiday. Instead, consumers make use of the social media for inspiration and to locate their potential next holiday destination. This in turn leads to tourism destinations worldwide becoming the focal point of attention for consumers' decision-making process. Social media has quickly become the most essential communication and information-sharing tool in the daily lives of millions of people around the world. In social networks there are members who spread information and others who assess and rerun it. This makes it possible to disseminate the maximum amount of information of any kind in a very reduced time and cost. The first source members of information are called "influencers". Detecting influencers is very important and useful in different areas. An advice from a family member or a friend will always have more impact on a decision than traditional advertising. It is this principle that drives the work of influencers and which partly explains their popularity. For tourism experts, influencers are now essential. In a photo, video or tweet, they can reach more people than a traditional advertisement could do, for a price without comparison. While the essential influencer platform remains Instagram, the impact of Facebook, YouTube, Twitter, Snapchat and blogs should not be underestimated either. Roberta Minazzi analyzes in her book Social Media Marketing in Tourism and Hospitality (2015) various impacts that social media has on traveler behavior, whether it is ticket booking or planned trips. The author explains: "In the light of social media impacts on travelers' behavior, traditional ways to create customer relationships need to be integrated with new e-CRM practices and communication policies. Travel companies able to engage customers and prospects by means of social media can increase word-of-mouth, enhance their web reputation, and eventually influence purchase behaviors." Also, Minazzi raises the question of future potential trends. Those are directly deriving from the mobile marketing technologies, since their development is narrowly correlated with new methods for social monitoring, which makes for a new and better way to get a grasp on what the consumer craves for. Moreover,it is presently common knowledge that engaging customers and prospects using social media (when it is done correctly and respectfully towards the consumer's intelligence and freedom to make their own choices) might in fact increase customer loyalty, and greatly boost spontaneous notoriety by fostering electronic word-of-mouth communication. Consequently,all that is left to do is to develop new methods in order to both capitalize on reaped results and farm new and advanced ways to maximize that potential, and with it the positive impact on companies'performances and revenues. So far, Instagram and Facebook proved to be the most dynamic in finding new ways to reach more customers by spreading the word effectively, suggesting content, repeat targeting the desired segments and focusing on besting their own performances. Surely, when it comes to tourism and promoting traveling ideas, these two outlets need to be checked constantly iftravel companies want to attract more customers especially the young target.

3. SPREAD OF SOCIAL MEDIA ON TOURISM INDUSTRY

On the 20th century a set of hardware and software technologies known as the Internet had an enormous diffusion,which changed most of our economic and social life radically. In the last few years, a further "revolution" has impacted the way we communicate, work and conduct business. Web 2.0 is the buzzword for this, it couldn't remain unnoticed in activities bound to the human species such as travel. In their book called "The Impact of Social Media On Tourism", Serbian authors RadmilaŽivković, Jelena Gajić and Ivana Brdar say: "Companies in tourism try to combine varied marketing techniques they used in the past and they analyze several specific factors in the process of developing communication mix strategy (type of tourism market, traveler's readiness to make purchase, destination development stage, and the brand's market share and positioning). Sophisticated target groups and modern ICT environment are a serious challenge for tourism industry and it is of great importance to send the right messages through the proper media channels." In a study made by Rosemary Matikiti-Manyevere from the South African Department of Tourism and Event Management, published in 2019 in the African Journal of Hospitality, Tourism and Leisure, it is demonstrated that: "The rise of the internet and its related technologies especially, social media platforms, has long been realized as continuously affecting consumers' decision-making in the tourism industry (Buhalis, 1998). This is mainly in the planning and usage of tourism services and products (Buhalis& Law, 2008). Social media can be described as a group of applications which operates on the internet Web 2.0 and allows for the exchange of information among the users (Colomo-Palacios, Soto-Acosta, Ramayah& Russ, 2013). Due to the interactivity of most social media, users can form relationships through the exchange of information, experiences, opinions and ideas regarding goods and services (Dwitya&Briandana, 2017). With its ability to disseminate vast amounts of information within short spaces of time, social media has become an ideal platform for the tourism industry which relies on intensive information for its operation." Hence why the Internet is perceived as apowerful andeffectivemarketing tool in tourism. It is consistentlyaccepted as a valuable tool for distributing information and communication, and maintaining a corporate website is vital for the maintenance of relationships established between companies, by strengthening relationships with the public, and especially with customers, thus capturing a larger market segment.The study also reads that travelers, in order to reduce the risk and uncertainty generally associated with purchasing tourism services even after gathering more than enough information to ensure the action, will rather relay on opinions provided by other travelers as they can identify with them and relate to their experience. To put it short: "if it works for them, it'll work for me". Simple but effective.

4. THE IMPORTANCE OF DIGITAL MARKETING

"Social media are Internet-based channels that allow users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others.", Carr& Hayes (2015). Social networksallow users to communicate with each otherthrough an online community. The social networking platform (facebook,Instagram, twitter …) allows marketing between individuals or organizations to be easier through online informationmessaging and posts (Zimmer, 2017). Wienclaw (2017) cited Kaplan &Haenlien (2010) definition of social media as "a group of Internets- based applications that build on the ideological and technological foundations of Web 2.0 and that allow creation and exchange of user-generated content (p.4)." Gaikwad & Kate (2016) elaborated on the importance of social media in marketing by drawing an adjacent link between social media and word of mouth marketing. Piñeiro-Otero & Martínez-Rolán (2016) commented in his work that social media is an amazing method used to establish communication between members through dynamic exchanges.

Gaikwad & Kate (2016) explained the importance of social media in marketing by drawing an adjacent link between word of mouth marketing and social media. PatrutiuBaltes (2016) cited Bafton (2012) recollection per Fleishman-Hillard, that 79% of consumers like or follow their brands on social media. PatrutiuBaltes (2016) had named Facebook, Twitter, LinkedIn, YouTube, Instagram and Pinterest, as well-known and regularly-used social media platforms.

5. DEFINITION OF DIGITAL MARKETING

The word "digital marketing" has transformed over time from a specifictermdescribing the marketing of products and services using digital channels -- to an umbrella term describing the process of using digital technologies to acquire customers and build customer preferences, retain customers, promote brandsand increase sales (Financial Times, lexicon.ft.com). Following the American Marketing Association's firm centric definition (https://www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx), digital marketing may be seen as institutions,activities and processes facilitated by digital technologies for communicating, creating and delivering value for customers and otherstake-holders. Digital marketing has been described as "achieving marketing objectives through applying digital technologies" (Chaffey et al., 2009).Digital marketing is the use of technologies to help marketing activities in order to improve customer knowledge by matching their needs (Chaffey, 2013). In order for businesses to be successful compagnieswill have to merge online with traditional methods for meeting the needs of customers more precisely (Parsons, Zeisser, Waitman 1996). Introduction of new technologies has created new business opportunities for marketers to manage their websites and achieve their business objectives (Kiani, 1998). Online advertising is a powerful marketing vehicle for building brands and increasing traffic for companies to achieve success (Song, 2001).

6. ICT ANDTOURISM

When digital marketing meets tourism they creat Tourism 2.0. Theevolution of social media into major opportunities and challenges for the hospitality and tourism sector (Sparks et al., 2013) has caused a huge restructuring of the 'architecture' of the industry and has led to the appearance of a new term to refer to the phenomenon: Tourism 2.0 or cyber-tourism. Tourism 2.0 benefits from the many social networks'applications offered by web 2.0. Communication in Tourism 2.0 is thus characterized by a series of aspects that necessarily enhance the sharing and transmission of knowledge and experiences, including openness, interactivity, mass collaboration, global connection, social networking, and so forth. Consequently, Tourism 2.0 has paved the way for the creation of a hyper-connected community of practice that uses new technologies and social networks to add a multidimensional and more democratic perspective to the tourist experience. As noted by Bassaler (2012), with Tourism 2.0 consumers can now plan trips better and find the best deals, get information anytime and anywhere, and share their experiences. The tourist that was once a mere semi-passive entity even in her/his own tourist experience management is now a prolific producer of electronically available user-generated content (Schmunk et al., 2014) through which to communicate key attributes and experiences related to sights, accommodation and destinations (Dickinger&Lalicic, 2014).

7. MATERIALS AND METHODS

Influencers are at the beginning people who share a passion and create content related to it. This content is then shared on social media platforms at regular intervals, bringing together a growing community around the influencer. If there are many examples of influencers around the world, they are above all passionate people who, through continuously hard work , have high visibility and a sufficiently large community , what we call 'Followers'. To finance their activities, influencers are therefore required to collaborate with companies and brands in the

context of sponsored publications with more or less editorial freedom, depending on the contracts. In the tourism industry, influencers play a considerable role, as they mainly reach a young target who do not frequent traditional travel agencies. It's a new form of communication and marketing that has broken with traditional codes. Word-of-mouth 2.0 that builds on the authenticity and unique relationship that influencers have with their community. Although little or almost nothing is said about it, Moroccan travel influencers are very present on the World Wide Web. Despite this supposed discretion, they are slowly but surely taking a prominent place on the net attracting more and more curious Internet users and in search of discoveries. In order to understand how the world of influencers works, we have decided to organize a meeting with 5 Moroccan Influencers to discuss 5 important points. The choice of these 5 influencers was based on the number of destinations they have been to, number of collaborations with hotels and destinations, number of followers, quality of their content and engagement. The 5 influencers have chosen to stay anonymous, so we are going to call them by there initials

Table 1: influencers and their characteristics

Name	N° followers	N° publication	N° Destination
T	856K	504	70
A	264k	275	50
S	239k	2522	only in Morocco
Q	119K	84	45
J	71,4K	1458	35

The questions that had been asked are:

- Why is it benefic to work with a digital influencer in order to promote a destination?
- How to choose the right digital influencer?
- How the brands could get the most out of therePartnership with a travel influencer?
- How does the brand measure the impact of the collaboration?
- Do you collaborate with the travel agencies? How do you collaborate?

After collecting all the answers given by the influencers and analyzing them, the answers was quietly the same.

7.1. General summary of responses

1st question: Why is it benefic to work with a digital influencer in order to promote a destination?

Digital influencers use a lot of platforms, including Social Media (Instagram, Facebook, Twitter, Pinterest) and Blogs.

Tourism brands can benefit from working with the influencers, as they can:

- Extend the content reach of the brand (it can be hotel or destination …) – they can offer access to new audiences, by sharing the content with their communities.
- Seduce a new target and Increase the brand trust – Aligning the brand with a good digital influencer can give it an instant credibility to people who may not have ever heard about it.
- Push out the followers to take actions – People are used totake action on a message from a trustworthy person, and if the message is shared by an Influencer, it has better chance of being actioned.

2nd question: How to choose the right digital influencer?

Influencers are one of the most effective communication channels available today, provided they are well chosen. The influential personalities are multiplying, it is a question of finding the one who will best represent the values of the brand or a destination.

- Influencer community must match advertiser's target: Age, interests, geographic location, etc. for example if it's luxury travel or rising a responsible tourism or backpackers … The influencer community profile must be in line with the brand's target.
- Find an influencer in line with the advertiser's values: The image of an influential personality must be in line with the values of a company.
- Quality of content: the brand must make sure that the content the influencer is creating is of the highest possible quality in terms of pictures, writing and stories.
- destination knowledge – It is important that the influencer know the story of the destination (habits,food, history etc.) and is aware of how the tourism industry works.

3rdquestion: How the brands could get the most out of their Partnership with a travel influencer?

It is very important to be clear on the measurable campaign objectives and reporting expectations.

- Making a plan, set out a timeline of all the posts and their content and at the same time leaving some freedom to the influencer because he knows better how to talk with his community.
- Understanding the goals and defining what success would be so the influencer could have a clear idea and objectives on what the brand needs.
- Creating a workflow for the campaign by defining a process with the influencer.

4thquestion: How does the brand measure the impact of the collaboration?

The goals that the hotel or the brand sets at the outset, determine the impact of an influencer on a campaign. These goals have to be measurable in order to track whether or not the influencer is effective.

- Engagement: before starting the campaign, the digital marketing expert should register the statistics (track: likes,shares, comments and click) so after the campaign, he could easily measure the impact.

Same thing must be done for the number of followers, traffic and sales.

- Followers by tracking the number of followers gained through the campaign and influencers.
- Traffic: by using google analytics, the digital marketing expert could see where the traffic is coming from.
- Sales: if the objective and the aim of the campaign is to generate more reservations and sales, all they have to do, is to compare before and after the campaign, which is simple to know if the influencers have helped with it or no.

5thquestion: Do you collaborate with the travel agencies? How do you collaborate?

All the answers for the first part of the question were:Yes.

Influencers collaborate with travel agencies by offering them what they know to do the most, which is creating content on blogs and social media and inviting and teasing people about a service or a destination in exchange for money or free travels, it depends on how the influencer is known and how many real followers he has.

- Production and content creation:Photography,filmmaking,writing.
- Promotion on blogs and social media
- Consulting workshops and speaking

8. CONCLUSION

The Internet represents a wealth of information for travelers and plays a key role in the organization. On the one hand, because the population is more and more connected, on the other hand because the web today gives access to official information from hotel establishments, but also makes it possible to get information on blogs, social networks like Instagram, Facebook etcor other forums run by people whose voice is more authentic. This channel is therefore the privileged place for consumers to choose the destination, to compare prices, be inspired and reassured. More and more people are picking the destinations on what it looks good on their social media feed. Asking friends about travel destination isn't new but with access to a large global audience at their fingertips, social media influencers, eye catching posts are creating the scramble to visit the same places. No wonder why social media influencers are more and more solicited to help bring visitors and money into a region and create jobs and business opportunities for local people. By using attractive content on their social media like IGTV, Reels, pictures , videos and live , Influencers are very important to bring people to any destination. Many digital influencers specialize in the travel industry. by offering original and authentic content through a way of communicating that is specific to them, they offer a new dimension to tourist communication. A veritable relay of information and a source of inspiration, they position themselves as real influencers in terms of tourist trends. in addition, their presence on various digital media enhances their accessibility and fills the need for reassurance felt by tourists when preparing a trip. Therefore, the impact of digital influencers on tourist behavior is of interest to tourism professionals. the latter seek to adapt to the expectations of a connected tourist who is increasingly demanding and informed.the over-solicitation with which the tourist is confronted leads him to turn away from classic advertising promises and to seek information offering a testimonial and authentic value. thus, tourism professionals seek to better target consumers and create a real emotional connection with them, which is essential when it comes to travel. Brands and tourism professionals are therefore developing collaborations with digital influencers by inviting them to discover a brand, a tourism product or a destination and to share content relating their experience with their digital community. The tourism sector thus benefits from the position of digital influencers who, through their publications on social media and especially Instagram, give a more real aspect to the product or the destination.

LITERATURE:

1. Bassaler, J. (2012). Generation Y and new technologies: Tourism 2.0. Retrieved from: http://www.orange-business.com/en/blogs/enterprising-business/tourism/generation-y-and-new-technologies-tourism-20 [2016/01/30].

2. Bughin, J. (2015). Brand success in an era of Digital Darwinism. Mckinsey Quarterly, February
3. Cingula C., D. Rhein, M. Machrafi, *Economic and Social Development*, 31st International Scientific Conference on Economic and Social Development - "Legal Challenges of Modern World", Split, Croatia, June 2018.
4. Dickinger, A. & L. Lalicic (2014). "How emotional do we get? A closer look into the Trip Advisor dialogue" in Z. Xiang & I. Tussyadiah (eds.), Information and Communication Technologies in Tourism 2014. 239-252. Switzerland: Springer International Publishing Switzerland.
5. Gaikwad, M. & Kate, P.H. (2016). E-marketing: A modern approach of business at the door of consumer clear. International Journal of Research in Commerce &Management, 7(9), 56-61.
6. Hammes K., M. Machrafi, V Huzjan (eds), *Economic and Social Development*, 51th International Scientific Conference on Economic and Social Development, Rabat, Morocco, March 2020.
7. Hammes K., M. Machrafi, A. Samodol (eds), *Economic and Social Development*, 38th International Scientific Conference on Economic and Social Development, Rabat, March 2019.
8. Przygoda M., P. Misevic, M. Machrafi (eds), *Economic and Social Development, 48th International Scientific Conference on Economic and Social Development*, – "Managerial Issues in Modern Business", Warsaw, November 2019.
9. RadmilaŽivković, Jelena Gajić and Ivana Brdar . (2014). The Impact of Social Media On Tourism. Chapter 1 : Contemporary Communications in Tourism. P7-12.
10. Roberta Minazzi. (2015) Social Media Marketing in Tourism and Hospitality. Chapter 6. Pages21.45.https://www.researchgate.net/publication/283765354_Social_Media_Marketing_in_Tourism_and_Hospitality
11. Rosemary Matikiti-Manyevere. (2019). The role of social media sites in trip planning and destination decision-making processes. P3-5.
12. Schmunk, S., W. Höpken, M. Fuchs & M. Lexhagen (2014). "Sentiment analysis: Extracting decision-relevant knowledge from UGC" in Z.
13. Sparks, B., H. Perkins & R. Buckley (2013). "Online travel reviews as persuasive communication: The effects of content type, source, and certification logos on consumer behaviour" Tourism Management, 39: 1-9.

WORK ENVIRONMENT AS AN IMPORTANT MOTIVATION FACTOR FOR EMPLOYEES

Andreja Rudancic
Assistant Professor at Libertas International University, Trg J.F.Kennedya 6b, Croatia
arudancic@hotmail.com; arudancic@libertas.hr

Sandra Sokcevic
Associate Professor at Libertas International University, Trg J.F.Kennedya 6b, Croatia
sokcevic@net.hr; ssokcevic@libertas.hr

Simo Maric
Libertas International University, Trg J.F.Kennedya 6b, Croatia
simo.maric98@gmail.com

ABSTRACT
The paper focuses on surveying employee satisfaction with workplace conditions. Given the importance of employee retention, achieving a high level of satisfaction is necessary for companies in order to have highly productive and satisfied workers, who can consequently contribute even more to the improvement of business operations. Employees' work satisfaction is a crucial determinant in the performance of work tasks since it directly affects the productivity of employees and the quality of work processes. The authors conducted empirical research on the business model of a company involving its employees. The following hypothesis was set and tested: "The work environment and relations in a company are an important factor of employee satisfaction." Methods of descriptive and inferential statistics are used in the presentation of research results. The general conclusion of the research is that work environment has an important impact on increasing the level of workplace satisfaction, which directly affects the increase in employee productivity.
Keywords: *motivation theories, human resources, work environment, job satisfaction*

1. INTRODUCTION

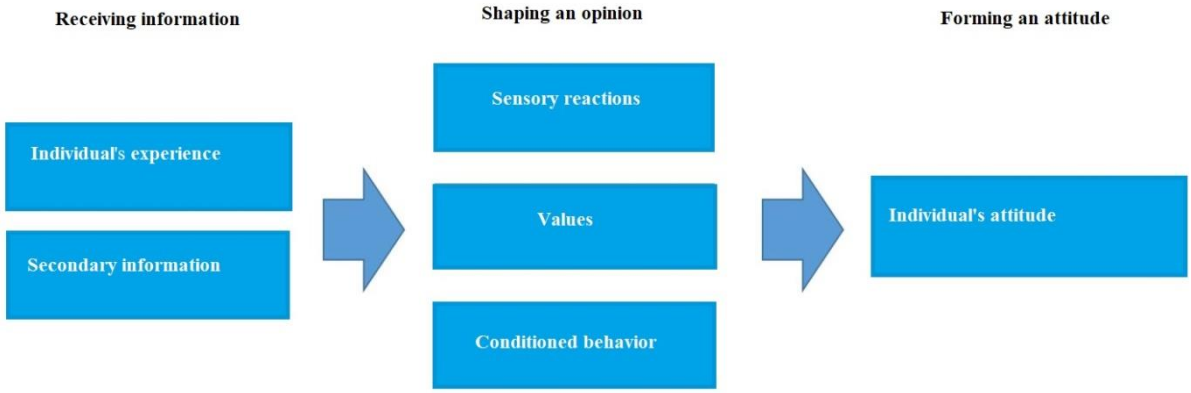
Job satisfaction is extremely important, both for the benefit of each individual and for companies, given that satisfied employees contribute more to improving company performance. Therefore, companies must continuously work on monitoring the level of satisfaction of their employees and try to raise their level of satisfaction. To gain insight into key determinants of job satisfaction, the paper will further analyze the way attitudes are formed in people and certain theories that define employee motivation, as well as the impact of job satisfaction on productivity and work performance of employees.

1.1. The process of forming individuals' attitudes

The starting premise in the process forming people's attitudes and preferences is that each human being is somewhat different, i.e., has different motivators and demotivators that, to various extent, influence the perception of certain phenomena and events, and, consequently, the formation of attitudes about these phenomena and events. Therefore, it can be concluded that it is not possible to define universal factors that influence the formation of positive or negative views; however, it is possible to identify key aspects that affect the formation of individuals' attitudes. Attitudes are formed by processing information that an individual receives from his/her environment. These information may be manifested through direct experience of an individual or dissemination through the media or other individuals in his/her environment.

It can therefore be concluded that individuals form their views based on direct and indirect information they receive (Zyga, 2008). It should also be noted that attitudes are usually formed over a certain period, which means that it is necessary to continuously encourage or discourage certain beliefs, to say that an individual has formed an attitude on something. Also, some individuals can form very firm attitudes, while others are more susceptible to changing their attitudes (Psychology, 2020).

Figure 1: The Process of Forming Individuals' Attitudes



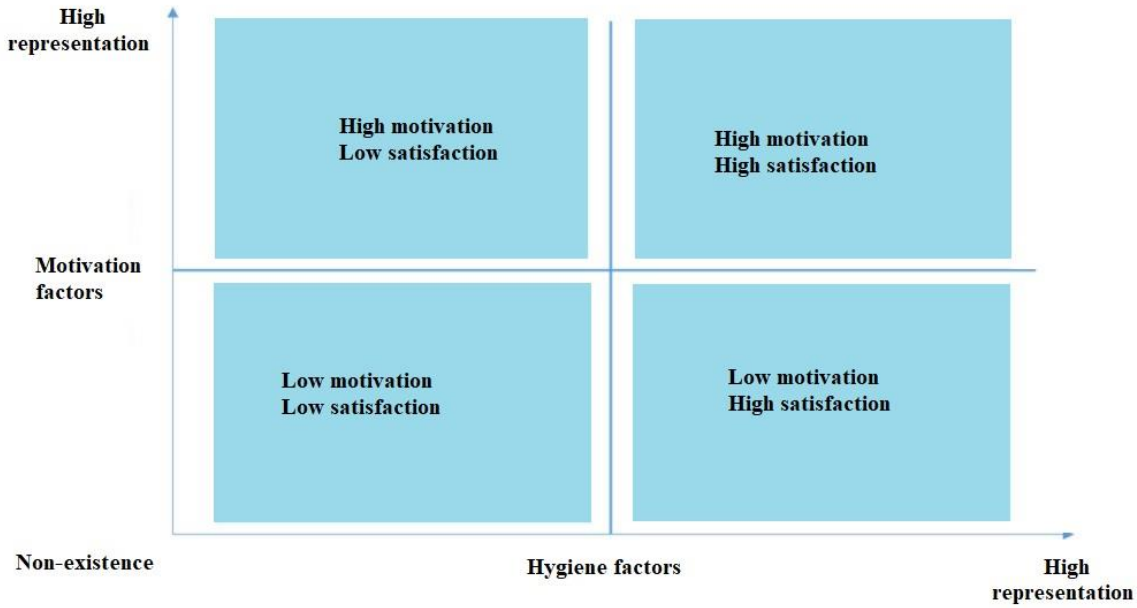
Source: Authors' processing according to Cai, et al. (2016). Skinner operant conditioning model and robot bionic self-learning control, Technical Gazette, 23 (1): 68 and Psychology (2020), Attitude Formation, available at http://psychology.iresearchnet.com/social-psychology/attitudes/attitude-formation/, accessed: 24 January 2021

By reviewing the key elements influencing the processing of stimuli from the environment and the formation of attitudes, it can be concluded that the formation of individuals' attitudes is a complex psychological process that is not only influenced by one, but by many different factors and stimuli, and that formation of attitudes does not only depend on the actions of the individual, but also on the activities of the environment in which the individual is situated.

2. EMPLOYEE MOTIVATION THEORIES

To gain a better understanding of the formation of attitudes in a work environment, some theories that explain the formation of attitudes and the relationship between employees' attitudes and motivation will be considered. Maslow's Theory of the Hierarchy of Needs is one of the most famous behaviorist theories, considering its simplicity and applicability in practical life. The basic assumption of Maslow's theory is that an individual is constantly motivated through efforts to reach the next level of the pyramid, i.e. to satisfy the needs that are above the needs that are currently met. Therefore, it can be concluded that human beings try to meet their needs according to their necessity, before moving to meet their needs at the next level only after they had met a lower level of needs (Zagreb Psychological Association, 2018). Although many aspects of business life, such as salaries and promotions, can be linked to elementary needs to provide food and accommodation, it should be noted that compensation is usually not a variable of existential needs, but of an increase in purchasing power and the living standard. Herzberg's Motivation Theory or Two Factor Theory, unlike Maslow's theory, which focuses on a general description of motivation and classification of human needs, is focused on motivation in work environment, i.e. factors influencing employee motivation (Expert Program Management, 2020).

Figure 2: The Matrix of Combinations of Hygiene and Motivation Factors



Source: Authors' processing according to Value-Based Management (2019), Summary of Herzberg's Motivation and Hygiene Factors, available at https://www.valuebasedmanagement.net/methods_herzberg_two_factor_theory.html, accessed: 21 January 2021

By reviewing the matrix of combinations of hygiene and motivation factors, it can be concluded that it is no longer sufficient for companies to focus on fulfilling only one category, but rather to work on simultaneous fulfillment of both categories, to maximize productivity and employee satisfaction. Furthermore, the X and Y theory is based on the approach of managers motivating employees depending on the management's perception of the employee. McGregor (Kopelman, 2013:875) states that managers can advocate two contradicting views. Namely, the X theory focuses on the development of a work environment in which employees are constantly monitored, and it is considered that they will not be able to do their job well if the management does not daily control the work of every employee. Contrary to the X theory, it is evident in the Y theory that the approach to employees is completely opposite, i.e. that employees are considered highly motivated and capable, which means that the management controls their work to a lesser extent. It should be noted that neither of these two theories functions as an ideal model in practice because people cannot be parameterized based on several fixed assumptions (people have different character traits, skills, and abilities, and change each day). Therefore, taking firm stances within the X and Y theory is not the best solution in the contemporary business world; employees should be approached individually.

2.1. The impact of job satisfaction on productivity and work performance

To investigate the impact of job satisfaction on productivity and business performance, it is first important to understand the very concept of job satisfaction. According to Mallick (2020), in the simplest of terms, job satisfaction can be defined as the level of satisfaction employees feel as a result of their work. Therefore, job satisfaction is directly related to various aspects of work performed by employees. Furthermore, although satisfaction is often not expressed in absolute terms, Supriyanto and Darma (2013:70) state that employees can be satisfied or dissatisfied with the work they perform, and that satisfaction level is directly correlated with their work performance, i.e. the quality of their work.

Regarding the relationship between job satisfaction and productivity and work performance, it should be pointed out that companies must have a clearly defined metrics by which they measure productivity, as well as the parameters by which performance is measured and assessed. It is also necessary to parameterise and monitor employee satisfaction to establish the correlation between changes in these factors. The impact of increasing employee satisfaction on work efficiency has also been empirically proven. A survey conducted in 2016 on a sample of 5806 employees of large and medium-sized enterprises in the Republic of Croatia showed that there is a strong correlation between high level of motivation and productivity of employees (Bakotić, 2016:121).

2.2. The importance of employees' workplace conditions

Workplace conditions relate to the organisation of work, work activities, training and education of employees, and workplace safety. When it comes to working conditions, they are in most cases clearly defined by the contract of employment between the employer and the employee, and as a rule, cannot be changed without the consent of both parties. Although minimum technical requirements in the workplace, such as the scope of work, responsibilities in the workplace, workplace temperature, and safety requirements are prescribed by national regulatory authorities, merely meeting the minimum technical requirements is not enough to motivate employees; it is necessary to provide employees with better conditions, to increase their satisfaction at work and thus their level of productivity (EurWork, 2011). Petersen (2018) states work conditions may have a significant impact on the morale and productivity of employees. Furthermore, high-quality working conditions promote the well-being of employees, reducing the chances of workplace injuries, as well as financial obligations arising therefrom, and the need for rest. Company owners who invest in workplace improvements and nurture a positive work culture are often rewarded with better employee performance and higher profit. Therefore, it can be concluded that work conditions are really important for achieving an adequate level of employee satisfaction and productivity. However, it is important to note that the development of work conditions requires continuous investment, which means that work conditions must improve over time to meet the wishes and needs of employees. The importance of work conditions and business satisfaction was confirmed empirically, in a survey conducted in 2013 on a sample of 60 employees in a Croatian shipyard (Bakotić and Babić, 2013). Results of the conducted research have shown that employees working in a more comfortable work environment (administrative activities) are more satisfied than employees working in a production plant, which is why it can be concluded that workplace conditions have a direct impact on job satisfaction.

3. METHODOLOGY

The research in this paper was conducted using the methodological tool of a questionnaire in the period 20 September 2020 to 20 October 2020.The survey was carried out on a sample of a business organisation in different activity departments. Participation in the survey was completely anonymous and respondents' turnout was 70%. The questionnaire included 44 questions in ten key categories such as engagement and commitment to work, work environment, managers' efficiency, accountability and business performance management, cooperation, company management, business organization, clarity of business objectives and directions, speed of change, integrity, salaries/benefits. Due to the above-mentioned topic of the paper, the focus in the presented research results will be on the criterion of the employees' work environment set in the criterion 'company business organization'. The company business organization criterion had set research variables such as employees' work activities, training and education of employees, and workplace safety.

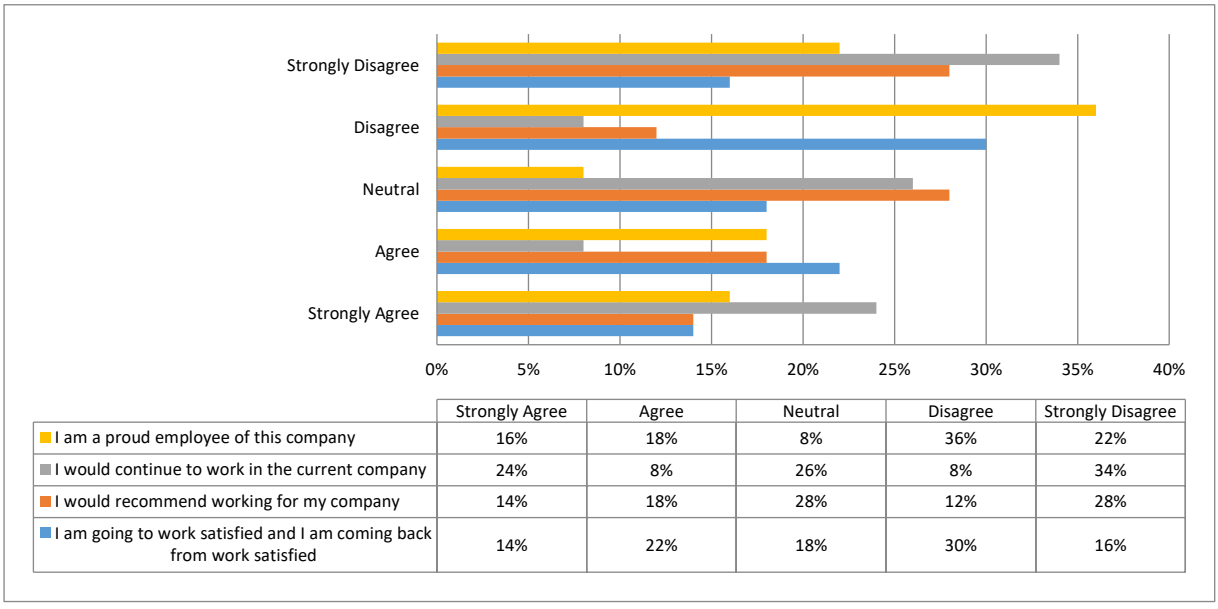
Within the set variables, the 5-point Likert scale was used to obtain a response, where for each selection criterion I disagree - I agree the respondents could circle one answer on the scale from 1 to 5. Scores 1-5 are expressed as follows:

- 1 - Strongly Disagree
- 2 - Disagree
- 3 - Neutral
- 4 - Agree
- 5 - Strongly agree.

3.1. Research results and discussion

The respondents were posed 7 parametric questions related to sex, work experience, and workplace in order to gain a better understanding of the structure of the sample analyzed through the questionnaire. An overview of the respondents' response structure shows that significantly more men than women work in the selected business organisation. It was noted that the majority of respondents are in the 30-50 age group, while employees under 30 years of age are relatively underrepresented in the structure of respondents (with 12% share), which means that the company employs more experienced employees and that employees usually stay in the workplace for a long time. Furthermore, in terms of education, it was clear that the categories of secondary and tertiary education were predominantly represented, while higher education was significantly less represented. Also, the vast majority of employees (80%) are employed for an indefinite period. In the criterion of the questionnaire relating to engagement and commitment to work (the set variables: "I am going to work satisfied and I am coming back from work satisfied.", "I would recommend working for my company-", "I would continue to work in the current company.", "I am a proud employee of this company."), the following responses of the respondents were received.

Graph 1: The structure of respondents' responses regarding engagement and commitment to work



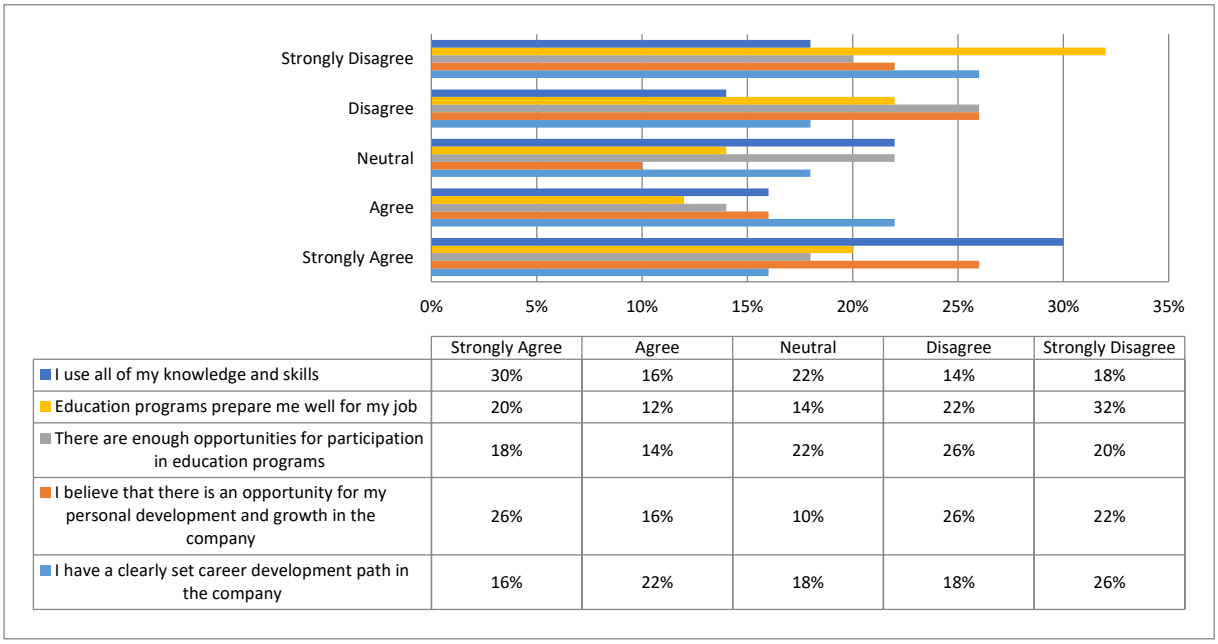
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I am a proud employee of this company	16%	18%	8%	36%	22%
I would continue to work in the current company	24%	8%	26%	8%	34%
I would recommend working for my company	14%	18%	28%	12%	28%
I am going to work satisfied and I am coming back from work satisfied	14%	22%	18%	30%	16%

Source: Authors' processing according to filled-in questionnaires

By reviewing the respondents' replies, it can be observed that most of them agree or strongly agree with the statement that they are proud of their employment in the company. Furthermore, most employees strongly agree with the statement that they would stay employed in the current

company if they were offered a similar job. It is interesting to note that there is a certain gap between the first two and the last two statements in this category. As part of the statement of the willingness to make a recommendation, the most frequent categories of answers are "Strongly Agree" and "Neutral", which means that the employee's pride in working in the company is not fully correlated with the willingness to make a recommendation. Finally, in the structure of respondents' responses to the variable "I am a proud employee of this company.", it can be concluded that most employees are mostly or fully satisfied, but the level of satisfaction is lower than the level of satisfaction regarding pride in working for the company. The following responses were obtained in the questionnaire in relation to the question on the opinion about company management.

Graph 2: The structure of respondents' responses regarding company management



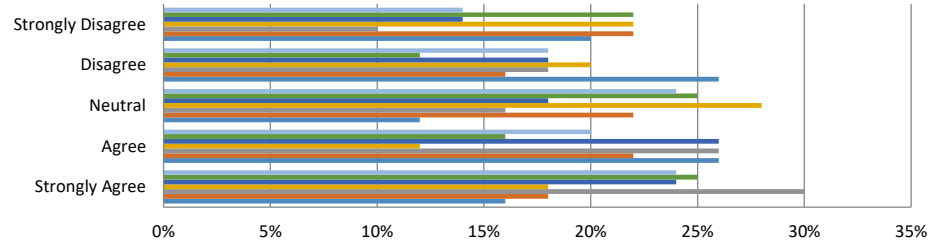
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I use all of my knowledge and skills	30%	16%	22%	14%	18%
Education programs prepare me well for my job	20%	12%	14%	22%	32%
There are enough opportunities for participation in education programs	18%	14%	22%	26%	20%
I believe that there is an opportunity for my personal development and growth in the company	26%	16%	10%	26%	22%
I have a clearly set career development path in the company	16%	22%	18%	18%	26%

Source: Authors' processing according to filled-in questionnaires

The structure of respondents' responses made it clear that the level of satisfaction with company management is relatively high. As for the possibility of using knowledge and skills in the workplace, it is evident that most respondents disagree with the statement (30%), based on which it is concluded that the employees' potential has not been sufficiently used. Next, in relation to the adequacy of education programs for doing their job, most respondents answered that they strongly agree with this statement (30%), while few employees stated they disagreed with the statement. Regarding the existence of an adequate number of opportunities for participation in the company's education programs, most respondents stated they agreed with the statement (26%), while few employees (like in the previous statement) stated they disagreed with the statement (16%). Finally, regarding the clear path to career development in the company, most employees stated they strongly agreed with the statement (26%), while few employees, or 16%, stated they strongly disagreed with the statement. The question about the adequacy of the company business organization and the structure of respondents' responses show that most employees are relatively satisfied with the company's business organization (most of the respondents agree or strongly agree with the statements in this research criterion). In relation to access to the necessary information, most respondents stated that they strongly agreed with this statement (22%), while few respondents stated they strongly disagreed (10%). As for the possibility of making changes, most respondents stated they strongly agreed with the statement (30%), but it is interesting to note that the same number of respondents claimed to be

neutral towards this statement. Regarding the issue of adequacy of employees in the departments in which they work, most respondents stated they agreed with that statement (28%), while few respondents stated they strongly disagreed. (14%). In terms of workplace safety, most respondents strongly agree with this statement (30%), while few respondents strongly disagreed with this statement (10%).

Graph 3: The structure of respondents' responses regarding the opinion on the adequacy of company business organization



	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I have access to the necessary resources for my job.	24%	20%	24%	18%	14%
I can make changes	25%	16%	25%	12%	22%
My department has adequate employees for work performance	24%	26%	18%	18%	14%
In my department, decisions are made on time	18%	12%	28%	20%	22%
I feel safe from workplace-related accidents or injuries	30%	26%	16%	18%	10%
I am satisfied with the work environment	18%	22%	22%	16%	22%
The work schedule is communicated on time	16%	26%	12%	26%	20%

Source: Authors' processing according to filled-in questionnaires

Consequently, it can be concluded that most positive responses ("agree" or "strongly agree" with these statements) were recorded in the above mentioned observed criteria, which indicates a relatively high level of employees' work satisfaction in the selected business entity.

4. CONCLUSION

Based on the research carried out in this paper, in connection with the examined criterion of the "the impact of work environment on employee motivation", using variables such as engagement and commitment to work, opinion on company management, and adequacy of business organization, the following conclusions can be drawn:

a) In terms of engagement and commitment to work, the best results are recorded in the aspect of staying in the current company, even in the case of receiving an adequate offer from another employer. This will certainly keep the company's best employees in the company for a longer period.
b) In terms of company management, the best results are recorded in the aspect of clear career development path in the company. This means that company management transparently directs employees' careers in accordance with their knowledge, skills, and aspirations.
c) In terms of company business organization, the best results are recorded in the aspect of the feeling of safety from work-related accidents or injuries. This means that the company has been working on maintaining an adequate level of safety, especially taking into account the relatively high risk of the occurrence of an adverse event in the activity it is operating in.

In general, it can be concluded that relatively favorable results were recorded in the structure of respondents' responses to the questions and variables.

This confirms the tested hypothesis set up in this paper. Limitations resulting from this research are primarily the intentionally selected business entity, i.e. the size of the sample and the short period of the conducted research. Given these limitations, more detailed and comprehensive research are recommended on a larger representative sample of all business entities operating in the Republic of Croatia over a longer period.

LITERATURE:

1. Bakotić, D. (2016), Relationship between job satisfaction and organisational performance, *Economic Research-Ekonomska Istraživanja*, 29 (1): 118-130
2. Bakotić, D., Babić, T. (2013), Relationship between Working Conditions and Job Satisfaction: The Case of Croatian Shipbuilding Company, *International Journal of Business and Social Science*, 4 (2): 206-213
3. Cai, et al. (2016). Skinner operant conditioning model and robot bionic self-learning control, *Technical Gazette,* 23 (1): 65-75
4. Expert Program Management (2020), Herzberg's Motivation Theory – Two Factor Theory, available at: https://expertprogrammanagement.com/2018/04/herzbergs-two-factor-theory/, accessed: 28 January 2021
5. https://hbr.org/1993/09/why-incentive-plans-cannot-work, accessed: 20 January 2021
6. Kopelman, R.E. (2013), Theory X and Theory Y, *SAGE Publications,* 1 (2013): 874-878
7. Mallick, C. (2020), What Is Job Satisfaction? Definition, Factors, Importance, Statistics, and Examples, available at: https://www.toolbox.com/hr/engagement-retention/articles/what-is-job-satisfaction/, accessed: 24 January 2021
8. Psychology (2020), Attitude Formation, available at: http://psychology.iresearchnet.com/social-psychology/attitudes/attitude-formation/, accessed: 24 January 2021
9. Supriyanto, A. S., Darma, P. S. (2017), The Effect of Compensation on Satisfaction and Employees Performance, *Management and Economics Journal*, 1 (1): 69-78
10. Rudančić, A. (2019), The role and importance of human resource management in tourism in the Republic of Croatia, *45th International Scientific Conference on Economic and Social Development – XIX International Social Congress*, Moscow: 169-176
11. Value-Based Management (2019), Summary of Herzberg's Motivation and Hygiene Factors, available at: https://www.valuebasedmanagement.net/methods_herzberg_two_factor_theory.html, accessed: 19 January 2021
12. Zagrebačko psihološko društvo (2018), Abraham Maslow, available at: https://zgpd.hr/2018/07/31/abraham-maslow/, accessed: 18 January 2021
13. Zyga, L. (2008), Physicists model how we form opinions, available at: https://phys.org/news/2008-04-physicists-opinions.html, accessed: 17 January 2021

THE IMPORTANCE OF FISCAL STRATEGIES FOR SMART CITIES

Sabina Hodzic
Associate Professor at University of Rijeka,
Faculty of Tourism and Hospitality Management, Croatia
Primorska 42, Ika, Opatija, Croatia
sabinah@fthm.hr

Dubravka Jurlina Alibegovic
Senior Research Fellow, The Institute of Economics Zagreb, Croatia
Trg J.F. Kennedyja 7, Zagreb, Croatia
djurlina@eizg.hr

Bojana Olgic Drazenovic
Associate Professor at University of Rijeka,
Faculty of Economics and Business, Croatia
Ivana Filipovića 4, Rijeka, Croatia
bojana.olgic.drazenovic@efri.hr

ABSTRACT

In recent years urban and local development have faced many economic, social and financial challenges. As a result of these challenges, the concept of smart cities has evolved. In this paper, we use a smart city definition that encompasses six main dimensions – smart economy, smart people, smart governance, smart mobility, smart environment, and smart living. As a part of urban and local development, smart cities are faced with budget balance challenges in the short and the long run. Furthermore, there is also the emergency of COVID-19 pandemic that changed the budget structure and requires services from cities. Many local officials will tactically deploy financial measures where appropriate fiscal strategy of a smart city is necessary. Therefore, the aim of this paper is to present the concept of smart cities, to define the indicators and to stress the importance of fiscal strategies for smart cities. By implementing the appropriate fiscal strategy, there is a chance that the goals of sustainable development within smart cities will be achieved. Moreover, it will improve the quality of life by offering new services, reduce operating costs, improve advanced technologies and digitalisation processes. To achieve this, smart cities and other public entities must find investors and financial institutions willing to finance smart projects in a challenging environment. To support them, both national and local governments need to highlight their effort to fulfil basic infrastructure needs, increase more revenue, define regulatory frameworks, ensure digital inclusion and promote financial sustainability. Based on smart cities' dimensions, the main component of this paper is to present challenges and find recommendations for local authorities to address fiscal strategies fostering the establishment of smart cities.

Keywords: *Budget, Fiscal strategies, Local development, Smart cities*

1. INTRODUCTION

Nowadays, almost every city worldwide is striving to follow the smart city concept. The results are being observed in human, social, economic and technical research fields. The label of "smart city" has an impact on both urban and fiscal strategies in either large or small towns. Therefore, the concept of smart city has been gaining importance over the past 20 years. The main actors enabling the implementation of smart cities are governments (central and local), as well as research and education institutions. Smart city will benefit the public administration by providing better public services, firms and business by more innovative economic environment,

and citizens by achieving a better quality of life i.e. an improved environment, public services, economic and work opportunities. In order to measure smartness performance of a city, all the goals and processes should be clearly defined and quantified. According to Dameri (2014) there are four components when defining smartness, namely land, infrastructure, people and government. Hodžić and Arnautović (2019) found that the development of the smart city concept bearing technological progress must be open to all social, economic, and emotional sides of human life. Therefore, decision-makers must provide a stable local financial management system (Hodžić et al. 2020). Hence, the aim of this paper is to present the concept of smart cities, define the indicators and present the importance of fiscal strategies for smart cities. The contribution of the paper is twofold. First, it provides an overview of the concept of smart city as well as the indicators, and second, it emphasizes the importance of fiscal strategies for the establishment of the concept of smart city. The paper is organised as follows: after a brief introduction, in Section Two there are presented the concept and definitions of "smart city". There are also determined the indicators of a smart city and their main characteristics. Section Three provides analysis for the smart city ranking, focusing on the world's most developed smart cities. Section Four emphasizes on the importance of fiscal strategies for smart cities, while the last section provides the conclusions and recommendations for further research.

2. THE SMART CITY CONCEPT

The concept of smart city has been developed over the last 20 years. Nowadays, due to many challenges, such as urban sustainable development, education, energy, environment, governance, safety and public services, this concept has become a determining factor for urban development planning. It is a strategic key for solving problems in cities, such as improving the quality of life, reducing budget-related operating costs and achieving goals of sustainable development. According to Ying Tan and Taeihagh (2020), on the one side, there are eight important driving factors for the smart city development. These are: "financing capacity of the government; strong regulatory environment; technology and infrastructure readiness; human capital; stability in economic development; active citizen engagement and participation; knowledge transfer and participation from the private sector; and supportive ecosystem that promotes innovation and learning" (p. 8). On the other side, Ying Tan and Taeihagh (2020) found ten barriers to smart city development. These are: "budget constraints and financing issues; lack of investment in basic infrastructure; lack of technology-related infrastructure readiness; fragmented authority; lack of governance frameworks and regulatory safeguards; lack of skilled human capital; lack of inclusivity; environmental concerns; lack of citizen participation; and technology illiteracy and knowledge deficit among the citizens" (p. 11). By observing scientific literature, there are a number of authors who discussed the concept of smart city. The set of various definitions of the smart city concept is herein presented in Table 1.

Table following on the next page

Definitions	References
A smart city is a city that performs well in a forward-thinking way in six characteristics, built on 'smart' combination of endowments and activities of self-decisive, independent and aware citizens.	Giffinger et al. (2007)
The smart city is the use of smart computing technologies to make the critical infrastructure components and services of a city – which include city administration, education, healthcare, public safety, real estate, transportation, and utilities – more intelligent, interconnected and efficient.	Washburn et al. (2010)
A smart city is when investments in human and social capital and traditional and modern communication infrastructure fuel sustainable economic growth and a high quality of life, with a wise management of natural resources, through participatory governance.	Caragliu, Del Bo & Nijkamp (2011)
A smart city is an ICT-enabled public sector innovation undertaken in urban settings. It supports long-standing practices for improving operational and managerial efficiency and quality of life by building on advances in ICTs and infrastructures.	Nam and Pardo (2011)
Smart cities should do everything related to governance and economy by using novel paradigms and networks of sensors, smart devices, real-time data and ICT integration in every aspect of human life.	Cretu (2012)
A smart city is a city that gives inspiration, shares culture, knowledge and life, a city that motivates its inhabitants to create and flourish in their own lives.	Rios (2012)
A smart city is well-defined geograohical area, in which high technologies such as ICT, logistic, energy production, and so on, cooperate to create benefits for citizens in terms of well-being, inclusion and participation, environmental quality, intelligent development; it is governed by a well-defined pool of subjects, able to state the rules and policy for the city government and development.	Dameri (2013)
Smart cities represent a conceptual urban development model based on the utilization of human, collective and technological capital for the enhancement of the development and prosperity in urban agglomerations.	Angelidou (2014)
A smart city is a city that efficiently mobilizes and uses available resources (social, cultural, capital, financial capital, natural resources, information and technology) for efficiently improving the quality of life of its inhabitants, commuting workers and students and other people.	Houvila et al. (2017)

Table 1: Definitions of the concept of a smart city
(Source: Authors' compliation)

On the basis of the above-mentioned definitions of a smart city, the conclusion may be drawn that smart cities rely on the following four components: intellectual, social, technological, and financial capital.

In addition, if a city has a larger intellectual capital, than it can use its knowledge to choose best solutions for further development of economic growth, sustainable development and city quality.

2.1. Indicators and Characteristics of a Smart City

In order to establish the concept of smart city, the key determinants are dimensions and indicators. Thus, smart city dimensions and indicators are presented in Table 2 herein.

Smart economy	Innovative spirit Entrepreneurship Economic image and trademarks/city image Productivity Flexibility of labor market International integration
Smart people	Level of qualification/education Lifelong learning Ethnic diversity Open-mindedness
Smart governance	Participation in public life/political awareness Public and social services Transparent governance/ Efficient and transparent administration
Smart mobility	Local accessibility/local transport system International accessibility Availability of ICT infrastructure/ICT infrastructure Sustainability of transport system
Smart environment	Environmental conditions Air quality (no pollution) Ecological awareness Sustainable resource management
Smart living	Cultural facilities Health conditions Individual security Housing quality Education facilities Touristic attractiveness Economic welfare/Social cohesion

Table 2: Smart city dimensions and indicators
(Source: Giffinger et al. 2007, p. 12.)

Based on the above-mentioned dimensions and indicators, we can conclude that the concept of smart city involves a multidimensional framework, i.e. technology, institutions and people. However, a particular problem resides in the fact that every institution in Europe and beyond have created their own smart city indicators. Following research of Angelidou (2017) the characteristics of a smart city are information and communications technology, internet, human and social capital, promotion of entrepreneurship, global collaboration and networking, privacy and security, locally adapted strategies, participatory approach, and interdisciplinary planning. The aim is to ensure efficient use of human capital, resources and assets to optimize their comparative advantages. Hence, besides the government sector, also the private sector has an important role in the establishment of smart cities, especially with its financial resources.

The concept of smart city shall also take into account the viewpoints of all stakeholders (citizens included), as well as the representatives of economic, social, cultural and political organizations.

3. ANALYSIS OF SMART CITY RANKING

Following the IMD-SUTD Smart City Index Report (2020) which provides results of measurement and benchmarking of smart cities across the world, Table 3 presents the rank of the top 20 smart cities in the world. This index assesses the perception of residents on issues related to structures and technology applications available to them in their city. It ranks 109 cities worldwide and there are two pillars – structures and technology. The first pillar refers to city infrastructure, while the second one to technological provisions and services available to the inhabitants. Moreover, each pillar is evaluated over five key areas: health and safety, mobility, activities, opportunities, and governance. In addition, cities are assigned a 'rating scale' (AAA to D) based on the perceptions-score of a given city compared to the scores of all other cities within the same group.

Smart City Rank	City	Smart City Rating
1.	Singapore	AAA
2.	Helsinki	AA
3.	Zurich	AA
4.	Auckland	AA
5.	Oslo	AA
6.	Copenhagen	AA
7.	Geneva	AA
8.	Taipei City	A
9.	Amsterdam	A
10.	New York	A
11.	Munich	A
12.	Washington D.C.	A
13.	Dusseldorf	A
14.	Brisbane	A
15.	London	A
16.	Stockholm	A
17.	Manchester	A
18.	Sydney	A
19.	Vancouver	A
20.	Melbourne	A

Table 3: Worlds Smart City Ranking 2020
(Source: IMD-SUTD Smart City Index Report 2020, p. 9.)

Based on the data shown, we can conclude that the 2020 best smart city is Singapore, followed by Helsinki and Zurich. This can be explained by the fact that the government of Singapore launched in 2014 the Smart Nation Initiative, with the aim of creating a city powered by digital innovation and technology that responds to citizens' daily needs. Moreover, the concept of smart city was focused on prioritizing on health and mobility. There was a great impact on local government fiscal strategies since all expenditures had to be covered from the revenue.

4. THE IMPORTANCE OF FISCAL STRATEGIES FOR SMART CITY

Today, all smart cities around the world, evolve and adapt to changing economic, social, and political circumstances. In creating a public policy that is in line with citizens' interests, the local government is an important determinant (Hodžić and Paleka, 2020). Therefore, many local decision-makers are concerned about budget balances in the short and long term. The key element in financing all public functions of the cities is budget. Every budget consists of revenues and expenditures which are important determinants when analyzing their fiscal capacity. Prior to the analysis of the fiscal capacity, it is essential to examine the local fiscal structures and how a fiscal regime creates a fiscal environment by following fiscal strategies. Central fiscal structures primarily shape a city's intergovernmental context. To such purpose, Goldsmith and Stitt (2020) proposed the following fiscal strategies to increase revenues within local budgets (Goldsmith and Stitt, 2020, p. 3):

1) "*Reexamine public value* – define public value and examine its performance scorecard;
2) *Create a dedicated office for cost savings and innovation* – focus on cost management issues that can help policymakers understand the true tradeoffs associated with their spending decisions;
3) *Transition to a culture relentlessly focused on numbers and data* – focus on data transparency where everybody must know and manage by the numbers and data;
4) *Use lateral benchmarking to drive innovation and performance* – increase public sector competitive benchmarking reports in order to increase competitiveness among them;
5) *Gainsharing* – this a system of management that incentivizes a higher level of performance through the structured investment and participation of employees. Hence, employees will be more productive, resourceful and more flexible;
6) *Rapidly adopt other's innovations* – since each local community have unique features, it is unlikely that each local community's service function needs to imply specific design. Hence, contextualizing and adopting know best practices across all local government could potentially generate billions of dollars of cost savings and myriad service improvements;
7) *Leverage competencies of private partners* – increase public-private partnerships which will increase access to capital, talent, economies of scale, and global best practices while simultaneously reducing risk and shortening project timelines;
8) *Monetize operational excellence* – this refers to use an asset sale, concession lease, or management contract to unlock underperforming asset (typically infrastructure), while controlling important issues of access, equity and pricing;
9) *Eliminate the red tape* – local governments generate a lot of bureaucracy. To decrease this, there is a need for clear rules that protect the public and do not require expensive and time-consuming handsoff from agency to agency coupled with often unnecessary documentation;
10) *Adopt self-managed teams* – the practice helps empower local governments' best employees to take on more ownership of their work as well as more leadership duties;
11) *Rapidly adopt technology tools* – local governments must implement technologies such as Internet-of-Things (IoT), blockchain, Big Data and many more. This will increase their efficiency and reduce costs.

Following all aforementioned fiscal strategies with the aim to increase the revenues, every local government unit worldwide is now faced with dynamic challenges, including the COVID-19 pandemic. This will especially affect financial challenges and result in a great increase in demand for public services. As far as Europe is concerned, there is now a growing number of European smart city pilots, supported by both market stimulation from the EU and state investments. Following this dynamic process, standard fiscal strategies should be replaced with modern ones, in order to increase fiscal autonomy and fiscal performance of local government units, i.e. cities.

Although government money may be the solution, the local government units should rely on their own financial resources and invest in areas that will create more revenue to meet public needs. Therefore, the fiscal strategy of a certain local government unit may be difficult to implement but will help cities, i.e. smart cities to be more resilient and better prepared for tomorrow's challenges.

5. CONCLUSION

Cities, as parts of local government units represent a global phenomenon of urbanization. In addition, they are facing many challenges, such as financial, economic, social, and even the COVID-19 pandemic. For example, in Amsterdam the economic fallout due to COVID-19 pandemic is estimated at EUR 1.6 billion per month in the tourist sector and a 1.5 - 2.8% decrease in growth. In London, the primary engine of the UK's overall economic growth, local government finance is facing a difficult financial challenge. Hence, local councils face a 7.9% increase in expenditure compared to the 2020 pre-crisis expenditure, and a 5.1% decrease in revenue. As a measure, many subnational governments will try to introduce other fiscal tools and measures, including tax arrangements and more flexible, modern and innovative financial management tools in view of achieving fiscal stability in the medium and long term. A vital challenge is also the balancing of economic performances and living conditions, as well as a more efficient use of infrastructure. The solution to overcoming such challenges may be found in the concept of the smart city model. This concept covers different topics such as smart economy, smart people, smart governance, smart mobility, smart environment, and smart living. Each topic relies on its own indicators to measure the level of smartness. However, there is a downside to the establishment of this concept: insufficient financial resources to fund all public functions and services, and suitable fiscal strategies. Owing to a challenging fiscal environment, the financial capacity of local government units is limited. Therefore, the smart city market provides a massive growth opportunity for investors. By means of suitable fiscal strategies, investors will provide different financial instruments and conceive new ways of doing business. Unfortunately, owing to the COVID-19 pandemic, cities are forced to balance their budgets quickly, which, in most cases, led to comprehensive service cuts. Therefore, smart cities should implement the fiscal gap indicator, which provides a good measure of local governments' fiscal health. The recommendation for further research is to examine the efficiency of fiscal performance, including fiscal strategies and the level of fiscal gap in European smart cities.

ACKNOWLEDGEMENT: *This paper has been financially supported by the University of Rijeka, for the project ZP UNIRI 7/18, "Pametni gradovi u funkciji razvoja nacionalnog gospodarstva" (uniri-drustv-18-255-1424) and "The efficiency and regulation of financial institutions in function of the development of Croatian economy" (uniri-drustv-18-61) projects.*

LITERATURE:

1. Angelidou, M. (2017). The Role of Smart City Characteristics in the Plans of Fifteen Cities. *Journal of Urban Technology*, 24 (4) (p. 3-28).
2. Angelidou, M. (2014). Smart city policies: A spatial approach. *Cities*, 41 (p. S3-S11).
3. Caragliu, A., Del Bo, C., Nijkamp, P. (2011). Smart Cities in Europe. *Journal of Urban Technology*. 18 (2), (p. 65-82).
4. Cretu, L.G. (2012). Smart Cities Design using Event-driven Paradigm and Semantic Web. Informatica Economica, 16 (4), (p. 57-67).

5. Dameri, R. P. (2014). Comparing smart and digital city: Initiatives and strategies in Amsterdam and Genoa. Are they digital or smart? In R.P. Dameri & C. Sabroux (Eds.) *Smart city. How to create public and economic value with high technology in urban space*. Springer International. (p. 45-88).
6. Dameri, R. P. (2013). Searching for smart city definition: A comprehensive proposal. *International Journal of Computers&Technology*, 11 (5), (p. 2544-2551).
7. Giffinder, R., Fertner, C., Kramar, H., Kalasek, R., Pichler-Milanovic, N., Meijers, E. (2007). *Smart Cities - Ranking of European Medium-Sized Cities*. Vienna: University of Technology, (p. 1-28). Retrieved 10.12.2020. from http://smartcity-ranking.org/download/smart_cities_final_report.pdf
8. Goldsmith, S., Stitt, C.S. (2020). *Fiscal Strategies to Help Cities Recover – And Prosper*. Retrieved 03.12.2020. from https://ash.harvard.edu/files/ash/files/300871_hvd_ash_fiscal_strategies_v3.pdf
9. Hodžić, S., Jurlina Alibegović, D., Bečić, E. (2020). Fiscal Performance of Local Government Units for Smart Regions and Smart Cities. *Smart Governments, Regions and Cities* (p. 291-302). Rijeka: University of Rijeka, Faculty of Economics and Business.
10. Hodžić, S., Paleka, H. (2020). Fiscal Capacities of Large Cities in Croatia – Financial Support for Smart Cities. *Our Economy* 66 (2) (p. 42-49).
11. Hodžić, S., Arnautović, S. (2019). The Financing Incentives for Smart Cities and Importance for Local Government. *Public Administration Reform: European Union Issues and Challenges* (p. 1-9). Sarajevo: Faculty of Administration.
12. Houvila, A et al. (2017). CITYkeys indicators for smart city projects and smart cities. *International Journal for Housing Science and Its Applications*. 41 (2) (p. 113-125).
13. *IMD-SUTD Smart City Index Report* (2020). Retrieved 03.12.2020. from https://www.imd.org/smart-city-observatory/smart-city-index/
14. Nam, T., Pardo, T. A. (2011). Smart City as urban innovation: Focusing on management, policy, and context. *Paper presented at 5th international conference on theory and practice of electronic governance (ICEGOV2011)*, (p. 185-194).
15. Rios, P. (2012). *Creating "The Smart City"*. Detroit : University of Detroit Mercy.
16. Washburn, D., Sindhu, U., Balaouras, S., Dines, R. A., Hayes, N., Nelson, L. E. (2010). *Helping CIOs Understand "Smart City" Initiatives: Defining the Smart City, Its Drivers, and the Role of the CIO*. Cambridge, MA: Forrester Research, Inc.
17. Ying Tan, S., Taeihagh, A. (2020). Smart City Governance in Developing Countries: A Systematic Literature Review. *Sustainability* 12 (899), (p. 1-29).

PROGRAM BUDGETING AS A TOOL OF IMPROVING THE EFFICIENCY OF BUDGET EXPENDITURES

Sanan Bayramov
Azerbaijan State University of Economics (UNEC), Azerbaijan
senan.bayramov@gmail.com

ABSTRACT

The issues of efficient and expedient use of budgetary funds are becoming increasingly relevant in modern conditions. The program-target strategy is one of the most successful means of funding budget spending. This strategy includes the creation of a program budget aimed at achieving the expected outcome and contributing to the precise allocation of budgetary funds. The budget planning program-target or program approach belongs to a category of methods in which the concept of the efficient use of the budget funds is defined to the maximum degree. In the sense of budget balance issues, the lack of revenue in the budget, the position of program-focused budgeting is increasing, as the issue of the effective use of very limited budget funds is becoming much more urgent. The budgeting of the program can be described as a series of steps aimed at enhancing the performance of the entire public sector. It is understood that a worsening economic condition and a willingness to improve the quality of public services are the key motivations for the transition to the program budget. Because of the substantial decline in financial capital, countries' governments are forced to analyze the effects of discretionary spending more carefully. The program budget is the most promising method for addressing these issues. The use of software tools, as experience indicates, greatly improves the productivity of the budget process. The efficiency of budgetary spending means the opportunity to achieve the greatest socially significant impact while maximizing budgetary spending at the preparation, coordinating, and execution levels, as well as during the post-program era.
Keywords: *program budgeting, efficiency of budget expenditures, state program*

1. INTRODUCTION

The global economic situation is characterized by uncertainty in many countries worldwide. This causes difficulties in the creation of the revenue side of the budget of some countries, infringes on the stability and balance of the budgetary sphere, creates a distance between the revenue and expenditure side of the budgetary sphere, interferes with the macroeconomic problems in the process of interrelating the budget [1]. The problems associated with maintaining a sufficient amount of discretionary revenues are compounded under such unpredictable circumstances. The State stimulus program, aimed at putting the economy into the path of sustainable economic development, is beginning to play an important role in this regard. Owing to the need for state funding and investment incentives for the most difficult sectors of the economy, the state and the budgetary structure of the country bear a tremendous burden. The budgetary policy, which is the key instrument for ensuring the implementation of the socio-economic policy of the State, has a very long delay and does not have rapid social consequences, but at the same time leads to severe structural changes in the economy and, in the long term, to an overall strengthening of the stability of the budgetary system [2]. In such a scenario, budget planning instruments are starting to play a special role, enabling managerial decisions to be made that help to improve the efficiency of spending scarce budgetary resources. In the light of the rising instability of the global and domestic economies, the problems of increasing the productivity of budgetary expenditures are becoming much more evident at present [3]. Priority financing of expenses that lead to the formation and increase of the competitive advantages of countries in the global economy must be given under conditions of inadequate budgetary resources [4]. Program Budgeting is one of these methods.

The orientation of results means the creation of government initiatives that set targets and goals in specific areas. The performance of the budgeting of the target program depends to a large degree on the quality of government services, the understanding of particular goals and objectives, the functional importance of programs in general, and their alignment with the specifics of the sector in which the government program is intended to function. At all stages of the budgeting process, the key concept behind program budgeting is to relate costs and benefits. Within the context of this model, the key objectives of budgeting are to maximize the social and economic efficiency of expenditure. Thus, about the discipline of budgeting, we are talking about applying the concept of optimality in management. Optimizing budgetary spending through the implementation of programmatic methods is complicated and requires both the need to strengthen the methodological tools for budgetary expenditure planning and management and the creation of successful government programs that clearly define concrete goals and objectives. The foundation for the efficient performance of state functions is to increase the efficiency of the usage of budget expenses. The budgetary strategy should ensure that the budgetary system's responses to the threats and opportunities that may emerge in the context of the different options for the growth of the world economy are predictable, allowing for the implementation of the required measures if external economic factors have a negative impact. In unpredictable circumstances, the use of a new model of budgetary process organization - performance-based budgeting, offers short and medium-term budgetary balance and long-term budgetary sustainability.

2. QUESTIONS OF IMPLEMENTATION OF PROGRAM BUDGETING

Program-oriented finance, which requires a shift to the formation of budgets in the sense of government services, is one of the key methods for increasing the productivity of budget expenses. The program-target approach consists of the creation of a program budget aimed at achieving the expected outcome and contributing to the precise allocation of the budget funds. The funding of the targeted program is characterized by a deliberate effect on the solution of a particular problem and the objectives of socio-economic growth through the implementation of a series of steps, interrelated in terms, routes, executors, provision of resources. According to generalized international practice, initiatives should include, to the greatest extent possible, measures of immediate and outcomes relating to them. Furthermore, all discretionary expenses should cover the programmatic classification. Improving the consistency of the planning, budgeting, accounting, budget monitoring, and auditing processes is the key goal of the program classification. The classification of the program serves to provide information and analytical support for budget analysis, to improve the socio-economic efficiency of public expenditure, and to assess the levels of accountability and management of all approved budget fund administrators [5]. The program budget is used as a mechanism for enhancing the public financial management system, accounting for the full expense of budget operations, strategic planning, and prioritizing budgetary expenses, depending on the purpose of its use. The use of target-oriented methods enables development and social processes, population incomes, and other significant economic problems to be affected [6]. The "program budgeting" and "performance budgeting" principles are also described. It should be remembered that one of the ways of applying a performance-based budgeting mechanism is program budgeting. As a wider term, 'performance-based budgeting' is a mechanism for preparing, implementing, and monitoring budget implementation, ensuring that budget funds are allocated based on the social importance of the anticipated and real effects of their use, taking into account the goals of state economic policy. Performance-based budgeting is a budget creation and implementation framework that represents the relationship between budget expenses and outcomes achieved. The basis for performance-based budgeting is to define the immediate and final effects of the budgetary expenditure funds and other budgetary metrics, based on which it is possible to

conclude the degree of achievement of the objectives set. At the same time, goal-oriented budgeting is a budgeting mechanism aimed at achieving ongoing government expenditure through the funding of target programs. In modern conditions, due to the increasing relevance of issues of effective use of budget funds to achieve the goals of socio-economic policy and ensure public control over their achievement, the formation and execution of the budget should be carried out based on state programs. This leads to the introduction of the program budget into budgetary practice.

3. MANAGING THE EFFECTIVENESS OF GOVERNMENT PROGRAMS

The idea of implementing program budgeting, as you know, is focused on the prospect of increasing budget spending efficiency and expediency. Because the direct connection of discretionary spending with the amount and quality of public services delivered is the basis of program budgeting, program budgeting can be seen as a collection of steps aimed at improving the productivity of the public sector. The implementation of program budgeting, as experience demonstrates, helps you to get the full effect from the use of limited financial capital. The budget of the program makes it possible to ensure a clear connection between the strategic strategies of the state and the budget, as well as to concentrate budgetary spending on strategically relevant socio-economic development priorities of the government. The programmatic theory of budgeting allows all the expenditures of a given budget to be centralized within the context of the main priority programs. The budget for the program is not based on inputs, but measures of success. Almost all expenses are allocated to programs in the program budget format, each of which is directly linked to a department's particular performance. The implementation of the program format enables strategic and financially sound budget creation to be made possible, forming a clear link between short-term and long-term budget planning. State policies are drawn up from the conceptual provisions of long-term socio-economic sustainability. The implementation of the State Program shall be carried out by the Detailed Plan of Action for the Implementation of the State Program, which shall include a full list of the key tasks and control incidents, showing the timing of their implementation and the immediate effects anticipated, as well as details on the amount of financial support for the implementation of the State Programme [7]. Compliance with a variety of requirements includes the systematic design of government services (clear formulation of program objectives, development of the logical structure of the program, distribution of responsibility for the results of program implementation, creation of an incentive system for achieving planned indicators, development of a risk management system, availability of an effective performance assessment system, availability of an assessment audit plan efficiency). Studies indicate that, based on situational factors, government services require more development in most situations. High-quality government services, the willingness and capacity of government bodies to use them as instruments for government policy formulation and implementation are important conditions to realize all the benefits of the budget for the "program" The consistent execution of the budgeting of the 'program' in itself provides incentives for the adoption and advancement of program-oriented preparation and improvement strategies of the public administration framework as a whole [8]. It should be remembered that one of program budgeting's most daunting areas is how the success of the organizations responsible for executing the program can be calculated. The success of the operation of the state program needs a degree of transparency and incentives for all participants to be balanced. All facets of management, including financial management and budgetary financing, must support the emphasis on performance. Budget allocation for services should be closely related to other forms of budgetary monitoring and forecasting: a stable and managed budget, tight medium-term budgetary spending limits, and greater predictability of the public administration budgetary execution process, with types of public administration such as staff management,

material, and technical support requirements. A significant direction for program budgeting at present is the orientation of expenses against particular targets and the evaluation of their effectiveness. In the light of public participation in the budget process, the estimation of the efficiency of budget spending is revised. When evaluating the efficacy of the use of budgetary resources and developing methods for the calculation and formulation of performance parameters, consideration should be given not only to the economic aspect, the volume of a product (service) linked to, or the cost of supplying it but also to various other efficiency components [9]. Within the context of the development of an integral structure for measuring the efficacy of government services, one of the components of which would be the evaluation of the effectiveness of discretionary expenses, the issue of taking into account the impact of different variables can be solved. A systematic evaluation of the efficacy of the implementation of state initiatives offers an opportunity for an objective assessment of the impact of the expenditure in terms of the amount of financial capital. A comprehensive evaluation of the efficacy of government initiatives is an essential instrument for evaluating the effectiveness of the implementation of government policy. Changes may be proposed to increase the efficacy of interventions in all fields based on the findings of such a comprehensive evaluation. The budget of the program offers an opportunity not only to determine the cost of achieving a particular target but also to evaluate its efficacy within the program and to compare the outcomes obtained with the cost.

4. THE PROBLEM OF INCREASING THE EFFICIENCY OF BUDGET SPENDING

The size and sophistication of state financial policy tasks demand a fundamental change in the standard of strategic economic management. The efficiency of the produced expenses is a significant indicator of the budgetary policy enforced by the state. The degree of state control on the level of economic growth is often calculated based on this indicator, which becomes particularly important during periods of macroeconomic instability [10]. As an instrument of macroeconomic policy, budgetary spending allows the State to implement its effect on the socio-economic growth of society. Improving the productivity of the budget is directly connected to improving the efficiency of budget expenditure. The aim of evaluating the efficacy of budgetary expenses is to establish and refine the budget, thus ensuring that unavoidable losses in the budgetary domain are minimized. Strategic planning objectives provide for the set of tasks that decide the appropriate management decisions, as well as the strategies used to evaluate the effectiveness of budgetary expenditures [11]. It is possible to ensure the growth of the productivity of budgetary expenses through the application of the results-oriented budget mechanism and the adoption of the concepts of results-based management. A reduction in budget receipts, as the budget deficit and public debt rise, contributes to the need for a more rigorous review of budgetary expenses. Programmatic budgeting is a budgeting mechanism focused on generating outcomes by budget expenditures from the funding of government services. The state program is the primary instrument of program budgeting. The state program's financial assistance must be fully coordinated with the budget. The state program is a part of the budget and, in terms of performance, the justification of budget expenses. The mechanism that will ensure the relationship between strategic and budget planning is state programs. The practice of implementing budget initiatives in various countries around the world (USA, France, Sweden, South Korea, Canada, etc.) demonstrates that the use of software tools opens up broad possibilities to improve the versatility of managing budgetary resources within the context of government objectives. The consolidation of budgetary and extra-budgetary sources to achieve target goals and priorities is one of the goals of bringing state services into the state management of socio-economic processes. The program-target budgeting approach creates a correlation between the resources allocated and the effects of their use, as it controls the allocation of budget funds between the different programs, thus improving the effectiveness,

transparency, and accountability of the expenditure funds. The framework "goal - objectives - main activities - activities - financing - results" should be constructed as simply as possible in the State program. This is important both for the structuring and systematization of the State program and for an adequate evaluation of its implementation's effectiveness. At the same time, the targets should not only be compatible with the State policy goals in the field of implementation of the State program and the outcomes of its implementation should be calculated, but also have the following characteristics: precision, concreteness, measurability, attainability, and relevance. It should be remembered, as regards the choice of indicators, that there are indicators that must be taken into account in the regional state programs. These are, as a rule, measures that represent the final patterns of global socio-economic processes. Their success in the short term is not always feasible. If we use such metrics, then even if the interventions are applied, the program would be difficult to call reasonably successful. The indicators should therefore be those that are directly based on the actions of the Executive Authority and reflect the fact that the event is being carried out. The phases of project execution may decide the choice of the indicator according to the design principle. The quality of the incorporation of regional projects into government systems depends on the pace at which the strategic planning system adapts to project management parameters. The development of a single knowledge network for strategic planning should be the mechanism for solving this issue [7]. It should be noted that government programs need to be further improved in most cases, particularly about the formulation of objectives and the choice of indicators for the evaluation method.

5. TOOLS FOR ASSESSING THE EFFECTIVENESS OF BUDGET PROGRAMS

The budgeting of the program is mainly aimed at improving the public sector's productivity. State expenses by size and budget classification usually reflect only the quantity and nature of the collective services currently given to society. Consequently, the higher the quality of budgetary spending, the more thoroughly it represents the actual flow of public services [12]. The design of government programs integrates all the instruments to accomplish the objectives of government policy. The issue of the qualitative improvement of budget programs is gaining exceptional importance in modern circumstances. As experience indicates, the most challenging factor in designing and executing budget programs is the development of a mechanism to determine their efficacy. The unique importance of this framework lies in the fact that the most important instrument of budgetary policy is the evaluation of the efficacy of budgetary expenditures. Regulation by the state plays an important role in conditions of ambiguity, using a wide variety of instruments. The most critical dimensions of performance taken into account in the program budgeting practice when evaluating the efficacy of the outcomes of the implementation of the budgetary programs are effects on society, efficiency, competitiveness, quality of operation, organizational quality. A comparison of the findings with past periods in terms of socio-economic growth is correlated with the effect on society. The allocation of budgetary resources by the goals of state policy is a significant point of effectiveness. Efficiency is related to a comparison of the outcomes obtained from previous periods about the degree of labor productivity of the participants in the program implementation. Service quality, as an element of performance, is measured by the satisfaction indicators of public service users. Profitability is related to the achievement of profitability goals and cost management. An organization's quality is calculated by the evaluation of organizational structures, systems, and management processes using accepted "management quality" criteria. It should be remembered that different efficiency aspects, taken into account when determining the efficacy of the outcomes of the implementation of the budgetary programs, are complementary in a single complex. The solution is therefore found to take account of the effects of different factors, given that the efforts of all stakeholders are centered

on the implementation of a holistic framework for evaluating the efficacy of government programs. The measurement of the efficacy of budget expenses in terms of performance is an important part of this method. And the three most relevant requirements for the success of discretionary spending in executing budget projects are the following: performance, competitiveness, and efficiency. In our view, these basic requirements should be prioritized when designing a method to assess the effectiveness of interventions because of the very concept of assessing effectiveness. It should be noted that it is important to know the volume and cost structure to determine efficiency; it is advisable to take into account the quality levels of goods and services, as well as the comparative resource intensity of the implementation of each of them when assessing productivity. Performance assessment involves the creation of unique target accomplishment measures. It is important to take into account performance metrics, based on which the volume and quality of the provision of public services and the performance of basic public functions can be measured, to compare the options for public expenditure. To explain strategically significant decisions on the viability of implementing budget projects, the process of evaluating and comparing the outcomes obtained and the costs incurred is important. Expense optimization allows the best possible parameters of possible socio-economic, political, and other effects to be accomplished with the corresponding volume and structure[13]. Budgetary spending should be an instrument for attaining the highest equity criterion in the distribution of public goods to achieve the optimal level of welfare for each member of society. The need for a substantial increase in funding for health care and education is an essential component of budgetary issues, as the most important condition for improving the quality of services in these areas[4].

6. CONCLUSION

The problems of increasing the quality of the use of budget funds are among the most critical tasks of the state in the light of the current difficult budget constraints. The assessment of the efficacy of budget spending is carried out by measuring the performance and efficiency metrics of the target programs. By adopting a results-based budgeting mechanism and implementing results-based management concepts, it is possible to ensure progress in the performance of budget expenses. Program budgeting may be described in the budgetary process as a budgeting process based on achieving results from the funding of government programs by budget expenses. Further creation of program-oriented budgeting should involve addressing methodological support problems at all levels, beginning with the development of state programs, their goals, and objectives, ending their ties with individual initiatives, and ensuring the realistic achievement of the objectives and objectives of state programs.

LITERATURE:

1. Sh. Guliyeva. "State financial regulation as a function of macro-management", Issues of the new economy, No. 4, 2012, pp. 27-28.
2. Ya.M. Mirkina. "Financial strategies for modernizing the economy: world practice", M., Master, 2014.
3. A.I.Masterov, "Target planning as a tool for increasing the efficiency of budget expenditures", Finance and Credit, 48 (2015), p. 22.
4. Sh. Guliyeva. Financial Policy of the State in the Globalization Conditions. Conference: Chelyabinsk 2020 - 50th International Scientific Conference on Economic and Social Development. Year: 13-14 February 2020, pp 417-422
5. L.V. Davydova, T.Yu. Tkacheva. "Methodological foundations of substantiating the program budget of the region", Finance and Credit, 23 (2016), p. 39.
6. A.I.Masterov. "Programmatic budgeting in Russia: problems and solutions", Finance, No. 5, 2018, p. 5.

7. S.A. Ponomareva. "Problems of integration of program-target and project approaches in the light of the implementation of national projects", Finance, No. 3, 2019, pp. 27,28.
8. A.M. Lavrov, N.A. Begchin. "Problems and prospects for the implementation of "program "budgets", Finance, No. 4, 2016, p. 7.
9. R.V. Yerzhenin. "Subject, object, and subject of performance assessment in public administration", Finance and Credit, 12 (2016), p. 19.
10. A.Yu.Krasnov/Finance and Credit,2017,vol.23,iss.43, pp. 2607.
11. S. Bayramov. Structural efficiency of budget expenditures as a stability factor of the budget system. pp 262-268. Conference: Baku 2020 - 55th International Scientific Conference on Economic and Social Development, Year: 25 June 2020. Book of Proceedings 4, pp 262-268
12. Sh. Guliyeva. Manageability of Financial Risks as an Important Factor of Financial Stability. Conference: Baku 2019 - 37th International Scientific Conference on Economic and Social Development. Year: 14-15 February 2019, pp 571-575
13. Yu.D. Radionov. "Use of budgetary funds in Ukraine: trends, problems and ways to solve them", Economy of Ukraine, No. 2 (643), 2016, p. 16.

THE CORPORATE SOCIAL RESPONSIBILITY IN THE TOURISM SECTOR IN MOROCCO

Soukaina Elomari
Faculty of Juridical, Economic and Social Sciences - Salé,
Mohamed V University, Rabat, Morocco
elomarisoukainammsp@gmail.com

Meryem El Alaoui Amine
Faculty of Juridical, Economic and Social Sciences - Salé,
Mohamed V University, Rabat, Morocco
Alaoui_meryem22@yahoo.fr

ABSTRACT

Corporate social responsibility is an important concept in the managerial action of each organization, day after day, its introduction into companies around the world is increasing, Morocco has embarked on this path and the Moroccan government efforts have been made in this direction, efforts which are mainly reflected in the establishment of the CGEM label for corporate social responsibility and the accession of Morocco to the global compact. Morocco is also on the path to sustainability. The actions carried out by the government in the direction of the development of CSR have still not produced the expected results, especially in touristic establishments.

Keywords: *Corporate social responsibility, Sustainable Development, Tourism*

1. INTRODUCTION

Corporate social responsibility appeared in the 1960s but its effective application by companies did not begin until the 1990s, CSR is a term adopted by the European Commission, according to it CSR means that companies, on their own initiative, contribute to improving society and protecting the environment, in conjunction with stakeholders. In April 2006 Morocco was able to adhere to the global pact within the framework of the program "Sustainable development thanks to the global pact" which has as main objective the establishment of CSR within companies, the CGEM also created in 2006 the label CSR, whose mission is to recognize the compliance of the company's activities with the benchmarks of the CSR charter

CSR certainly has positive impacts on the company :

- Evolution with the consideration of the society in the way to be not marginalized.
- Strengthening the company's vigilance on differents risks: economic, social and environmental.
- Give a coherent meaning to all the stakeholders in a global approach.

Is CSR a real managerial revolution or a simple fad?

Up to what level have the managers of Moroccan companies and more especially the managers of touristic companies started to integrate the concept of CSR into their entities?

2. CORPORATE SOCIAL RESPONSIBILITY DEFINITIONS

There are several definitions of corporate social responsibility. In order to introduce the concept of sustainable development into an organization, it must undergo real changes: by broadening its purposes, by adopting more ethical behavior and by accepting a real debate on improving our development model[1].

[1] Philipe de Woot : responsabilité sociale faut-il enchaîner promethée édition, Economica 2005

In its Green Paper published in July 2001, the European Commission gives its version: “the concept of corporate social responsibility essentially means that they decide on their own initiative to contribute to improving society and making the environment cleaner. This responsibility is expressed for employees and all the stakeholders who are affected by the company but who can, in turn, influence its success. The acronym CSR designates "The obligation for the companies to consider people and the planet in all economic activity"[2].

3. MODELS OF REPRESENTATION

3.1. The Triple Bottom Line (Triple Results)

Sustainable development is reflected in the notion of Triple bottom line (Elkington, 1999) or "triple result", it’s mean that the socially responsible company must adopt three fundamental dimensions which are: the economic, the social and the environmental, which leads to evaluating its performance from three angles[3]:

- Economic profitability,
- The respect of environment,
- Social equity.

Figure 1: The Triple Bottom Line
(Source: Harun Kisacik, Mihriban Coşkun Arslan (2017), "The Corporate Sustainability Solution: Triple Bottom Line”)

"Sustainable development is a development process that reconciles ecology, the economy and the social"[4]. It works to ensure the continuity and protection of natural resources, balance and respect for ecosystems, to guarantee an efficient economy without hazards and to favor the consideration of social goals focused on the fight against poverty, inequalities and exclusion. This threefold economic, social and ecological point of view must constitute the central core of any sustainable development strategy going in the real direction of the stated objectives. "Sustainable development must be based on criteria of sustainability: it must be bearable in the long term on the ecological level, viable on the economic level, equitable on the ethical and social level for the local populations"[5].

[2] Bruno Boidin, Nicolas Postel, Sandrine Rousseau, La responsabilité sociale des entreprises: une perspective institutionnaliste, Presses Univ. Septentrion, 2009,p. 13
[3] Pérez Roland, "Quelques réflexions sur le management responsable, le développement durable et la responsabilité sociale de l'entreprise", La Revue des Sciences de Gestion, n°211-212 – RSE, janvier-avril (2005), pp. 29-46.
[4] http://www.actu-environnement.com/ae/dossiers/dd/dd_definitions_1.php4
[5] Commission mondiale de la culture et du développement

- **The economic:**
  We understand from this first dimension that the company must have financial profitability and contribute to the economic development of the region where it is located, while respecting competition.
- **The social :**
  This point, targets the social impacts of the company in relation to employees, customers, suppliers, municipalities. The company is then obliged to respect human rights.
- **The environment :**
  This third and final dimension aims to protect the environment, safeguard cultural and natural heritage. Sustainable development applied to the economy is that which considers jointly the economic, social and human balance, and the balance in the use of resources. Hence the famous triptych: economic profitability, social equity and respect for the environment ".[6]

3.2. The Corporate Social responsability

The main purpose of the CSR model is to recognize the different implications of the company apart from its economic implication. It has an ethical meaning.[7]
This CSR model is represented by three circles as shown in the diagram below:

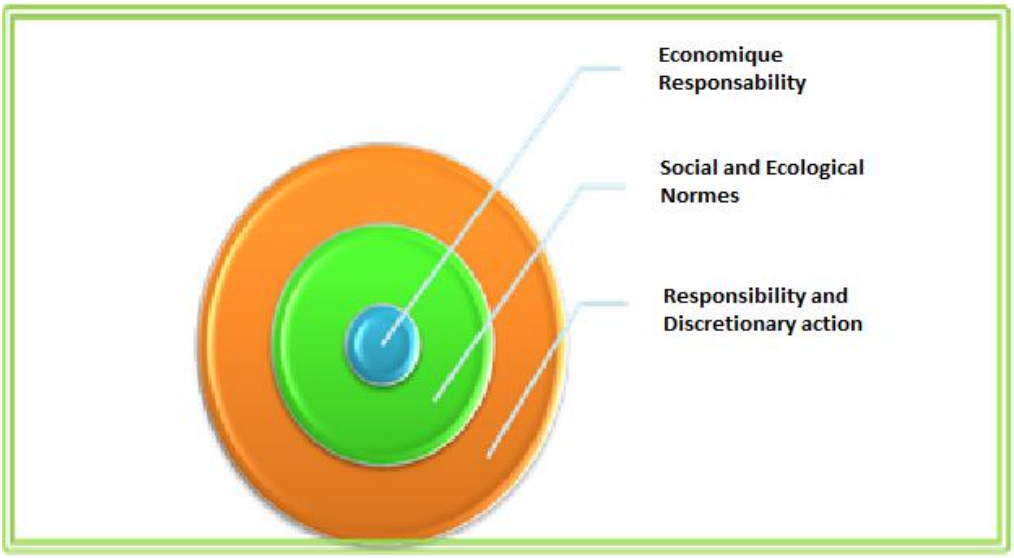


Figure 2: The corporate social responsibility
(Source: Manne Henry etWallich H. C. (1972), The modern corporation and social responsability, American Enterprise Institute for Public Policy Research)

4. CSR INDICATORS (GRI)[8]

4.1. The indicators

The Global Reporting Initiative offers a benchmark of indicators to measure the progress of corporate social responsibility programs. This repository include 79 indicators, which are:

- By importance:
  - 49 basic indicators
  - 30 so-called additional indicators

[6] Line Bergery, Qualité Globale et tourisme, Economica 2002, P.123
[7] La notion de Social Responsiveness se réfère à « la capacité de l'entreprise de répondre aux pressions sociétales » (Frederick, 1978, p. 6, cité par Wartick et Cochran, 1985).
[8] http://dictionnaire.sensagent.leparisien.fr/Global%20Reporting%20Initiative/fr-fr/ consulté le 23/07/2019

- By domain:
  - Economy: 9 (including 2 additional)
  - Environment: 30 (including 13 additional)
  - Human rights: 9 (including 3 additional)
  - Social relations and decent work: 14 (including 5 additional)
  - Product liability: 9 (including 5 additional)
  - Company: 8 (including 2 additional)

"The societal responsibilities of companies must be historically placed in a long-term movement making it possible to put into perspective the evolution of the relations between economic activities and civil societies"[9].

5. SOCIETAL MARKETING

During the last two decades the knowledge society has undergone significant development through the introduction of marketing and the media. "Social marketing uses the principles and techniques of marketing in order to get a target audience to accept, reject, modify or voluntarily abandon behavior in their own interest, in the interest of a group or in the interest of the whole of society "[10]. The main goal of social marketing is to allow citizens access to the different knowledge that seems important. «The societal marketing approach stipulates the need to take into consideration, in any marketing action, the well-being of the community »[11]

6. CASE OF THE TOURISM SECTOR

Morocco, on the strength of its tourist assets, of its civilization at the crossroads of cultures, through the succession of great dynasties, of its strategic positioning, stands as a real bridge between the African continent and the Europe. Morocco under the royal impulse, has made tourism a national priority, given that tourism take an important place in the economy and is considered a strategy for the future that helps to fix the population, to create jobs, generate wealth, attract foreign investors, promote socio-economic development, etc. The development of mass tourism has led tourism policies and conceptions to evolve the notion of the impact of mass tourism on natural resources as well as on cultural heritage. For social equity, environmental protection, safeguarding of cultural and natural heritage and respect of local populations, tourism today has a new facet, the sustainability. This new concept of sustainable tourism, which proclaims Hight quality, the respect of the environment, of the host populations and their culture, has become the mean topic of discussion in all international forums. Morocco, in the beginning of his tourism development, has a unique opportunity to promote a new model of mass tourism promoted until recently by most Mediterranean destinations. The main Moroccan destination have a low tourist density, when they evaluated throught the socio-cultural impact or throught impact on the environment. "[12] The Ministry of Tourism places sustainable development at the top of its priorities in accordance with the general policy adopted for the whole country. The major concern of this policy is to protect ecosystems in order to ensure the sustainability of plant, animal and human species and achieve their ecological balance. A real potential of differentiation is offered in a competitive environment.

[9] Philippe Naszalyi, LE MANAGEMENT RESPONSABLE, La Revue des Sciences de Gestion, 211-212, Janvier-Avril 2005
[10] M.Capron, F.QuairelLanoizelee. La responsabilité sociale d'entreprise, La Découverte, 2007.
[11] Nozha Ibnlkhayat, Marketing des Systèmes et Services d'Information et de Documentation: Traité Pour l'Enseignement et la Pratique du Marketing de l'Information, PUQ, 2005,p.8
[12] Vision stratégique de développement touristique, contrat programme 2011-2020.P.22

According to the "Eveil" charter[13]: Sustainable tourism refers to any form of development or tourism activity that respects and preserves natural, cultural and social resources in the long term and contributes positively and equitably to development of person who live, work and stay in these spaces. It is a tourism or leisure activity that implements practices that respect the natural and cultural environment and that ethically participate in local economic development. It promotes awareness of the tourist to the impacts that he can have on the territory and makes him an actor of his consumption. A strategy focused on the protection and sustainability of life resources, in parallel with the economic objectives of tourism development, the concept and essence of sustainable tourism. It is therefore a question of tourism based on an equation seeking a balance between the following two elements: economic development and long-term. The aim would therefore be to ensure long-term economic development with respect for environmental and socio-cultural resources and human consideration in all its components. According to Harribey Jean-Marie,[14]"The development of sustainable tourism meets the needs of tourists and the regions that host them, while preserving and improving future possibilities. It must result in the management of all resources allowing both to meet economic, aesthetic and social needs, and to preserve cultural integrity, ecosystems, biodiversity and life support systems ". This definition is based on various considerations. Natural, cultural and historical resources are particularly important for tourism because it depends on activities related to the natural environment, historical and cultural heritage of a region. If these resources are degraded, tourism no longer thrives. That mean, in terms of production, that sustainable tourism consists mainly in developing practices, allowing managers of the tourism activity to optimize the creation of wealth, while contributing to the preservation and improvement of the environmental and human capital of the territory, necessary for the attractiveness and sustainability of the tourist destination. Sustainable tourism consists on forms which integrate the principles of sustainable development and which are based on the following five dimensions:

- Ethics: sustainable tourism respects the rules of participatory, democracy, transparency, solidarity and tolerance[15];
- The environment: sustainable tourism promotes the heritage management of non-renewable resources, taking into consideration the impact of projects on the preservation of heritage (landscape, biodiversity, etc.) and resources (water, air, energy, etc.) essential for the future of future generations;
- Social: sustainable tourism projects take into account the effects on host populations and contribute to the reduction of inequalities and to human development and development in rural areas;
- Culture: sustainable tourism does not consist in suppressing the identities of populations but in anchoring their differences, by revaluing the community spirit, traditions, machines and traditional objects, by recreating the dynamics of safeguarding the existing cultural heritage and by restoring the old villages. It consists of promoting exchange between cultures and populations, including knowledge and mutual respect as a factor of solidarity and social cohesion.
- The economy: sustainable rural tourism constitutes a means of human service and makes it possible to optimize a logic of creation and distribution of wealth. It provides to local populations an additional source of income which enables them to cope with the crisis of the agricultural systems and rural societies.

[13] Eveil-Tourisme a été créé en 2004 par l'association Citoyens de la terre qui mène des actions liées à la préservation des ressources biologiques et à la solidarité internationale.
[14] Jean-Marie Harribey est un économiste français, maître de conférences à l'université Montesquieu – Bordeaux
[15] https://d1n7iqsz6ob2ad.cloudfront.net/document/pdf/538493d6220f0.pdf

Sustainable development requires the existence of four areas (economic, social, environmental and cultural) of which it constitutes the point of intersection. In this case, sustainable tourism meets this conditions because it touches on the four dimensions already mentioned: it exploits the heritage of natural, social and human resources, it ensures economic growth, it safeguards the integrity of ecosystems and preserves the Resource. We conducted a survey in the province of El Haouz more precisely in the rural district of Asni in order to see more closely the tourist establishments and to see up to it level the companies located in its regions are socially responsible. Despite of policies to protect the environment, the region has very limited access to renewable energy resources, have bad management of household waste. Following the interview that we gave to a hostel, we were very surprised by the ease of its responses concerning the problems related to tourism and its expectations from the Moroccan state, on the first question he thought that the pollution created by the waste and garbage thrown in a rubbish dump not far from the hostel devalues the magical site it occupies and in times of strong winds foul odors come up to to the bedrooms. The collection of waste is done by the only dump truck in the region which often lacks fuel and causes an accumulation of waste which becomes even smelly depending on the duration. Sustained claims have been made to the responsible authorities, but according to him, they remain unanswered. Regarding the second point which relates to the expectations of the manager of this hostel, it is regrettable to observe lack of promotion of the region by advertising means in order to make this town better known and to better expose its wealth and its resources and natural beauties. The manager alone is unable to bear the costs of these operations. He says that the country and especially the Ministry of Tourism should consider the promotion of hostels to be a important point on their agenda and until now nothing has happened. Subsequently a questionary was sent to the staff of different tourist establishments the questions are as follows:

- How many hours do you work per day?
- Are you satisfied with your remuneration?
- Are tourists satisfied with your services?

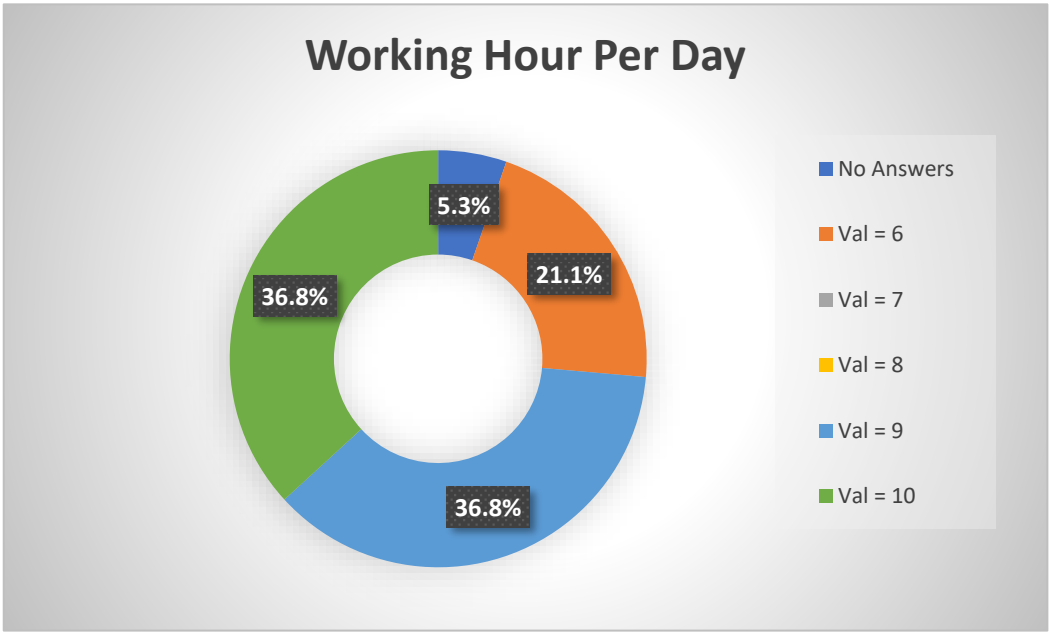


Figure 3: Hours of work day

The majority of respondents work 8 or 10 hour workdays, in fact the share of these two observations is similar and stands at over 36%.

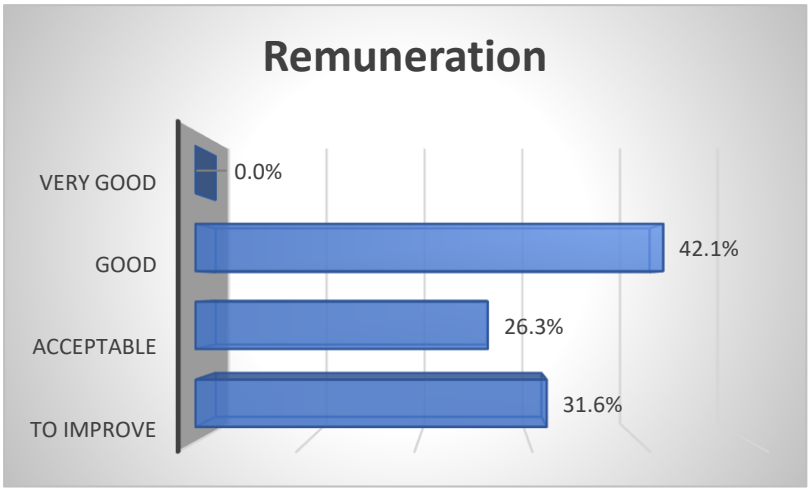


Figure 4: Compensation

The majority of reception staff consider the level of remuneration to be good, while 31% believe that there is still place for improvement.

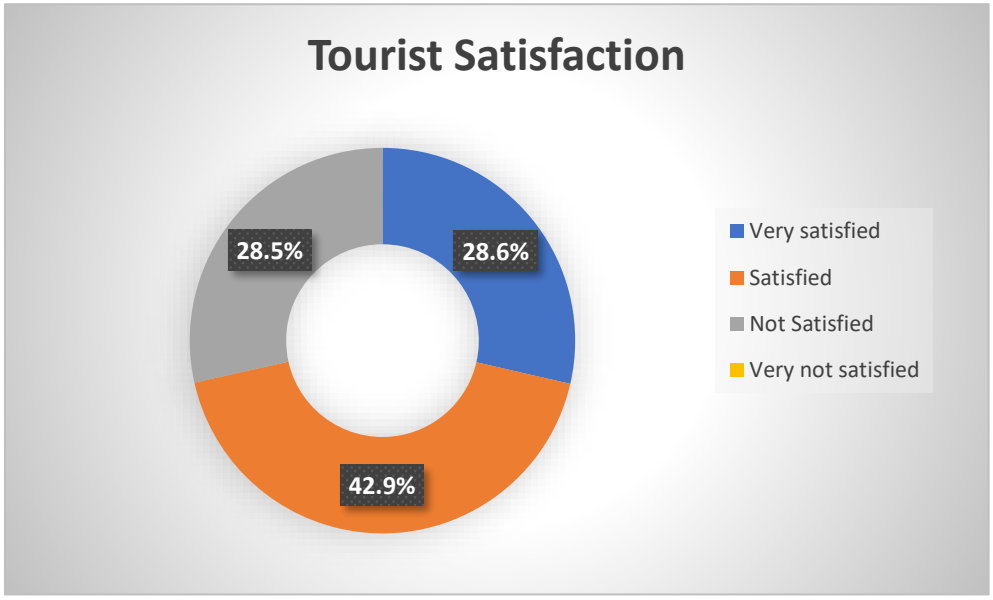


Figure 5: Tourist satisfaction

The management staff believe that tourists are satisfied with their service, in fact 71% of respondents say that their customers are satisfied or very satisfied with their stay.

7. CONCLUSION

CSR has started in Morocco mainly through multinationals and international cooperation. step by step Moroccan companies have started to introduce the concept of CSR and sustainability especially in 2006 year when Morocco joined the global pact and where the CGEM has set up the CSR label in order to:

- Improve working conditions: a source of employee motivation
- Establish a social dialogue within companies
- Be able to attract customers and increase market share
- Protecting and strengthening the company's brand image
- Respect for laws and human rights

Of course, CSR has several positive effects on the company but the field of intervention of the government is still in an embryonic level, several companies, especially in far regions, do not give importance to CSR and to the notion of sustainability, the government must make efforts in this direction by:

- Programming regional trainings on CSR
- Use Marketing to explain CSR
- Encourage companies to use CSR labeling

LITERATURE:

1. Boidin B , Postel N , Rousseau S , (2009) *La responsabilité sociale des entreprises: une perspective institutionnaliste*, Presses Univ. Septentrion,.
2. De Woot P (2005): *responsabilité sociale faut-il enchaîner promethée* édition, Economica.
3. Bergery L, (2002) *Qualité Globale et tourisme*, Economica.
4. Manne H, Wallich H. C., (1972) *The modern corporation and social responsability*, American Enterprise Institute for Public Policy Research.
5. Capron M., QuairelLanoizelee F. (2007). *La responsabilité sociale d'entreprise*, La Découverte,.
6. *Source : Harun Kisacik, Mihriban Coşkun Arslan (2017), The Corporate Sustainability Solution: Triple Bottom Line* .
7. Ibnlkhayat N, (2005), *Marketing des Systèmes et Services d'Information et de Documentation: Traité Pour l'Enseignement et la Pratique du Marketing de l'Information*, PUQ,.
8. Pérez R, (janvier-avril 2005) "Quelques réflexions sur le management responsable, le développement durable et la responsabilité sociale de l'entreprise", *La Revue des Sciences de Gestion, n°211-212 – RSE*,
9. Philippe Naszalyi, (Janvier-Avril 2005) Le management responsable , *La Revue des Sciences de Gestion, 211-212*,
10. Vision stratégique de développement touristique, contrat programme 2011-2020.P.22

THE EFFECT OF EXOGENOUS VARIABLES ON P/E DETERMINANTS IN THE CONTEXT OF EXPECTED POST COVID-19 CRISIS RECOVERY - THE CASE OF BALKAN CAPITAL MARKETS

Venelin Terziev
Georgi Rakovski Military Academy, Sofia, Bulgaria
University of Rousse, Rousse, Bulgaria
Kaneff University Hospital, Rousse, Bulgaria
vkterziev@gmail.com

Andrey Zahariev
D.A.Tsenov Academy of Economics, Svishtov, Bulgaria
a.zahariev@uni-svishtov.bg

Tsvetan Pavlov
D.A.Tsenov Academy of Economics, Svishtov, Bulgaria
ts.pavlov@uni-svishtov.bg

Kaloyan A. Petkov
ABIR Analytics, Taiwan
info@abiranalytics.com

Dimitar Kostov
D.A.Tsenov Academy of Economics, Svishtov, Bulgaria
d.kostov@uni-svishtov.bg

ABSTRACT

The paper aims to evaluate the effect of exogenous variables and phenomena on the relation between P/E ratio and its determinants by researching stock market data from the period of recovery after the last big economic crisis from 2008-2010. This is done in an attempt to generate useful insights and lessons about post-crisis market behaviour which will be much needed by investors in the context of the current COVID-19 crisis and expected medium-term recovery. The theoretical methodology of the research is to establish why and how many applications of P/E ratio have increased the importance of studying its determinants. That problem needs the paper to be focused on examining the effect of exogenous factors (macroeconomic variables) on the connection between P/E and its determinants. Our results show that there are significant implications if the effect of these variables is removed. As major findings, even more, there is evidence that exogenous factors are artificially increasing the connection between P/E and the determinants confirmed by in debt analysis with data of emerging Balkan capital markets: Slovenia, Romania, Bulgaria and Croatia, with the addition of Slovakia. The results of the developed methodology and subsequent empirical analysis allow confirming that in the current state of the Balkan capital markets the growing influence of exogenous (macroeconomic) factors change the dependence between the fundamental variables. After clearing the effect of exogenous variables on the determinants (ROE and Net margin), their influence on P/E actually weakens. The reason for this can be determined the high correlation of exogenous factors with the two determinants and with the P/E coefficient. The comparison between the two main tested indicators clearly shows that for the five stock exchanges ROE is qualified as highly correlated and susceptible to the influence of exogenous factors. The Net margin has a higher level of independence.

The main recommendation for investors operating on the studied markets as well as globally is not to neglect the influence of exogenous factors on the applied financial models for measuring, modelling and forecasting of the market capitalization of companies trade on the stock exchange.
Keywords: *P/E ratio, COVID-19, post-crisis recovery, fundamental analysis, relative valuation, macroeconomic factors*

1. INTRODUCTION

In recent years, the comparative assessment has been used more widely in the investment practice because of its advantages against the traditional assessment by discounting the expected cash flows. The main advantages are associated with a smaller number of assumptions, an easy technical application and the synergy of market and fundamental information. All this allows a selection of shares to be made, without the need for subjective expectations about the future of companies. No two crises are exactly the same, but the current COVID crisis has characteristics never seen before because many sectors of the economy have responded to it by restructuring and changing the way they operate and these changes are not likely to be transient but to remain in effect even after the crisis is over. The changing conditions led to rapid development of entire sectors, proliferation of innovations (Solovev, et al., 2020c), as well as new risks, including risks related to the traditional risk-free investment instruments issued by governments of the EU Member States (Zahariev, et al., 2020j). This situation is often referred to as „new normality“. It can therefore be argued that benchmarking will be even more applicable in relation to economic recovery due to the varying degrees to which firms and entire markets have been able to adapt to this "new normality." Traditional valuation models, such as the discounted cash flow models, will be more difficult to apply due to their many assumptions and expected parameters, which, under the new conditions, cannot be reliably predicted. Moreover, even if such a model can be applied successfully, the rapidly changing market conditions due to the entry of new players for speculative purposes would not allow us to be certain whether the market will reflect adequately the real values of assets. In other words, even if a fundamental valuation model can be successfully applied in post-crisis recovery and can accurately determine the fair value of the assets, it is uncertain whether the market will be able to do the same. However, comparative models use both internal (fundamental) and market information and thus take into account not only the actual financial position of the companies, but also how the market perceives them. Therefore, they can be expected to cope better with this task. If such models are not used, many public companies banking institutions face the risk of persistent negative performance and, eventually, bankruptcy (Zahariev, et al., 2020e), a scenario which cannot be avoided even if they have insured their profits with sound insurance intermediaries (Zahariev, et al., 2020f). The most popular market multiplier of the comparative assessment tools is the indicator „price-earnings” (In the text the terms „Price-Earnings“ and P/E” are regarded as interchangeable). It is used in many directions of the investment management - style investing, stock selection, relative valuation, etc. However, in the financial theory, there is unclearness about the range of factors that influence it. The standard grouping of factors includes the return on equity (ROE) and net margin. The problem is that typically it is not taken into account the effect of exogenous factors on both the ROE and margin and the effect of exogenous factors on the market multiplier. The aim of the paper is to investigate the stability of the connection between P/E and its determinants after eliminating the influence of exogenous factors. Thus, it is possible to trace the real influence of these determinants, which allows the investor to calculate the multiplier more accurately. Another objective is to study the post-crisis development of the capital market in the phase after the initial turbulent and sometimes divergent recovery, i.e. after establishing long-term and stable positive growth. This aim to make the results as useful as possible for investors in the foreseeable future in view of

the expected recovery after the COVID crisis. The subject of the empirical analysis are the capital markets of the Balkan countries and Slovakia as they have similar levels of economic development (they are still considered emerging markets) and their markets have number of flaws resulting in very high volatility, multiplication of the effects of external factors, and slower recovery compared to developed markets. The obtained results give reasons to say that exogenous factors artificially strengthen the connection between determinants and P/E, which may confuse the investor. The rest of the article is as follows: the first part studies the theoretical issues of the determinants of P/E; the second part develops the methodology for clearing the influence of exogenous factors from the ROE and margin; the third part describes the use of database and in the fourth part, an empirical test is carried out. The article ends with conclusions and recommendations.

2. THEORETICAL ASPECTS OF THE MARKET MULTIPLIER „PRICE-EARNINGS"

In P/E the market value per share is divided by the net profit (earning) per share for a given period. The multiplier is widely applied in the investment process where it is used as a technique for selection of undervalued or overvalued assets. Historically shares with low P/E provides a higher yield, as this dependence is the basis of stylistic investment. In terms of a separate company, the question, whether the current ratio P/E is undervalued or overvalued, is not solved. The methodology for determing the fundamental value of P/E and other market multipliers is a controversial topic. Market multipliers compare the market price of a company with a component of the financial statements, which is specific for different companies. According to Damodaran (2002a) the process of comparative assessment passes through three stages:

- Finding "similar comparable companies";
- Finding standardised indicators for comparing the market value;
- Controlling the differences between the compared companies.

The methodology of comparative assessment is intuitive and there is no significant disputes on it. But the technology for passing through the three stages is an object for some disputes. First, it must be determined the sample of companies comparable to the assets. The first option is defended by the thesis in Boatman and Baskin (1981), according to which the signs of formation of the companies in the „peer group" (In the research, the term „Peer group" is accepted as a sample of companies with which the asset will be compared), must be the expected levels of companies' growth. Alford (1992) first offered a general principal of using the industry as a peer group. Series of articles (Cheng & McNamara, 2000a), (Bhojraj & Lee, 2002), (Bhojraj, Lee, & Oler, 2003) argue that in constructing a peer group except the principle of belonging to the industry, fundamental factors must be taken into account. The main idea for the creation of a peer group is the studied asset to be compared with others, which have a similar business model, in order the used market multipliers to be comparable. The other major problem facing the comparative assessment is controlling the differences among the different companies in the peer group. The process of controlling aims to eliminate any influence of external factors on the results of the comparison. The first option for such analysis is when deducing the total value of market multiplier for the peer group to use moving average or harmonic average. Another option is the approach of Easton (2004), who offers modifying the multipliers used or in other words the use of deflators. The result of this study is also PEG ratio, which actually is based on P/E ratio, gives the price of expected growth. The third option, which is the most recognised of science and practise, is the use of statistical methods and techniques. It is about using of the multifactorial spatial regression between the ratios of companies and their determinants. But this decision raises another problem – what are the determinants of market multipliers?

The first who connect the P/E ratio with the fundamental factors are Edwards and Bell (1961) and Beaver and Morse (1978), Peasnell (1982) does the same. A summary of the proposed determinants makes Damodaran (2002a), who deduces the following determinants of the P/E ratio:

- The coefficient of retention of profits;
- Minimal required rate of return;
- The expected growth of profits.

On a base of these determinants and seeking the fundamental value of P/E, Leibowitz (2002c) develops the model of franchise value, where the main drivers of value are the return on equity (ROE) and net margin. In his model, the value of the company is divided into intangible and franchise. The intangible value is a function of company's profits and the discount percent. On the other hand, the franchise value can be defined as an addition over the intangible value and depends on two factors – a growth factor and franchise factor:

(1) $$FV = \frac{ROE-k}{k*ROE} * \frac{g}{k-g},$$

where:
ROE – return on equity; k – discount percent; g – expected growth.

Given the theory of Modigliani and Miller is accurate or the companies' value does not depend on their dividend policy (Magni, 2007), we can assume that the "retention of profits" ratio is equal to 1. Thus, the growth (g) will be a function of the profitability. The best way for measuring the company's profitability is the net margin:

(2) $$Net\ margin = \frac{Net\ Income}{Total\ Sales}.$$

Eventually, the study of Leibowitz and Kogelman (1991) can be systematized as follows: the two factors that most should affect the value of P/E multiplier are the return on equity (ROE) and net margin. Subsequently these results are reproduced in a number of other studies and now these two factors are considered as key determinants of the multiplier. The global financial and economic collapse of 2008-2010 redrew the key processes that drive the capital markets. The occurrence of concepts as Smart Beta and similar ones show the increased influence of macroeconomic factors on companies. In other words, the value of the companies is already a function of exogenous factors rather than internal drivers such as profitability and stability. The reason for this phenomenon is the increase in the correlation among the markets in the time of crisis. Empirical evidence for this effect shows the studies of Yang, Tapon and Sun (2006), Longin and Solnik (2001) and Ball and Tourus (2000). In this situation, given that the COVID-19 pandemic is a 100% external factor for the capital market, its effect on the P/E determinants can be expected to be similar and even stronger than that in the aftermath of the 2008-2010 crisis. In this case, it is important in that the high values of this coefficient are associated with high expectations for growth of the analyzed company, which in the conditions of post-crisis recovery is of particular interest. Certain observations suggest that investors either irrationally overestimate the growth potential of the analyzed companies or there are some exogenous factors that distort the relationship between the determinants of P/E and its value. Thus, they "trick" investors into raising the price by investing in stocks that would normally look overpriced. Thus, we should ask a question – what happens to the determinants of the P/E multiplier and how their effect is influenced by the intensifying exogenous factors? The issue is of great research significance because if the effect of determinants is compromised in any

way, it can lead to wrong investment decisions by investors. The studied effect is the following: if the macroeconomic factors influence strongly enough on ROE and profit margin as well as on the observed P/E, it can be created a false impression that the two determinants influence on P/E, but in fact exogenous factors are the real driver. Therefore, the aim of this study is to develop a methodology for testing the process.

3. THE RESEARCH ON THE EFFECT OF EXOGENOUS VARIABLES ON THE DETERMINANTS OF P/E

To be able to follow the process described above, it is necessary first to clear the determinants of the impact of exogenous processes before we can observe how they affect the multiplier. For this purpose, it is necessary: firstly – to determine which are the most important exogenous factors; secondly – to measure them in a spatial context and thirdly, to clear their influence on spatial determinants. The determination of significant exogenous factors begins with the construction of a wide pool of macroeconomic variables. Subsequently, these variables are tested by means of temporal regression for any impact on the companies' profitability of the following type:

$$r_{it} = \alpha_i + \beta_i * MF_i \quad (3)$$

where:
α_i – constant; β_i – exposure of the company *i* to the exogenous factor; MF_t – the value of the exogenous factor during the period *t*.

Then based on statistical significance of this pool, the five factors which have the widest impact on the companies of a particular market (a group of markets) are selected. The problem of measuring the impact of exogenous factors in the spatial aspect comes from the fact that most macroeconomic variables are measured for a certain period and have unique values to various companies. On the other hand, the determinants of P/E should be explored in spatial aspect because based on them, the companies are identified, and undervalued and overvalued companies are selected. The best way to present the influence of macroeconomic variables on the companies to a specific point on the timeline is through the companies' exposure to a given factor. This exposure is actually the coefficient β of the equation (3) which is strictly individual for each company at a given moment and measures the size of the influence of this exogenous factor on the profitability of the company's shares. Once we have established the most significant factors and measured their individual influence on each company (through exposure), we should eliminate this influence on the connection between P/E and the two determinants. This is done through an additional spatial regression of ROE compared to exposures during the given period. This regression represents a multifactorial equation of the type:

$$ROE_i = \alpha + \sum_{1..5}^{k} \varphi_k * \beta_{ik} + \epsilon_i \quad (4)$$

where:
ROE_i – return on equity of the company *i*; α – constant; φ_k – regression parameter of factor *k*; β_{ik} – exposure of company *i* to the exogenous factor *k*; ϵ_i – error of the regression model.

Actually, the ϵ_i component of the equation (4) represents that part of ROE specific to any company that is not a result of the influence of exogenous factors. In other words, the vector of ϵ_i is the ROE determinant, cleared from external factors.

Thus the methodology used to clear the influence in its original form as a result is:

(5) $ROE' = \alpha + \epsilon_i.$

But since the technique is applied in the conditions of a spatial model, the parameter α is the same for all companies and really would not change the clean data on ROE. Therefore, we equate ROE directly to the vector of errors from the equation (4) and that is the modified determinant of ROE, which will be tested in another spatial regression. The use of ϵ_i as data for another regression has some advantages since ϵ_i has the following characteristics:

1: $\sum \epsilon_i = 0$
2: $cov_{MF_i,\epsilon_i} = 0$
3: $cov_{\epsilon_j,\epsilon_i} = 0$

Using the method of ordinary least squares (OLS), we should get exactly those features of ϵ_i. The feature 2 proves that the vector planned to use as an input really is cleared of any correlation with exposures of companies to exogenous factors. Additionally, features 1 and 2 guarantee partly that the modified variable has a normal distribution, which is a requirement for the correct application of any model. Logically, we use the same procedure for the other analysed determinant of P/E – net margin by the following equations:

(6) $Net\ Margin_i = \alpha + \sum_{1..5}^{k} \varphi_k * \beta_{ik} + u_i$

where:
ROE_i – return on equity of the company *i* ;α – constant; φ_k – regression parameter of factor *k*; β_{ik} – exposure of company *i* to the exogenous factor *k*; u_i – error of the regression model.

Following the same logic, net margin cleaned from external influence is the u_i vector. The equations (4) and (6) are multifactorial regressions and the input data must implement certain statistical requirements. The main problem with such kind of models is the multicollinearity or the requirement that input independent variables are not correlated is violated. In real economic life is too difficult to find a set of variables, which have no correlation with each other. In this case, the correlation between the vectors with exposures β_k is a very serious problem. On the one hand, expectedly companies have similar exposures to various exogenous factors because the factors themselves are correlated with each other. In addition, one of the consequences of the multicollinearity is that σ_{ϵ_i} is not calculated correctly, which is a serious problem for the procedure we offer, since it means that the distribution of ϵ_i is not real and will lead to incorrect results. Therefore, it is necessary to use the technique for clearing the correlation between the independent variables in the regression model. In this study, we use the Principal Component Analysis (PCA). Practically, the Principal Component Analysis is a statistical procedure that based on orthogonal transformations of vectors modifies correlated variables into uncorrelated vectors called principal components. For the purposes of the study, we will use the basic and most simple technology of PCA presented in Jolliffe (2002b). The idea of PCA is rather intuitive and consists in fitting the data in the ellipsoid whose axes constitute the principal components. The procedure consists in „spin" of axes so that the principal components are ranked by the size of their variations and there is no correlation. The orthogonal linear transformation actually moves the data to a new coordinate system. The calculations start by subtracting the average μ from each variable so that the vector can start from the origin of coordinate system, thus getting n_xk matrix **X**.

The original variables, now with an average of 0, are located in the columns of this matrix. The essence of the procedure consists in calculating the κ-numbers of vectors $W_{(k)}$, which are called eigenvectors. The vectors $W_{(k)}$ actually are used for weighting to get the final principal components $t_{(k)}$:

(7) $t_k = W_k * X_k$

The calculation of W_k is a combination of heuristic and optimization model because first the final result t_k should be sorted in descending variation or in other words t_1 must have the highest variation then t_2 and so on. In order to get this result, the main thing is to calculate eigenvectors, thus the first eigenvector W_1 must meet the following optimization equation:

(8) $W_1 = arg\,max\ \{\| X * W \|^2\} = arg\,max\{W^T * X^T * X * w\}$, *whereby* $\| W \| = 1$

The above equation can still be recorded as follows:

(9) $W_1 = arg\,max\left\{\frac{W^T * X^T * X * w}{W^T * W}\right\}$

Multiplying W_1 by X_1 we get the result for the first principal t_1 component. Once, we have done the procedure for the first component, we pass to the heuristic part of the application of PCA and calculate the next k-1 components. In order to get each subsequent k-component we must deduce X_{k+1} from X_1:

(10) $\widehat{X_k} = X - \sum_{s=1}^{k-1} X * W_s * W_S^T$

Based on this result, we should calculate the other W_k vectors, by working with matrices:

(11) $W_K = arg\,max\{\| \widehat{X_k} * W \|^2\} = arg\,max\left\{(W^T * \widehat{X_k}^T * \widehat{X_k} * W\right\}$

Having already a complete matrix of eigenvectors W_k we can find a final set of principle components:

(12) $T = W * X$

where:
W – n_xk matrix of calculated eigenvectors; X – n_xk matrix with input variables, modified to have an average 0; T – n_xk matrix with k-number of principals.

The idea to use the PCA is that the principal components T_k have absolutely no correlation to each other while the initial macroeconomic variables have a high correlation to each other, which will rather damage the results of multifactor regression for clearing the determinants from the exogenous influence. Although the logic of PCA is rather intuitive, calculations are quite heavy. Also from the statistical point of view, PCA has two major problems:

- The technology is highly sensitive to scaling of data;
- The orthogonal transformation always leads to data loss and it is important to find the optimal technology, which combines successfully clearing of the correlation without losing a significant part of the data.

The application of PCA is necessary evil in order to meet the requirements of the multifactorial regression model. For this purpose, mathematical peculiarities of PCA remain in the background and we apply the described methodology through econometric software R and in particular the function *princomp*. The most important is the final result – the principal components have been uncorrelated and to respond in a sufficiently good way to the distribution of input exogenous factors. Once we have successfully applied the multifactorial model for clearing the exogenous influence on the determinants of P/E, we should see if there is a significant change in the influence of determinants. For this purpose, we carry out the well-known spatial regressions between P/E and values of the two determinants, through actually observed values (ROE and Net margin) and clean from exogenous influence values (ROE' and Net margin') or:

(13) $$P/E_i = \alpha + \gamma_1 * ROE_i + \gamma_2 * NM_i + \epsilon_i$$

(14) $$P/E_i = \alpha + \gamma_3 * ROE_i' + \gamma_4 * NM_i' + \epsilon_i$$

However, before applying the spatial regressions there are some peculiarities, which should be taken into account. In order the calculated parameters γ_1, γ_2, γ_3, γ_4 and the stochastic error ϵ_i to be objective, it is necessary the variables to meet certain requirements:

- Variables involved in the regression must be stationary around their average;
- There should lack autocorrelation in variables;
- It is necessary the sample used to come from the normal distribution or in other words, we have a requirement for normality.

However, the equations (13) and (14) are spatial and it is not a matter of temporal series because of this the first two requirements are inapplicable. As for the requirement for the normality of data, we use the test of "Shapiro-Wilks test for normality" (Shapiro & Wilk, 1965):

(15) $$W = \frac{\left(\sum_{i=1}^{n} a_i * x_i\right)^2}{\sum_{i=1}^{n}(x-\mu_x^s)^2},$$

where:
W – test statistics; x_i – observations from the sample; μ_x^s – arithmetic average of a specific sample; a_i – constant.

The constant a_i is calculated as follows:

(16) $$\boldsymbol{a} = \frac{m^T * V^{-1}}{(m^T * V^{-1} * V^{-1} * m)^{1/2}},$$

where:
a – vector of constants; m – vectors with expected values of order statistics of random variables with identical and independent distribution, which are generated by the sample; V – covariance matrix of vectors m.

The test statistic W has normal distribution and can be interpreted as follows: using a 95% confidence interval if the *p-value* is less than 0.05, then the null hypothesis cannot be dismissed and the sample comes from the normal distribution. The test of Shapiro-Wilks is chosen because according to Razali and Wah (2011a) the test has more „statistical power" of importance compared to similar tests for normality of Anderson-Darling and Kolmogorov-Smirnov.

This procedure will guarantee the validity of data involved in spatial regressions. It is important to note that in equation (14) independent variables are actually residues of multifactorial regression and as such, they initially meet the necessary requirements for normality, therefore they must be tested. The main hypothesis is that there are serious differences in behaviour of coefficients γ_1 and γ_3, as well as between γ_2 and γ_4, which will be caused by the influence of exogenous factors on determinants.

4. DATA ON THE CONNECTION BETWEEN P/E AND ITS DETERMINANTS OF THE BALKAN CAPITAL MARKETS

In order to test empirically the exogenous influence on the determinants of P/E we will apply the developed methodology to a group of emerging markets. We choose this type of markets because due to the availability of market imperfections it should be a serious problem with the influence of exogenous factors. The selected group of countries that will be the object of research includes the Balkan capital markets and in particular – Slovenia, Romania, Bulgaria and Croatia with the addition of Slovakia, due to the degree of their development (emerging markets). It is associated with a number of market imperfections, which make volatility higher, lead to a delayed recovery compared to developed markets and, above all, increase the influence of external factors. From the point of view of economic development (Solovev, et al, 2020c), and the theory of business cycles (2020a)) it is of interest to study the behavior of markets in periods of post-crisis recovery not in the initial, most turbulent post-crisis period, which is often characterized by crisis aftershocks, but in the subsequent periods, when a lasting and stable, albeit lower growth rate is already established. We believe that there is enough empirical information available for the period 2012-2015, which is why the constructed database covers this period. Our aim is to analyze the behavior of P/E determinants and their interaction with exogenous factors in the period of post-crisis development in order to predict the trend of recovery from the current coronavirus crisis. This is necessary because after almost all crises we have witnessed not only a full recovery of the markets and the economy to their previous state, but also the occurrence of structural changes, new underlying logic, relationships, and dependencies. Investors often find it difficult to navigate the new environment and thus adopt a seemingly irrational behavior and incur large losses. This is especially true for the current COVID pandemic situation, as it is observed that some companies and institutions make long-term changes in their activities and the organization of their operations. They introduce new practices (such as teleworking) that are likely to remain in place after the crisis. Due to this new way of working, whole sectors of the economy (e.g. e-commerce, freight forwarding and logistics, etc.) are undergoing rapid development in response to the increasing demand. Overall, this is considered the "new normality", the adaptation to which is a function of the ability of investors to analyze and draw conclusions from previous comparable periods. This means that we have four independent spatial regressions about the impact of ROE and Net margin on P/E respectively for each year of the period. Temporal regressions used to determine which are the significant exogenous factors are based on weekly observations about profitability in a current year. To make a sample, the companies must meet some requirements: 1) to have some fundamental indicators which allow calculation of P/E for the period; 2) available market prices for the period; 3) observations in which P/E is a negative value are eliminated. We impose these restrictions to get a model that is as close as possible to the reality and the applied econometric models are not distorted by unrealistic values. Next, we should construct the used exogenous factors. After we pre-specified the frequency of temporal regressions on a weekly basis, at some extent we limit the type of used factors to macroeconomic variables that are monitored on a weekly basis. Although this is a quite large limitation, there is a logical connection, when it comes to capital markets as they are strongly dynamised and macroeconomic factors measured of great frequency hardly have a strong influence.

Annex 1 shows the methodology used to construct the factors and rationale their application. All required figures are supplied by the global economic database S&P Capital IQ. Additionally for some time series used to construct exogenous factors, Eurostat is applied. After the application of restricted criteria for participation in the sample, we get the following number of companies per year (spatial regressions): 2012 - 75 companies, 2013 - 90 companies, 2014 - 90 companies, 2015 - 63 companies. Although the sample seems small, it should not be forgotten that the stock exchanges are relatively small and the resulting number of companies is sufficient to get reliable statistical conclusions.

5. AN EMPIRICAL TESTING OF THE EXOGENOUS FACTORS' INFLUENCE ON THE DETERMINANTS OF P/E

Using the obtained data, it should be tested the process of influence of exogenous factors on the connection between P/E and its two determinants. It is necessary to repeat our hypothesis that if we remove the influence of exogenous factors, it will be observed different behaviour of the connection among ROE, Net margin and P/E of the companies.

Year	2012		2013		2014		2015	
Factor	N	% of all companies	N	% of all companies	N	% of all companies	N	% of all companies
Weighted CDS Spread	72	96.00%	88	97.78%	68	75.56%	19	30.16%
Weighted HICP	8	10.67%	21	23.33%	34	37.78%	15	23.81%
Weighted GV Bond Yield	68	90.67%	55	61.11%	45	50.00%	16	25.40%
Oil	16	21.33%	11	12.22%	37	41.11%	12	19.05%
Gold	27	36.00%	19	21.11%	33	36.67%	17	26.98%
Natural Gas	18	24.00%	20	22.22%	17	18.89%	8	12.70%
Gasoline	14	18.67%	19	21.11%	49	54.44%	15	23.81%
1Y Euribor	14	18.67%	51	56.67%	51	56.67%	16	25.40%
1M Euribor	8	10.67%	49	54.44%	51	56.67%	23	36.51%
Overnight Libor	23	30.67%	68	75.56%	44	48.89%	19	30.16%
EUR/USD	13	17.33%	53	58.89%	71	78.89%	23	36.51%
EUR/RUB	16	21.33%	10	11.11%	47	52.22%	13	20.63%
EUR/JPY	52	69.33%	84	93.33%	61	67.78%	29	46.03%
EUR/CNY	18	24.00%	71	78.89%	65	72.22%	23	36.51%
EUR/IDR	19	25.33%	51	56.67%	50	55.56%	14	22.22%
MSCI World	56	74.67%	85	94.44%	72	80.00%	13	20.63%

Table 1: Tests for significance of exogenous factors

First, the application of temporal regression must determine which macroeconomic variables are significant for the companies of the leading Balkan stock exchange markets. Table (1) shows the statistics on the number of regressions (in years) where p-value indicator is lower than 0.05 limit and in other words, the factor has a significant influence on the company concerned. Based on table (1) we choose six most influencing factors for each year. Although there are some imperfections, this method allows us to get a good general idea about the influence of exogenous factors. From temporal regressions we actually take also $\boldsymbol{\beta}$ coefficients or so-called exposures which show the spatial influence of macroeconomic variables on the company. Next step is actually applying of the multifactorial model of equations (4) and (6) to study the impact of these exposures on the two determinants, but before that it is necessary to deal with multicollinearity.

For instance, in 2015 the correlation matrix for exposures appears in the following way (see table 2). Obviously, the existence of such high correlation coefficients is a major problem for the implementation of any multifactorial regression model and as we mentioned above the errors ϵ_i will not be calculated correctly. Although in some cases this problem may remain insignificant, in this case ϵ_i is the result that is sought and we cannot assume to have doubts about incorrect calculations. The other correlation matrices for 2012-2014 are shown in Annex 2.

	Weighted CDS Spread	Gasoline	1M Euribor	EUR/USD	EUR/JPY	MSCI World
Weighted CDS Spread	1.0000					
Gasoline	-0.1084	1.0000				
1M Euribor	0.0030	0.3158	1.0000			
EUR/USD	-0.1899	0.0275	-0.2869	1.0000		
EUR/JPY	-0.2967	-0.0927	-0.0986	0.7975	1.0000	
MSCI World	-0.2985	0.1273	0.2598	-0.4860	-0.5073	1.0000

Table 2: The correlation matrix of exogenous factors in 2015

Therefore, we apply the above described base version of Principal Components Analysis. By means of the R-software we make orthogonal transformation of vectors. Subsequently, the obtained principal components are ranked by degree of variance. For 2015 they are as follows (Figure 1):

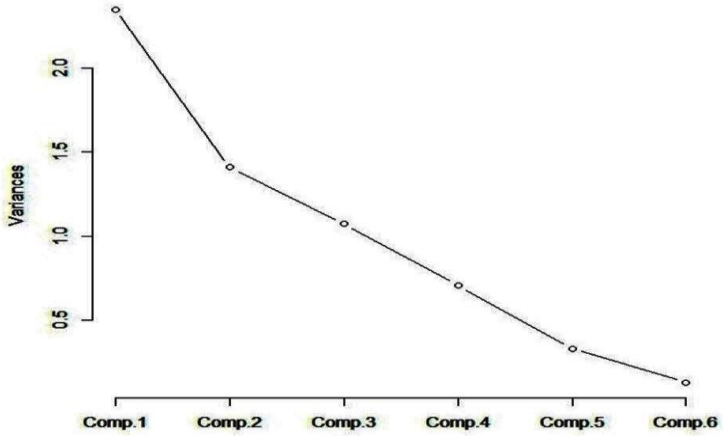


Figure 1: Ranking of principal components on variances for 2015

Exactly these will be the components, which we will use as independent variables in the multifactorial regression because they are products of the corresponding significant exogenous factors. These principal components have two important properties: the first is that they are orthogonal to each other and the second is that they are not correlated. The result of orthogonal transformation for the other years is in Annex 3. As an evidence for the lack of correlation we again construct the correlation matrix for 2015 (table 3). Obviously, the technology successfully clears the correlation, reducing it to zero. Of course, as we mentioned before, this is the price of losing certain amount of information, but for the purpose of this study, it is not necessary to enter into the depths of mathematics. As we mentioned the use of PCA model does not give satisfactory results. The correlation matrices of principal components for previous years of the study are shown in Annex 4.

	Comp1	*Comp2*	*Comp3*	*Comp4*	*Comp5*	*Comp6*
Comp1	1.0000					
Comp2	0.0000	1.0000				
Comp3	0.0000	0.0000	1.0000			
Comp4	0.0000	0.0000	0.0000	1.0000		
Comp5	0.0000	0.0000	0.0000	0.0000	1.0000	
Comp6	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000

Table 3: Correlation matrix of principal components for 2015

Once we have successfully prepared the data to meet the requirements of the multifactorial regression we should apply the described multifactorial model for clearing the influence of exogenous factors on the determinants of P/E. Subsequently, the application of spatial regressions for the effect on P/E is implemented. For modelling P/E, we must do some transformations in order to adapt the data to meet the necessary requirements for the regression analysis. Therefore, for each year, the companies are descending ranked and this rank is normalised to an average zero and standard deviation one. However, we apply the test of Shapiro-Wilks for the normality of data.

	W	p-value
P/E 2015	0.96	0.03
P/E 2014	0.96	0.01
P/E 2013	0.97	0.02
P/E 2012	0.95	0.00
Net margin 2015	0.83	0.00
Net margin 2014	0.10	0.00
Net margin 2013	0.09	0.00
Net margin 2012	0.72	0.00
ROE 2015	0.89	0.00
ROE 2014	0.43	0.00
ROE 2013	0.93	0.00
ROE 2012	0.93	0.00

Table 4: Results of the test of Shapiro-Wilks for normality

Table 4 shows that in any case the hypothesis for normality of data is confirmed at 95 % confidence interval. This means that all tested variables can be used in the spatial regression analysis. On the other hand, it validates the regressions done which aims to clear the exogenous influence and on the other hand, it allows to do testing for the effect of this influence on the connection between P/E and its determinants. The effect will be analysed after comparing the results of spatial regressions between P/E and the observed ROE and Net margin (called Normal regressions) and between P/E and their cleared forms (called Augmented regressions).

Year	Determinants	Normal regression		Augmented regression	
		t-stat	Residuals variance	t-stat	Residuals variance
2012	ROE	6.26	0.766	5.65	0.7854
	Net Margin	1.21		1.21	
2013	ROE	8.03	0.7536	6.49	0.8086
	Net Margin	-3.98		-2.52	
2014	ROE	1.98	0.9727	1.48	0.9934
	Net Margin	-2.17		-0.07	
2015	ROE	2.98	0.9441	2.57	0.9632
	Net Margin	0.13		-0.03	

Table 5: Results of spatial regressions between P/E and determinants

The results follow an interesting connection (see table 5). In each spatial regression, we can observe deterioration of results after the removed influence of exogenous factors. This is evident primarily by the increase in residuals variance and systematically reducing of t-stat.

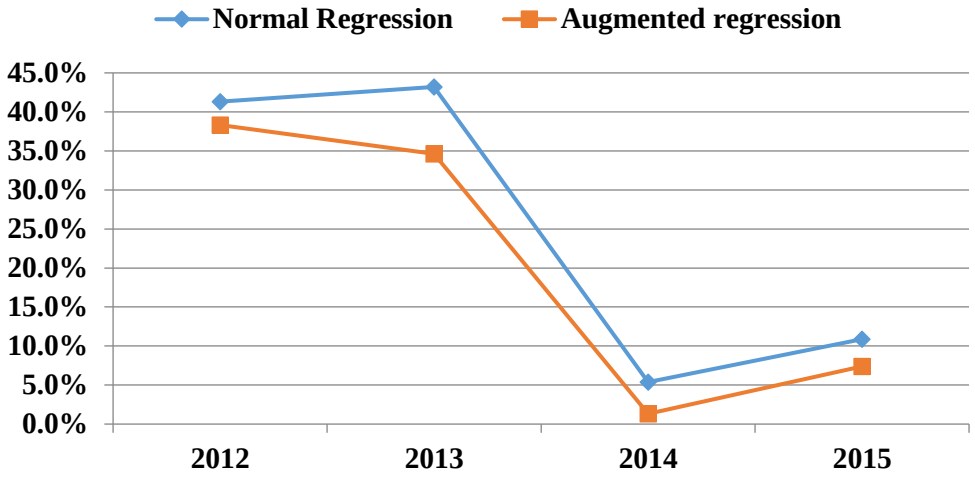


Figure 2: R^2 of the individual spatial regressions during the period 2012-2015

Although p-value gives more interpretable results for the statistical significance, we use t-stat because it most visibly combines the magnitude of coefficient β and its risk (standard error). Another important result is that the net margin stops to be significant determinant of P/E after 2013. The reduction of statistical properties of determinants after removing the external noise is visible on the graph (figure 2) of the coefficient of determination. Although in one or another reason it can be observed a general decline in the coefficient of determination, we can see clearly the decline of the coefficient at augmented regressions. This decline demonstrates that when we remove the influence of exogenous factors, we get very different results. In addition, it turns out that this influence "pumps" the connection between P/E and determinants because influencing on both it creates an artificial connection. Going into more details on the variation of P/E, we can examine the change of the variation percent of the two determinants by using the method of Pratt (figure 3).

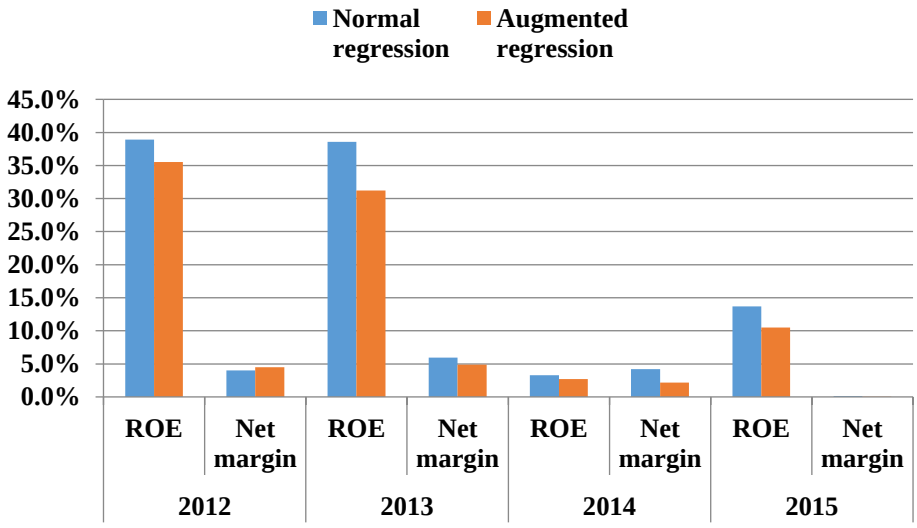


Figure 3: The Percent of explained variation in P/E of determinants in the individual spatial regressions during the period 2012-2015

It can be clearly noted that in all cases ROE explains lower percent of the P/E variation after the removing exogenous influence. As for the Net margin, the results are mixed. This means that ROE is strongly correlated and is influenced by exogenous factors since the Net margin tolerates higher level of independence. In this case, we have chosen the method of Pratt because it uses the basic model for dividing which factor what percentage explains from the variance of the dependent variable. After applying the empirical data, we can confirm the hypothesis that exogenous factors influenced strongly on the connection between P/E and its determinants. In this case, we see particularly high artificial strengthening the connection between P/E and the market multiplier. The same process is also observed in Net margin but in a lower extent. The valuable of the empirical part is that investors must be careful when they use ROE and Net margin in calculating of the fundamental P/E multiplier of the company because there is a great possibility to be misled if they do not take into account the external macroeconomic environment. The obtained results are considered valid not only for the Balkan capital markets, but also for the capital market of Russia, which in certain respects follows the patterns of behavior and analytical dependencies identified above (Sabitova, et al., 2020c). Moreover, the global interaction of producers and traders in supply chains (Laktionova, et al. 2019b) has a cascading effect on the financial performance of all companies in the supply chain. However, the COVID-19 crisis has brought to the fore the demand for quality medical services. Thus, companies related to the pharmaceutical and healthcare sectors are subject to increased interest from the capital market. The limiting factor for such companies as well as for the healthcare sector in general seems to be the scarcity of skilled healthcare specialists (Adamov, et al., 2010a) rather than the shortage of drugs or hospital beds. Therefor the strong need for more effective social policies (Bogdanova, 2018; 2019; Bogdanova, Parashkevova and Stoyanova, 2020) and educational programmes (Terziev, 2020d; 2020e) in Europe is now on the table.

6. CONCLUSIONS

In theoretical aspect, the focus of the study is on the determinants of P/E coefficient as a key indicator (This indicator is key both in basic methodologies for optimization of capital structure of public companies and for decisions on external diversification of the portfolio of corporate shares. For details see: Zahariev, A. Issues of Corporate Capital Optimisation in Bulgaria (Zahariev, 2014d) and Kostov, D. A Study on the impact of macroeconomic factors on the capital market (Kostov, 2011)) for assessing the companies by investors, incl. Hedge funds and especially in establishing the cases of undervalued and overvalued companies. In a narrow sense, the fundamental financial analysis examines the P/E coefficient of the positions of endogenous factors, where the influence of the financial management is particularly strong on the denominator of the coefficient. In a broad sense, the financial analysis allows to examine and establish the influence of the intensifying exogenous factors on the P/E coefficient and especially on its nominator. Macroeconomic developments and indicators of the country where the respective capital market operates are reflected on the nominator of the P/E coefficient. Therefore, measuring the strength of the influence of exogenous factors on the P/E coefficient requires justification of the target methodology for testing the factor influence. Taken in complex, the nominator and denominator of the P/E coefficient are factor modeled by ROE for the nominator and Net margin for the denominator. Empirically, the study is focused on the capital markets of Slovenia, Slovakia, Romania, Bulgaria and Croatia that are European Union members respectively: the first and second countries are from the wave of enlargement in 2004, the third and fourth ones are members from 2007 and the last one is a member from 2013. The study is for the period 2012-2015 and includes 318 unique corporate observations with audited reported data under the international accounting standards. The studied companies in the sample vary from the highest number of 90 in 2013 and 2014 and the lowest number of 63 companies in 2015, which is t+5 do t+7 years of recovery related to COVID-19 crises.

The results of the developed methodology and subsequent empirical analysis allow confirming that in the current dimensions of financial markets the growing influence of exogenous (macroeconomic) factors change the dependence between the fundamental variables. After clearing the effect of exogenous variables on the determinants (ROE and Net margin), their influence on P/E actually weakens. The reason for this can be determined the high correlation of exogenous factors with the two determinants and with the P/E coefficient. The comparison between the two main tested indicators clearly shows that for the five stock exchanges ROE is qualified as highly correlated and susceptible to the influence of exogenous factors. The Net margin has a higher level of independence. The main recommendation for investors operating on the studied markets as well as globally is not to neglect the influence of exogenous factors on the applied financial models for measuring, modeling and forecasting of the market capitalization of companies trade on the stock exchange.

ACKNOWLEDGEMENT: *This research was financially supported by the Academic Foundation "Prof. d-r Minko Rousenov", Svishtov, Bulgaria (Grant No. 1001004) and the Institute of Scientific Research at D. A. Tsenov Academy of Economics, Svishtov, Bulgaria.*

LITERATURE:

1. Adamov, V., Kolev, K., Vrachovski, D., Zahariev, A., & Marcheva, A. (2010a). *Human resources of the health system in Republic of Bulgaria. Cahiers de sociologie et de démographie médicale*s, 1(50), pp. 1-126. Retrieved from www.bit.ly/3njV3lz.
2. Alford, A. (1992). *The Effect of the set of Comparable Firms on the Accuracy of the Price Earnings Valuation Method*. Journal of Accounting Research, pp. 94-108.
3. Ball, C., & Torous, W. (2000). *Stochastic correlation across international stock markets*. Journal of Empirical Finance, pp. 373-388.
4. Beaver, W. & Morse, D. (1978). *What do P/E ratios mean? Financial Analysts Journal*, v34, pp. 65-76.
5. Bhojraj, S., & Lee, C. M. (2002). *Who is my peer? A valuation-based approach to the selection of comparable firms*,Journal of Accounting Research, pp. 407-439.
6. Bhojraj, S., Lee, C. M., & Oler, D. (2003). *What's My Line? A Comparison of Industry Classification Schemes for Capital Market Research*. Journal of Accounting Research, pp. 745-774.
7. Boatman, J., & Baskin, E. (1981). *Asset Valuation in Incomplete Markets*. The Accounting Review, pp. 38-53.
8. Bogdanova, M. (2018). *Policies and Instruments for Social Deve*lopment. Journal of Innovations and Sustainability, 4(1), pp. 59-63. Retrieved from www.bit.ly/3kd8sJh.
9. Bogdanova, M. (2019). *Social policies and programmes in Europe*. International E-journal of Advances in Social Sciences, 5(15), pp.1306-1313. doi:https://doi.org/10.18769/ijasos.592097.
10. Bogdanova, M., Parashkevova, E., & Stoyanova, M. (2020). *Agile Project Management In Governmental Organizations – Methodological Issues*. International E-Journal of Advances in Social Sciences, 6(16), pp. 262-275. doi:https://doi.org/10.18769/ijasos.616037.
11. Cheng, C. S., & McNamara, R. (2000a). *The valuation accuracy of the price-earnings and price-book benchmark valuation methods*. Review of Quantitative Finance and Accounting, pp. 349-370.
12. Damodaran, A. (2002a). *Investment Valuation*. New York: John Wiley and Sons.
13. Easton, P. (2004). *PE Ratios, PEG Ratios and Estimating the Implied Expected Rate of Return on Equity Capital*. The Accounting Review, pp. 79-95.
14. *Economic Cycle Research Institute*. (2020a). https://www.businesscycle.com/home. Retrieved from https://www.businesscycle.com/home.

15. Edwards, E., & Bell, P. (1961). *The Theory and Measurement of Business Income*. Berkeley: University of California Press.
16. Jolliffe, I. (2002b). *Principal Component Analysis. Springer Series in Statistics*, 2nd ed., 487.
17. Kostov, D. (2011). *A Study on the impact of macroeconomic factors on the capital market.* Empirical Studies in Economics, Business Administration and Management, pp. 50-68.
18. Laktionova, O., Dobrovolskyi, O., Karpova, T. S., & Zahariev, A. (2019b). *Cost Efficiency of Applying Trade Finance for Agricultural Supply Chains*. Management Theory and Studies for Rural Business and Infrastructure Development, 41(1), pp. 62-73. doi:https://doi.org/10.15544/mts.2019.06.
19. Leibowitz, M. L. (2002c). *The Levered P/E Ratio*. Financial Analysts Journal, 58(6).
20. Leibowitz, M. L., & Kogelman, S. (1991). *Asset allocation under shortfall constraints*. The Journal of Portfolio Management, 17(2), 18-23. doi: https://doi.org/10.3905/jpm.1991.409309
21. Longin, F., & Solnik, B. (2001). *Extreme Correlation of International Equity Markets*. Journal of Finance, pp. 649-675.
22. Magni, C. (2007). *Relevance or irrelevance of retention for dividend policy irrelevance*. Applied Economics Research Bulletin, pp. 1-13. Retrieved from https://mpra.ub.uni-muenchen.de/8384/1/MPRA_paper_8384.pdf.
23. Peasnell, K. (1982). *Some Financial Connections between Economic Values and Accounting Numbers*. Journal of Business Finance and Accounting, pp. 361-381.
24. Razali, N., & Wah, Y. B. (2011a). *Power comparisons of Shapiro–Wilk, Kolmogorov–Smirnov, Lilliefors and Anderson–Darling tests*. Journal of Statistical Modeling and Analytics, 2(1), pp. 21–33.
25. Sabitova, N. M., Shavaleyeva, C. M., Lizunova, E. N., Khairullova, A. I., & Zahariev, A. (2020c). *Tax Capacity of the Russian Federation Constituent Entities: Problems of Assessment and Unequal Distribution*. In S. L. Gabdrakhmanov N., Regional Economic Developments in Russia (pp. 79-86). Springer. doi:https://doi.org/10.1007/978-3-030-39859-0_7.
26. Shapiro, S. S., & Wilk, M. B. (1965). *An analysis of variance test for normality (complete samples)*. Biometrika, 52(3-4), pp. 591–611.
27. Solovev, D., Kuzora, S., Kyriakopoulos, G., & Terziev, V. (2020c). *Algorithmic approach to the assessment of innova*tion. International Science and Technology Conference "FarEastCon 2019" (pp. 31-50). Vladivostok, Russian Federation: Springer, Singapore.
28. Terziev, V. (2020d). *Factors influencing education system*. 50th International Scientific Conference on Economic and Social Development, 50, pp. 651-656. Chelyabinsk, Russian Federation. Retrieved from https://www.researchgate.net/publication/339390267.
29. Terziev, V. (2020e). *New strategy for higher education for 2021-2030 in Bulgaria and challenges for its implementation*. 60th International Scientific Conference on Economic and Social Development – XX International Social Congress (ISC 2020), 60, pp. 67-75. Moscow. Retrieved from https://www.researchgate.net/publication/345437242.
30. Yang, L., Tapon, F., & Sun, Y. (2006). *International Correlations Across Stock Markets and Industries: trends and patterns 1988–2002*. Applied Financial Economics, 16(16), pp. 1171-1183. doi:https://doi.org/10.1080/09603100500447529.
31. Zahariev, A. (2014d). *Issues of Corporate Capital Optimisation in Bulgaria*. Business Management, pp. 26-47. doi:http://dx.doi.org/10.2139/ssrn.2807565.

32. Zahariev, A., Prodanov, S., Radulova, A., Zaharieva, G., Pavlova-Banova, M., Angelov, P., Ismailov, T., Aleksandrova, A., Marinova, K. (2020e). The Bank Insolvency: from Lehman Brothers to Covid-19 (International Remarks and National Peculiarities). 58th International Scientific Conference on Economic and Social Development, 58, pp. 44-59. Retrieved from https://www.bit.ly/30CGFLz.
33. Zahariev, A., Prodanov, S., Zaharieva, G., Krastev, L., Kostov, D., Pavlov, T., Stanimirov, St., Zarkova, S., Zdravkov, N. (2020f). The Brokerage Insurance Companies under Covid-19 Framework (the Bulgarian experience). 58th International Scientific Conference on Economic and Social Development, 58, pp. 369-383. Retrieved from https://www.bit.ly/30CGFLz.
34. Zahariev, A., Zveryakov, M., Prodanov, S., Zaharieva, G., Angelov, P., Zarkova, S., & Petrova, M. (2020j). Debt management evaluation through support vector machines: on the example of Italy and Greece. *Entrepreneurship and Sustainability Issues, 7*(3), pp. 2382-2393. doi:https://doi.org/10.9770/jesi.2020.7.3(61).

APPENDIX

Appendix 1: Financial and macroeconomic factors

№	Tested exogenous factors	Source/Constructing	Justification
1.	Weighted CDS spread	The difference between the levels of CDS of five-year government bonds of each country and a certain developed market (Germany). Weighted by GDP for the year.	It measures the risk attitudes of investors.
2.	Weighted HICP	Weighted levels of inflation by GDP of the studied countries.	It measures the inflations in studied markets.
3.	Weighted GV Bonds Yield	Yield on 10-year government bonds of studied countries weighted by their GDP.	It measures state solvency.
4.	Oil price	Brent crude oil price index	Oil as a key economic barometer.
5.	Gold	-	Gold is a reserve resource and measures "escaping" from the capital markets.
6.	Natural Gas, Gasoline	-	They represent major energy resources.
7.	1Y Euribor, 1M Euribor, Overnight Libor	-	They represent the movement of leading base interest rates.
8.	EUR/USD, EUR/RUB, EUR/JPY, EUR/CNY, EUR/IDR	Forex Spot rate	The connection of the base currency in Europe with currencies of other leading economies.
9.	MSCI World	-	It measures the performance of the global capital market.

Appendix 2: Correlation matrices for 2012-2014

	Weighted CDS Spread	**Weighted GV Bond Yield**	**Gold**	**EUR/RUB**	**EUR/JPY**	**MSCI World**
Weighted CDS Spread	1.0000					
Weighted GV Bond Yield	0.7056	1.0000				
Gold	0.5762	0.4542	1.0000			
EUR/RUB	0.0890	0.3335	0.4451	1.0000		
EUR/JPY	0.8792	0.5865	0.5390	0.2739	1.0000	
MSCI World	-0.9005	-0.6841	-.6556	-0.3628	-0.8754	1.0000

	Weighted CDS Spread	**Weighted GV Bond Yield**	**Gold**	**EUR/USD**	**EUR/JPY**	**MSCI World**
Weighted CDS Spread	1.0000					
Weighted GV Bond Yield	0.7099	1.0000				
Gold	-0.1514	0.0346	1.0000			
EUR/USD	0.1189	0.3373	0.4933	1.0000		
EUR/JPY	0.4011	0.6449	0.4288	0.8460	1.0000	
MSCI World	-0.7263	-0.4579	-.0865	-0.4428	-0.6071	1.0000

	Weighted CDS Spread	Weighted GV Bond Yield	Gasoline	EUR/USD	EUR/CNY	MSCI World
Weighted CDS Spread	1.0000					
Weighted GV Bond Yield	0.6242	1.0000				
Gasoline	-0.0975	-0.3082	1.0000			
EUR/USD	0.3949	0.2669	0.1342	1.0000		
EUR/CNY	0.3488	0.3037	0.1176	0.9798	1.0000	
MSCI World	-0.6463	-0.3556	-0.0070	-0.7851	-0.7382	1.0000

Appendix 3

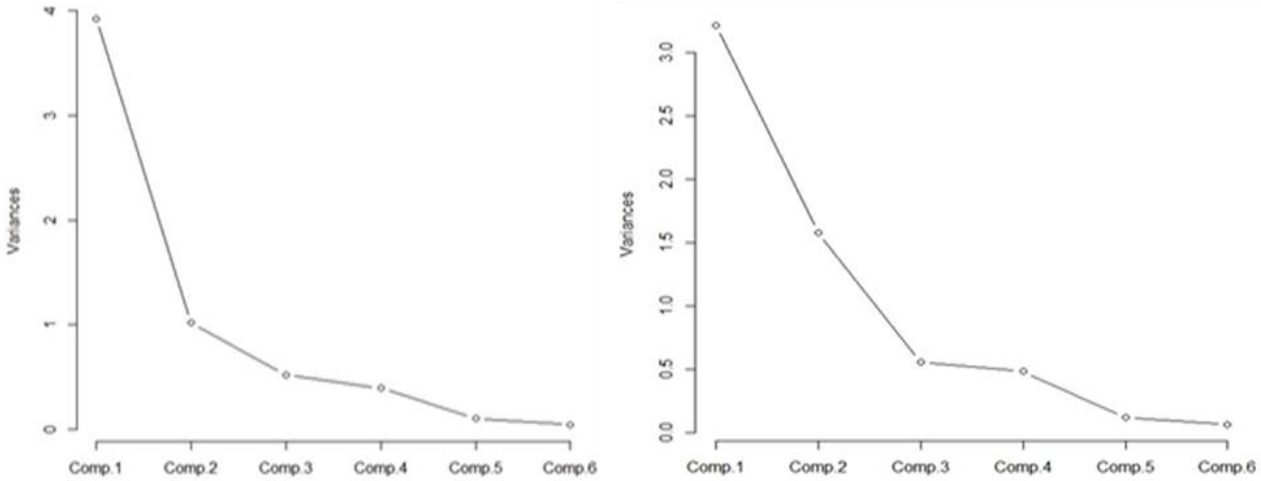


Figure 4: Ranking of principal components on variances for 2012 (left) and 2013-14

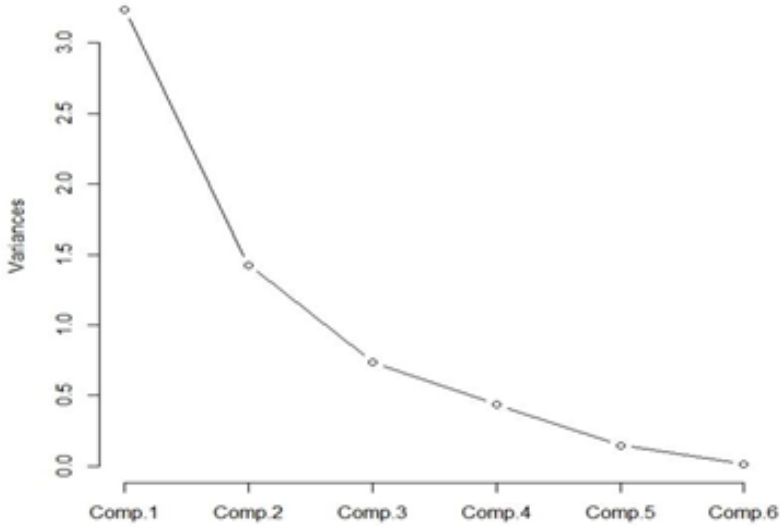


Figure 5: Ranking of principal components on variances for 2015

Appendix 4: Correlation matrices of principal components 2012-2014

2012	**Comp1**	**Comp2**	**Comp3**	**Comp4**	**Comp5**	**Comp6**
Comp1	1.00					
Comp2	(0.00)	1.00				
Comp3	0.00	(0.00)	1.00			
Comp4	(0.00)	0.00	(0.00)	1.00		
Comp5	(0.00)	0.00	0.00	(0.00)	1.00	
Comp6	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	1.00
2013	**Comp1**	**Comp2**	**Comp3**	**Comp4**	**Comp5**	**Comp6**
Comp1	1.00					
Comp2	0.00	1.00				
Comp3	0.00	0.00	1.00			
Comp4	(0.00)	(0.00)	0.00	1.00		
Comp5	(0.00)	0.00	0.00	0.00	1.00	
Comp6	0.00	0.00	(0.00)	0.00	(0.00)	1.00
2014	**Comp1**	**Comp2**	**Comp3**	**Comp4**	**Comp5**	**Comp6**
Comp1	1.00					
Comp2	0.00	1.00				
Comp3	(0.00)	0.00	1.00			
Comp4	(0.00)	(0.00)	0.00	1.00		
Comp5	(0.00)	0.00	0.00	(0.00)	1.00	
Comp6	0.00	0.00	(0.00)	0.00	0.00	1.00

THE IMPACT OF THE BANKING SECTOR ON ECONOMIC GROWTH IN CÔTE D'IVOIRE FROM 1990 TO 2019

Dembele Boua Siriki
Faculty of Legal, Economic and Social Sciences of Salé
Mohammed V University in Rabat, Morocco
Laboratory of Applied Economics
demben1960@yahoo.fr

Mustapha Machrafi
Professor of Legal, Economic and Social Sciences of Salé
Mohammed V University in Rabat, Morocco
machrafiea@yahoo.fr

ABSTRACT

The objective of this study is to analyse the effect that the banking sector may have on economic growth in Côte d'Ivoire between 1990 and 2019. This work aims to analyse theoretically and empirically this relationship between the banking sector and economic growth. The banking and financial system influences economic growth through its functions, such as: resource mobilization; allocation of resources in space and time; risk management; selection and monitoring of enterprises; and production and dissemination of information. To analyse these aspects, a brief review of the theoretical arguments that support the existence or not of a positive and causal relationship between these two variables is firstly made, as well as arguments that seek to delineate the role and influence of the development of the banking system on the economy; secondly, an empirical exercise was carried out using economic and banking data from Cote d'Ivoire. The results of this exercise suggest that there is a positive impact on the banking sector and economic growth in Côte d'Ivoire.

Keywords: *Economic growth, Cote d'Ivoire, Banking and financial system, VAR*

1. INTRODUCTION

The banking system is essential for the development of any nation, a bad banking system can have a disastrous effect on the economy of any nation and even lead to a financial crisis. The role of the banking system is primarily to facilitate the allocation of economic resources, both spatially, temporally and in an environment of uncertainty. In other words, it makes it possible to make available to investors (deficit units) the flows of household savings (surplus units), followed by a return to households (profits and interest payments) for new consumption. Among the economic agents, there are those who earn more than they spend and who, for the most part, are not interested in investing their excess resource. On the other hand, there are those agents who wish to obtain additional resources, in addition to their remuneration, they are interested in investing productively, but without first having all the necessary resources for such an investment, or they still need resources to cover possible consumption expenses. This places the banking sector at the heart of this system of resource transfer flows from savers to borrowers. Studies on the effect of the banking sector on economic growth are numerous, varied and sometimes opposing. Ever since the first study by Schumpeter[1] (1911), which highlighted the role of the banking and financial sector in driving economic growth. Schumpeter's work has empirically shown a relationship between the financial market and economic growth. For him, the banking and financial sector plays a central role in economic growth by enabling savings

[1] Elliott J, 1983, «Schumpeter and the theory of capitalist economic development», Journal of Economic Behavior & Organization Vol 4, Issue 4, pp 277-308.

funds to be mobilised efficiently towards borrowers. According to the Keynesian approach, the importance of the banking and financial sector during crises in its capacity to weaken the capitalist system is evident. When the banking system is well developed, with greater risk diversification and a greater supply of credit, it affects the expectations of entrepreneurs about the possibility of refinancing investments, creating a positive environment. As Levine[2] (1997) argues, effective financial intermediation can result in profitable investments, ensuring economic growth and development, through increased employment and income, for families and businesses. The development of this sector is linked to its capacity to attract the savings of economic agents, i.e. the more confidence there is in the banking sector, the greater the capacity to attract savers in search of income. Consequently, the more developed the sector is, the greater its capacity to allocate credit to household consumption and long-term investments, thus increasing the level of the latter two factors and, consequently, the country's domestic production. We note that over the last two decades, the banking sector has undergone major transformations throughout the world in its operating environment. External and internal factors have influenced its structure and mode of operation. Despite the upward trend in banking disintermediation in many countries, the role of banks in financing remains essential to economic activity. A stronger and more profitable banking sector is able to withstand adverse shocks and contribute to the economic stability of any nation. The aim of this paper will be to show, according to theoretical and empirical arguments, the relevance of the banking system as one of the determinants of economic growth, in addition to testing certain hypotheses on the existence or not of a positive correlation between banking development and economic growth in Côte d'Ivoire. Throughout this work we will try to answer a central question: does the development of the Ivorian banking sector have an impact on its economic growth? To achieve the objectives of our work, our article will be divided into three sections, in addition to the introduction and the final conclusion. In the second section we will present a review of the theoretical and empirical literature on the relationship between the development of the banking and financial system and economic growth. Then in the third point we will discuss the data and the methodology of empirical analysis as well as the choice of variables used. And finally, before concluding, we will present the results obtained from our econometric study.

2. LITERATURE REVIEW

In the literature several studies have focused on the impact of the banking and financial sector on economic growth, these numerous studies can be divided into two groups. Firstly, we have economic thinking which believes that the development of the banking sector has a positive impact on economic growth. Indeed, Keynes[3] (1964), in the logic of the capitalist system, acknowledges the importance of the banking and financial sector, because for him it allows to satisfy the interest of the borrowers of resources. For King and Levine[4] (1993), in their study supporting Schumpeter's assertion that the financial system can promote economic growth. In this work, they studied the empirical relationship between four financial indicators and four growth indicators, using a sample of 80 countries for the period 1960-1989. The two authors concluded by confirming the Schumpeterian view of the importance of the financial system for economic development. According to Alaoui's[5] (2004) study on the causal relationship between financial development and economic growth, in the Moroccan context, for the period 1970-2000, there is a short-term causal relationship between the financial sector and economic

[2] Levine R, 1997, «Financial development and economic growth: views and agenda», Journal of Economic Literature, Vol 34, issue 2, pp 688-726;
[3] Keynes JM, 1964, «The general theory of employment, interest and money», Nova York: Hartcourt Brace and World.
[4] King RG and Levine R, 1993, «Finance and growth: Schumpeter might be right» The quarterly journal of economics, Vol 108(3), pp 717-737.
[5] Alaoui M, 2004, «Does financial development cause economic growth? An empirical investigation drawing on the Moroccan experience », Lancaster University Management School, Département d'économie, Working Papers 542785

growth, which is not observed in the long run. For the author, this result is a joint consequence of the recent reforms that had been introduced in the financial system in Morocco to date and the absence of a favourable climate for long-term investment. For Masoud and Hardaker[6] (2012), in an empirical analysis of emerging countries, have established that the stock market and the banking sector play significant and complementary roles in the growth process. Indeed, according to the results obtained, the relationship between most stock market and banking development indicators on economic growth has been recognised as robust. Lucchetti and Zazzaro[7] (2001), analysed the relationship between the banking system and economic growth in different Italian regions, using dynamic panel data, using an index of inefficiency of Italian regional banking systems. The objective is to give all banks operating in each Italian region a weight corresponding to their presence in that region. The authors concluded that there is an independent effect of banking efficiency on real growth, which corroborates the presence of a Schumpeterian channel, underlining the role of banks in the allocation of financial resources. Nyasha and Odhiamb[8] (2015) take a similar approach by examining the impact of financial development on economic growth in South Africa over the period 1980-2012. Taking into account the role of banks and the role played by the capital market, they conclude that there is a positive relationship between bank-driven financial development and economic growth in South Africa. In contrast to the first trend, there are other studies that reject any impact of the banking sector on economic growth. These authors argue that the development of the banking and financial sector is not a sine qua non condition for economic growth. According to Demetriades and Hussein[9] (1996) who conducted causality tests between financial development and real GDP to test whether financial development is the cause of economic growth. The results of their research provide little evidence to assert that the financial system is an important sector in the process of economic development, because they found considerable evidence of bi-directionality and some evidence of reverse causality. For Ngongang[10] (2015), his study observed in 21 sub-Saharan African countries and applying GMM dynamic panel data, concluded that financial development has no effect on economic growth. For the author, this lack of relationship may be due to the underdevelopment of financial systems in sub-Saharan Africa, which impedes economic growth, or to the instability of real GDP per capita growth rates in the sub-Saharan region, which in turn affects the quality of the relationship between the financial sector and economic growth. According to Ngongang, in order to improve the efficiency of the financial system in these countries, governments need to legislate on the credit allocation process, privatize domestic banks and increase competition in the banking sector. Agostinho (2016), similarly assesses the existence of a long-term relationship between financial development and economic growth in Mozambique between 1993 and 2013. The results show that there is no direct impact of the Mozambican financial sector on economic growth during the study period. For the author, this is because Mozambique's financial sector does not allocate resources efficiently to the productive sector to promote growth. As for Joan Robinson[11] (1952), quoted by Yara Zeineddine, who argues that the growth of banking activity is not relevant, as it naturally results from the general increase in foreign exchange transactions that result from

[6]Masoud N and Hardaker G, 2012, «The impact of financial development on economic growth: Empirical analysis of emerging market countries », Studies in Economics and Finance, Vol 29(3), pp148-173.

[7] Lucchetti R, Papi L, and Zazzaro A, 2001, «Banks' inefficiency and economic growth: a micro-macro approach», Scottish Journal of Political Economy, Vol48(4), pp400-424.

[8]Nyasha S and Odhiambo N M, 2015, «The impact of banks and stock market development on economic growth in South Africa: an ARDL-bounds testing approach», Contemporary Economics, Vol9(1), pp 93-108.

[9] Demetriades PO and Hussein KA, 1996, «Does financial development cause economic growth? Time-series evidence from 16 countries», Journal of development Economics, Vol51(2), pp 387-411.

[10] Ngongang E, 2015, «Financial development and economic growth in Sub-Saharan Africa: A dynamic panel data analysis», European Journal of Sustainable Development, Vol4(2), pp369-369.

[11] Zeineddine Y, 2019, «Joan Robinson from the generalization of the General Theory to the development of an Anglo-Italian' Cambridge tradition », Worker paper.

economic growth or industrial development. For him it is the opposite, it is the growth of the economy that affects the configuration of the financial system because it implies increases in the demand for financial services that result from the dynamics of economic activity.

3. EMPIRICAL ANALYSIS OF THE EFFECT ON THE BANKING SECTOR ON IVORIAN GROWTH

3.1. Presentation and source of data

Our study is carried out over a period starting from 1990 to 2019, i.e. 30 years of observation of the banking system in Côte d'Ivoire. The selected data are represented in %GDP and are of an annual frequency :

- **Endogenous variables: GPIB** represents the economic growth rate.
- **Exogenous variables:** We have chosen several variables to represent the banking sector in Côte d'Ivoire :
  - **MM**: Monetary mass, it represents the quantity of money circulating in the economy at a given moment;
  - **DB**: Bank Deposit, the amount of money that depositors entrust to banks;
  - **CBAE**: Bank credit granted to the global economy;
  - **CBAG**: Bank loan granted to the government;
  - **CBASP**: Bank credit granted to the private sector;

The data used for our study came from the following databases:

- World Bank
- Central Bank of West African States (BCEAO)
- National Statistical Institute of Côte d'Ivoire (INS-CI)
- International Monetary Fund

3.2. Assumptions

From our central question in the introduction, we draw three hypotheses:

- H1: The Ivorian banking sector has a positive impact on its economic growth
- H2: This impact of the banking sector on economic growth does not have the characteristics over the 30 years observed.
- H3: The sector is a driving force for the economic development of Cote D'ivoire

3.3. The tests used and the choice of model

3.3.1 Statistical testing

The tests as well as the construction of the model will be carried out using **EVIEWS 11**, the different statistical tests used are :

- Augmented Dickey-Fuller test: The Dickey-Fuller unit root test is a statistical test, which aims to find out if a time series is stationary.
  A time series is stationary if it evolves in the same way over time, if one of the variables is not stationary we use the difference operator noted :

$$\mathbf{\Delta x_t = x_t - x_{t-1}}$$

  A time series of order d is integrated, which is noted I(d), if the series obtained after d differentiations is stationary. The stationarity test plays a major role in determining which model to choose.
- Serial correlation LM test: A test that examines the autocorrelation of residues, i.e. whether residues at period 1 are related to residues at period 2. Autocorrelation of residues could lead to spurious results.

- AR roots table test: To test the stability of our model. A process is stable if the roots of its characteristic polynomial are outside the unit circle :
  Or the following AR(p) process :

$$\boldsymbol{y(t)} \;=\; \boldsymbol{a(1)}\,\boldsymbol{y(t-1)} + \ldots + \boldsymbol{a(p)}\,\boldsymbol{y(t-p)} \;+\; \boldsymbol{e(t)}$$

  With the delay operator L the equation will become:

$$\mathbf{y(t)}\;(\mathbf{1} \;-\; \mathbf{a(1)L(1)} - \ldots - \mathbf{a(p)L(p)}) = \;\mathbf{e(t)}$$

  We pose : $z^k = L(k)$the characteristic equation becomes :

$$\mathbf{1} \;-\; \mathbf{a(1)z^1} - \ldots - \mathbf{a(p)z^p} \;=\; \mathbf{0}$$

  And it admits at least one root according to the fundamental theorem of algebra. This process is stationary if the roots are outside the unit circle. In **Eviews**, it is the inverse roots that are calculated, so they must be within the unit circle for a stable process.

- VAR Granger Causality test: **non-causality test** To test whether exogenous variables do not cause the endogenous variable in the Granger sense, this represents a modified version of the Granger causality test, which tests causality instead of non-causality, the choice of this test was imposed by the choice of model and will be explained later. This notion of causality is often confused with "the cause", if X causes Y in Granger's sense, it does not mean that Y is a consequence of X :

« X causes Y in the Granger sense if the prediction of Y using historical data of Y and X is better than its prediction using historical data of Y alone.»
The assumptions of this test are as follows :

- H0: "X does not cause Y in the sense of Granger". H1
- H1: "X causes Y in the sense of Granger".

3.3.2. The chosen model and work methodology

The results of the variable stationarity test require us to build the VAR model defined by the Toda-Yamamoto technique. The next steps in the construction of this model are different from those of the conventional VAR model :

1) Stationarity test: Perform the stationarity test of the variables to determine **m** which represents the highest order of integration, for example if one variable is I(0) and the other is I(1) then m=1, if one variable is I(1) and the other is I(2) then m=2.
2) Constructing a VAR (Vector autoregressive) model, a variable obeys a VAR model if it is explained by its own past values and by the past values of other variables. In this technique the VAR model is constructed with the variables **without differentiation,** regardless of the results of the first step.
3) Determine **P** the optimal number of delays for the VAR model by selecting "**lag length criteria"** based on criteria such as AIC or SIC.
4) Add the lagged variables of **P+m** to the VAR equation.
5) Make sure that there is no autocorrelation of the residues, otherwise increase P until the problem is solved.
6) Test the stability of the model.
7) Carry out the Granger non-causality test.

4. RESULTS

4.1. Graphical presentation of the data

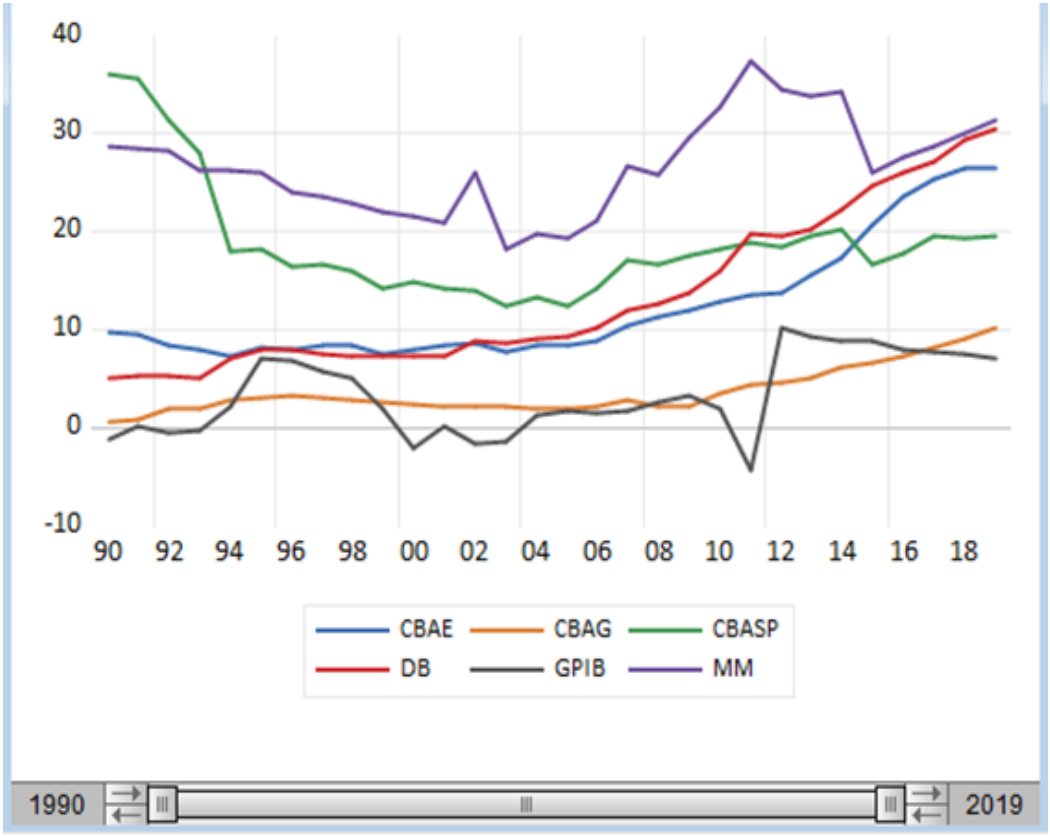


Figure 1: Graphical presentation of the data

We note that the series may have a non-stationary behaviour, let's verify this with the ADF test (see Appendix 1).

4.2. Stationarity test

Variable	Level of integration	Constant / Trend	t-statistic	Prob
GPIB	I(1)	Constant	-6,5805	0,0000
MM	I(1)	Constant	-6,0992	0,0000
DB	I(1)	Constant	-3,8809	0,0063
CBAE	I(2)	Constant	-6,6315	0,0000
CBAG	I(2)	Constant	-5,4342	0,0002
CBASP	I(0)	Constant	-3,5163	0,0147

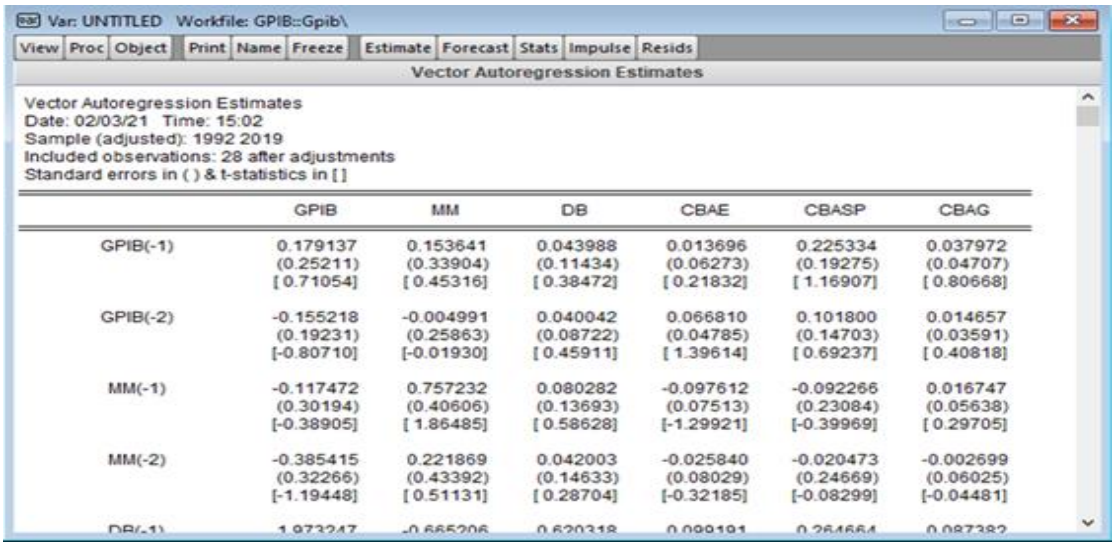
Table 1 : Stationarity test

Observation of the results leads us to three important remarks:

- Not all variables are I(0) so the linear regression is eliminated.
- Not all variables are I(1) so Johansen's cointegration is not applicable.
- The variables are not only a mixture of I(0) and I(1), but I(2) as well, so terminal cointegration is not applicable.

Based on these results we will apply Toda Yamamoto's technique in order to be able to propose a suitable model. Let's follow the steps defined in the approach of our work :

- **Step 1 :** The first step has already been carried out and the highest order of integration of the variables is **m=2**.
- **Step 2 :** The second step is to build a VAR model without differentiating the variables, this delay 2 model defined by EVIEWS is represented by the following equation:


Var: UNTITLED Workfile: GPIB::Gpib\

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Impulse | Resids

Vector Autoregression Estimates

Vector Autoregression Estimates
Date: 02/03/21 Time: 15:02
Sample (adjusted): 1992 2019
Included observations: 28 after adjustments
Standard errors in ( ) & t-statistics in [ ]

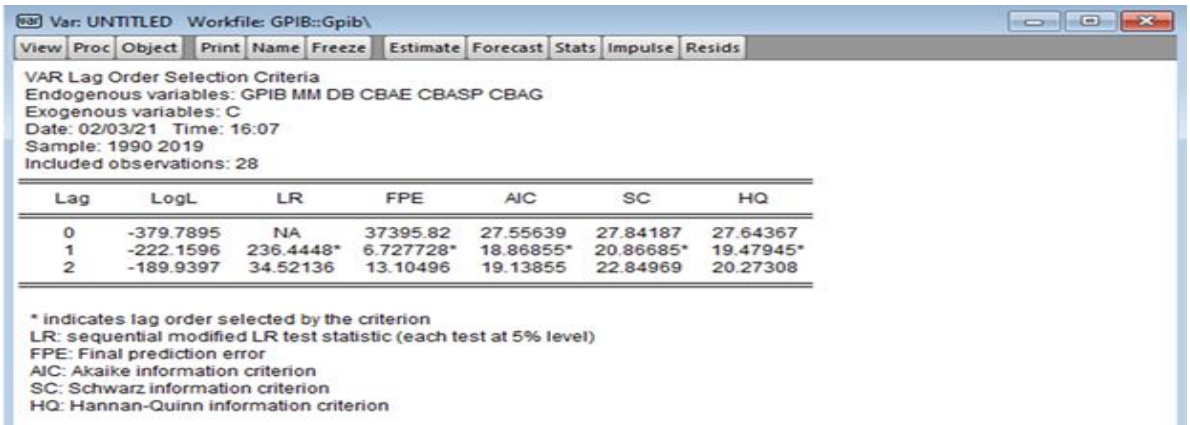
	GPIB	MM	DB	CBAE	CBASP	CBAG
GPIB(-1)	0.179137	0.153641	0.043988	0.013696	0.225334	0.037972
	(0.25211)	(0.33904)	(0.11434)	(0.06273)	(0.19275)	(0.04707)
	[0.71054]	[0.45316]	[0.38472]	[0.21832]	[1.16907]	[0.80668]
GPIB(-2)	-0.155218	-0.004991	0.040042	0.066810	0.101800	0.014657
	(0.19231)	(0.25863)	(0.08722)	(0.04785)	(0.14703)	(0.03591)
	[-0.80710]	[-0.01930]	[0.45911]	[1.39614]	[0.69237]	[0.40818]
MM(-1)	-0.117472	0.757232	0.080282	-0.097612	-0.092266	0.016747
	(0.30194)	(0.40606)	(0.13693)	(0.07513)	(0.23084)	(0.05638)
	[-0.38905]	[1.86485]	[0.58628]	[-1.29921]	[-0.39969]	[0.29705]
MM(-2)	-0.385415	0.221869	0.042003	-0.025840	-0.020473	-0.002699
	(0.32266)	(0.43392)	(0.14633)	(0.08029)	(0.24669)	(0.06025)
	[-1.19448]	[0.51131]	[0.28704]	[-0.32185]	[-0.08299]	[-0.04481]
DB(-1)	1.973247	-0.665206	0.620318	0.099191	0.264664	0.087382

Figure 2 : delay 2 model defined by EVIEWS

GPIB=C(1.1)*GPIB(-1) + C(1.2)*GPIB(-2) + C(1.3)*MM(-1) + C(1.4)*MM(-2) + C(1.5)*DB(-1) + C(1.6)*DB(-2) +C(1,7)*CBAE(-1) + C(1.8)*CBAE(-2) + C(1.9)*CBAG(-1) + C(1.10)*CBAG(-2) + C(1.11)*CBASP(-1) + C(1.12)*CBASP(-2) + C(1.13)

This is not the VAR model to be used, this step is used to define the optimal number of delays in the next step.

- **Step 3:** Determining the optimal number of delays for the previous VAR model, the "**lag length criteria**" selection gives the following result:


Var: UNTITLED Workfile: GPIB::Gpib\

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Impulse | Resids

VAR Lag Order Selection Criteria
Endogenous variables: GPIB MM DB CBAE CBASP CBAG
Exogenous variables: C
Date: 02/03/21 Time: 16:07
Sample: 1990 2019
Included observations: 28

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-379.7895	NA	37395.82	27.55639	27.84187	27.64367
1	-222.1596	236.4448*	6.727728*	18.86855*	20.86685*	19.47945*
2	-189.9397	34.52136	13.10496	19.13855	22.84969	20.27308

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

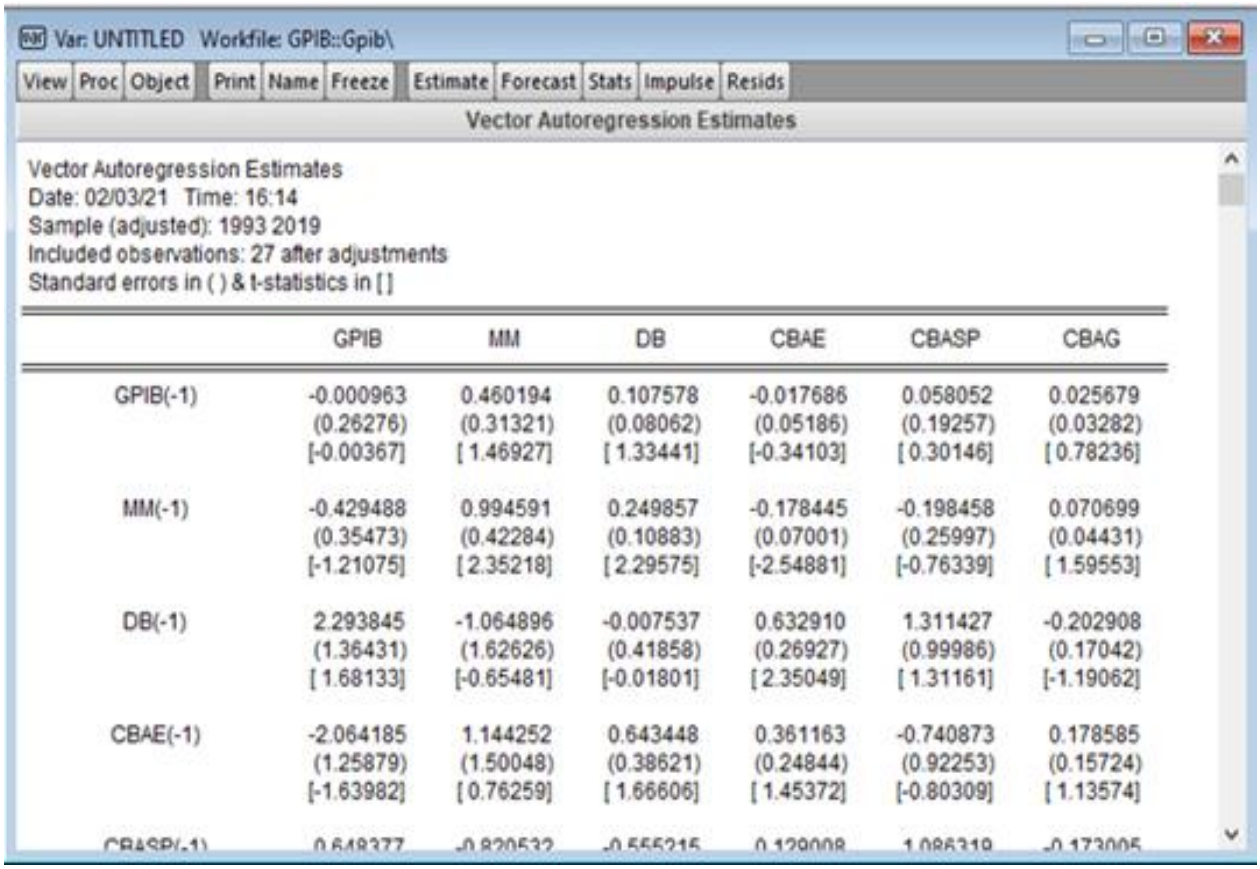
Figure 3: Determining the optimal number of delays for the previous VAR model

The selection criteria show that the optimal number of delays is **P=1**.

In order to build the final VAR model, the Toda-Yamamoto technique consists in adding the variables with P+m delay to the equation defined in the second step. According to steps (1) and (3): **P+m=3**, the VAR model becomes:

GPIB = C(1.1)*GPIB(-1) + C(1.2)*MM(-1) + C(1.3)*DB(-1) + C(1.4)*CBAE(-1) + C(1.5)*CBAG(-1) + C(1.6)*CBASP(-1) + C(1,7) + C(1.8)*GPIB(-3) + C(1.9)*MM(-3) + C(1.10)*DB(-3) + C(1.11)*CBAE(-3) + C(1.12)*CBAG(-3) + C(1.13)*CBASP(3)

The estimation of the coefficients by EVIEWS gives the following result:


Var: UNTITLED Workfile: GPIB::Gpib\

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Impulse | Resids

Vector Autoregression Estimates

Vector Autoregression Estimates
Date: 02/03/21 Time: 16:14
Sample (adjusted): 1993 2019
Included observations: 27 after adjustments
Standard errors in ( ) & t-statistics in [ ]

	GPIB	MM	DB	CBAE	CBASP	CBAG
GPIB(-1)	-0.000963	0.460194	0.107578	-0.017686	0.058052	0.025679
	(0.26276)	(0.31321)	(0.08062)	(0.05186)	(0.19257)	(0.03282)
	[-0.00367]	[1.46927]	[1.33441]	[-0.34103]	[0.30146]	[0.78236]
MM(-1)	-0.429488	0.994591	0.249857	-0.178445	-0.198458	0.070699
	(0.35473)	(0.42284)	(0.10883)	(0.07001)	(0.25997)	(0.04431)
	[-1.21075]	[2.35218]	[2.29575]	[-2.54881]	[-0.76339]	[1.59553]
DB(-1)	2.293845	-1.064896	-0.007537	0.632910	1.311427	-0.202908
	(1.36431)	(1.62626)	(0.41858)	(0.26927)	(0.99986)	(0.17042)
	[1.68133]	[-0.65481]	[-0.01801]	[2.35049]	[1.31161]	[-1.19062]
CBAE(-1)	-2.064185	1.144252	0.643448	0.361163	-0.740873	0.178585
	(1.25879)	(1.50048)	(0.38621)	(0.24844)	(0.92253)	(0.15724)
	[-1.63982]	[0.76259]	[1.66606]	[1.45372]	[-0.80309]	[1.13574]
CBASP(-1)	0.648377	-0.820532	-0.555215	0.129008	1.086319	-0.173005

Figure 4: The estimation of the coefficients by EVIEWS

This gives the VAR equation:

GPIB= - 0.000963197114752*GPIB(-1) - 0.429487807134*MM(-1) +2.29384537741*DB(-1) - 2.06418519344*CBAE(-1) + 1.77448411604*CBAG(-1) + 0.648377274869*CBASP(-1) + 0.192010404764 - 0.250310432093*GPIB(-3) - 0.100724804501*MM(-3) - 0.640577408602*DB(-3) - 1.07987416491*CBAE(-3) + 2.88605824296*CBAG(-3) + 0.266156586967*CBASP(-3)

This model may be subject to change depending on the results of the next step.

- **Step 4:** In this step we make sure that there is no autocorrelation of the residuals in our model, otherwise we have to continue to increase the optimal delay number **P and** redefine another VAR model by repeating step (3) until we obtain a model without autocorrelation of the residuals.

The Serial Correlation LM test gives the following result:

Var: UNTITLED Workfile: GPIB::Gpib\

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Impulse | Resids

VAR Residual Serial Correlation LM Tests
Date: 02/03/21 Time: 16:25
Sample: 1990 2019
Included observations: 27

Null hypothesis: No serial correlation at lag h

Lag	LRE* stat	df	Prob.	Rao F-stat	df	Prob.
1	32.94991	36	0.6144	0.761121	(36, 15.9)	0.7582
2	33.71325	36	0.5778	0.789347	(36, 15.9)	0.7301

Figure 5: The Serial Correlation LM test

In this test the null hypothesis assumes the absence of autocorrelation. We cannot reject this hypothesis at the 5% threshold, so we have an absence of autocorrelation of the residuals. The optimal delay number remains at 1, and we can keep the model built in the previous step.

- **Step 5:** Let's perform the AR roots table test to test the stability of our model (see Appendix 2):

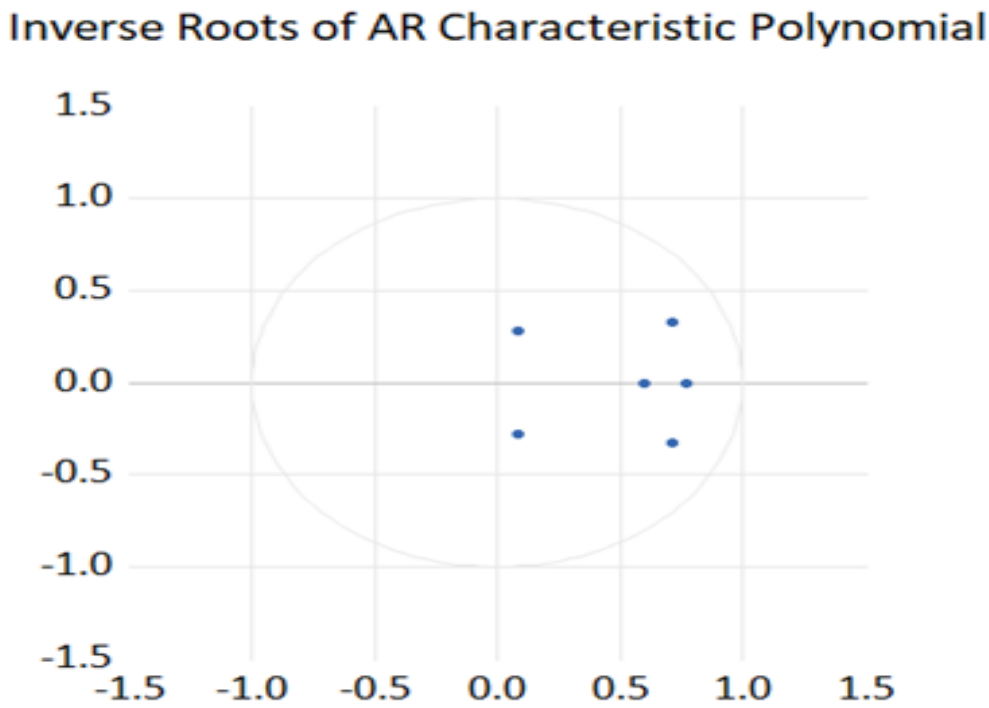


Figure 6: AR roots table test

The test indicates that there are no roots outside the unit circle and this allows us to deduce that our model is stable.

- **Step 6:** The last step of this study is to study causality, using the Granger non-causality test:

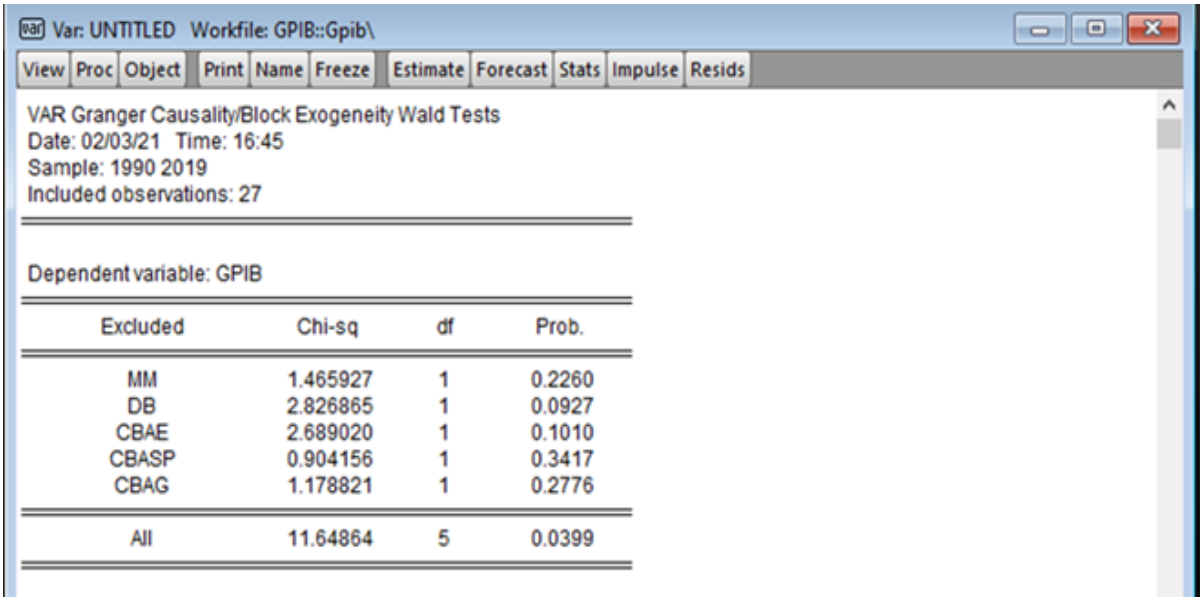


Figure 7: Granger non-causality test

The null hypothesis in this test assumes that the independent variables do not cause GPIB in the Granger sense. We cannot reject this hypothesis for the variables taken individually, but we can reject it for the variables taken together.

4.3. Interpretation of results

In the light of the above results, we observe that the banking system in Côte d'Ivoire has a major and global impact on economic growth, however this impact is not always positive, the negative signs of the variables in the VAR model indicate that the banking sector can also slow down economic growth. First of all we see that the money supply has a negative impact and this hinders economic activity through lack of investment, so economic growth is low and could lead to a crisis. Whereas if the money supply increases, it encourages economic activity and increases growth, but can lead to inflation. As for bank credits granted to the private sector and the government, they seem to have a positive correlation on Ivorian economic growth, because they allow the financing of investment, which is a primary factor in economic development. On the other hand, the series of bank credits granted to the global economy is negatively correlated with economic growth, they can have a negative effect on growth when they are insufficient, and similarly in the opposite case because they can generate inflation. The constructed VAR model tells us that economic growth is affected by all our external variables, the lags in the model are 1 and 3, this means that the banking sector, in a given year, continues to affect economic growth even after three years, nevertheless this effect is not the same and depends on the characteristics of each year, bank deposits delayed by one year in our model are positively correlated with economic growth, but the opposite is true when they are delayed by three years, both cases depend on several factors such as credits. Granger's non-causality test tells us that the variables taken individually do not allow us to have an idea about the trend of future economic growth unless they are considered together for the study.

5. CONCLUSION

The effect of the banking sector on economic growth has been the subject of much debate among economists. It is in the continuity of this debate that the objective of this work was to analyse the impact of the banking sector on economic growth in Côte d'Ivoire between 1990

and 2019. In order to broaden the possibilities of obtaining empirical evidence of this relationship, five alternative indicators of banking sector development were used. The results obtained reveal, in general, evidence of a positive and significant causal relationship between the banking sector and economic growth, i.e. the data support the hypothesis that the banking system has a positive effect on the growth of the Ivorian economy. Among the variables in the banking sector, some have a negative impact on economic growth, such as the money supply (MM) and bank credits granted to the global economy. Based on these results we can say that the evidence of causality obtained is consistent or convergent with the results of studies conducted by authors who adhere to the traditional and predominant view that the banking and financial system directly affects economic growth. Of course, more research efforts on this subject are welcome, as many questions remain without adequate answers or even without any scientific consideration in this respect. Thus, to the extent that the development of the banking and financial sector plays an autonomous role in the process of economic growth, further research is needed to verify how finance affects the immediate determinants of growth, such as capital stock formation, labour productivity and technological change. It is also important to understand the extent to which the country's institutional framework affects banking and financial development and, indirectly, through it, the process of economic growth.

LITERATURE:

1. Alaoui M, 2004, «Does financial development cause economic growth? An empirical investigation drawing on the Moroccan experience », Lancaster University Management School, Département d'économie, Working Papers 542785
2. Dembele B. S and Machrafi M., " Foreign Direct Investment in Côte d'Ivoire", in 50th International Scientific Conference on Economic and Social Development, Chelyabinsk State University, Russia, February 2020.
3. Dembele B. S., Machrafi M., H. B. Tidei, A El-Marhoum, "ECONOMIC AND MONETARY INTEGRATION: A DYNAMIC STUDY OF THE TWO FRANC ZONES", *in* Kh. Hammes, M. Machrafi, A. Samodol (eds), Economic and Social Development, 38th International Scientific Conference on Economic and Social Development, Rabat, March 2019.
4. Demetriades PO and Hussein KA, 1996, «Does financial development cause economic growth? Time-series evidence from 16 countries », Journal of development Economics, Vol51(2), pp 387-411.
5. Elliott J, 1983 « Schumpeter and the theory of capitalist economic development », Journal of Economic Behavior & Organization Vol 4, Issue 4, pp 277-308.
6. Keynes JM, 1964, « The general theory of employment, interest and money», Nova York: Hartcourt Brace and World.
7. King RG and Levine R, 1993, « Finance and growth: Schumpeter might be right » The quarterly journal of economics, Vol 108(3), pp 717-737.
8. Ktit J. & Machrafi M., "The Impact of Institutional Governance on Economic Growth in Developing Countries: An Econometric Analysis in Panel Data", *International Journal of Humanities and Social Science Invention* (IJHSSI), Volume 6 Issue 12, December 2017, PP.42-55
9. Levine R, 1997 «Financial development and economic growth: views and agenda », Journal of Economic Literature, Vol 34, issue 2, pp 688-726;
10. Lucchetti R, Papi L, and Zazzaro A, 2001, «Banks' inefficiency and economic growth: a micro-macro approach», Scottish Journal of Political Economy, Vol48(4), pp400-424.
11. Machrafi B. and Machrafi M., « BANK, COMPETITIVENESS AND GROWTH IN MOROCCO », 45th International Scientific Conference on Economic and Social

Development, Congress of Social Science, Russian State of Social Science, Moscow, October 2019.
12. Masoud N and Hardaker G, 2012, «The impact of financial development on economic growth: Empirical analysis of emerging market countries », Studies in Economics and Finance, Vol 29(3), pp148-173.
13. Ngongang E, 2015, «Financial development and economic growth in Sub-Saharan Africa: A dynamic panel data analysis », European Journal of Sustainable Development, Vol4(2), pp369-369.
14. Nyasha S and Odhiambo N M, 2015, «The impact of banks and stock market development on economic growth in South Africa: an ARDL-bounds testing approach», Contemporary Economics, Vol9(1), pp 93-108.
15. Zeineddine Y, 2019, «Joan Robinson from the generalization of the General Theory to the development of an Anglo-Italian' Cambridge tradition », Worker paper.

APPENDIX

Appendix 1: ADF test

Series: GPIB Workfile: GPIB::Gpib\

View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on GPIB

Null Hypothesis: GPIB has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on AIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.468126	0.1333
Test critical values:	1% level	-3.679322	
	5% level	-2.967767	
	10% level	-2.622989	

*MacKinnon (1996) one-sided p-values.

Series: GPIB Workfile: GPIB::Gpib\

View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on D(GPIB)

Null Hypothesis: D(GPIB) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on AIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.580589	0.0000
Test critical values:	1% level	-3.689194	
	5% level	-2.971853	
	10% level	-2.625121	

*MacKinnon (1996) one-sided p-values.

Series: MM Workfile: GPIB::Gpib\

View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on MM

Null Hypothesis: MM has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.571875	0.4838
Test critical values:	1% level	-3.679322	
	5% level	-2.967767	
	10% level	-2.622989	

*MacKinnon (1996) one-sided p-values.

Series: MM Workfile: GPIB::Gpib\

View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on D(MM)

Null Hypothesis: D(MM) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.099210	0.0000
Test critical values:	1% level	-3.689194	
	5% level	-2.971853	
	10% level	-2.625121	

*MacKinnon (1996) one-sided p-values.

Series: DB Workfile: GPIB::Gpib\

View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on DB

Null Hypothesis: DB has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		2.641145	1.0000
Test critical values:	1% level	-3.679322	
	5% level	-2.967767	
	10% level	-2.622989	

*MacKinnon (1996) one-sided p-values.

Series: DB Workfile: GPIB::Gpib\

View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on D(DB)

Null Hypothesis: D(DB) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.880968	0.0063
Test critical values:	1% level	-3.689194	
	5% level	-2.971853	
	10% level	-2.625121	

*MacKinnon (1996) one-sided p-values.

Series: CBAE Workfile: GPIB::Gpib\

View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on CBAE

Null Hypothesis: CBAE has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		0.055767	0.9561
Test critical values:	1% level	-3.689194	
	5% level	-2.971853	
	10% level	-2.625121	

*MacKinnon (1996) one-sided p-values.

Series: CBAE Workfile: GPIB::Gpib\

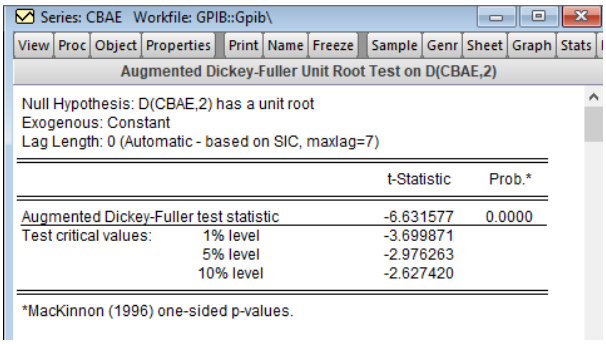
View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on D(CBAE)

Null Hypothesis: D(CBAE) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.349321	0.1646
Test critical values:	1% level	-3.689194	
	5% level	-2.971853	
	10% level	-2.625121	

*MacKinnon (1996) one-sided p-values.



Series: CBAE Workfile: GPIB::Gpib\

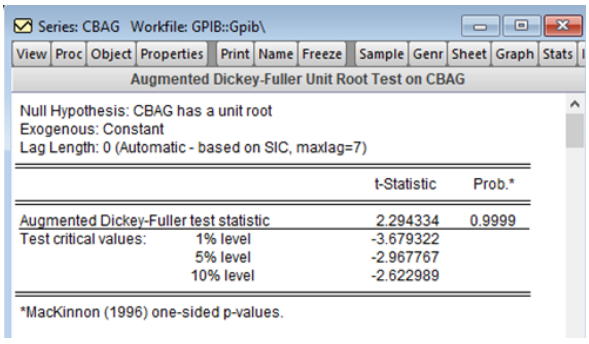
View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on D(CBAE,2)

Null Hypothesis: D(CBAE,2) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.631577	0.0000
Test critical values:	1% level	-3.699871	
	5% level	-2.976263	
	10% level	-2.627420	

*MacKinnon (1996) one-sided p-values.



Series: CBAG Workfile: GPIB::Gpib\

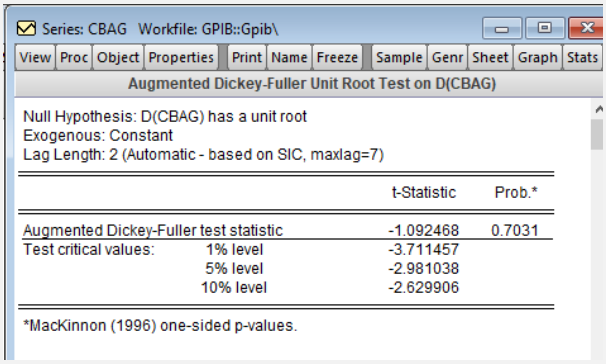
View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on CBAG

Null Hypothesis: CBAG has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		2.294334	0.9999
Test critical values:	1% level	-3.679322	
	5% level	-2.967767	
	10% level	-2.622989	

*MacKinnon (1996) one-sided p-values.



Series: CBAG Workfile: GPIB::Gpib\

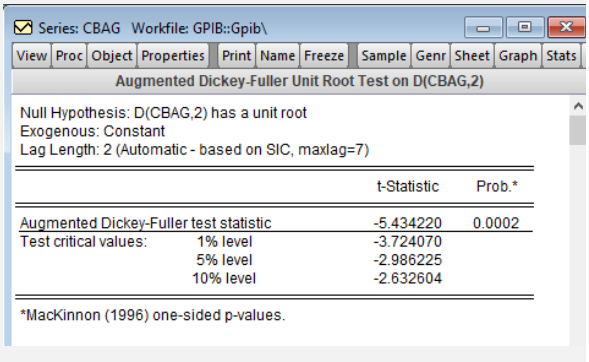
View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on D(CBAG)

Null Hypothesis: D(CBAG) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.092468	0.7031
Test critical values:	1% level	-3.711457	
	5% level	-2.981038	
	10% level	-2.629906	

*MacKinnon (1996) one-sided p-values.



Series: CBAG Workfile: GPIB::Gpib\

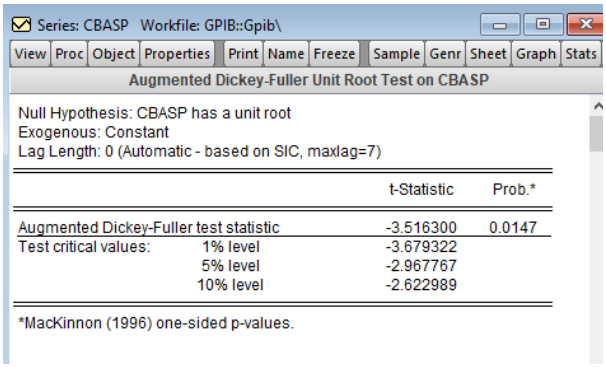
View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

Augmented Dickey-Fuller Unit Root Test on D(CBAG,2)

Null Hypothesis: D(CBAG,2) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.434220	0.0002
Test critical values:	1% level	-3.724070	
	5% level	-2.986225	
	10% level	-2.632604	

*MacKinnon (1996) one-sided p-values.



Series: CBASP Workfile: GPIB::Gpib\

View | Proc | Object | Properties | Print | Name | Freeze | Sample | Genr | Sheet | Graph | Stats

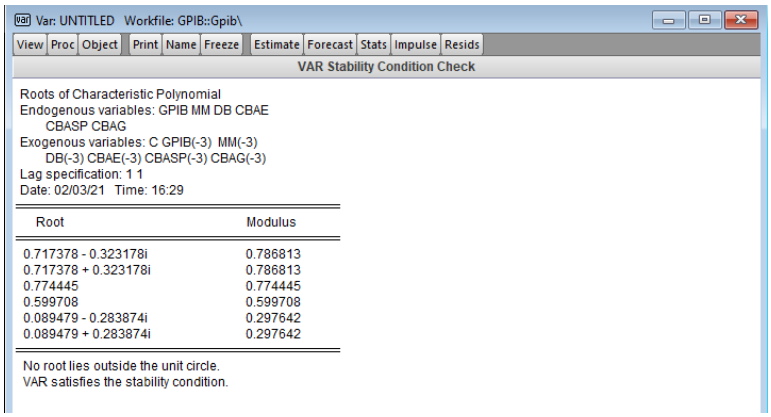
Augmented Dickey-Fuller Unit Root Test on CBASP

Null Hypothesis: CBASP has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.516300	0.0147
Test critical values:	1% level	-3.679322	
	5% level	-2.967767	
	10% level	-2.622989	

*MacKinnon (1996) one-sided p-values.

Appendix 2: stability test



Var: UNTITLED Workfile: GPIB::Gpib\

View | Proc | Object | Print | Name | Freeze | Estimate | Forecast | Stats | Impulse | Resids

VAR Stability Condition Check

Roots of Characteristic Polynomial
Endogenous variables: GPIB MM DB CBAE CBASP CBAG
Exogenous variables: C GPIB(-3) MM(-3) DB(-3) CBAE(-3) CBASP(-3) CBAG(-3)
Lag specification: 1 1
Date: 02/03/21 Time: 16:29

Root	Modulus
0.717378 - 0.323178i	0.786813
0.717378 + 0.323178i	0.786813
0.774445	0.774445
0.599708	0.599708
0.089479 - 0.283874i	0.297642
0.089479 + 0.283874i	0.297642

No root lies outside the unit circle.
VAR satisfies the stability condition.

TRANSFORMATIONAL DIPLOMACY AS A FORM OF CONTEMPORARY PUBLIC DIPLOMACY

Vesna Haluga
Doctoral student, University North,
Trg dr. Zarka Dolinara 1, Koprivnica, Croatia
vehaluga@unin.hr

Petar Kurecic
University North,
Trg dr. Zarka Dolinara 1, Koprivnica, Croatia
petar.kurecic@unin.hr

ABSTRACT

The paper reviews a rather insufficiently studied concept of transformational diplomacy, which at the beginning of the 21st century, following the geopolitical changes in the international political scene, gave rise to the United States, and former Secretary of State Condoleezza Rice to look for new forms of action in the new socio-political international discourse. The basis of transformational diplomacy from this perspective is cooperation, and the tool is public diplomacy in the framework of international public relations. The paper uses a methodology common to the field of social sciences, the field of information and communication sciences. The methods of content analysis, synthesis and description show the origin, essence, elements and tools of transformational diplomacy and basic concepts. Comparative methods are used to compare transformational and traditional forms of diplomacy, and in conclusion, obstacles to the implementation of transformational diplomacy and possible solutions are defined.

Keywords: *transformational diplomacy, public diplomacy, international public relations, foreign policy, Republic of Croatia*

1. INTRODUCTION

International relations in the late 20th and the early 21st century experienced great changes. Kurecic (2002) emphasizes the importance of the process of globalization: "The most important process that takes place in the modern order is the process of globalization. The process of globalization is so widely understood, comprehensive, ubiquitous and accelerating that there are opinions that the process of globalization today is a process of all processes, a unique process that includes all other processes that characterize the modern order and modern geopolitical and international relations. However, the process of political, economic, cultural globalization can be considered as one, the most important among the processes that take place in the modern order." Blessing (2007) says that two basic problems need to be addressed, namely the causes of administrative change, such as technological progress, changed values in terms of national foreign policy objectives and means, including the growing importance of peacekeeping and the growing number of participants in international relations) and the way in which new challenges have affected foreign policy activities and what steps have been taken to align foreign affairs with these new challenges (foreign affairs are professionalized) have expanded in size and reach leading to an increase in internal specialization, a decision-making process is set up in the central administration, not the mission beyond the borders. An important role in the processes of transformation in contemporary classical diplomacy has and technological development, and the emergence of new media and their global use where information becomes generally available to the public. In this context, and diplomacy is experiencing a comprehensive transformation and international public relations became category underpinning modern (public) diplomacy.

In the 21st century, military power as a form of pressure is being replaced by information, which in turn affects the changes in the work of diplomats themselves, whose activities are becoming more exposed to the public, indirectly, through new foreign policy actors such as private international media often using new media to directly influence their views, he becomes an active participant in international relations.

2. CONTEMPORARY DIPLOMACY, INTERNATIONAL PUBLIC RELATIONS AND TRANSFORMATIONAL DIPLOMACY

Globalization and new media lead to the reconceptualization of the public sphere of international relations in which the relationship between the public, the media and the state is changing. According to Newman (2009), because the influence of new media and the Internet it is less difference between interpersonal and mass communication, as well as between public and private ways of communication. The previously represented *Word of Mouth* technique, which involves discussing certain topics and exchanging opinions, i.e. mass communication is becoming easier than ever with the advent of the Internet, now called the *Word of Mouse* technique. Volkmer (2014), speaking about globalization and new media, says that the new media are re-conceptualisation of the term "public sphere". At present, it goes beyond the borders of nation-states and called "globalized public sphere", which is entirely transformed the attitude of the public sphere, the media and the state. Transformation of diplomatic communication occurred throughout history as a result of global political events, for example, after the end of the World War II and during the Cold War Era when the focus was on Europe and Asia. The relations between the countries of that time given rise to new forms of bilateral and multilateral diplomatic communications and is consequently led to the development of public diplomacy. No matter what today, in terms of international relations, we cannot talk about the same or similar appearance, it is important constantly explore new forms of communication, new places for improving communication, new purposes of communication and ultimately a new kind of co-workers who are trained to actively participate in transformation processes. To deal with the changes successfully, modern diplomacy and diplomatic communication has to be (real-time) fast, efficient, highly professional and effective. At the beginning of this century it was recognized by the United States, when in 2006 for the first time mentioned the term transformational diplomacy[1] in response to the need for transformation of relations in the Middle East after the intervention of the United States in Iraq, and Afghanistan. Also, especially economically, India and China are strengthening and becoming the world's leading economic powers, while strengthening the influence of international non-governmental organizations (for example: Greenpeace). There is also the strengthening of global terrorism after the September 11th events in 2001 has a huge impact on international security policy. Dialogue as communication paradigm is becoming a major element of diplomatic activity, and this new media become a platform where the general public, more intense than ever in history, including the discussion at all levels and without censorship and restrictions becoming active global, direct participant in international relations. In these processes the key role of new media both in diplomacy and in other occupations, since at all levels leads to the formation of new, participatory forms of public diplomacy. New media are an indispensable and generally accepted tool for implementing a new form of communication, as they enable easy and fast transfer of information to a large number of people, but on the other hand new forms of manipulation and fake news are a big challenge for individuals, general public, states, also international relations in general. Szondi, in Tomic (2008), defines international public relations as "...a planned communication activity of a (multinational) organization or international institution or government in an effort to create a positive and

[1] Speech by the Secretary of State Condoleezza Rice at the Georgetown University (Washington DC) on January 18, 2006 (excerpt) in: Vaïse, J. Transformational Diplomacy, Institute for Security Studies, Paris, 2007: 75.

attractive environment through interactions in a target country that helps organization (or government) to achieve its policy or business objectives without harming the interests of the domestic public ". Szondi (2009) states as the goals and function of public relations: creating trust, sympathy and understanding, stimulating attention, interest and needs, creating communication and cooperation and managing them, creating mutual understanding and agreement, articulating, representing and adjusting interests, influencing public opinion, conflict resolution and consensus building. Transformational diplomacy was a kind of logical sequence given the geopolitical changes in the context of international relations. Besides the United States, which dominated in the post Cold War period in all fields including in diplomatic communication, interesting example of the so-called IBSA (India, Brazil, South Africa) countries, whose effect could also be characterized as transformational diplomacy. These are three multicultural and multiethnic systems that have made a certain contribution to the new system of international relations through cooperation in various fields, the establishment of a fund to reduce poverty and hunger, and even political affiliation and involvement in the processes of governmental and non-governmental entities. Here we should point out that Brazil is just promoting the values of democracy, peace, non-violence, social justice, economic development and environmental protection has resulted in broad international support and led Brazil to the leading position in international organizations. On the other hand, there are regimes (eg. Iraq) in which, due to the under capacity of the governing structures, conflicts within the state have become more frequent, which have resulted in an increase in poverty and corruption, and which is becoming a threat to global security. A good example is the China that becomes a world economic power and with China can no longer negotiate ultimatums, and only realistic approach is so-called soft diplomacy (as the ability to achieve goals and agreements by initiating cooperation and defining common interests). From today's perspective, it is clear that these phenomena were the "trigger" for the establishment and development of transformational diplomacy based on cooperation, building and improving democratic institutions and processes, and thus responsible behavior in the system of international relations, which was also concrete an answer to all the challenges of then and today. Sahadzic (2011) states that "integral parts of transformational diplomacy are the application of comprehensive deployment and reorganization in foreign policy bodies, development assistance and democratization, which primarily means redeployment of representatives in the foreign service (sending outside the capitals where embassies are located); new ways of providing foreign support in terms of transformational development (by strengthening democracy and democratic processes, which leads to the improvement of citizens' lives and at the same time strengthens the security and stability of domestic institutions as well as international security in relations with other countries); and encouraging democratization (various programs encourage the establishment of the rule of law, the rule of law, separation of powers, etc.); as well as the persistence and persistence of the established changes." Vaïse (2007), referring to the Secretary of State Condoleezza Rice in her speech at the Georgetown University for the first time publicly stated the concept of transformational diplomacy, and aimed at transformational diplomacy: "Working with partners around the world to build and maintain democratic, well-governed states which can respond to the general needs of the population and act responsibly in the international system". The transformation of the whole system followed. New bodies have been established to manage the process of establishing and implementing transformational diplomacy. It was concluded that additional training of employees is necessary. New embassies were opened, and diplomats were often sent to very precarious areas to gain practical knowledge and skills, and to learn languages such as Arabic, Farsi, Pashtu, and Chinese intensively.

Vaïse (2007) considers that transformational diplomacy must be seen both as an instrument for bureaucratic management and leadership and as a model of improvement and purposefulness of the United States Government and the USAID, with the aim of establishing more coherent relations within and between them.

3. TRANSFORMATIONAL DIPLOMACY OF SMALL STATES: NEW DEVELOPMENTS

When it comes to international relations, throughout history, the focus has always been on the great powers and their foreign policy relations. Changes in the geopolitical map of the world at the end of the 20th century, the collapse of the Soviet Union, Yugoslavia, and Czechoslovakia led to the (re)formation of new, mostly small states. The classification according to which a country can be defined as large or small refers to the area and population. On the other hand, one of the most influential countries of the European Union, Belgium, Denmark and the Netherlands, both in terms of area and population, belong to the group of (rather) small states, at least when it comes to the land area. Kurecic (2012), classifying small states according to area, "in the modern world, the area of the state definitely does not have to be a decisive factor whether it will become a small power, but also no (area) small state can be a great power." There are many factors that determine or classify countries in the category of small powers, from geopolitical position, natural resources, regional influence, in modern international relations and involvement in world flows of not only capital but also information. Transformational diplomacy as an advanced form of public diplomacy can certainly, precisely through regional and multilateral gatherings and small countries, contribute to their global visibility and ultimately positioning in international political relations, where communication is crucial. Communication, verbal or non-verbal, is the basis of the work of diplomatic services and bodies and the activities of diplomatic representatives. Berkovic (2006) defines "diplomatic communication as a way in which authorized bodies and persons tasked with representing subjects of international law communicate with each other, in order to perform certain tasks in the field of international relations necessary for the normal functioning of the state." Even the smallest state, needs high quality communication and its continuous transformation in accordance with the set foreign policy goals that are necessary, given global geopolitical trends, change itself, creates its position as small force or stays small country on the margins, depending on the politic of big states, big and small forces. On the other hand, blindly copying the principles of transformational diplomacy that gave rise to the United States will, without proper adjustment of the same foreign policy goals, in each even in a small country takes its worse international political situation, less visibility on the international scene, and therefore harder the implementation of foreign policy goals.

4. COMMUNICATION ASPECT OF TRANSFORMATIONAL DIPLOMACY ON THE EXAMPLE OF THE REPUBLIC OF CROATIA

According to all valid parameters (area, number of inhabitants, economic power), the Republic of Croatia can be classified as a small country. The diplomacy of the Republic of Croatia is still a rather young diplomacy and it represents a valuable effort and continuously works on improving the system, expanding the diplomatic network, with the use of modern communication tools. But, the question is whether enough exploited all potentials of natural resources to the geo-strategic position in order to Croatia was a small force in the regional and European discourse. Diplomatic activity is directly related to the foreign policy goals of each country, and given the circumstances in modern international relations, it is necessary to transform established diplomatic practices and principles, especially when it comes to diplomatic communication.

Diplomatic communications experienced transformation during its history, especially after the major political and social events (the end of the Second World War, ending the Cold War, the intervention of the USA in Iraq or Afghanistan etc.). For the Republic of Croatia there are two key events that have affected the need for changes in diplomacy and diplomatic communication, the end of the Homeland War in 1995 and especially join the European Union in 2013 when traditional diplomatic communication gave primacy to new forms of diplomatic communication, especially in the field of public diplomacy. As a full member of the EU as a community of European states and peoples, automatically ranks Croatia among the countries that respond to the general needs of its population in accordance with the national tendencies to act responsibly in international political discourse. On the other hand, by transforming diplomacy of the European Union based on cooperation, and not on parity, Croatia, by accepting the prescribed standards, contributes to the transformation of the nation as a whole. Krasner (2006) says that transformational diplomacy refers to supporting change within states, not to relations between states. It is about the nature of state political regimes, not the international balance of power, which is a rather different conception of diplomacy than the one we are used to. Transformational diplomacy is based on the principles of public diplomacy, and public diplomacy is an area in which Croatian foreign policy must, first of all, train its diplomats to act at all levels, in the country and abroad to find, work and cooperate with all levels of government and within civil society organizations. Society, entrepreneurs, artists. It requires constant, quality education, learning the language of the host country, the use of modern forms and tools of communication. In the case of Croatia, Croatian minorities in the neighboring countries, as well as Croatian diaspora throughout Europe and in various parts of the world can certainly help in achieving the foreign policy goals of Croatia's transformation of diplomacy, primarily due to the mandate of diplomats for four years, as in some countries time to implement sophisticated ideas of transformational diplomacy. Changes are certainly necessary in the system itself through the establishment of new bodies for planning, implementation and supervision of the implementation of transformational diplomacy, rotation of staff within and between ministries, which is a demanding job that ultimately costs money. The diplomatic service is not a job in which one chooses where and when to go to work, but selects, additionally trains and sends the best to mandates, in accordance with the foreign policy goals of the state, for which it is first necessary to clearly, define criteria. Sahadzic (2011), referring to the method of application of transformational diplomacy, states that it is “based on the reorganization of internal and external bodies for foreign policy, comprehensive redeployment of diplomatic and consular representatives, modernization and additional training and increased use of information technology in everyday affairs and work tasks. This certainly does not mean a “technical knock-out” for “traditional” diplomatic and consular representatives, nor the abolition of “traditional” embassies and consular posts in “traditional” large centers that use “traditional” public diplomacy.” Using the methods of transformational diplomacy, Croatia can certainly become a small power in the region, but also within the EU. Diplomatic communication certainly occupies a significant place in this context, and public diplomacy is the foundation on which future foreign policy activities should be built.

5. CONCLUSION

Reaching certain positions in international relations as well as maintaining the same requirements is continuous monitoring and adjustment to modern international political relations, regardless of whether it is large or small. Transformational diplomacy is needed equally by both. Its successful implementation requires a change within the entire system and all foreign policy actors of a country, while the importance of modern information technologies and communication techniques must not be neglected.

They are the key to the successful implementation of transformational diplomacy, both for gathering information and processing it, and for communicating with the general public with the aim of sending the desired message. The Republic of Croatia, according to all potential that has, as a small country, needs transformational diplomacy precisely in order to impose itself as a small power in the region and within the EU.

LITERATURE:

1. Berkovic, S. (2006), *Diplomacija i diplomatska profesija*, Urban Media, Dubrovnik.
2. Blessing R. V. (2007), A Changing Diplomatic World, in G. Martel (ed.), *A Companion to International History 1900–2001*. Blackwell Publishing, Oxford.
3. Krasner, S. D. (2006), Transformational Diplomacy, Center for Global Development, Washington D.C., https://www.cgdev.org/event/transformational-diplomacy (accessed January 10th, 2021).
4. Kurecic, P. (2002), Novi svjetski geopolitički poredak, *Međunarodne studije*, 2 (4) 35-56.
5. Kurecic, P. (2012), Problematika definiranja malih država, *Hrvatski geografski glasnik*, 74 (2) 89-112.
6. Neuman, R. (2009), *Media, Technology and Society: The Challenge of Digital Evolution*, University of Michigan Press, Lansing: 3-34.
7. Sahadzic, M. (2011), Transformacijska diplomacija u primjeni: nova diplomacija za novo doba? Arhitektura prijelazne strategije. *Međunarodna politika*, (1142) 63-79.
8. Szondi, G. (2009), International Context of Public Relations. In: R. Tench, L. Yeomans (eds.) *Exploring Public Relations*. Prentice Hall, Harlow, 2nd ed.: 296-297.
9. Tomic, Z. (2008), *Osnove odnosa s javnošću: teorija i praksa*. Synopsis, Zagreb-Sarajevo.
10. Vaïse J. (2007), Speech by Condoleezza Rice at Georgetown University (Washington, D.C.) January 18, 2006 (excerpt) *Transformational Diplomacy*, Institute for Security Studies, Paris.
11. Volkmer, I. (2014), *The Global Public Sphere: Public Communication in the Age of Reflective Interdependence*. Wiley & Sons., London.

THE IMPACT OF ADVERTISEMENT ON CUSTOMER LOYALTY WITH MEDIATING ROLE OF WORD OF MOUTH (WOM)

Samar Rahi
Hailey College of Banking & Finance,
University of the Punjab, Lahore, Pakistan
sr_adroit@yahoo.com

Um E Ammara
Hailey College of Banking & Finance,
University of the Punjab, Lahore, Pakistan

Tehmina Fiaz Qazi
Hailey College of Banking & Finance,
University of the Punjab, Lahore, Pakistan

ABSTRACT

Advertisement plays an important role in developing customer loyalty towards a brand. Nonetheless, the role of word of mouth (WOM) is also considered critical in assessing customer loyalty. Thus, the mediating role of positive word of mouth is incorporated between advertising and customer loyalty. For research design quantitative research approach is adopted. Concerning with research population, restaurant customers are the potential respondents for this study. Literature confirmed that positive word of mouth will positively impact the customer loyalty because if a customer will be satisfied by the services provided by the brand/organization it will spread good words about the brand. The expected result of this study is that advertisement will influence both customer loyalty and word of mouth. In addition to that, positive word of mouth will mediate the relationship between advertisement and customer loyalty.

Keywords: *Advertisement, Customer Loyalty, Positive Word of Mouth (WOM)*

1. INTRODUCTION

Organizations want their customers be loyal with them. So, understanding how, why and what conditions are important to build customers loyalty is an important phenomenon to investigate (Ha & Park, 2013). That's why organization gives best services to their customers to retain them. Organizations spends billions or millions from their money on yearly basis just make their brand a well-known brand by hiring celebrities because customers follow the celebrities they love, so brands also use their faces for advertising their products and services, and in a result they get the benefit they dreamed for (Samar; Rahi, Khan, & Alghizzawi, 2020; Wong, Kwok, & Lau, 2015). Once the organization retain their customers then the customers become the financial source for the company (Samar Rahi, Ghani, & Ngah, 2020; Zeithaml, Berry, & Parasuraman, 1996). Customers who have a positive attitude towards a brand and he is willing to buy it again and again no matter what the competitors are offering or what changes appear in environment, this is referred as brand loyalty (Liu, 2007). Clients that are satisfied with the services of the organization plays important role in putting positive word of mouth among people. Sometimes advertisement also play huge role in developing customers loyalty. Clients may choose other organizations after watching advertisement of that organization or brand, but some remain loyal to one organization or brand and try to convince others as well for their organization or brand. Now a days many brands or organizations use word of mouth marketing which is also known as buzz marketing, in this they use well known celebrities, influencers and satisfied customers who can spread positive words or good words about the brand (Rahi Samar

& Abd Ghani Mazuri, 2019; Wong et al., 2015). This study will show a mediating construct in this relationship and patterned the impact of the mediator construct among the strong connotation of independent and dependent construct that are "Advertisement and customers loyalty." This study inspects that either word of mouth is important to create customers loyalty or not, if the customer see advertisement regarding their organization or brand (Samar Rahi, Othman Mansour Majeed, Alghizzawi, & Alnaser Feras, 2019; Rahi Samar & Abd.Ghani Mazuri, 2019). This research is significant as it finds the mediating role of WOM in already developed relationship of "Advertisement and customer loyalty." It mainly focuses on either WOM effect the relation between Advertisement and customers' loyalty or not. The purpose of this study is to examine the nature of relationship among Advertisement and Customer loyalty and to inspect the existence of Word of Mouth as mediator in relationship between "Advertisement and Customer loyalty." Also, what changes occur in relationship after introducing the mediator WOM in relation with advertisement and customer loyalty?

2. LITERATURE REVIEW

In this dynamic business environment organizations and brands use different techniques to introduce their new products to the end consumers. So, advertisement is most effective way to introduce new products. According to Maheshwari, Seth, and Gupta (2018) in India mobile phone industry is highly competitive then other industries, so the advertisement in this industry plays important role for the introduction of new mobiles and to retain loyal customers. And when an advertisement is creative (Grewal, Nordfält, Roggeveen, Modig, & Rosengren, 2014; Samar Rahi, Abd.Ghani, & Hafaz Ngah, 2019) shows that it creates perceived product quality which also improved the value of product, there effects the purchase intentions of the customers. Whereas Srivastava (2010) found that culture affect the global advertisement. Religion, age and education also play an important role in buying intentions. Past studies shown that if a customer is satisfied with the products or services of any brand then that customer will be a free sources of advertising, which will reduce the expenses of drawing new customers (Samar Rahi & Abd. Ghani, 2019a, 2019b; Samar Rahi & Abd.Ghani, 2019), it will also increase barriers for the new entering competitors, the customer will not get sensitive about change in price and also the customer will remain loyal lifetime which will give benefits to brand (Kazemi, PaEmami, Abbaszadeh, & Pourzamani, 2013; Samar Rahi & Ishaq, 2020). Advertisements also play an important role in maintaining customer loyalty. A study conducted by Sajtos, Kreis, and Brodie (2015) stated that a customer's loyalty and value will be affected by the brand image of the organization and trust of employee. And the loyalty and value of customer will also be influenced by advertisement (Sajtos et al., 2015). Advertisements should be appealing in nature which is providing a unique and positive impression about the product to the target audiences (Mishra, 2009). Customer loyalty and advertisement have a significant relation between them (Amoako, Anabila, Effah, & Kumi, 2017). Customers support for a specific product and services provided by an organization is known as loyalty (Ladhari, Souiden, & Ladhari, 2011). The verbal communication between the actual consumers or potential consumers on between other people, like service or product provider, friends and family and independent experts refers to word of mouth (Helm & Schlei, 1998). Communication can be occurred negatively and positively. Negative WOM has more powerful and high impact on customers' decisions about purchasing from that particular brand as compared to positive word of mouth (Derakhshanfar & Hasanzadeh, 2016). Similarly, Derakhshanfar and Hasanzadeh (2016) in a study found that word of mouth advertising has a significant impact on customer loyalty. A study conducted by Romaniuk and Hartnett (2017) found that TV advertising effect remain unchanged while word of mouth become insignificant because WOM is mostly exchanged between people who know each other.

As this is the era of internet, everything is now available online, and customers who have ordered and used goods from online shopping also give their opinions on that thing, which could be positive or negative. So the online shopping marts boosts and motivate their e-customers to give their positive e-word of mouth which will increase their e-loyalty or customer loyalty (Yoo, Sanders, & Moon, 2013).

Hypothesis:

- H1: Advertisement has positive influence on customer loyalty.
- H2: Advertisement has positive influence on word of mouth.
- H3: Word of mouth has positive influence on customer loyalty.
- H4: Word of mouth mediates the relationship between advertisement and customer loyalty.

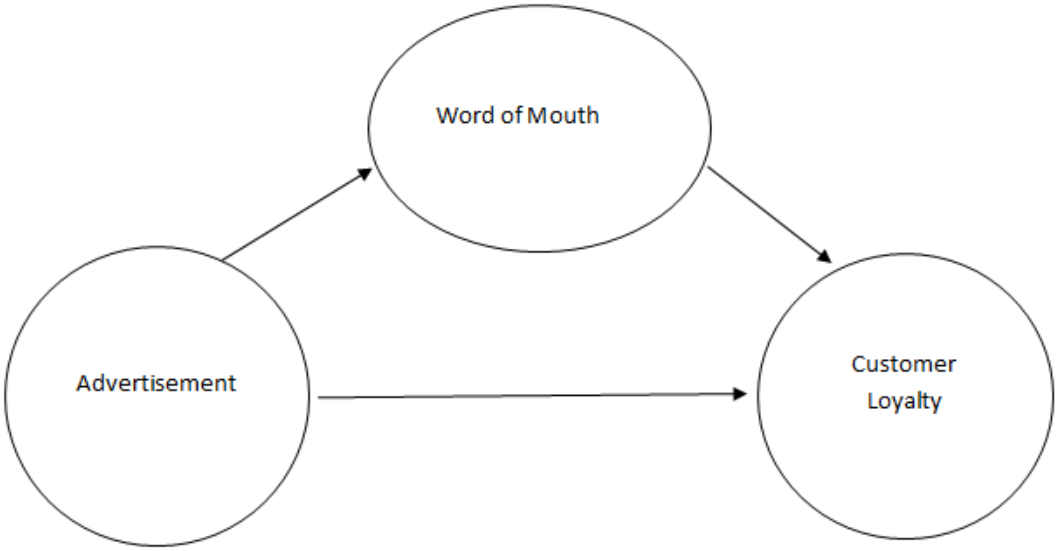


Figure 1: Research model of the study

3. METHODOLOGY

This chapter talks about the methods that will use in this study to find, analyze and interpret the data. Overall, the quantitative research method is used for the conduct of this study because the reality is singular therefore, according to the researchers if singular reality is present then the philosophy of the research would be epistemology(Samar Rahi, Alnaser, & Ghani, 2019). So, as the philosophy of the research is epistemology and reality is singular questionnaire method is use for data collection. The population of the study consists of all restaurant users all around the Pakistan. For sample size, researcher assumes that 200 sample size will be enough for structural equation modeling as recommended by earlier studies (Samar Rahi, Alnaser, et al., 2019; S Rahi, Ghani, & Ngah, 2018). Concerning with sampling approach, convenience sampling approach will be used which comes under non probability sampling techniques and consistent with earlier studies (Samar Rahi & Abd. Ghani, 2018; Samar Rahi & Ghani, 2018).

4. EXPECTED RESULTS

The expected results of this study are; advertisement will influence both customer loyalty and word of mouth. And also, word of mouth will positively impact the customer loyalty because if a customer will be satisfied by the services provided by the brand or organization it will spread good words about the brand. Word of mouth will also mediate the relation between advertisement and customer loyalty.

Now a days word of mouth is considered as the most important tool as for advertising because people love to hear about the experience from the persons who have use the definite brand they are going to buy, if they will hear a good word of mouth then they will spend their money on that brand but if they will hear a negative or bad word of mouth they will not goanna use that particular brand. Consumers usually hear word of mouth from the persons, upon whom they have trust. And ultimately this shows the loyalty of customers towards the brand because he/she is satisfied and spreading good words about the brand which is helping the brand increasing its good will and market positioning.

LITERATURE:

1. Amoako, G. K., Anabila, P., Effah, E. A., & Kumi, D. K. (2017). Mediation role of brand preference on bank advertising and customer loyalty. *International Journal of Bank Marketing*.
2. Derakhshanfar, R., & Hasanzadeh, M. (2016). The impact of customer experience and satisfaction on loyalty and word of mouth advertising in a Samen credit institution of Rasht. *Internasional Journal of Humanities and Cultural Studies. Vol, 1*, 1398-1406.
3. Grewal, D., Nordfält, J., Roggeveen, A., Modig, E., & Rosengren, S. (2014). Can advertising creativity affect product perceptions and retailer evaluations? *Journal of product & brand management*.
4. Ha, Y. W., & Park, M. C. (2013). Antecedents of customer satisfaction and customer loyalty for emerging devices in the initial market of Korea: an equity framework. *Psychology & Marketing*, *30*(8), 676-689.
5. Helm, S., & Schlei, J. (1998). *Referral potential–potential referrals. An investigation into customers' communication in service markets.* Paper presented at the Track 1 Market Relationships, Proceedings 27th EMAC Conference.
6. Kazemi, A., PaEmami, V. M., Abbaszadeh, A., & Pourzamani, J. (2013). Impact of brand identity on customer loyalty and word of mouth communications, considering mediating role of customer satisfaction and brand commitment.(Case study: customers of Mellat Bank in Kermanshah). *International Journal of Academic Research in Economics and Management Sciences*, *2*(4), 1.
7. Ladhari, R., Souiden, N., & Ladhari, I. (2011). Determinants of loyalty and recommendation: The role of perceived service quality, emotional satisfaction and image. *Journal of Financial Services Marketing*, *16*(2), 111-124.
8. Liu, Y. (2007). The long-term impact of loyalty programs on consumer purchase behavior and loyalty. *Journal of marketing*, *71*(4), 19-35.
9. Maheshwari, P., Seth, N., & Gupta, A. K. (2018). An interpretive structural modeling approach to advertisement effectiveness in the Indian mobile phone industry. *Journal of Modelling in Management*.
10. Mishra, A. (2009). Indian perspective about advertising appeal. *International Journal of Marketing Studies*, *1*(2), 23.
11. Rahi, S., & Abd. Ghani, M. (2018). The role of UTAUT, DOI, perceived technology security and game elements in internet banking adoption. *World Journal of Science, Technology and Sustainable Development*, *15*(4), 338-356. doi: doi:10.1108/WJSTSD-05-2018-0040
12. Rahi, S., & Abd. Ghani, M. (2019a). Integration of expectation confirmation theory and self-determination theory in internet banking continuance intention. *Journal of Science and Technology Policy Management*, *10*(3), 533-550. doi: 10.1108/jstpm-06-2018-0057
13. Rahi, S., & Abd. Ghani, M. (2019b). Investigating the role of UTAUT and e-service quality in internet banking adoption setting. *The TQM Journal*, *31*(3), 491-506.

14. Rahi, S., & Abd.Ghani, M. (2019). Integration of DeLone and McLean and self-determination theory in internet banking continuance intention context. *International Journal of Accounting & Information Management, 27*(3), 512-528. doi: 10.1108/ijaim-07-2018-0077
15. Rahi, S., Abd.Ghani, M., & Hafaz Ngah, A. (2019). Integration of unified theory of acceptance and use of technology in internet banking adoption setting: Evidence from Pakistan. *Technology in Society, 58*, 101120. doi: https://doi.org/10.1016/j.techsoc.2019.03.003
16. Rahi, S., Alnaser, F. M., & Ghani, M. A. (2019). Designing Survey Research: Recommendation for Questionnaire Development, Calculating Sample Size and Selecting Research Paradigms. *Economic and Social Development: Book of Proceedings*, 1157-1169.
17. Rahi, S., Ghani, M., & Ngah, A. (2018). A structural equation model for evaluating user's intention to adopt internet banking and intention to recommend technology. *Accounting, 4*(4), 139-152.
18. Rahi, S., & Ghani, M. A. (2018). *Investigating the Role of E-Service Quality and Brand Image in Internet Banking Acceptance Context with Structural Equation Modeling (SEM-PLS).* Paper presented at the Economic and Social Development (Book of Proceedings), 30th International Scientific Conference on Economic and Social.
19. Rahi, S., Ghani, M. A., & Ngah, A. H. (2020). Factors propelling the adoption of internet banking: the role of e-customer service, website design, brand image and customer satisfaction. *International Journal of Business Information Systems, 33*(4), 549-569. doi: 10.1504/ijbis.2020.105870
20. Rahi, S., & Ishaq, M. (2020). *Factors Influencing online Shopping behavior With Mediating Role of Customer Perceived Value.* Paper presented at the Economic and Social Development: Book of Proceedings.
21. Rahi, S., Khan, M. M., & Alghizzawi, M. (2020). Extension of technology continuance theory (TCT) with Task technology fit (TTF) in the context of internet banking user continuance intention. *International Journal of Quality & Reliability Management, 0*(0). doi: 10.1108/IJQRM-03-2020-0074
22. Rahi, S., Othman Mansour Majeed, M., Alghizzawi, M., & Alnaser Feras, M. (2019). Integration of UTAUT model in internet banking adoption context: The mediating role of performance expectancy and effort expectancy. *Journal of Research in Interactive Marketing, 13*(3), 411-435. doi: 10.1108/jrim-02-2018-0032
23. Romaniuk, J., & Hartnett, N. (2017). The relative influence of advertising and word-of-mouth on viewing new season television programmes. *European Journal of Marketing*.
24. Sajtos, L., Kreis, H., & Brodie, R. (2015). Image, brand relationships and customer value: Exploring the moderating role of advertising spending-and labour-intensity in customer loyalty. *Journal of Service Theory and Practice*.
25. Samar, R., & Mazuri, A. G. (2019). Does gamified elements influence on user's intention to adopt internet banking with integration of UTAUT and general self-confidence? *International Journal of Business Excellence, 19*(3), 394-414.
26. Samar, R., & Mazuri, A. G. (2019). Integration of DeLone & McLean and Self-Determination Theory in internet banking continuance intention context. *International Journal of Accounting and Information Management, 27*(3).
27. Srivastava, R. K. (2010). Effectiveness of global advertisement on culture of India: an emerging market. *International Journal of Emerging Markets*.
28. Wong, M.-C. M., Kwok, M.-L. J., & Lau, M. M. (2015). Spreading good words: the mediating effect of brand loyalty between role model influence and word of mouth. *Contemporary Management Research, 11*(4).

29. Yoo, C. W., Sanders, G. L., & Moon, J. (2013). Exploring the effect of e-WOM participation on e-Loyalty in e-commerce. *Decision Support Systems*, *55*(3), 669-678.
30. Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of marketing*, *60*(2), 31-46.

THE RELATIONSHIP BETWEEN TIME MANAGEMENT BEHAVIOR AND TIME PERSPECTIVE: A CASE STUDY IN THE CONTEXT OF OUTERMOST REGIONS

Luis Filipe Sardinha
Instituto Superior de Administração e Línguas,
CIISAL (ISAL Research Center),
Rua do Comboio nº 5 - 9050–053 FUNCHAL – MADEIRA, Portugal
luis.sardinha@isal.pt

Aurea Sousa
Universidade dos Açores
CEEAplA (Center of Applied Economics Studies of the Atlantic),
Ponta Delgada Campus,
Rua de Mãe de Deus 9500-321 Ponta Delgada, Portugal
aurea.st.sousa@uac.pt

Eduardo Leite
Universidade da Madeira, School of Technology and Management,
CiTUR (Center for Research, Development and Innovation in Tourism),
Penteada University Campus, 9020-105 Funchal | ARM, Portugal
eduardo.leite@staff.uma.pt

Humberto Ribeiro
Universidade de Aveiro,
ESTGA, GOVCOPP (Competitiveness, Innovation and Sustainability Research Group),
Santiago University Campus, 3810-193 Aveiro, Portugal
hnr@ua.pt

Andreia Carvalho
Instituto Superior de Administração e Línguas, CIISAL (ISAL Research Center),
Rua do Comboio nº 5 - 9050–053 FUNCHAL – MADEIRA, Portugal
andreia.carvalho@isal.pt

ABSTRACT

Time management (TM) is conceptually relevant, but it can also be translated into an effective method to maximize time, as a limited resource, and provide gains in efficiency and productivity. Considering its importance, we intend to evaluate TM, through an analysis of behaviors referring to self-employed professionals and employees legally linked to companies based in the Autonomous Regions of the Azores (ARA) and Madeira (ARM). This is a quantitative and descriptive study, with a questionnaire administered to 395 individuals. The conclusions indicate that the respondents have relative knowledge and skills of TM. However, according to the state of the art of TM, it is possible to propose improvements. The time perspectives Future and Past Positive are those that showed greater expression. It should be noted that positive correlations were found between the total scores of the TM scale used and the total scores related to the time perspectives (TP) Future and Past Positive, as well as negative correlations between the total scores of TM and those related to the TP Past Negative and Present Fatalistic. Regarding limitations and future recommendations, although these are more detailed in the conclusions, it is noteworthy that they are related to the sample and the

regional and specific nature of the ARA and ARM, which makes it impossible to generalize the results, particularly at the national level.
Keywords: *Time management, Time perspective, Portuguese Outermost Regions, Azores, Madeira*

1. INTRODUCTION

The interest in time management (TM), as well as in time perspectives, has recently aroused the interest of researchers (e.g. Adams & Blair, 2019; Aeon & Aguinis, 2017; Claessens, Van Eerde, Rutte, & Roe, 2007). Some of the reasons given for this trend are related to globalization, competitiveness and the demands of society. Currently, the proper use of time is essential in terms of performance in several professional areas. TM goes beyond controlling time itself, as it moves towards improving the quality of life (Muste, 2019). Despite the importance of TM, interestingly, there are no studies that analyze this phenomenon in workers/companies in Portugal, much less in the outermost regions (ORs). In this context of the increasing importance of the theme and the recognition of its impact on the value of organizations, it is important to continue to deepen and debate the following questions: (i) What are the most evident dimensions of the aspects of TM?; (ii) What is the predominant time perspective (TP)?; (iii) What is the relationship between TM skills and TP? Previous studies found in the literature have investigated time management skills in a specific group of people and in one or more cultures. None of the studies focused on organizations in Portugal, namely in the ORs. Considering the cultural difference between countries, the present study aims to contribute to the understanding of the "TM" theme in the ORs. In addition to being a precursor study, it also differentiates itself in terms of research, as it encompasses employees from different organizations. The general objective of this study is to identify whether employees of companies located/headquartered in the ARA and ARM have time management skills and whether they are related to TP. As specific objectives, the following ones were defined: i) apply a questionnaire to self-employed professionals and employees in companies located/headquartered in the ARA and ARM; ii) systematize and analyze the information generated. The ARA is made up of 9 islands and in 2011 its population was 246,772 inhabitants, while the ARM is made up of the islands of Madeira, Porto Santo, Desertas and Selvagens, and it should be noted that the population residing in Madeira in 2011 corresponded to 267,785 inhabitants (National Institute of Statistics, 2012). At the business level, according to Sardinha, Sousa, Leite, & Fernandes (2020), in 2017, the total number of companies in the ARA was 27,174 companies and in the ARM it amounted to 26,400 companies. This study is structured in four sections after the introduction, namely: the literature review, in which the theme is framed; the method, which refers to the data collection and analysis methods used; the discussion of results; and, finally, the conclusion, in which some final considerations about the study and its results are presented.

2. LITERATURE REVIEW

2.1. Time management

The definition of the concept of time management is not consensual (Aeon & Aguinis, 2017; Claessens *et al.*, 2007), as this concept has been studied by different scientific disciplines, which has given rise to diverse opinions. Aeon & Aguinis (2017, p.311) sought to present a broad and transversal definition: "TM can be defined as a form of decision-making used by individuals to structure, protect and adapt time to changing conditions." Differences in TM behavior were investigated in different groups of people, such as students (e.g., Adams & Blair, 2019), teachers (e.g., Muste, 2019), and managers (e.g., Tokareva & Tokarev, 2018). Other studies report that TM is related to, for example, customer service (Rapp, Bachrach, & Rapp, 2013), sales performance (Barling, Cheung, & Kelloway, 1996), innovation (Reunanen, Windahl, &

Vanharanta, 2017), and creativity (Darini, Pazhouhesh, & Moshiri, 2011). It should also be noted that there are several benefits and improvements in terms of, for example, stress reduction (Häfner, Stock, & Oberst, 2015), self-control (Zhang & Hailong, 2018), work-life balance (Adams & Jex, 1999; Orlikowski & Yates, 2002), innovation (Reunanen *et al.*, 2017), or even procrastination (Grunschel, Patrzek, Klingsieck, & Fries, 2018; Wolters, Won, & Hussain, 2017).

2.1.1. Time Management Behavior Questionnaire

Several self-report instruments have been developed to identify factors related to TM. Among the existing ones, the Time Management Behavior Questionnaire (TMBQ) (Macan, Dipboye, Phillips, & Shahani (1990)) stands out for the number of scientific references and its wide use in academic and work contexts (e.g., Adams & Blair, 2019; Bajec, 2019; Heather, Miles, & Don, 2016; Rao & Azmi, 2018). The TMBQ aims to assess the breadth of specific behaviors that indicate the adoption of TM behaviors, not the adequacy or effectiveness of these behaviors (Umerenkova & Flores, 2017). Macan (1994) developed the TMBQ to measure the four categories of TM behavior: establishing goals and priorities, TM tools, a tendency towards disorganization and perceived control over time. According to Macan *et al.* (1990): (i) The establishment of goals and priorities includes items concerning the set goals and prioritizing the various tasks to achieve those goals; (ii) TM tools refer to "behaviors normally associated with TM, such as making lists and planning"; (iii) The trend towards disorganization refers to a factor with an inverse score that includes items that measure “a general trend towards disorganization in the workspace and in the approach to projects”; (iv) Perceived control describes the individual's perception of control in relation to how time is spent.

2.1.2. Zimbardo Time Perspective Inventory

Much of human activity is limited in time, either in a chronological perspective or in a psychological perspective. TP proves to be an important point of view for the perception of human existence (Kostal, Klicperova, Lukavská, & Lukavska, 2015). TP understanding and a balance between past, present and future are currently considered conditions for success, mental health and personal happiness. Zimbardo and Boyd (1999) developed the Zimbardo Time Perspective Inventory (ZTPI), which measures five different time dimensions, defined in terms of past, present and future time and positive and negative valence (Table 1). (Another dimension, Transcendental-Future, was also proposed and measured by Zimbardo, Keough, & Boyd (1997), although it has not been considered here).

Table 1: Time perspectives (TP) by Zimbardo & Boyd

TP	Characteristics
Future (F)	It involves behaviors that are dominated by the pursuit of goals and future rewards; People tend to plan and organize their work activities.
Present Fatalistic (PF)	It involves a fatalistic attitude towards present and future life; People have low levels of scruples, tendency to depression, anxiety, anger and highs levels of emotional instability; It reflects a hopeless attitude towards the future and life.
Present Hedonist (PH)	It involves a hedonistic perspective, of taking risks and attitudes towards pleasure in relation to life; They seek the pleasures of the moment through exciting and high-risk experiences; It can make it easier to focus on short-term perspectives.
Past Positive (PP)	It involves a warm and sentimental attitude towards the past; It allows people to take a long-term perspective, avoid risks and emphasize stability; People focus on their achievements and successful paths, arousing a positive sense of well-being.
Past Negative (PN)	It involves a negative and aversive view of the past; It is associated with feelings of devaluation, depression, anxiety and pessimism. The person focuses on his or her mistakes and the impossibility of overcoming them.

Source: adapted from Zimbardo & Boyd (2008)

The ZTPI has the advantage of having already been translated, applied and validated in several studies that have proven its reliability (Ortuno & Gamboa, 2009).

The studies were developed in different cultures and allowed to verify that the dimensions of the ZTPI are associated with a variety of healthy and risky behaviors. It is important to note, however, that human behavior is more a mixture of all dimensions of the ZTPI than a pure expression of any particular dimension (Zimbardo & Boyd, 2008).

2.2. Shorter versions

The original version of the ZTPI contains 56 items, which takes time to complete. For this reason, several short versions of this questionnaire have been developed in different countries (Przepiorka, Sobol-Kwapinska, & Jankowski, 2016). Worthington & Whittaker (2006), cited by Przepiorka *et al.* (2016), state that short tests are recommended when using a battery of different questionnaires and are less stressful for participants. Orkibi (2015) argues that a shorter version is easier to apply compared to the original, reducing the unnecessary burden for research participants.

2.3. Time management and time perspectives

Bajec (2019) compiled, in his research, some studies that relate the variables "TM" and "TP". However, none of these studies relate TM and TP (Bajec, 2019). These authors state that they were only aware of a study that relates TM and TP, carried out by Bilde, Vansteenkiste, & Lens (2011). In this study, the authors sought to investigate a process underlying the positive association between maintaining a prolonged "Future" TP and learning outcomes from the perspective of the theory of self-determination. These authors measured only three (PF; PH; and F) out of the five TPs. They found that TM was positively correlated with the TP "Future" and negatively with the TP "PF" and "PH". Bajec (2019) demonstrated that the F, PH and PN perspectives predict the establishment of objectives and priorities and the use of TM tools; the PF, F and PH perspectives predict the preference for organization, and the PF perspective predicts the perceived control of time.

3. METHOD

Seeking a greater understanding of the initial theme, the present study has a quantitative and descriptive character, using a questionnaire to collect data, later analyzed using the IBM SPSS Statistics software. Gil (2017) states that one of the most significant characteristics of this type of studies is the use of standardized data collection techniques, such as the use of questionnaires and systematic observation. The theoretical foundation results from bibliographical research.

3.1. Participants

395 workers participated in this study, namely self-employed professionals and employees legally linked to companies located in the ARM and ARA. With regard to gender distribution, 41.5% of the respondents are male and 58.5% female, with the most frequent age group being 31 to 40 years old (39%), followed by 41 to 50 years (32.9%). Regarding marital status, 45.8% are married and, regarding educational qualifications, 76.2% of respondents hold an undergraduate degree or higher degree. With regard to the employment relationship, the sample consists of self-employed professionals (45.8%) and employees (54.2%). Regarding the workplace, the majority (82%) work in the ARM and the rest in the ARA.

3.2. Instrument and variables

3.2.1. Sociodemographic data

For the data collection, a questionnaire was used with some sociodemographic variables (e.g., Age, Gender, Educational level, Contractual relationship with the organization, Seniority in the organization), among others. The questionnaire also included questions about their activity in the organization.

3.2.2. Time Management Behavior Scale

The present study used a Portuguese adaptation of the TMBQ, with 34 items, distributed over 4 dimensions. This is a self-report instrument that includes 34 items related to the way participants manage their time. The responses indicate the degree to which the items describe their usual form of TM, using a 5-point Likert-type response scale, where 1 corresponds to "never" and 5 to "always".

The scale assesses four complementary dimensions:

1) **Establish objectives and priorities (EOP) (10 items)**. It evaluates the willingness to select and prioritize tasks to achieve their goals. The total score for an individual (sum of the individual item **scores**) can vary between 10-50 and its internal consistency, according to the authors, is very good (Cronbach's alpha = 0.90).
2) **Time Management Tools (TMT) (11 items)**. It assesses the use of techniques associated with effective time management, such as the use of an agenda, the creation of lists of activities to be performed or the verification of tasks already performed. The total scores (one total score for each individual) can vary between 11 and 55 and the value of Cronbach's alpha coefficient was 0.88.
3) **Tendency towards disorganization (8 items)**. It assesses how individuals organize their tasks and the degree to which they maintain a structured environment. High scores in the factor indicate the development of activities without prior planning and structuring, as well as the maintenance of a disorganized environment. The total scores obtained in this dimension (subscale scores) can vary between 8 and 40 and the value of Cronbach's alpha coefficient, according to the authors, was 0.70.
4) **Perception of control over time (PCOT) (5 items)**. This scale assesses the degree to which the individual realizes that he or she effectively controls and manages his or her time. Given the inverse nature of the factor, high scores indicate a feeling of lack of control over time, feeling overwhelmed by tasks and trivial details, dedicating too much time to secondary tasks or taking on too many tasks and responsibilities. The total scores, concerning this subscale, can vary between 5 and 25. In the study developed by the authors, the value of Cronbach's alpha coefficient was 0.68.

In order to assess whether respondents have TM knowledge and skills globally, in the present study, an adjustment to the TMBQ in the "PCOT" dimension was made, by reversing the scores of the items 4, 15, 19 and 29, and in the dimension "Tendency towards disorganization", by reversing the scores of the items 2, 12, 16, 20, 23, 26 and 30, the latter having been renamed "Tendency towards organization" (TTO). This way, by adding the scores obtained for each of the 34 items (34 item scores), it is possible to calculate the total score for each participant, in order to obtain a global perception of him or her TM skills. Therefore, we obtain a new global TM scale (adapted TMBQ).

3.2.3. Zimbardo Time Perspective Inventory

The ZTPI (Zimbardo & Boyd, 1999) contains 56 items, exploring the five dimensions of the time perspectives discussed. The reduced version of 36 items, applied in the present study, used the items indicated by Sircova *et al.* (2014). Participants were asked to indicate the extent to which each statement is true on a 5-point Likert scale, ranging from 1 (It is never true) to 5 (It is always true). The scale assesses 5 temporal dimensions: PN (7 items) - represents negative attitudes towards a past full of anger, anxiety and traumatic events; PP (6 items) - contains items that express pleasant and sentimental visions of the past, with family and relationships being priorities; PH (10 items) - consists of items that reflect a risky approach to life and a concentration on pleasure ("here and now") (e.g., "I often follow my heart more than my head");

PF (6 items) - considers the perception of life as something uncontrollable and the passive expectation of what life brings; F (7 items) - the items are related to goal-oriented behavior, with a high concentration on achieving goals.

3.3. Procedure

The questionnaire used was administered online, through *Google Forms*, due to the current context of the COVID-19 pandemic. It should be noted that, after having been provided information regarding the objective of the study, anonymity and data confidentiality, the participants' voluntary and informed consent was requested. After completing and submitting the questionnaire, responses were automatically recorded in the database. Before administering the questionnaire to the sample under study, a pre-test was carried out, which allowed to check and correct some gaps in terms of spelling and speech construction, facilitating the interpretation of the questions by the respondents. The questionnaire was released between April and May 2020 and is structured in two parts, as described above.

3.4. Analysis

The processing and analysis of the data were carried out using statistical methods, with the calculation of the total scores (sum of the item scores) initially obtained by the respondents, on the global scale of TM used (adapted TMBQ) and in its dimensions, as well as in the dimensions of the ZTPI. Given the non-verification of the normality assumption of the total scores obtained, considering a significance level of .05, the Spearman correlation coefficient was used, to the detriment of the Pearson correlation coefficient. Regarding the ZTPI, the authors indicate that after reversing the scores of some items (negative items), the scores for the items that comprise each dimension/factor should be added and that, then, the total score for each dimension should be divided by the respective number of questions (items) of that dimension (Zimbardo & Boyd, 2008). Effectively, this procedure would consist of calculating an average score for each of the 5 dimensions. However, and according to some authors (e.g., Jakobsson, 2004; Silva, Caldeira, Sousa, & Mendes, 2020), the summary statistics calculated in the case of ordinal variables do not include either the mean or the standard deviation, as these two measures should not be calculated in data of this nature. Thus, to obtain the time profile of the participants, we used the calculation of the median of the scores attributed by the respondents to each of the items of the ZTPI dimensions, instead of proceeding to the calculation of the means of these scores.

4. RESULTS / DISCUSSION

The results presented are discussed in the light of the theory, seeking to answer the research questions. The first question was “What are the most evident dimensions of the TM aspects?”. To better answer this question, the responses to the TMBQ, adapted as described in the previous section, were grouped into the 4 dimensions (EOP; FTM; PCOT; TTO). Then, the values of some summary statistics were calculated (midpoint of the range, mean, median, mode, standard deviation and coefficient of variance) regarding the total scores obtained in these dimensions and the total scores concerning the global scale, having obtained the values presented in Table 2.

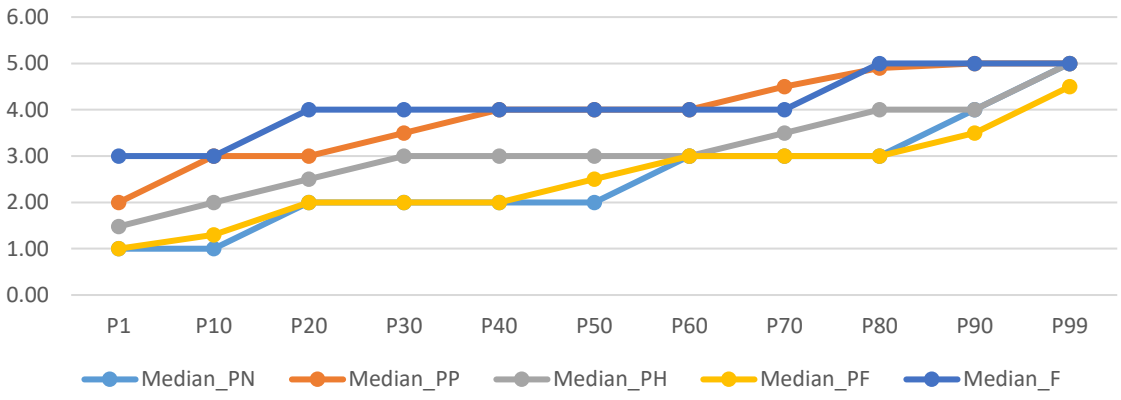
Table following on the next page

Table 2: Summary statistics of the total scores obtained on the global TM scale (adapted TMBQ) and its dimensions

Summary Statistics	EOP Score	FTM Score	PCOT score	TTO Score	Total TM Score
	395	395	395	395	395
Midpoint	30	33	15	24	102
Mean	37.77	39.69	16.85	29.41	123.73
Median	38.00	40.00	17.00	30.00	124.00
Mode	39	38	16 and 17	28	123
Standard deviation	5,442	8.014	3,023	4.626	16,059
Coef. Variation	14.4%	20.2%	17.9%	15.7%	13.0%

As for the behaviors and knowledge in TM, it was found that respondents, in general, have and adopt TM behaviors, since the mean, median and mode values of the scores obtained on the global scale and its subscales are higher to the midpoint of the respective ranges. However, there is still room for improvement. Although all dimensions may be subject to improvement, in order to expand the respondents' knowledge about TM and to enhance behavioral changes, it is noteworthy that the dimension "Perception of control over time" is the one that presents values of central tendency measures that least exceed the midpoint of its range, thus being the dimension that needs more attention and intervention. With regard to time perspectives, in order to answer the second starting question, "What is the predominant Time perspective (TP) in workers in the global sample?", the median values of scores related to the items of each dimension of the ZTPI were calculated for each individual. Then, the values of some percentiles of these medians (P1, P10, P20, P30, P40, P50, P60, P70, P80, P90 and P99) were calculated, and the graph shown in Figure 1 was obtained.

Figure 1: Percentiles of the medians of the quotations obtained in each of the dimensions of the ZTPI



Still regarding TP, it was found that the most prevalent is Future (F), followed by PP and PH. In contrast, PN and PF are those that have less expression in the sample, corroborating what is found in the literature. Zimbardo & Boyd (1999) affirm that, when there is a predominance of one perspective over the others, a skewed and dysfunctional time perspective arises. On the other hand, a balanced time perspective allows the flexibility to switch between different time perspectives, depending on the situation, needs and values. These authors, based on different investigations, present an ideal time profile: high Past Positive perspective; moderate-high Future perspective; moderate-high Present Hedonistic perspective; low Past Negative perspective; low perspective Present Fatalistic. Then, it was asked "What is the relationship between TM and TP skills?". For this purpose, the values of the Spearman coefficient between pairs of scores obtained in the global sample were determined, as shown in Table 3.

Table 3: Spearman's correlation coefficient values

	PN	PP	PH	PF	F
EOP Total score	-, 148 **	, 201 **	,048	-, 322 **	, 491 **
FTM Total score	-, 088	, 147 **	,091	-, 248 **	, 396 **
PCOT Total score	-, 235 **	-, 029	-, 175 **	-, 373 **	, 296 **
TO Total score	-, 099 *	, 005	-, 214 **	-, 279 **	, 175 **
Global TM total Score	-, 172 **	, 133 **	-, 032	-, 381 **	, 460 **

***. p <0.01 (bilateral test)*
**. p <0.05 (bilateral test)*

Finally, based on the values of Spearman's correlation coefficient and the test of significance associated with it, as an indication, it is worth highlighting that the total scores obtained on the global scale of TM (adapted TMBQ) and in its dimensions (EOP, FTM, PCOT and TTO) are: i) positively correlated with the total scores referring to the Future perspective; and ii) negatively correlated with the total scores related to the Present Fatalistic perspective, and both correlations are statistically significant.

5. CONCLUSIONS

The study shows that for better performance in the various daily activities it is necessary to have a balance between personal, social and work life, motivation, notion of TP and pay attention to the uniqueness of each individual. According to Sardinha, Sousa, Leite, Ribeiro, & Carvalho (2020) "TM cannot be taught, but it can be learned", requiring a predisposition of the individual to assimilate and apply good practices in TM. The time perspective is one of the most significant influences that affect almost all aspects of human behavior, affecting the quality of life (Boniwell & Osin, 2015). The purpose of this study was to identify whether employees of companies located/headquartered in the ARA and ARM have time management skills and whether this relates to TP. The results presented corroborate the results of Bajec (2019). It was found that the respondents have knowledge and skills of TM, however it is possible to implement some improvements. Understanding of TP and the existence of a balance between past, present and future are currently considered conditions for success, mental health and personal happiness. In the present investigation, it was found that the time perspectives Future and Past Positive are those that had the greatest expression, while PN and PF are those that presented the least expression. Regarding the relationship between knowledge and skills of TM and TP, it was found that the total scores obtained on the global scale of TM, as well as those obtained in their dimensions, are all positively correlated with those related to the Future perspective; and negatively with those regarding the Present Fatalistic perspective. If we look at the global TM, it is noteworthy that positive correlations were found between the total scores of TM and the total scores for the time perspectives Future and Past Positive, as well as negative correlations between the total scores of TM and those of the time perspectives Past Negative and Present Fatalistic. Although the results corroborate the results shown in other studies, the meaning/importance of this study lies in highlighting the reality in an island context. Moreover, we proposed a new global TM scale (adapted TMBQ), whose psychometric properties will be presented in future developments of the present study.

6. LIMITATIONS AND SUGGESTIONS

A limitation may be the population initially defined that does not allow generalization for Portugal, as a whole. The sample was not random, so the results are indicative and cannot be generalized for the target population. Other investigations can overcome this limitation by applying the questionnaire to other populations. The questionnaire was administered in just one moment, so it is not possible to infer its longitudinal stability.

It is suggested, in future studies, the application of a test-retest strategy, at least one other time. Additional research on the topic is also suggested in different contexts, whether at work or with higher education students, for a better understanding of TM.

ACKNOWLEDGEMENT: *This work was financially supported by the research unit on Governance, Competitiveness and Public Policy (UIDB/04058/2020) + (UIDP/04058/2020), funded by national funds through FCT - Fundação para a Ciência e a Tecnologia.*

LITERATURE:

1. Adams, G., & Jex, S. (1999). Relationships between time management, control, work-family con fl ict, and strain. Journal of Occupational Health Psychology, 1 (1), 72–77. https://doi.org/10.1037/1076-8998.4.1.72
2. Adams, RV, & Blair, E. (2019). Impact of Time Management Behaviors on Undergraduate Engineering Students' Performance. SAGE Open, 9 (1). https://doi.org/10.1177/2158244018824506
3. Aeon, B., & Aguinis, H. (2017). It´s about time: New Perspectives and insights on time management. Academy of Management Perspectives, 31 (4), 309–330.
4. Bajec, B. (2019). Relationship Between Time Perspective and Time Management Behaviors. Psihologija, 52 (2), 197–215.
5. Barling, J., Cheung, D., & Kelloway, K. (1996). Time management and achievement striving interact to predict car sale performance. Journal of Applied Psychology, 81 (6), 821–826. https://doi.org/10.1037/0021-9010.81.6.821
6. Boniwell, I., & Osin, EN (2015). Beyond time management: time use, performance and well-being. Organizational Psychology, 5 (3), 85–104.
7. Claessens, B., Van Eerde, W., Rutte, C., & Roe, RA (2007). A review of the time management literature. Emerald, 36 (2), 255–276. https://doi.org/10.1108/00483480710726136
8. Darini, M., Pazhouhesh, H., & Moshiri, F. (2011). Relationship between Employee 's Innovation (Creativity) and time management. Procedia - Social and Behavioral Sciences, 25, 201–213. https://doi.org/10.1016/j.sbspro.2011.10.541
9. de Bilde, J., Vansteenkiste, M., & Lens, W. (2011). Understanding the association between future time perspective and self-regulated learning through the lens of self-determination theory. Learning and Instruction, 21 (3), 332–344. https://doi.org/10.1016/j.learninstruc.2010.03.002
10. Grunschel, C., Patrzek, J., Klingsieck, KB, & Fries, S. (2018). “I 'll stop procrastinating now!” Fostering specific processes of self-regulated learning to reduce academic procrastination. Journal of Prevention & Intervention in the Community, 46 (2), 143–157. https://doi.org/10.1080/10852352.2016.1198166
11. Häfner, A., Stock, A., & Oberst, V. (2015). Decreasing students' stress through time management training: an intervention study. European Journal of Psychology of Education, 30 (1), 81–84. https://doi.org/10.1007/s10212-014-0229-2
12. Heather, D., Miles, B., & Don, M. (2016). The relationships of time management behavior and work engagement with the five factor model aspects. Learning and Individual Differences. Journal of Psychology and Education, 45, 268–274.

13. National Institute of Statistics. (2019). Portal of the National Institute of Statistics. Retrieved SeTPember 21, 2018, from https://www.ine.TP/xportal/xmain?xpid=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=320462327&PUBLICACOESmodo=2
14. Jakobsson, U. (2004). Statistical presentation and analysis of ordinal data in nursing research. Scandinavian Journal of Caring Sciences, 18 (4), 437–440. https://doi.org/10.1111/j.1471-6712.2004.00305.x
15. Kostal, J., Klicperova, M., Lukavská, K., & Lukavska, J. (2015). Short version of the Zimbardo Time Perspective Inventory (ZTPI-short) with and without the Future-Negative scale, verified on nationally representative samples. Time & Society, 0 (0), 1–24. https://doi.org/10.1177/0961463X15577254
16. Macan, T. (1994). Time management: test of a process model. Journal of Applied Psychology, 79 (June 1994), 381–391. https://doi.org/10.1037/0021-9010.79.3.381
17. Macan, TH, Dipboye, RL, Phillips, AP, & Shahani, C. (1990). College students time management: correlations with academic performance and stress. Journal of Educational Psychology, 82 (4), 760–768.
18. Muste, D. (2019). Time Management aplied in education. In The European Proceedings of Social & Behavioral Sciences (pp. 77–82).
19. Orkibi, H. (2015). Psychometric Properties of the Hebrew Short Version of the Zimbardo Time Perspective Inventory. Evaluation and the Health Professions, 38 (2), 219–245. https://doi.org/10.1177/0163278714531601
20. Orlikowski, WJ ;, & Yates, J. (2002). It's About Time - Temporal structuring in organizations. Organization Science, 13 (6), 684–700.
21. Ortuno, V., & Gamboa, V. (2009). Factorial structure of the Zimbardo Time Perspective Inventory - ZTPI in a sample of Portuguese university students. Avances En Psicologia Latinoamericana / Bogota, 27 (1), 21–32.
22. Przepiorka, A., Sobol-Kwapinska, M., & Jankowski, T. (2016). A polish short version of the Zimbardo Time Perspective Inventory. Personality and Individual Differences, 101 (May), 78–89. https://doi.org/10.1016/j.paid.2016.05.047
23. Rao, S., & Azmi, F. (2018). Time Management Behavior: Scale Development And Validation. Journal of Business and Management (IOSR-JBM), 20 (3), 1–08. https://doi.org/10.9790/487X-2003090108
24. Rapp, AA, Bachrach, DG, & Rapp, TL (2013). The influence of time management skill on the curvilinear relationship between organizational citizenship behavior and task performance. Journal of Applied Psychology, 98 (4), 668–677. https://doi.org/10.1037/a0031733
25. Reunanen, T., Windahl, R., & Vanharanta, H. (2017). Innovativeness Through Time Management. Springer International Publishing. https://doi.org/10.1007/978-3-319-42070-7
26. Sardinha, LF, Sousa, Á., Leite, E., Ribeiro, H., & Carvalho, A. (2020). A flexible Time Managment Model Proposal. In 63rd International Scientific Conference on Economic and Social Development - "Building Resilient Society" (pp. 11–12). Zagreb.
27. Sardinha, L., Sousa, Á., Leite, E., & Fernandes, P. (2020). The business sector in the Portuguese outermost regions - A decade in perspective The business sector in the Portuguese outermost regions -. E3 - Revista de Economia, Empresas e Empreendedor At CPLP, 3 (1), 3–24.
28. Silva, O., Caldeira, S., Sousa, Á., & Mendes, M. (2020). Coping strategies in Higher Education students. E-Psi, 9 (1), 118–136. https://doi.org/10.14417/ap.163

29. Sircova, A., Van De Vijver, FJR, Osin, E., Milfont, TL, Fieulaine, N., Kislali-Erginbilgic, A., ... Boyd, JN (2014). A global look at time: A 24-country study of the equivalence of the zimbardo time perspective inventory. SAGE Open, 4 (1), 1–12. https://doi.org/10.1177/2158244013515686
30. Tokareva, Y., & Tokarev, A. (2018). Motivating and organizing factors in the professional behavior of toxic managers. In The European Proceedings of Social & Behavioral Sciences.
31. Umerenkova, AG, & Flores, JG (2017). Time management and procrastination in higher education. Universitas Psychologica, 16 (3). https://doi.org/10.11144/Javeriana.upsy16-3.TMpe
32. Wolters, CA, Won, S., & Hussain, M. (2017). Examining the relations of time management and procrastination within a model of self-regulated learning. Metacognition and Learning, 12 (3), 381–399. https://doi.org/10.1007/s11409-017-9174-1
33. Zhang, J., & Hailong, J. (2018). Study on the Time Management and Self-controlled Learning of Students in Local Colleges and Universities in Transition. In Advances in Social Science, Education and Humanities Research (Vol. 205, pp. 188–192).
34. Zimbardo, P., & Boyd, J. (2008). The Time Paradox. (Free Pass, Ed.). New York.
35. Zimbardo, PG, & Boyd, J. (1999). Putting Time in Perspective: A Valid, Reliable Individual-Differences Metric. Journal of Personality and Social Psychology, 77 (6), 1271–1288. https://doi.org/10.1037/0022-3514.77.6.1271
36. Zimbardo, PG, Keough, KA, & Boyd, JN (1997). Present time perspective as a predictor of risky driving. Personality and Individual Differences, 23 (6), 1007–1023. https://doi.org/10.1016/S0191-8869(97)00113-X


UNIVERSITY
NORTH
SVEUČILIŠTE
SJEVER
VŽ/KC
MMI


UNIWERSYTET WARSZAWSKI
WYDZIAŁ ZARZĄDZANIA


Faculté des sciences juridiques
économiques et sociales-salé


MEĐIMURSKO VELEUČILIŠTE U ČAKOVCU
MMVIII