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МЕЂУНАРОДНИ ЧАСОПИС
ЗА ЕКОНОМСКУ ТЕОРИЈУ И ПРАКСУ И ДРУШТВЕНА ПИТАЊА

ЕКОНОМИКА

Часопис излази четири пута годишње Година LXVII, I-III 2021, број 1

ИЗДАВАЧ: Друштво економиста "Економика" Ниш
СУИЗДАВАЧИ: Институт за економику пољопривреде - Београд, Економски факултет у Суботици, Друштво економиста Ниша, Факултет за примењени менаџмент економију и финансије МЕФ - Београд

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2. Часопис су покренули Друштво економиста Ниша и Друштво инжињера и техничара Ниша (остало као издавач до краја 1964. године). Удружење књиговођа постаје издавач почев од броја 6-7/1958. године. Економски факултет у Нишу на основу своје одлуке броја 04-2021 од 26.12.1991. године постао је суиздавач "Економике". Такође и Економски факултет у ПриШтини постао је суиздавач од 1992. године. Почев од 1992. године суиздавач "Економике" је и Друштво за маркетинг региона Ниш. Као суиздавач "Економике" фигурирали су у току 1990-1996. године и Фонд за научни рад општине Ниш, Завод за просторно и урбанистичко планирање Ниш и Корпорација Винер Брокер Ниш.

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STRUCTURAL CHANGES AND ECONOMIC GROWTH OF THE REPUBLIC OF SERBIA: THE EFFECTS OF APPLIED STRUCTURAL ADJUSTMENT MODELS

Abstract

There is a general consensus in the economic literature that there is a strong correlation between structural changes and economic growth: structural changes are the most significant repercussion of economic growth, but at the same time, in the long run, it's most important factor. Having in mind this fact, the analysis of structural changes and economic growth of the Republic of Serbia is a key research issue on which this paper focuses. In that sense, the paper, based on relevant theoretical knowledge and reference statistics on the movement of basic macroeconomic indicators, monitors and analyzes the effects of applied models of economic growth in the process of structural adjustment of the economy of the Republic of Serbia during the first two decades of the 21st century, in which major, and in some sub periods, specific structural changes took place.

Key words: *Structural changes, economic growth, neoliberal model of economic growth, new model of economic growth, Republic of Serbia.*

JEL classification: O11, O14, O25, O40, P23, P24.

СТРУКТУРНЕ ПРОМЕНЕ И ПРИВРЕДНИ РАСТ РЕПУБЛИКЕ СРБИЈЕ: ЕФЕКТИ ПРИМЕЊЕНИХ МОДЕЛА СТРУКТУРНОГ ПРИЛАГОЂАВАЊА

Апстракт

У економској литератури присутна је општа сагласност да између структурних промена и привредног раста постоји јако изражена корелативна веза: структурне промене представљају најзначајнију последицу привредног раста, али су истовремено, на дуги рок, и његов најзначајнији фактор. Имајући у виду ту чињеницу, анализа структурних промена и привредног раста Републике Ср-

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бије представља кључно истраживачко питање на које се овај рад фокусира. У том смислу, у раду се, на основу релевантних теоријских сазнања и референтних статистичких података о кретању основних макроекономских индикатора, прате и анализирају ефекти примењених модела привредног раста у процесу структурног прилагођавања привреде Републике Србије током прве две деценије 21. века, то јест у периоду у коме су се одиграле крупне, а по појединим потпериодима, и специфичне структурне промене.

Кључне речи: Структурне промене, привредни раст, неолиберални модел привредног раста, нови модел привредног раста, Република Србија.

Introduction

By accepting the basic principles of the well-known doctrine of transition based on the postulates of the Washington Consensus (macroeconomic stabilization, the creation of market system and market institutions, privatization and restructuring of companies and liberalization in economic policy), i.e. the neoliberal model of growth, the Republic of Serbia reforms in order to create a market-configured economic system and, ultimately, in order to increase the efficiency of development (Gligorijević & Ćorović, 2019).

The key aim of these reforms was to increase the efficiency of the functioning of the economic system, whose performance in a long period of time did not enable development (Gligorijević & Ćorović, 2018). These reforms also conditioned the initiation of other changes (political, legal, institutional, social and others) in the socio-economic system, which were not independent goals, but a consequence of changes in the economic base of society. In that sense, it can be said that major social changes (private property, market institutions, competition, entrepreneurship, etc.) were not introduced due to radical political or ideological changes, but in order to increase the efficiency of development of certain economic structures.

In order to successfully implement the process of structural adjustment of the economy of the Republic of Serbia, a development model was established which should have resulted in a relatively rapid consolidation of economic flows. However, the spontaneous operation of the market mechanism, in conditions of partial macroeconomic stability, resulted in directing the economy of the Republic of Serbia towards foreign savings, disproportionate growth of the non-tradable goods and services sector and overheating domestic demand as the main drivers of growth (Gligorijević, Ćorović & Manasijević, 2020).

This has led to the configuration of development processes which, in short, can be marked as unsustainable growth path. The expectations of the protagonists of the neoliberal, theoretically rounded model did not come true. Development trends have conditioned the need to abandon the idea of "spontaneous" growth as soon as possible. Due to that, the Republic of Serbia was forced to change the model of economic growth. The general agreement on the existence of serious development problems, both in the scientific and professional environment, and among the then creators of economic policy, resulted in the adoption of a document entitled Strategy and Policy of Industrial Development of the Republic of Serbia from 2011 to 2020 and the announcement of a new model of economic growth (Gligorijević, Ćorović & Manasijević, 2020).

Changing the model of economic growth of the Republic of Serbia was, therefore, a development necessity that highlighted: eliminating the weaknesses of the fiscal system, creating the necessary balance in sources of financing growth (with a change in the GDP structure) and impowering the competitiveness of the domestic economy. The key change, of a structural nature, is contained in the foundation of future economic growth on the growth of industry (primarily manufacturing) and the relative increase in its share in gross domestic product, assuming dynamic investment growth, instead of previous growth in domestic consumption (Gligorijević & Ćorović, 2019).

Based on these facts, the aim of this paper is to, trough using of reference statistics, analyze structural changes and trends in economic growth of the Republic of Serbia during the first two decades of the 21st century, as well as to highlight the key consequences of the cause-and-effect relationship between these phenomena.

1. Research methodology

The research process in this paper takes its basis in the researches of numerous authors. Namely, economic theory, trough a long amount of time, clearly notices and points to a significant correlation between structural (sectoral) changes and economic growth. However, this correlation is not absolute, and structural changes could be both a repercussion of economic growth, or its significant and obvious source.

We can clearly say that in economic theory in modern conditions, there is no specific and generally accepted individual theory of structural change. However, there are various theoretical approaches that explain some structural mismatches of the fundamental sectors of the market economy (Kruger, 2008).

Observed from the methodological aspect, this paper applies a structural approach in researching the links of structural changes and economic growth, which emphasizes that economic growth is closely connected with the process of transformation of production structure (in order to start and accelerate it), through: removing hold-ups and additional factors answerable for such a slow growth and ensuring the redistribution of capitals into so-called growth engines, i.e. into highly competitive sectors and activities (Kuznets, 1973).

Different from the so-called structural approach or structural method, old-style thoughts of stable economic growth found their basis mostly in savings rate and in the accumulation of capital, using mostly a single production function for the entire economy and giving structural changes lone as a kind of side effects of economic and GDP per capita growth (McMillan & Rodrik, 2011).

Structural changes in this paper are interpreted not just as redistribution of economic activity in fundamental economy sectors (agriculture, industry and services) which escorts the process of economic growth in modern conditions (Herrendorf, Rogerson & Valentinyi, 2014), but also as changes in the participation of particular sectors of the economy and in total production or employment level.

The analysis of structural changes and economic growth of the Republic of Serbia during the first two decades of the 21st century was performed using statistical data of various official institutions (domestic and international) - Federal Bureau of Statistics, Republic Bureau of Statistics, Ministry of Finance, International Monetary Fund and European Central Bank.

Structural changes and economic growth of the Republic of Serbia, during the first two decades of the 21st century, were the topic of special attention within our research. In doing so, we paid significant attention to: the pace of economic growth and structural changes in the three-sector model (Arandjelović & Gligorijević, 2008), structural changes and the new model of economic growth (Gligorijević & Ćorović, 2019) etc.

2. Structural changes and economic growth of the Republic of Serbia: The effects of applying the neoliberal model

The impact of international sanctions, war destruction and economic exhaustion of the population, during the last decade of the 20th century, significantly destabilized the economic reality of the Republic of Serbia. On the wave of social dissatisfaction, there were political changes in 2000. With these changes, a radical break was made with, until then, a hybrid system of functioning of political pluralism, with an unreformed economic system. In that way, the company decided to build a market economy, following the example of developed western countries, and to end the previous practice, in which the state was a key economic factor. The way out of the political blockade and the burden of accumulated economic problems have conditioned the establishment of close communication with international financial institutions, primarily with the World Bank, the International Monetary Fund and the European Bank for Reconstruction and Development. The set conditions for the promised financial assistance resulted in the acceptance of the concept of structural adjustment, applied in additional post-socialist countries, with the monitoring of the mentioned international institutions. In essence, these were the recommendations from the Washington Consensus, which were reduced to four key elements: macroeconomic stabilization, the creation of market system and market institutions, privatization and restructuring of enterprises, and liberalization in economic policy (Cerović, 2004).

In order to realize the generally accepted concept of structural adjustment, a new growth model was established, which should have resulted in a relatively rapid consolidation of economic opportunities, compared to other countries. The mechanisms and experiences of its application were known, and there were certain advantages and disadvantages.

The transformational recession has largely lost its strength; the economy, and especially industry, showed signs of a positive response to investment impulses; the private sector was on a continuous rise and created a significant part of the social product; structural imbalances had clearly profiled expansion tendencies. However, on the other hand, in that time the distribution of foreign direct investment has already taken off in the direction of countries that have previously embarked on a process of structural adjustment and have had the obvious results of ten years of these processes.

Table 1: GDP of the Republic of Serbia by activities (growth rate)

Activities	2001	2002	2004	2006	2008	2009	2010
Agriculture	17,3	-6,8	19,1	-0,1	8,7	-4,8	6,4
Mining	-23,3	59,4	2,8	8,8	3,3	-10,7	18,0
Manufacturing industry	-9,7	-5,9	3,7	1,9	3,3	-4,5	-0,3
Electricity supply	1,2	-1,7	6,6	4,8	-0,8	6,4	-4,5

Water supply and waste management	-10,5	-6,4	1,0	0,6	-6,7	0,3	12,8
Construction	-10,5	27,9	13,0	15,7	13,1	-12,9	-2,4
Wholesale and retail trade	-7,6	21,2	20,0	9,7	3,8	-8,8	-3,0
Traffic and storage	6,1	3,4	9,2	16,0	-1,0	-4,6	7,1
Accommodation and catering services	-13,5	-5,5	1,7	13,3	-8,3	-0,6	-2,3
Information and communication	-0,9	17,3	2,1	13,9	9,6	-3,0	3,2
Finance and insurance	-18,1	9,9	15,5	30,1	18,9	2,6	1,9
Real estate business	1,4	1,7	0,6	0,6	4,0	0,8	0,2
Professional, scientific, innovative activities	-31,6	-3,8	27,5	13,0	7,4	-10,6	-2,7
Administrative and support service activities	-23,9	-8,3	-8,5	1,7	15,6	7,2	6,2
Public administration and social security	0,5	2,7	6,5	-4,9	0,9	4,3	-0,2
Education	2,7	9,0	0,5	-4,9	5,8	2,0	0,5
Health and social protection	0,5	8,0	2,8	-10,8	3,7	0,7	-0,8
Arts, entertainment and recreation	-19,4	28,9	17,1	-3,2	2,0	-2,3	1,0
Other service activities	-10,3	18,6	22,4	10,3	1,5	-5,4	-4,3
Household activity	0,0	0,0	9,5	1,6	-0,8	-11,7	0,8
Gross value added	-1,9	2,5	8,6	4,5	4,8	-3,4	-0,8
Taxes on products	77,3	35,4	12,8	6,5	7,6	-1,9	-0,2
Product subsidies	15,8	2,2	19,1	3,4	4,4	6,9	4,0
Gross domestic product	5,0	7,1	9,0	4,4	5,4	-3,1	0,6

Source: Republic Statistical Office, *Statistical Yearbook of Serbia 2007, 2010, 2016.*

Based on the above, high goals and expectations of fast results have been formulated. However, in the period from 2001 until the onset of the economic crisis in 2008, the gross domestic product of the Republic of Serbia, calculated at constant prices from 2002, grew at an average annual rate of 5.41%. At the same time, certain components of gross domestic product formation had different growth dynamics: gross value added, in this period, grew at an average annual rate of 4.08%, while indirect taxes (less subsidies) grew much faster (16,4% per year). Compared to the average annual growth of the world economy of 3.94%, the growth of GDP in the Republic of Serbia, in the same period, was higher. However, compared to the average annual growth of developing countries of 6.48%, as well as with countries of similar size in the environment, GDP growth was significantly lower (Stamenković, Kovačević, Vucković, Nikolić, & Bušatlija, 2009, p. 20).

At the same time, there are different assessments of the achieved economic growth of the Republic of Serbia after 2000. The creators of economic policy, about that period, spoke about "... a zone of very high growth rates" (Cvetković, 2007). However, many analysts, pointing to the financial assumptions of growth and the huge inflow of funds (based on medium-term and long-term loans taken abroad, then based on the sale of companies, as well as remittances and donations) call attention to the fact that the Republic of Serbia has achieved very modest real growth GDP (Kovačević, 2008, p. 103), while as a relevant court, the fact remains that the level of real economic activity of the Republic of Serbia, measured by the gross domestic product index, was at the level of 70% of the social product reached in 1989 (Đukić, 2009, p. 97-98).

Sectoral structure of economic growth in the 2001-2008 period was markedly unbalanced. The three non-exchange sectors generated about 75% of total economic growth. Sectors: trade 14.25%, financial intermediation 12.96% and transport and storage of 7% had extremely above-average growth rates of gross value added (Savić, 2009). With a slightly lower share of 18% in gross domestic product formation in 2001, these three sectors increased their relative share to 30% in 2008. These were, therefore, the main components of economic growth.

The share of indirect taxes, reduced by subsidies, also increased, so that with an 11.8% relative share in 2001, that share in the formation of gross domestic product in 2008 amounted to over 16%. On the other hand, the sectors of production of material goods had a growth of gross domestic product far below the average: agriculture grew at a rate of 0.15% per year, manufacturing at a rate of 0.47%, while significantly higher growth was recorded by construction, with an average at a rate of 10.7%.

Different growth dynamics of individual sectors led to a change in the structure of gross domestic product formation. There is a clear declining trend in the share of manufacturing activities, while the services sector has achieved dynamic growth. Production activities decreased from 53.3% in 2001, their relative share to 38.9% in 2008. At the same time, agriculture reduced its share from 19.9% in 2001 to 10.13% in 2008. In the same period, the industry reduced its share in gross value added from 28.5% to 22.3%, with a dominant decline in the manufacturing industry.

Table 2: Structure of gross value added of the economy of the Republic of Serbia by sectors

	2001	**2002**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Agriculture	19,9	15,4	13,9	12,0	11,4	10,5	10,3	9,6	10,2
Industry	28,5	27,2	24,1	23,6	23,3	21,9	22,3	22,8	23,0
Construction	4,9	5,2	5,9	5,7	6,6	5,7	6,3	5,8	5,6
Services	46,7	48,2	56,1	58,7	58,7	61,9	61,1	61,8	61,2

Source: Republic Statistical Office, *Statistical Yearbook of Serbia 2007, 2010, 2016.*

The newly created structure of the gross domestic product in the Republic of Serbia, to a large extent, reminded of the situation in the most developed countries of the world, where the trend of the process of deindustrialization has been noticed. According to that, the Republic of Serbia is unique among the post-socialist countries which also went through a phase of structural adjustment, but in which the participation of industry in the formation of GDP remained at a much higher level. Unlike highly developed countries, where the industry generated the largest part of the surplus for export, the industry of the Republic of Serbia could not adequately satisfy domestic needs, which gives a clearer picture of the character of its structural changes. In the scientific and professional public, and declaratively also among the creators of economic policy, a unique assessment has been formed that further flows of structural adjustment of the economy must be based on an essentially, completely different model of growth. The backbone of this model was to be the accelerated growth of the industry (especially the manufacturing industry), with its pronounced export orientation and employment of a high number of unemployed able-bodied residents (Corovic, Jovanovic, & Ristic, 2013, p. 8).

3. Structural changes and economic growth of the Republic of Serbia: the effects of applying the new model

The serious consequences of the economic crisis from 2008 in the Republic of Serbia initiated a re-examination of the hitherto applied model of economic growth. Namely, the economic crisis (i.e. its impact on economic trends) has exacerbated and brought to the surface the accumulated problems of economic development from the previous decade. It was necessary to move away as soon as possible from the idea of "spontaneous" growth that prompted reforms, but which, as we already mentioned, directed the Serbian economy towards foreign savings, growth of the sector of non-tradable goods and services sector and hotness of aggregate demand. Due to that, the Republic of Serbia was forced to change the model of economic growth.

The widespread agreement on the existence of serious development problems in the economy resulted in the adoption of the Strategy and Policy for the Development of Industry of the Republic of Serbia for the period from 2011 to 2020, with a new growth model. The key change, of a structural nature, is based on the growth of industry and the relative increase of its share in the creation of gross domestic product, assuming dynamic growth of investments, instead of the previous growth of domestic consumption, as a source of economic growth. In accordance with the above, it is clear that the key development priorities of economic, and especially industrial policy, were based on increasing the volume and changing the structure of investments, with adequate sources of funding and strengthening competitiveness in the European Union market, since foreign trade predominantly related to this economic space. The realization of this radical change in the development policy of the Republic of Serbia was accompanied by serious challenges for the country's economic policy.

The first few years of implementation of the newly adopted strategy and policy of industrial development of the Republic of Serbia, despite serious warnings from the scientific and professional public and public commitments of economic policy makers, passed without a consistent set of measures to implement the new economic growth model. Eliminating the basic structural imbalance between production and consumption in the country required the adoption of economically necessary, socially painful, and politically risky moves, without which the external liquidity crisis was a certain short-term scenario. However, after 2014, as a result of fiscal consolidation measures, further economic flows were marked by a changed correlation between the GDP growth and aggregate demand, and especially final consumption in the Republic of Serbia. While the gross domestic product by the end of 2016 had an extremely slow growth of an average of 0.8% per year, the final consumption in the same period had a negative growth of an average of -0.2% per year.

By applying fiscal consolidation measures, the growing state budget deficit until 2014, when it reached the level of -6.4% of gross domestic product, was reduced to a tolerable -2.1% in 2016.

The positive trend continued in the 2017-2019 period with a surplus in the state budget. This was directly related to the reduction of the share of public debt in the gross domestic product to the level of 52.4% in 2019. At the same time, prices stabilized, reducing inflation from 2.4% in 2014 to 1.2% in 2016, and by the end of 2019 within the limits provided by the Maastricht Agreement (Statistical Yearbook of Serbia 2017, 2020). However, with the acceleration of economic growth and the reduction of public debt to an acceptable level, final consumption, especially in the public sector, has recorded an annual increase since 2016, true,

less than the rate of economic growth. This inconsistency in economic policy is in serious contradiction with the necessity of changing the structure of sources of financing economic growth and creating conditions for its acceleration (Ćorović, 2019, p. 43).

Table 3: Macroeconomic indicators of economic flows of the Republic of Serbia in the period 2011-2019

Indicator	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gross domestic product (GDP) - growth rate	1,4	-1,0	2,6	-1,8	0,8	3,3	2,1	4,5	4,2
% growth of final consumption expenditure from GDP	-0,7	-1,2	-0,7	-1,2	0,1	1,6	2,3	3,2	3,3
% share of budget deficit in GDP	-4,0	-5,9	-5,2	-6,4	-4,1	-2,1	0,7	0,6	0,2
% share of public debt in GDP	45,4	56,2	59,6	70,4	74,7	71,9	57,9	53,7	52,4

Source: Republic Statistical Office, *Statistical Yearbook of Serbia 2013, and 2017 and 2020*, and the National Bank of Serbia - *Statistics.*

The period after 2010 is characterized by extremely slow economic growth, without clear continuity, until 2016. Average growth rates of gross value added of 0.41% and 0.3% of gross domestic product in the period from 2010 to 2015 were achieved (Statistical Yearbook of Serbia 2017). In the period 2016-2019 The Republic of Serbia recorded significantly higher rates of economic growth. However, one of the characteristics of the economic growth of the Republic of Serbia is its significant oscillations by individual years.

For example, GDP growth in 2018, which is estimated at 4.3%, is more than twice as high as that attained in 2017 (2.1%), but, instead, economic growth in 2017 was 1.2 percentage points lower than in 2016 (3.3%). Further analysis shows that overdue such large oscillations of the annual GDP growth of the Republic of Serbia were not lasting changes in the GDP growth trend, but that they occurred mainly under the influence of temporary factors, primarily different agricultural seasons (Fiscal Council of the Republic of Serbia, 2019, pp. 11-12). The insufficient volume of investments is, of course, the key reason for the absence of high GDP growth rates and the targeted change in its structure in the direction of increased industry participation. The causes of such flows should, in part, be sought in the unilateral reliance on foreign direct investment, which strategy and economic policy have promoted as the only stable source of financing the economic growth and development of the Republic of Serbia.

Table 4: Share of investments in the GDP of the Republic of Serbia in the period 2011-2019

Indicator	2011	2012	2013	2014	2015	2016	2017	2018	2019
% of investments in GDP	18,4	21,2	17,2	18,7	17,7	20,3	17,7	20,0	22,5
% share of foreign direct investment in GDP	9,9	2,4	3,8	3,7	5,5	5,6	6,5	8,1	8,3

Source: Republic Statistical Office, *Statistical Yearbook of Serbia 2013, and 2017 and 2020*, and the National Bank of Serbia - *Statistics.*

For a continuous share of investments in GDP of 25%, which could provide stable growth of about 5% per year, according to the Harod-Domar model (Harod, R., 1948, Domar, E., 1947), are necessary, as emphasized development the character of the budget of the Republic of Serbia, with a significantly higher relative share of capital expenditures, as well as simulative measures of industrial policy, aimed at domestic investors and changes in the structure of credit placements of domestic banks. The mentioned shortcomings in economic policy have been pointed out in the academic literature (Gligorijević & Ćorović, 2019, p. 192), as well as in the analyze of the Fiscal Council (Fiscal Council of the Republic of Serbia, 2019, pp. 16-17). Although positive changes are visible in the projections and execution of the state budget for 2018 and 2019, it's more pronounced developmental character is, to a huge amount, limited by the growth of final spending in the public sector.

Foreign direct investment was low in the first years of the analyzed period, except in 2011, when it reached the target relative volume of approximately 10% of gross domestic product. In that year, the effects of activating previously received foreign direct investments became visible, particularly in the automotive industry, production of electrical equipment, rubber and plastics. Measures to attract new FDI, particularly green field investments, had more visible success only since 2017. Their volume in 2018 and 2019 had a great impact on the growth of total investments, as well as on economic growth above 4%. Achieved average growth rates of gross domestic product in the period after 2010 were insufficient material basis for the necessary structural changes. All parts of the tertiary sector recorded either negative or minimal average growth of 1.5%, while in the same period the manufacturing industry grew at an average annual rate of 2.46% and mining at a rate of 4.73%. It can be stated that with such a structure of economic growth, in the first part of the observed period, the first steps were taken towards the affirmation of a new model of economic growth.

As a result of economic policy, the application of fiscal consolidation measures after 2014 and stopping the growth of consumption above the country's production capacity stopped further deformation of the economic structure and the relative growth of the services sector. The share of industry in the creation of gross value added increased from 23% in 2010, to 25.8% in 2015, which is a positive shift in the necessary structural changes. The successful start of fiscal consolidation has eliminated the risks of an external liquidity crisis, but economic policy has been slow to attack other hotspots of structural imbalances rather slowly and cautiously.

Table 5: Growth indicators of the processing industry of the Republic of Serbia in the period 2010-2019

Indicator	2011	2012	2013	2014	2015	2016	2017	2018	2019
Manufacturing industry - growth rate	0,5	7,7	5,7	-2,1	1,9	-2,2	4,8	1,5	0,2
% share of the manufacturing industry in GDP	14,0	15,1	16,1	15,7	15,8	15,6	15,1	14,5	13,7

Source: Republic Statistical Office, *Statistical Yearbook of Serbia 2013, 2017 and 2020*

The acceleration of economic growth after 2016, however, did not result in the continuation of the trend of increasing the participation of industry, especially the processing industry, in the creation of gross domestic product. The analysis of the structure of foreign

direct investments, as the dominant source of growth in this period, indicates that their focus on the industrial sector is only 41.3% (Gligorijević, Ćorović, 2019, p. 189). This is the cause of the paradox in the economic growth of the Republic of Serbia, i.e., the fact that the acceleration of growth does not necessarily lead to positive structural changes. A more detailed analysis of the imbalance in the economic structure of the Republic of Serbia shows that the role of an independent factor of development defects cannot be attributed to external imbalance. In this case, it is, to a large extent, a consequence of internal structural problems related to the trends of domestic consumption, the structure of that consumption, as well as the relations within the growth of gross domestic product.

Table 6: Indicators of foreign trade of the Republic of Serbia in the period 2010-2019.

Indicator	2011	2012	2013	2014	2015	2016	2017	2018	2019
% of exports in GDP	36,6	36,9	41,2	43,4	46,7	48,1	50,5	50,4	51,0
% of imports in GDP	53,0	53,6	51,9	54,2	56,4	56,3	57,1	59,1	61,0
% of coverage of imports by exports	59,3	59,3	71,1	73,5	77,3	78,8	77,5	74,3	73,4
% share of foreign trade deficit in GDP	5,3	5,5	3,8	3,6	3,3	1,5	5,2	5,2	4,0

Source: Republic Statistical Office, *Statistical Yearbook of Serbia 2013, and 2017 and 2020* and Trends - *Macroeconomic projection model for testing long-term debt sustainability and growth performance 2019-2030.*

In the period from 2010 to 2016, merchandise exports of the Republic of Serbia recorded a dynamic growth at an average annual rate of 9.3%, while exports to the European Union market reached a level of 11%, despite the slow recovery of EU countries from the consequences economic crisis. Simultaneously, the average annual growth rate of total imports of the Republic of Serbia was 3.5%, while imports from European Union countries grew at a rate of 4.2%. The deficit in total foreign trade was reduced from 5.226 billion euros in 2010, to 3.958 billion euros in 2016, so that its share in the gross domestic product of 4.7% in 2010 was reduced to 1, 5% in 2016. The share of exports in the GDP increased from 33% in 2010 to 48% in 2016.

The key contribution to the reduction of the external imbalance of the Republic of Serbia was made by the manufacturing industry, which relative share in total exports increased from 90% in 2010 to 96% in 2016 (Republic Statistical Office, 2017). However there is still a question: which factors have significant impact on the better tendencies in the foreign trade of the Republic of Serbia after 2010? The market assumptions of the new growth model of the Republic of Serbia after 2010 did not significantly help the growth of exports of the processing industry. According to the IMF, the real growth of world trade in the period from 1985 to 2007, on average, was twice as high as the growth of world gross domestic product. In the last four years, these two rates have, according to the same source, almost equalized. Global import demand, after a period of recovery from 2010 to 2013, recorded an extremely slow growth. A similar situation, in that period, was with the market of the European Union countries, with signs of somewhat faster growth in 2016 and 2017 (European Central Bank, 2016).

Positive trends in the direction of reducing the external imbalance, in large part, are a consequence of the slower growth of imports of the Republic of Serbia in the period after

the economic crisis of 2008. Basically, it is about the already mentioned, changed correlation between the GDP growth and aggregate demand, particularly final consumption. On the other hand, the efforts of economic policy to, after 2010, use its measures to correct the inadequate economic structure, through faster growth of the manufacturing industry, resulted in a modest increase in its share in gross domestic product, from 13.6% in 2010 to 15.6% in 2016. At the same time, in the period from 2010 to 2017, it achieved an average annual growth rate of 2.8%, so that, in 2017, it reached the volume of production from 2008 (Republic Statistical Office, 2013 and 2017). At the same time, there was no serious recovery in gross domestic product.

Acceleration of economic growth in the 2016-2019 periods was not accompanied by a further reduction in external imbalances. Although the trend of relatively fast growth in merchandise exports continued, but with a decrease in the average rate to 7.8%, there was a dynamic growth of imports with a threefold average growth rate of 10.8% (Republic Statistical Office, 2020). The consequences of the growth of final consumption are, therefore, also present in the foreign trade plan, with the fall in the coverage of merchandise exports by imports.

The presented analysis of macroeconomic indicators clearly indicates the fact that the measures of economic and industrial policy, envisaged by the Strategy and Policy of Industrial Development of the Republic of Serbia from 2011 to 2020, gave positive, but quite modest results. The projected growth rates of key macroeconomic indicators, in no segment, have been achieved. Therefore, the economic policy of the Republic of Serbia faces challenges related to solving the problem of insufficient investment and creating the necessary balance in the sources of financing for growth.

Conclusion

The analysis of structural changes and economic growth of the Republic of Serbia, during the first two decades of the 21st century, results in an unequivocal confirmation of the theoretically established cause-and-effect relations of these phenomena. At the same time, empirically established defects in the correlation of these links, both economic and systemic nature and the consequences of failed reforms, and errors of economic policy in choosing an adequate growth model, clearly highlighted the causes and nature of accumulated numerous structural deformations, which still burden economic growth and development of the Republic of Serbia. With this in mind, the paper provides an answer to open dilemmas about the main initial factors of these negative flows.

In general, the measure of success of the process of structural adjustment of the economy of the Republic of Serbia lies, without a doubt, in answering the question could new structure of economy produce independent economic growth with long-term development potentials. The fact that, after ten years of realization of the concept of structural adjustment of the economy by applying the neoliberal model of economic growth, the model was changed, gives a clear answer to the question. The economic crisis has unequivocally revealed the key problem of economic growth in the Republic of Serbia in the first decade of the 21st century. The formed economic structure was not able to maintain macroeconomic stability without the inflow of foreign capital, and especially to develop on a sustainable basis. The current economic policy, whose chosen

model of growth was based on the growth of consumption, beyond the real possibilities of the economy, contributed to that to the greatest extent.

In addition to inherited structural imbalances, in this period there was a deformation of the economic structure, which necessarily led to a crisis of external liquidity. The relatively high growth rate in the initial years of transition was accompanied by insufficient growth of the domestic real sector and by the supremacy of the sector of services in the GDP structure.

The appearance of the economic crisis in 2008 clearly indicated that the neoliberal model of growth is not optimal for economies in transition. It was obvious that the change of the previous growth model is a development necessity, which highlighted the need to eliminate the weaknesses of the fiscal system, create the necessary balance in sources of financing for growth, change the structure of gross domestic product, strengthen the competitiveness of domestic export economy, especially processing industry, export structures and the like.

Under the pressure of the devastating effects of the economic crisis, a document entitled Strategy and Policy for the Development of Industry of the Republic of Serbia from 2011 to 2020 appeared. The document projects the basic development goals: dynamic growth of gross domestic product, with a radical change in its sectoral structure and dynamic growth of merchandise exports. The movement of these key macroeconomic variables, according to the projection, would be based on high investment growth, with a slowdown in the growth of all forms of consumption.

Efforts to, after 2010, use various measures to correct the inadequate economic structure, have resulted in a modest increase in the participation of industry in the GDP structure.

Although economic flows were marked by a changed correlation between the GDP growth and aggregate demand, particularly final consumption, the key source of low dynamics of economic growth is certainly related to the insufficient volume of investments.

With low GDP growth rate, insufficient volume and adverse FDI structure, it was not possible to attain higher annual industry-based GDP growth. Observed through the prism of the movement of basic macroeconomic indicators, it can be concluded: the Republic of Serbia did not achieve well-balanced structure of financing sources needed for the new model of economic growth.

Finally, it should be noted that with the existing amount and structure of investments and high reliance on the FDI inflow, it is not realistic to expect rapid and desired structural changes and high growth, nor the establishment of a new industrial structure, dominated by technology-intensive industries.

The positive results of fiscal consolidation have created room for a more radical change in economic and industrial policy. The financial gap, whose coverage is possible only from domestic sources, must necessarily be financed by increasing the capital expenditures of the state, while considering the possibility of an investment-oriented, limited budget deficit. However, the growth of final consumption in the last four years has seriously limited the possibilities of economic policy in changing the sources of financing economic growth. In addition, the condition for faster growth of total investments is that the domestic banking sector, with appropriate incentives, is stimulated to increase investment placements intended for the export-oriented processing industry. In that

sense, legislative reform of the domestic financial market and a more active policy of attracting domestic savings are necessary.

References

Abramovitz, M. (1986). Catching Up, Forging Ahead, and Falling Behind. *Journal of Economic History*, XLVI (2).

Aranđelović, Z., & Gligorijević, Ž. (2008). *Nacionalna ekonomija* (National economy), Niš: Petrograf.

Cerović, B. (2004). *Ekonomika tranzicije,* (*Economics of Transition)* Beograd: Institut ekonomskih nauka.

Chatterjee, S. (1995). *Structural Change, Growth and Optimal Poverty Interventions.* Asian Development Bank, Mimeo.

Chenery, H. B. (1960). Patterns of industrial growth. *The American Economic Review*, 50(4).

Chenery, H. B. (1975). *The structuralist approach to development policy*, American Economic Association.

Chenery, H., Robinson, S., & Syrquin, M. (1986). *Industrialization and growth: A comparative study.* New York, NY: Oxford University Press.

Corovic, E., Jovanovic, P., & Ristic, L. (2013). Current Trends on the World Textile Market and the Competitiveness of the Serbian Textile Industry. Lodz: *Fibres & Textiles in Eastern Europe* 5(1019).

Cvetanović, S. (2014). Izvori finansiranja razvoja zemalja Zapadnog Balkana u periodu 2001-2012 (Sources of financing the development of the Western Balkan countries in the period 2001-2012). Ekonomika broj 3, Niš: Društvo ekonomista „Ekonomika".

Cvetković, M. (2007). *Intervju u dnevnom listu „Politika"* (The interview in the daily newspaper "Politika") *27. septembar 2007. godine* (September 27, 2007).

Ćorović, E. (2019). Strukturni problemi finansiranja privrednog rasta Republike Srbije (Structural problems of financing the economic growth of the Republic of Serbia). *Naučne publikacije Državnog Univerziteta u Novom Pazaru*, Serija B, Volumen 2, broj 1.

Domar, E. (1947). *Essays in Theory of Economic Growt*, New York: Oxford University Press.

Drbonjak, J. (2013). *Nova reindustrijalizacija (New reindustrialization).* preuzeto sa linka:http://www.ekonomskisavetdss.com/2013/09/-jovo-drobnjak-reindustrijalizacijarealnost-ili-rec-koja-samo-lepo-zvuci/.

Đukić, P. (2009). Ekonomski rast, stabilnost i zaposlenost u 2010: Kako iz krize (a da to ne vodi u novu) (Economic growth, stability and employment in 2010: How to get out of the crisis (without leading to a new one)). Ekonomska politika Srbije u 2010. godine - Ka novom modelu makroekonomske stabilnosti. Beograd:

Naučno društvo ekonomista.

European Central Bank (2016). *Statistics.* Preuzeto sa linka (taken from the link): https://www.ecb.europa.eu/stats/html/index.en.html.

Filipović, M. (2006). Structural Transformation and Transition in Serbia. *Agora without Frontiers*, 12(2).

Fiskalni savet Republike Srbije (2019), Radni dokument 19/01: Zašto privredni rast Srbije zaostaje?, Beograd.

Fosu, A. (2010). *Growth, Inequality and Poverty Reduction in Developing Countries: Recent Global Evidence.* OECD, Development Centre Background Paper for the Global Development Outlook 2010, Shifting Wealth: Implications for Developmen.

Gligorijević Ž. & Ćorović, E. (2018). *Ekonomika industrije* (Industry Economics). Novi Pazar: Državni univerzitet u Novom Pazaru.

Gligorijević Ž. & Ćorović, E. (2019). *Strukturne promene i novi model privrednog rasta Republike Srbije* (Structural changes and a new model of economic growth in the Republic of Serbia). Niš: Ekonomki fakultet.

Gligorijević, Ž. (2019). *Ekonomika industrije* (Industry Economics). Niš: SVEN.

Gligorijević, Ž., Marjanović, V., (2016). *Uticaj privrednog sistema na privrednu strukturu (analiza na primeru Republike Srbije)(Impact of the economic system on the economic structure (analysis on the example of the Republic of Serbia)). Antikrizne politike i postkrizni procesi: izazovi ekonomske nauke*, Niš: Ekonomski fakultet.

Gligorijević, Ž. & Bošković, G. (2007). *Industrijska politika u procesu unapređenja konkurentnosti industrije Srbije* (Industrial Policy in the process of Improving the competitiveness of the Serbian industry). project: *Razvijanje konkurentske prednosti preduzeća u Srbiji u uslovima evropskih integracija* (Developing the competitive advantage of companies in Serbia in the context of European integration). Niš: Ekonomski fakultet.

Gligorijević, Ž., Ćorović, E., Manasijević, A. (2020) *Development processes in the industry of the Republic of Serbia during the first decade of the 21st century,* TEME, No 2.

Gligorijević, Ž., & Stanojević, J. (2014). Industrijska politika i regionalni razvoj Republike Srbije (Industrial Policy and Regional Development of the Republic of Serbia). *Regionalni razvoj i demografski tokovi zemalja jugoistočne Evrope* (Regional development and demographic flows in Southeast European countries), Niš: Ekonomski fakultet.

Harod, R. (1948). *Towards a Dynamic Economics*. London: MacMillan.

Hatzichronoglou, T. (1997). Revision of the High-Technology Sector and Product Classification. OECD Science, Technology and Industry, *Working Papers*, No. 1997/02.

Herrendorf, B., Rogerson, R., & Valentinyi, A. (2014). Growth and structural transformation. In Aghion, P., & Durlauf, S. (Eds.): *Handbook of economic*

growth, vol. 2, pp. 855–941. Amsterdam & New York: North Holland.

International Monetary Fund, (2002). *Federal Republic of Yugoslavia - Selected Issues and Statistical Appendix,* Washington.

Janković, M. (2020). Impact of financial structure on economic growth: Example of Serbia, Croatia and Slovenia. *Anali Ekonomskog fakulteta u Subotici*, *55*(42), Retrieved from https://anali.ef.uns.ac.rs/index.php/AnnalsEFSU/article/view/32

Kovačević, M., (2008). *Realne i virtuelne performanse privrede Srbije u periodu 2000-2007. godine*, (Real and virtual performance of Serbian economy in 2000-2007.). Tekuća privredna kretanja, ekonomska politika i strukturne promene u Srbiji 2007/2008. godine, Beograd: Naučno društvo ekonomista.

Kruger, J. J. (2008). Productivity and structural change: A review of the literature. *Journal of Economic Surveys*, No: 22 (2).

Kuznets, S. (1957). Quantitative Aspects of the Economic Growth of Nations. Chicago: The University of Chicago Press.

Kuznets, S. (1966). *Modern economic growth: Rate, structure, and spread.* New Haven, CT: Yale University Press.

Kuznets, S. (1973). Modern economic growth: Findings and refections. *American Economic Review*, No: 63 (3).

Laitner, J. (2000). Structural Change and Economic Growth. *The Review of Economic Studies* Vol. 67, No. 3.

Landesmann, M. (2000). *Structural Change in the Transition Economies, 1989 to 1999,* Wien: WIIW working paper.

Marjanac, D. (2020). The effect of the exchange rate system on economic growth of Bosnia and Herzegovina. *Anali Ekonomskog Fakulteta u Subotici*, *56*(43). Retrieved from https://anali.ef.uns.ac.rs/index.php/AnnalsEFSU/article/view/34

Marjanović, V. (2010). Značaj i uticaj privredne strukture na privredni razvoj. *Ekonomske teme*, 48(3) 4, str. 369-382.

McMillan, M. S., & Rodrik, D. (2011). Globalization, structural change and productivity growth. *NBER Working Papers Series*, No. 17143.

Narodna banka Srbije, (2016) *Statistika* (Statistics). preuzeto sa linka (taken from the link): https://www.nbs.rs/internet/latinica/80/index.html.

Nelson, R. R., & Phelps, E. S. (1966). Investment in humans, technological diffusion and economic growth, *American Economic Review*, LVI(2).

Ngai Rachel, L., & Pissarides, C. (2007) Structural change in a multi-sector model of growth. *American economic review*, 97 (1).

Republički zavod za statistiku, (2000, 2002, 2004, 2007, 2008, 2010, 2013, 2016, 2017) *Statistički godišnjak Srbije* (Statistical Yearbook of Serbia) Beograd.

Republički zavod za statistiku, *Trendovi – Model makroekonomskih projekcija za testiranje dugoročne održivosti duga i perfomansi rasta 2019-2030.*

Rosić, I., (2002) *Rast, strukturne promne i funkcionisanje privrede* (Growth, structural change and the functioning of the economy). Kragujevac: Ekonomski fakultet.

Savić, LJ., (2009). Srpska industrijalizacija za dvadesetprvi vek (Serbian industrialization for the twenty-first century). Industrija broj 1, Beograd: Ekonomki intitut.

Simonović, Z. (2014). *Upravljanje agrarom Srbije u tranziciji.* Beograd: Institut za ekonomiku poljoprivrede,

Simonović, Z., & Simonović, D. (2010). A review of agricultural policy of Serbia in the period of First Serbian Uprising to World War II (1804-1941). Facta universitatis - series: Economics and Organization, 7(4).

Stamenković, S., Kovačević, M., Vučković, V., Nikolić, I., & Bušatlija, M., (2009). *Ekonomska politika u 2010. godini: Ka novom modelu ravnoteže*, (Economic policy in 2010: Towards a new equilibrium model). Beograd: Naučno društvo ekonomista.

Svennilson, I. (1954). The Process of Economic Growth. in: Hagemann, H., Landesmann, M., Scazzieri, R., (eds.) *The Economics of Structural Change*, Volume III, Critical Writings, Edward Elgar, Aldershot.

Uprava za javni dug, (2016) *Stanje i struktura javnog duga* (State and structure of public debt). Beograd: Ministarstvo finansija Republike Srbije.

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MEASURING AND ESTIMATING TAX ELASTICITY IN THE REPUBLIC OF SERBIA

Abstract

The paper analyzes tax elasticity in the Republic of Serbia in terms of tax revenues, personal income tax, corporate income tax, value added tax, social security contributions and excises for the period 2005-2019. Tax elasticity manifest sensitivity of tax forms to a change in the gross domestic product, where results have shown that indirect taxes have higher coefficients of elasticity compared to direct taxes. Results of empirical analysis have manifested that tax revenues are elastic to a change in gross domestic product, where 1% increase in GDP makes to a change of tax revenues for 1.31%. Also, tax elasticity is the highest at corporate income tax, while revenues from value added tax and excises are also elastic in the observed period. On the other hand, personal income tax and social security contributions are inelastic to a change in the gross domestic product in the Republic of Serbia.

Key words: *taxes, revenues, elasticity, Republic of Serbia*

JEL classification: **H2, H20, H21**

МЕРЕЊЕ И ОЦЕЊИВАЊЕ ЕЛАСТИЧНОСТИ ПОРЕЗА У РЕПУБЛИЦИ СРБИЈИ

Апстракт

Рад анализира еластичност пореза у Републици Србији у погледу пореских прихода, пореза на доходак грађана, пореза на добит правних лица, пореза на додату вредност, доприноса за социјално осигурање и акциза за период 2005-2019. године. Еластичност пореза манифестује осетљивост пореских облика на промену бруто домаћег производа, где су резултати показали да индиректни порези имају веће коефицијенте еластичности у односу на директне порезе. Резултати емпиријске анализе су показали да су порески приходи еластични на промену бруто домаћег производа, где повећање ГДП за 1% доводи до промене пореских прихода за 1.31%. Такође, еластичност пореза је највећа код пореза на добит правних лица, док су такође приходи од пореза на додату вредност и акциза еластични у посматраном периоду. С друге стране, порез на доходак

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грађана и доприноси за социјално осигурање су нееластични на промену бруто домаћег производа у Републици Србији.

Кључне речи: *порези, приходи, еластичност, Република Србија*

1. Introduction

Tax policy of an economy is one of the components of the implementation of short-term and long-term priorities determined in the economic policy that has an essential role in creating revenues (Lakatos and Karai, 2019). One of the most important issue is tax elasticity that evaluates the percentage increase in tax revenues due to changes caused by gross domestic product (Kleven, 2004). Similarly, tax elasticity tends to vary systematically over economic cycles and empirical evidences suggest that tax revenues tend to fall more strongly than their tax bases during recession, as well as, recover more strongly than their tax bases during booms (Poghosyan, 2011). Tax revenue elasticity with respect to tax base is a main parameter for the modeling of public finances (Havranek et al. 2016). It is important to estimate tax elasticity that evaluates percentage growth of tax revenue due to the changes in the base implied by a percent movement in GDP (Acharya, 2011). The structure of this research is as follows. After the introduction, there is a theoretical background about tax elasticity in the economy, as well as, analysis of tax forms in the Republic of Serbia from 2005 to 2019 i terms of elasticity coefficients. The last segment inculdes summarizes and conclusion about tax elasticity level in the Republic of Serbia.

Implications of tax elasticity

There are many studies that have examined tax elasticity in the world (Choudry 1979; Bruce et al. 2004; Girouard and Andre, 2005; Cotton, 2012, Bunescu and Comaniciu, 2013; Belinga et al. 2014; Deli et al. 2018; Khadan 2019). Bruce et al. (2004) have investigated tax elasticity from 1967 to 2000 in the United States and results show that the elasticity for income taxes in the long-run is more than double that for sales taxes. Deli et al. (2018) have emphasized that role of tax revenue buoyancy is one of the essential issue in the consequence of the financial crisis. Belinga et al. (2014) have applied Error Correction Model for estimating tax buoyancy in thirty-four OECD countries from 1965 to 2012. Results have suggested that long-run buoyancy is not significantly different from one in about half of the observed economies. Likewise, long-run buoyancy has decreased since the late 1980, while short-run buoyancy has shown a marked increase in the same period. Tagkalakis (2015) estimated the elasticity of corporate income tax revenue to output gap in Greece from 1993 to 2013, where results have shown that elasticity is about 1.40 to 1.55.

Kalaš et al. (2017) have revealed that personal income tax and corporate income tax are not significant for economic growth in Serbia, but value added tax has significant effect to to GDP from 2006 to 2015. Khadan (2019) has examined tax buoyancy for a twelve Caribbean countries over the period 1991-2017. Findings of this research implie

that direct taxes have higher coefficients of elasticity compared to indirect taxes.

Tax elasticity manifests indicator that defines how strongly tax revenues response to a change of GDP (Bunescu and Comaniciu, 2013, p. 611).

$$Tax\ elasticity = \frac{\Delta TR}{\Delta GDP}$$

where: TR tax revenues, GDP - gross domestic product.

Table 1. Elasticity form

TR/GDP = ∞	Perfect elasticity	A minimal change in GDP makes to a maximum change in TR
TR/GDP > 1	Elasticity	A change in GDP makes an over proportional change in TR
TR/GDP = 1	Unitary elasticity	A change in GDP by 1% makes a change in TR by 1%
TR/GDP < 1	Inelasticity	A change in GDP implies a less proportional change in TR
TR/GDP = 0	Perfect inelasticity	A maximum change in GDP does not implie a change in TR

Source: Bunescu and Comaniciu (2013, p. 611)

Table 1. reflects four potential situations in terms of tax elasticity which depending on GDP variations. First, if tax elasticity coefficient is more than 1, TR are elastic and change in GDP manifests to an over proportional change in TR. Second, if tax elasticity coefficient is less than 1, TR are inelastic and change in GDP makes to a less proportional change in TR. Finally, if tax elasticity is ∞ or 0, TR are perfect elastic or perfect inelastic. In first situation, a minimal change in GDP cause a maximum change in TR. In second situation, a maximum change in GDP does not change in TR.

Table 2. Taxes in the Republic of Serbia (mill RSD)

Year	TR	PIT	CIT	VAT	SSC	EXC
2005	669.372	94.282	10.308	216.007	214.343	71.275
2006	792.164	118.591	18.313	225.197	267.555	86.850
2007	912.749	115.772	29.686	265.465	313.025	98.601
2008	1.051.717	136.451	39.007	301.689	364.081	110.137
2009	1.054.588	133.482	31.213	296.927	373.073	134.781
2010	1.111.492	139.051	32.593	319.369	378.047	152.167
2011	1.191.079	150.824	37.806	342.446	406.706	170.949
2012	1.292.564	165.262	54.779	367.472	445.566	181.097
2013	1.366.595	156.085	60.665	380.624	488.496	204.761
2014	1.439.037	146.484	72.744	409.564	509.433	212.473
2015	1.463.590	146.775	62.668	416.056	505.695	235.781

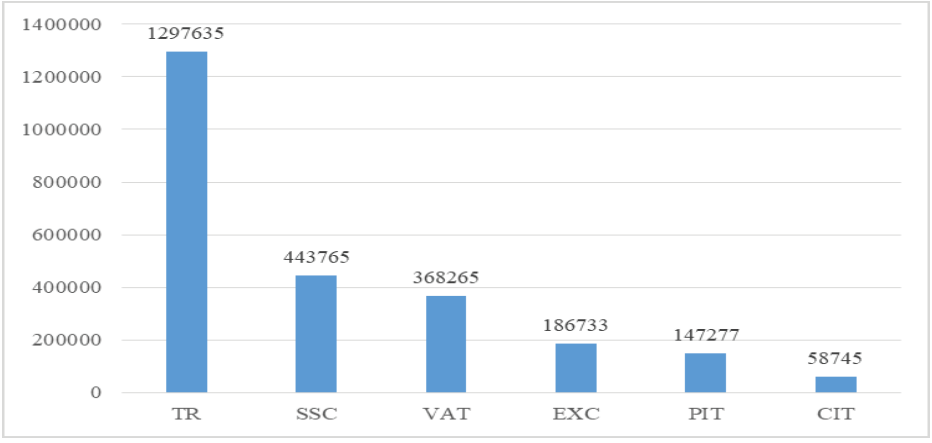
2016	1.585.767	155.065	80.415	453.503	527.489	265.606
2017	1.717.897	167.882	111.778	479.267	567.426	279.943
2018	1.822.236	179.423	112.488	499.828	619.666	290.039
2019	1.993.677	203.739	126.719	550.563	675.875	306.546

Note: **TR** – tax revenues, **PIT** – personal income tax, **CIT** – corporate income tax, **VAT** – value added tax, **SSC** – social security contributions, **EXC** – excises.

Source: Authors based on https://www.mfin.gov.rs/en/document-type/macroeconomic-and-fiscal-data/

Table 2. shows taxes in the Republic of Serbia from 2005 to 2019, where tax forms are expressed in million RSD. Analyzing by years, all tax forms have growth trend where TR are increased for 1.324.305 million RSD. VAT and SSC had the greatest growth above 300.000 or 400.000 million RSD, while other taxes such as PIT and CIT are increased around 110.000 million RSD in the analyzed period.

Figure 1. Average level of tax forms in the Republic of Serbia

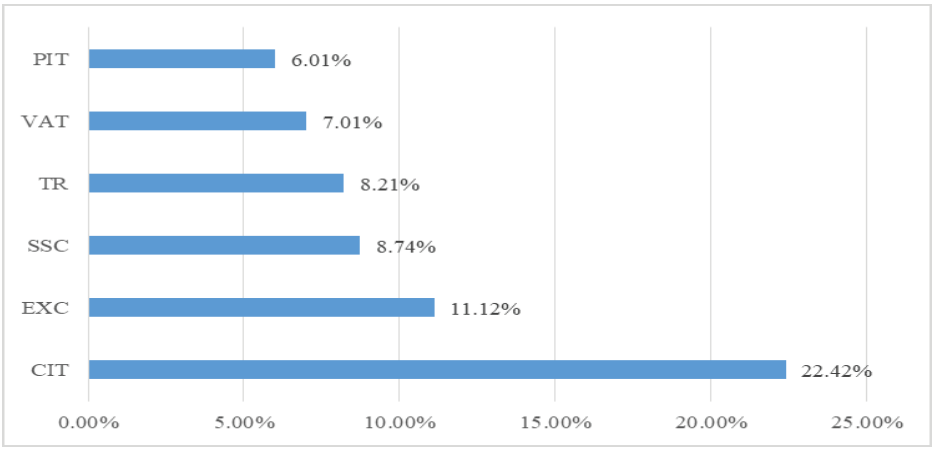


Note: TR – tax revenues, PIT – personal income tax, CIT – corporate income tax, VAT – value added tax, SSC – social security contributions, EXC – excises.

Source: Authors based on https://www.mfin.gov.rs/en/document-type/macroeconomic-and-fiscal-data/

Figure 1. represents average level of tax revenues, as well as, personal income tax, corporate income tax, value added tax, social security contributions and excises from 2005 to 2019 in the Republic of Serbia. As it can see, average tax revenues are 1.297.635 million RSD, while SSC and VAT are the most generous taxes in the Republic of Serbia. Precisely, Kalaš and Milenković (2017) have determined that revenues by value added tax consist quarter of total revenues. Namely, these taxes consist more than 60% of tax revenues in the analyzed period. On the other hand, direct taxes such as PIT and CIT together have share 15.88% of tax revenues.

Figure 2. Average growth of tax forms in the Republic of Serbia



Note: TR – tax revenues, PIT – personal income tax, CIT – corporate income tax, VAT – value added tax, SSC – social security contributions, EXC – excises.

Source: Authors based on https://www.mfin.gov.rs/en/document-type/macroeconomic-and-fiscal-data/

Analyzing growth rate of tax forms at average level for the period 2005-2019 in the Republic of Serbia, results have shown that corporate income tax had the greatest growth rate of 22.4%. Beside corporate income tax, only excises have double growth rate of 11.12% in the observed period. The most generous tax forms such as VAT and SSC have similar growth rate of 7% or 8% compared to tax revenue growth. Finally, personal income tax had the smallest growth rate of 6.01% from 2005 to 2019.

Table 3. Tax forms (% in tax revenues)

Year	PIT	CIT	VAT	SSC	EXC	TR
2005	15.55%	1.70%	35.63%	35.36%	11.76%	100%
2006	16.55%	2.56%	31.43%	37.34%	12.12%	100%
2007	14.07%	3.61%	32.27%	38.06%	11.99%	100%
2008	14.34%	4.10%	31.71%	38.27%	11.58%	100%
2009	13.77%	3.22%	30.63%	38.48%	13.90%	100%
2010	13.62%	3.19%	31.27%	37.02%	14.90%	100%
2011	13.60%	3.41%	30.89%	36.68%	15.42%	100%
2012	13.61%	4.51%	30.27%	36.70%	14.92%	100%
2013	12.09%	4.70%	29.49%	37.85%	15.87%	100%
2014	10.85%	5.39%	30.32%	37.72%	15.73%	100%
2015	10.74%	4.58%	30.44%	36.99%	17.25%	100%
2016	10.46%	5.43%	30.60%	35.59%	17.92%	100%

2017	10.45%	6.96%	29.84%	35.33%	17.43%	100%
2018	10.55%	6.61%	29.38%	36.42%	17.05%	100%
2019	10.93%	6.80%	29.55%	36.27%	16.45%	100%

Note: **TR** – tax revenues, **PIT** – personal income tax, **CIT** – corporate income tax, **VAT** – value added tax, **SSC** – social security contributions, **EXC** – excises
Source: Authors calculation

Table 3. reflects percentage share of tax forms in tax revenues by years in the Republic of Serbia. VAT and SSC have the greatest percentage share in tax revenues in every year, where their shares are above 30% of tax revenues. After them, EXC are the third generous tax in the Republic of Serbia, where it's share is increased for 4.69% from 2005 to 2019.

CIT is only tax which share is below 10%, although percentage share is increased for 5.7% from 2005 to 2019. Finally, PIT has percentage share around 10% in tax revenues, while share is smaller for 4.62% from 2005 to 2019.

Table 4. Tax elasticity in the Republic of Serbia

Year	TR/GDP	PIT/GDP	CIT/GDP	VAT/GDP	SSC/GDP	EXC/GDP
2006	1.01	1.42	4.29	0.23	1.37	1.20
2007	0.96	-0.15	3.95	1.13	1.08	0.86
2008	0.99	1.17	2.05	0.89	1.06	0.76
2009	0.05	-0.44	-4.04	-0.31	0.49	4.52
2010	0.82	0.64	0.67	1.16	0.20	1.98
2011	0.64	0.76	1.43	0.64	0.68	1.11
2012	1.55	1.74	8.19	1.33	1.74	1.08
2013	0.70	-0.67	1.31	0.43	1.17	1.60
2014	5.55	-6.44	20.85	7.96	4.48	3.94
2015	0.46	0.05	-3.80	0.43	-0.20	3.01
2016	1.72	1.16	5.83	1.85	0.88	2.60
2017	1.61	1.60	7.56	1.10	1.46	1.04
2018	0.91	1.04	0.09	0.64	1.39	0.54
2019	1.36	1.97	1.84	1.47	1.32	0.82
ATE	**1.31**	**0.28**	**3.59**	**1.36**	**0.01**	**1.23**

Note: **TR** – tax revenues, **PIT** – personal income tax, **CIT** – corporate income tax, **VAT** – value added tax, **SSC** – social security contributions, **EXC** – excises, **GDP** – gross domestic product
Source: Authors calculation

Analyzing tax elasticity in the Republic of Serbia from 2005 to 2019, results manifest positive average coefficient of elasticity from aspect of all tax forms. The

highest value of average tax elasticity is identified at CIT , while the smallest value of average taxe elasticity is recorded at SSC. It means that tax forms such as CIT, VAT and EXC are elastic to a change in GDP. Finally, personal income tax are not elastic to a change in the GDP for the period 2005-2019. Research results show that 1% increase in GDP leads to average growth of 1.31% at tax revenues, where maximum level of sensitivity is recorded in 2014 (5.55%). Also, 1% increase in GDP leads to growth of 3.59% at corporate income tax, 1.36% at value added tax, 1.23% and 1.23% at excises.

Table 5. Tax elasticity by type of revenues in the Republic of Serbia

Year	DT	IT	%GDP	% DT	% IT	Tax elasticity - DT	Tax elasticity - IT
2005	104.590	287.282	-	-	-	-	-
2006	136.904	354.405	18.09	30.89	23.36	1.70	1.29
2007	145.458	411.626	15.70	6.24	16.14	0.39	1.03
2008	175.458	474.218	15.25	20.62	15.20	1.35	0.99
2009	164.695	507.854	4.94	-6.13	7.09	-1.24	1.43
2010	171.644	530.214	6.50	4.21	4.40	0.64	0.67
2011	188.630	577.655	11.12	9.89	8.94	0.88	0.80
2012	220.041	626.663	5.47	16.65	8.48	3.04	1.54
2013	216.750	693.257	8.16	-1.49	10.62	-0.18	1.30
2014	219.228	721.906	0.95	1.14	4.13	1.19	4.32
2015	209.443	741.476	3.64	-4.46	2.71	-1.22	0.74
2016	235.480	793.095	4.85	12.43	6.96	2.56	1.43
2017	279.660	847.369	5.15	18.76	6.84	3.63	1.32
2018	291.911	909.705	6.61	4.38	7.35	0.66	1.11
2019	330.458	982.421	6.86	13.20	7.99	1.92	1.16
ATE						**1.09**	**1.37**

Note: **DT** – direct taxes, **IT** – indirect taxes, **GDP** – gross domestic product
Source: Authors calculation

If we taxes sorted in direct and indirect, results of analysis have shown that coefficient values of elasticity is higher at indirect taxes. Namely, indirect taxes are elastic (1.37) to a change in gross domestic product at average level from 2005 to 2019. On the other hand, direct taxes are unitary elastic (1.09) to a change in GDP at average level for the observed period. These results implie that indirect taxes such as VAT and EXC are more sensitive to a change in GDP compared to direct taxes such as PIT and CIT. In conditions when GDP increase for 1%, direct taxes will rise for 1.09% at average level, while indirect taxes have greater growth by 1.37% at average level for the analzed period.

Conclusion

The research has examined tax elasticity in the Republic of Serbia in terms of tax revenues, personal income tax, corporate income tax, value added tax, social security contributions and excises for the period 2005-2019. Empirical analysis have reflected that tax revenues are elastic to a change in gross domestic product, where 1% increase in GDP makes to a change of tax revenues for 1.31%. Also, tax elasticity is the highest at corporate income tax, while revenues from value added tax and excises are also elastic in the observed period. Namely, 1% increase in GDP leads to growth of 3.59% at corporate income tax, 1.36% at value added tax, 1.23% and 1.23% at excises. On the other hand, personal income tax and social security contributions are inelastic to a change in GDP in the Republic of Serbia. Finally, results have implied that indirect taxes are more sensitive to a change in GDP compared to direct taxes. In conditions when GDP increase for 1%, direct taxes will rise for 1.09% at average level, while indirect taxes have greater growth by 1.37% at average level for the analzed period.

References

Acharya, H. (2011). The Measurement of Tax Elasticity in India: A Time Series Approach. Munich Personal RePEc Archive, MPRA Paper No. 47090.

Belinga, V., Benedek, D., De Mooij, R., Norregaard., J. (2014). Tax Buoyancy in OECD Countries. International Monetary Fund Working Paper No. 110, Washington, DC.

Bruce, D., Fox. W., Tuttle, M. (2006). Tax Base Elasticities: A Multi-State Analysis of Long-Run and Short-Run Dynamics. Southern Economic Journal, 73 (2), https://pdfs.semanticscholar.org/ed61/dcc9597c32a040b9e2cf09262b67d9240cd7.pdf

Bunescu, L., Comaniciu, C. (2013). Tax Elasticity Analysis in Romania 2001-2012. Procedia Economics and Finance, 6, 609-614.

Choudhry, N.N. (1979). Measuring the Elasticity of Tax Revenue: A Divisia Index Approach. International Monetary Fund, IMF Staff Paper, 26.

Cotton, J.J. (2012). The Buoyancy and Elasticity of Non-Oil Tax Revenues in Trinidad and Tobago (1990-2009). Central Bank of Trinidad and Tobago Working Paper.

Deli, Y., Rodriguez, A.G., Illias, K., Varthalitis, P. (2018). Dynamic tax revenue buoyancy estimates for a panel of OECD countries. The Economic and Social Research Institute, ESRI Working Paper, No. 592.

Dudine, P., Talles, J. (2017). How buoyant is the tax system? New evidence from a large heterogeneous panel. International Monetary Fund, IMF Working Paper WP/17/4, Washington, D.C.

Girouard, N., Andre, C. (2005), Measuring Cyclically-Adjusted Budget Balances for the OECD Countries, OECD Economics Department Working Papers 434.

Havranek, T., Irsova, Z., Schwarz, J. (2016). Dynamic elasticities of tax revenues: evidence from the Czech Republic. Applied Economics. 48 (60), 5866-5881.

Kalaš, B., Milenković, I., Pjanić, M., Andrašić, J., Milenković, N. (2017). The Impact of Tax Forms on Economic Growth – Evidence from Serbia, Industry, 45(2), 113-125.

Kalaš, B., Milenković, N. (2017). The role of value added tax in the economy of Serbia. Ekonomika, 63 (2), 69-78.

Khadan, J. (2019). Tax Buoyancy in the Caribbean: Evidence from Heterogenous Panel Contegration Models. Research in Applied Economics, 11 (4), 36-48.

Kleven, H.J. (2004). Optimum taxation and the allocation of time. Journal of Public Economics, 88, 545-557.

Lakatos, M., Karai, E. (2019). After the first 32 years – new deal in Hungarian income taxation. The Annals of the Faculty of Economics in Subotica, 56 (43), 117-134.

Poghosyan, T. (2011). Assessing the Variability of Tax Elasticities in Lithuania. International Monetary Fund, IMF Working Paper No. 270, Washington, D.C.

Tagkalakis, A. (2015). Estimating the Elasticity of Corporate Income Tax to Output GAP in Greece: Implications for Tax Buoyancy. Public Finance Review 45 (2), 205-231.

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THE INTERNET PROMOTION OF MORAVICA ADMINISTRATIVE DISTRICT AS A TOURISM DESTINATION

Abstract

Tourism destinations tend to create and represent the integrated product of tourism appropriately. The target market can often be outside the national borders. In such circumstances, modern promotion in tourism requires flexibility, as well as the creation of optimum communication strategy. Such strategies include the combination of the Internet and the traditional forms of promotinal activities. It is necessary to highlight websites and social networks as the basic, often the most important elements of the Internet promotional mix. Each region possesses its own specific tourist features, the Moravica administrative district included (Čačak, Lučani, Gornji Milanovac and Ivanjica), as a part of the Republic of Serbia. According to this, the aim of this paper is to point out the presence of local tourism organizations, hotels, travel agencies and tourism events in the Moravica administrative district on the Internet, using websites and social networks. An Internet search and a search of social networks were performed in order to determine whether the previously mentioned factors of tourism have a Web site and accounts on the analyzed social networks, whether open accounts on social networks were used in the analyzed period in 2019 and to determine the number of followers. The contribution of this paper is that it provides an overview of the current situation in the area of online promotion of the Moravica administrative district as a tourism destination that has not been researched extensively so far.

Key words: *tourism destination, online promotion, websites, social networks, information and communication technologies, the Moravica administrative district*

JEL classification: *M31, Z33*

ИНТЕРНЕТ ПРОМОЦИЈА МОРАВИЧКОГ УПРАВНОГ ОКРУГА КАО ТУРИСТИЧКЕ ДЕСТИНАЦИЈЕ

Апстракт

Туристичке дестинације теже да креирају и адекватно представе интегрисани туристички производ. Циљно тржиште често зна бити ван националних

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граница. У таквим условима, савремена туристичка промоција захтева флексибилност и креирање оптималне стратегије комуникације. Такве стратегије укључују комбинацију Интернета и традиционалних облика промотивних активности. Као најосновније, а често и најзначајније елементе Интернет промотивног микса, неопходно је истаћи Њеб сајтове и друштвене мреже. Свако подручје има неке своје туристичке специфичности, па тако и Моравички управни округ (Чачак, Лучани, Горњи Милановац и Ивањица) као део Републике Србије. У складу са тим, циљ овог рада је да укаже на присутност локалних туристичких организација, хотела, путничких агенција и туристичких манифестација са територије Моравичког управног округа на Интернету кроз коришћење Њеб сајтова и друштвених мрежа. Извршена је Интернет претрага и претрага друштвених мрежа ради утврђивања да ли претходно наведени туристички чиниоци имају Њеб сајт и налоге на анализираним друштвеним мрежама, да ли су отворени налози на друштвеним мрежама коришћени током анализираног периода 2019. године и утврђивања броја пратилаца. Допринос овог рада је у томе што пружа преглед актуелне ситуације у области Интернет промоције Моравичког управног округа као туристичке дестинације која до сада није у великој мери истраживана.

Кључне речи: *туристичка дестинација, Интернет промоција, Њеб сајтови, друштвене мреже, информационо-комуникационе технологије, Моравички управни округ*

Introduction

The greatest innovations are certainly those that change a man's life fundamentally. The Internet is definitely one of them. As the most significant representative of information and communication technologies (ICT), the Internet has influenced people, changing their way of thinking, behavior, and other things, but the area of business as well. Tourism competitiveness is a significant factor in national competitiveness (Krstić et al, 2014), and ICT infrastructure is an important factor in tourism competitiveness that needs to be further developed. According to this, some authors have established that ICT has a significant influence on tourism destination competitiveness (Krstić, Stanišić, 2014; Petrović, Milićević, 2015; Petrović et al, 2017). Kostić (2018) observes digital transformation as a competition catalyst, whereas he states that "strong competitive pressure forces companies to adapt the process of digital transition to business conditions and consumer preferences" (p 21). It is very important to possess technological readiness in order to achieve the country's competitiveness in global proportions. When we speak of Serbia, the indicators related to technological readiness requiring priority in development policies are: Availability of latest technologies, Firm-level technology absorption, FDI and technology transfer, Fixed-broadband Internet subscriptions, Internet bandwidth, Mobile-broadband subscriptions (Radivojević et al, 2018).

Cooper et al (2008) indicate a large influence of ICT on tourism destination development through the creation of e-destination concept. They state a multidimensional framework for processes in the industry of tourism facilitated by the use of ICT, one of the elements that stand out being the communication of the tourist with the tourism industry. Numerous authors state ICT as the main initiator of changes in tourism (Page, 2009; Štetić et al, 2017; Milićević, Beljić, 2018). ICT require a better tourist operations

management in order to use their potentials (Page, 2009). Štetić et al (2017) offer a new ICT communication model in tourism that involves six elements: DMOs (Destination Marketing Organizations), online intermediaries, tourist industry, the Internet, smart phones and applications, tourists. Vidaković & Vidaković (2019) in the field of digital media and marketing emphasize the importance of creative expression and ethical norms (truthfulness and transparency and the resulting desire to create the highest quality content).

Each tourism destination is specific, and the elements of the marketing mix, as well as promotion, should be adjusted accordingly. The Moravica administrative district is a part of the Republic of Serbia that encompasses the territories of Čačak, Lučani, Gornji Milanovac and Ivanjica. It covers the area of about 3,016 km^2, and according to the 2011 census results, it has a population of about 212,603 (Statistical Office of the Republic of Serbia, 2014). The characteristics of Moravica administrative district is a rich offer in the field of event tourism (Guča Trumpet Festival, Nušićijada Festival in Ivanjica, "Cabbage fest" – Kupusijada in Mrčajevci, Flute Players Contest in Prislonica, "Dis Spring" in Čačak, Serbia World Music Festival in Gornji Milanovac, etc), medical/ health tourism (Gornja Trepča, etc), winter tourism (Golija), rural tourism (Ivanjica is one of the founders of this type of tourism in Serbia), religious tourism (Ovčar-Kablar Gorge as natural landscape of exceptional beauty, abundant in monasteries and frequently referred to as "Serbian Holy Mountain") and others. All the aforementioned, as well as many other things, make a tourist offer necessary to present to the existing and potential tourists in the best way, where the Internet can play a very important role.

The subject of this paper is a review of the Internet promotional activities in the Moravica administrative district as a tourism destination. The aim of this paper is to emphasize the existence and promotion of local tourism organizations, hotels, travel agencies and tourism events in the Moravica administrative district territory on the Internet, using websites and social networks. The analysis of the Moravica district as a tourism destination online representation and promotional activities is presented in the papers by certain authors (e.g. Garabinović, Anđelić, 2019; Garabinović, 2019; Papić et al, 2018; Garabinović, Papić, 2018; Garabinović, 2017). Their research provides the foundation for the comparison to the new data acquired through the research conducted in this paper.

Theoretical backgrounds

Local tourism organizations have the most significant place in tourism destination product creation and its promotion. This promotion could be conducted in a traditional way, as well as using modern technologies, the Internet above all else. Websites stand for the basic form of online presence, with the increasing significance of other forms of target market connections (eg. social networks). Noti (2016) used image-based technology evaluation criteria for the national tourism organizations website analysis. Mariani et al (2016) established that Destination Management Organizations' *Facebook* engagement in Italy is influenced positively by visual content (namely photos) and moderately long posts, but high post frequency and early daily timing (in the morning) of posts in a negative way. The fact that should be highlighted is that *Facebook* is the network implemented completely among most local tourism organizations in Serbia (64.3%); they mostly use the number of social network users (47.6%) for promotion effects surveys (Podovac, Petrović, 2019). There certainly are the benefits of social network usage for the promotion purposes. However, it is necessary to improve this part of online promotion additionally, in terms of choosing social networks for the local tourism organizations to present their destination offer, as well as the improvement

of promotion effects measurements through social networks. Garabinović and Papić (2019) state that there are several ways of determining marketing success through social networks, inferring simultaneously that "the success of these activities is very difficult to measure accurately, and therefore "assessment" is much more appropriate term" (p. 153). When we speak of the Moravica administrative district, *Facebook* also holds the best position among social networks according to the website presence, account existence and use by local tourism organizations (Garabinović, 2019).

Hotels as the basic receptive objects in tourist offer should follow an increasing demand for the Internet usage, as well as tourism organizations. The authors Ladhari and Michaud (2015) researched *e-WOM* (electronic Word of Mouth) in hotels in Canada, and they reached a conclusion that the more positive comments about a hotel are, the more positive the booking intentions, the more positive the attitude toward it, the higher the trust in it, the more positive the perceived quality of the website will be. On the basis of the above stated, "comments" and "spreading" information on the Internet among the existing and potential tourists play an important role in hotel promotion.

Some authors directed their research towards hotel website quality analysis in some of the world countries, such as Salavati and Hashim (2015), Leung et al (2016), Abou-Shouk and Khalifa (2017), Hung (2017), Lei and Law (2019), Ostovare and Shahraki (2019), Ongsakul et al (2020), Akincilar and Dagdeviren (2014), Yeung and Law (2006), etc. Similar research of hotel promotion through websites and social networks in Serbia was conducted by Mašić and Milošević (2018), Stanujkic et al (2018), Virijević Jovanović and Piljevac (2018), Kalinić and Vujičić (2019) and other authors. According to the research conducted by Mašić and Kosar (2016), it is established that *Facebook* is by far the most used social network by hotels in Serbia for their promotion. Therefore, we can reach a conclusion that website and social network use (primarily *Facebook*) plays an important role in contemporary hotel promotion. Đokić and Milićević (2017) state that in Serbia, attitudes have the greatest influence on the intention to buy hotel accommodation online, followed by subjective norms and perceived behavioural control.

Unlike hotels, travel agencies are agents (intermediaries) in the tourism market. Travel agency website quality and design play an important role for potential users (Dorra and Hassen, 2015; Theodhori and Shkira, 2013; Yang and Chen, 2012). Abou-Shouk and Khalifa (2017) used the example of Egypt to establish the fact that website quality dimensions significantly affect the customer purchasing behavior.

When we speak of tourism events as one of the basic elements of tourism destination offer, the Internet usage should be observed considering mutual diversity of various events. We should particularly emphasize the type of event and target audience it is intended for. For example, most festivals organized in Canada and the USA (99%) used social media for promotion purposes. The most frequently used were *Facebook* (83%), *Instagram* (57%), *Twitter* (66%) and *YouTube* (42%) (Van Winkle et al, 2018).

When we speak of the Moravica administrative district, the research by Papić et al (2018) shows that 18.37% of tourism events are present online in some form (website or social networks), and all these events (18,37%) have a *Facebook* account. This situation should be a clear signal for event organizers to take part in the Internet business as soon as possible because it may hold the key position in communication with the potential visitors and participants.

Research methodology

The subject of this paper is the overview of the online promotional activities in the Moravica administrative district as a tourism destination. The aim of the paper is to point

out the presence and promotion of local tourism organizations, hotels, travel agencies and tourism events in the Moravica administrative district territory online, through website and social network usage. The following hypotheses arise from the topic and aim of the paper:

H1 – Local tourism organizations in the Moravica administrative district territory use their official websites and accounts on social networks as a form of online promotion.

H2 – Hotels in the Moravica administrative district territory use their official websites and accounts on social networks as a form of online promotion.

H3 – Travel agencies in the Moravica administrative district territory use their official websites and accounts on social networks as a form of online promotion.

H4 – Tourism events in the Moravica administrative district territory use their official websites and accounts on social networks as a form of online promotion.

A research was conducted in the Moravica administrative district territory (Čačak, Lučani, Gornji Milanovac and Ivanjica) in November 2019, with the aim of testing the aforementioned hypotheses. The research refers to the establishment of the presence of local tourism organizations, hotels, travel agencies and tourism events websites, as well as the analysis of their characteristics according to the chosen criteria. The research also includes the analysis of the presence and use of the accounts on chosen social networks (*Facebook*, *Instagram*, *Twitter* and *YouTube*), as well as the number of followers. According to the set up hypotheses, the expression "use" of social networks implies account activity shown through the network posts during the analyzed period in 2019.

The sample for this research consists of 109 factors of tourism in the Moravica administrative district territory: 4 local tourism organizations, 12 hotels (Ministry of Trade, Tourism and Telecommunications, Republic of Serbia, 2019, 2nd October), 28 active travel agencies – singled out on the basis of the Serbian Business Registers Agency data – Tourism Register (http://pretraga2.apr.gov.rs/PretragaTuristickihAgencija, 23rd November 2019), 65 tourism events featured on the official websites of local tourism organizations – Čačak (http://turizamcacak.org.rs/turisticka-ponuda/manifestacije/, 23rd November 2019), Gornji Milanovac (http://www.togm.org.rs/index.php/sta-raditi/manifestacije, 23rd November 2019), Lučani (http://turizamdragacevo.org/category/manifestacije/, 23rd November 2019) and Ivanjica (https://ivatourism.org/sr/turisticka-ponuda/sta-raditi/manifestacije.html, 23rd November 2019).

Research results and Discussion

The research established the fact that 40 out of 109 factors of tourism in the Moravica administrative district (36.7%) have a website. All the local tourism organizations have a website (100%), as well as most hotels (10 hotels, i. e. 83.33%) and travel agencies (17 travel agencies, i. e. 60.71%). Tourism events show the smallest percent of website possession (9 events, i. e. 13.85%).

On the basis of the criteria applied in Garabinović and Papić (2018), and Garabinović (2019), ten criteria were chosen as common to all four categories of factors in tourism: K1 – available material for download; K2 – in addition to the text, the website contains photos, video and sound effects (at least two criteria); K3 – horizontal scroll is avoided or minimized; K4 – the information describing your position in the site structure appear on each page; K5 – website search appears on the website homepage; K6 – newsletter subscription; K7 – the site connection to social network accounts; K8 – the site offers

interaction with site visitors (comments, messages); K9 – the site has a version in a foreign language; K10 – the site provides the links to similar organizations and partners. The criteria have been chosen in order to establish with certainty whether a website meets them or not. The chosen criteria are presented in Table 1 with the research results.

Table 1: Criteria fulfillment overview – website

Criteria	ANALYZED FACTORS OF TOURISM									
	Local tourism organizations		Hotels		Travel agencies		Tourism events		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
K1	2	50.00	1	10.00	10	58.82	5	55.56	18	45.00
K2	2	50.00	3	30.00	3	17.65	6	66.67	14	35.00
K3	4	100.00	6	60.00	11	64.71	6	66.67	27	67.50
K4	0	0.00	0	0.00	4	23.53	1	11.11	5	12.50
K5	1	25.00	2	20.00	3	17.65	2	22.22	8	20.00
K6	1	25.00	2	20.00	0	0.00	1	11.11	4	10.00
K7	4	100.00	6	60.00	8 9*	47.06 52.94	8	88.89	26 27*	65.00
K8	3	75.00	7	70.00	12	70.59	5	55.56	27	67.50
K9	4	100.00	9	90.00	1	5.88	7	77.78	21	67.50
K10	4	100.00	1	10.00	7	41.18	6	66.67	18	52.50
Website average	6.25		3.7		3.47 3.53*		5.22		4.2 4.22*	
NOTE: % - percentage out of the site numbers; Website average = (K1+K2+K3+K4+K5+K6+K7+K8+K9+K10)/website number; *social network profiles included (K7 criterion).										

Source: the authors' research

The characteristics of websites in all four categories are that horizontal scroll is avoided or minimized, the site is connected to social network accounts and the site provides the possibility of interaction with site visitors (comments, messages). Criteria fulfillment average per analyzed type of tourism factors (Table 1) is the highest in local tourism organizations (6.25) and tourism events (5.22), followed by hotels (3.7) and travel agencies (about 3.5).

Table 2 provides the data on language options offered on the websites of the factors analyzed.

Table 2: Website multilingualism

Criteria (languages)	ANALYZED FACTORS OF TOURISM									
	Local tourism organizations		Hotels		Travel agencies		Tourism events		TOTAL	
	No.	%*	No.	%*	No.	%*	No.	%*	No.	%*
Serbian (Cyrillic)	3	75.00	0	0.00	0	0.00	4	44.44	7	17.50
Serbian (Latin)	2	50.00	10	100.00	16	94.12	6	66.67	34	85.00
English	4	100.00	9	90.00	1	5.88	7	77.78	21	52.50
German	1	25.00	2	20.00	0	0.00	0	0.00	3	7.50
Russian	0	0.00	3	30.00	0	0.00	0	0.00	3	7.50
Dutch	0	0.00	1	10.00	0	0.00	0	0.00	1	2.50
French	0	0.00	1	10.00	0	0.00	0	0.00	1	2.50
Greek	0	0.00	1	10.00	0	0.00	0	0.00	1	2.50
Italian	0	0.00	2	20.00	0	0.00	0	0.00	2	5.00
Slovenian	0	0.00	1	10.00	0	0.00	0	0.00	1	2.50
Ukrainian	0	0.00	1	10.00	0	0.00	0		1	2.50

Criteria (languages)	ANALYZED FACTORS OF TOURISM									
	Local tourism organizations		Hotels		Travel agencies		Tourism events		TOTAL	
	No.	%*	No.	%*	No.	%*	No.	%*	No.	%*
Average **	1.25		2.10		0.06		0.78		0.85	
NOTE: * - the percentage of tourist factors with a website; ** - the average of foreign languages per website.										

Source: the authors' research

Considering all four categories individually and cumulatively (Table 2), the results show that most (or at least a half) of the websites have the option Serbian language (Latin), as well as English as a foreign language. All three categories provide the website in a foreign language to a great degree, except travel agencies (only one; 5.88%). Hotels have the largest number of foreign languages per website (2.1). Local tourism organizations websites are the only ones among the analyzed categories with a Serbian language Cyrillic option. We should highlight the fact that only two websites (1 local tourism organization and 1 tourism event) have Serbian language options in both Cyrillic and Latin versions.

The overview of the website link numbers to accounts on *Facebook* and *Instagram*, the actual number of the accounts open on these social networks, and the number of the accounts (with the posts) used in 2019 (until the research is conducted) is provided in Table 3.

Table 3: Facebook and Instagram – link to Websites, account existence and use

		FACEBOOK			*INSTAGRAM*		
		WS	AE	AU**	WS	AE	AU
Local tourism organizations	No	4	4	4	2	4	4
	%	100.00	100.00	100.00 *100.00*	50.00	100.00	100.00 *100.00*
Hotels	No.	5 6*	10	9	2	9	8
	%	50.00; 60.00*	83.33	75.00 *90.00*	20.00	75.00	66.67 *88.89*
Travel agencies	No.	8 9*	22 23*	19	2	17	11
	%	47.06 52.94*	78.57 82.14*	67.86 *86.36*	11.76	60.71	39.29 *64.71*
Tourism events	No.	8	16	12	2	7	5
	%	88.89	24.62	18.46 *75.00*	22.22	10.77	7.69 *71.43*
TOTAL	No.	25 27*	52 53*	44	8	37	28
	%	62.50 67.50*	47.71 48.62*	40.37 *84.62*	20.00	33.94	25.69 *75.68*
NOTE: WS – website (% - percentage of website numbers); AE – account existence (% - percentage of tourist factor numbers within a category); AU – account use (% - percentage of tourist factor numbers within a category; percentage of account existence numbers within a category); * - *Facebook* pages and profiles; ** - *Facebook* pages only.							

Source: the authors' research

The overview of website links, *Twitter* and *YouTube* account existence and use, as well as the average for all the social networks analyzed (*Facebook*, *Instagram*, *Twitter* and *YouTube*) is provided in table 4.

Table 4: Twitter, YouTube, social networks average – website link, account existence and use

		TWITTER			*YOUTUBE*			AVERAGE***		
		WS	AE	AU	WS	AE	AU	WS	AE	AU
Local tourism organizations	No.	2	4	2	3	4	2	2.75	4	3
	%	50.00	100.00	50.00 *50.00*	75.00	100.00	50.00 *50.00*			
Hotels	No.	0	3	1	2	2	1	0.9 1.00*	2.00	1.58
	%	0,00	25,00	8.33 *33.33*	20.00	16.67	8.33 *50.00*			
Travel agencies	No.	0	2	0	0	1	1	0.47 0.53*	1.5 1.54	1.11
	%	0,00	7,14	0.00 *0.00*	0.00	3.57	3.57 *100.00*			
Tourism events	No	1	3	2	0	5	3	1.22	0.48	0.34
	%	11,11	4,62	3.08 *66.67*	0.00	7.69	4.62 *60.00*			
TOTAL	No	3	12	5	5	12	7	1.02 1.08*	1.04 1.05	0.77
	%	7.50	11.01	4.59 *4.67*	12.50	11.01	6.42 *58.33*			

NOTE: WS – website (% - the percentage out of the website number); AE – account existence (% - the percentage out of the tourist factor numbers within the category); AU – account use (% - the percentage out of the tourist factors within the category; percentage of account existence numbers within a category); * - *Facebook* pages and profiles; *** - the average refers to all four social networks.

Source: the authors' research

Considering the sample as a whole, on the basis of the tables 3 and 4 it is obvious that there is only *Facebook* link on most websites (62.50%, i. e. 67.50% of websites). *Facebook* has the maximum utilization (84.62%), followed by *Instagram* (75.68%), *YouTube* (58.33%) and *Twitter* (6.42%).

Table 5 provides the overview for the number of factors per category without an account on any of the social networks, with an account on one, two or all four social networks, as well as the number of social networks currently used (in 2019).

Table 5: Number of the social networks with an account and the number of the social networks in use

			SOCIAL NETWORKS NUMBER				
			None	One	Two	Three	Four
Local tourism organizations	Account existence	No.	0	0	0	0	4
		%	0.00	0.00	0.00	0.00	100.00
	Account use	No	0	0	1	2	1
		%	0.00	0.00	25.00	50.00	25.00
Hotels	Account existence	no.	1	1	8	2	0
		%	8.33	8.33	66.67	16.67	0.00
	Account use	no.	1	4	6	1	0
		%	8.33	33.33	50.00	8.33	0.00
Travel agencies	Account existence	no.	4	8	14	2	0
		%	14.29	28.57	50.00	7.14	0.00
	Account use	no.	7	11	10	0	0
		%	25.00	39.29	35.71	0.00	0.00

			SOCIAL NETWORKS NUMBER				
			None	One	Two	Three	Four
Tourism events	Account existence	no.	48	8	6	1	2
		%	73.85	12.31	9.23	1.54	3.08
	Account use	no.	53	5	5	1	1
		%	81.54	7.69	7.69	1.54	1.54
TOTAL	Account existence	no.	53	17	28	5	6
		%	48.62	15.60	25.69	4.59	5.50
	Account use	no.	61	20	22	4	2
		%	55.96	18.35	20.18	3.67	1.83
NOTE: No. and % stand for the number and percentage of factors in tourism.							

Source: the authors' research

Number of followers can be singled out as a common element for all four social networks. Table 6 provides an overview for the number of followers in the social network accounts used in the period of the analysis in 2019, average number of followers per account in use, as well as maximum number of followers per individual account.

Table 6: The followers in the accounts used on social networks

		Local tourism organizations	Hotels	Travel agencies	Tourism events	Total*
Facebook	Number	12039	87457	22142	24422	146060
	Average	3009.75	9717.44	1165.37	2035.17	3319.55
	Maximum	4937	74943	4273	5215	74943
	Minimum	747	479	55	186	55
Instagram	Number	4592	6150	10947	2502	24191
	Average	1148	768.75	995.18	500.4	863.96
	Maximum	2641	2964	5528	1115	5528
	Minimum	497	27	56	64	27
Twitter	Number	48	109	-	247	404
	Average	24	109	-	123.5	80.8
	Maximum	42	109	-	153	153
	Minimum	6	109	-	94	6
YouTube	Number	221	76	9	92	398
	Average	110.5	76	9	30.67	56.86
	Maximum	220	76	9	84	220
	Minimum	1	76	9	0	0
total**	Number	16900	93792	33098	27263	171053
	Average	1408.33	4936.42	1067.68	1239.23	2036.35
	Maximum	4937	74943	5528	5215	74943
	Minimum	1	27	9	0	0
NOTE: Total* - cumulative consideration of all used accounts per social network (*Facebook*, *Instagram*, *Twitter*, *YouTube*); Total** - cumulative consideration of all used accounts per type of factors analyzed (local tourism organizations, hotels, travel agencies, tourism events).						

Source: the authors' research

Total number of accounts used on social networks is 84, whereas the total number of followers in all accounts is 171053; therefore, the average number of followers per account is 2036.35. Maximum number is 74943, while the minimum number is 0.

Facebook takes the first place when we speak of the number of followers, average number of followers, the largest maximum number of followers and the largest minimum number of followers in accounts in all four categories of the analyzed factors of tourism and the whole set (with the exception of the largest maximum and minimum number in travel agencies – *Instagram*). The comparison among the four categories of the tourist factors analyzed (the criteria referring to the number of followers) allows for an observation that the hotels take the first place according to all the criteria.

Table 7 provides an overview of the number and percentage for the factors in the sample that have/use: a) only social networks, b) only website, c) all four social networks and website, d) use neither one of the social networks from the analysis nor website.

Table 7: Website and social networks existence and use

			Only social networks	Only website	All social networks and website	Neither social networks nor website
Local tourism organizations	Account existence	No.	0	0	4	0
		%	0.00	0.00	100.00	0.00
	Account use	No.	0	0	1	0
		%	0,00	0.00	25.00	0.00
Hotels	Account existence	No.	2	1	0	0
		%	16.67	8.33	0.00	0.00
	Account use	No.	2	1	0	0
		%	16.67	8.33	0.00	0.00
Travel agencies	Account existence	No.	10	4	0	1
		%	35.71	14.29	0.00	3.57
	Account use	No.	8	5	0	3
		%	28.57	17.86	0.00	10.71
Tourism events	Account existence	No.	9	1	2	47
		%	13.85	1.54	3.08	72.31
	Account use	No.	4	1	1	52
		%	6.15	1.54	1.54	80.00
TOTAL	Account existence	No.	21	6	6	48
		%	19.27	5.50	5.50	44.04
	Account use	No.	14	7	2	55
		%	12.84	6.42	1.83	50.46
NOTE: Number and % refer to the number and percentage of tourist factors.						

Source: the authors' research

Table 8 provides a comparative overview of social networks and website usage by the local tourism organizations, hotels, travel agencies and tourism events in the Moravica administrative district.

Table 8 Comparative overview of social networks and website use

		Website	*Facebook*	*Instagram*	*Twitter*	*YouTube*
Local tourism organizations	no.	4	4	4	2	2
	%	100.00	100.00	100.00	50.00	50.00
Hotels	no.	10	9	8	1	1
	%	83.33	75.00	66.67	8.33	8.33

Travel agencies	no.	17	19	11	0	1
	%	60.71	67.86	39.29	0.00	3.57
Tourism events	no.	9	12	5	2	3
	%	13.85	18.46	7.69	3.08	4.62
TOTAL	no.	40	44	28	5	7
	%	36.7	40.37	25.69	4.59	6.42
NOTE: Number and % refer to the number and percentage of factors in tourism.						

Source: the authors' research

On the basis of the table above, we can reach the following conclusion: in the total number of the analyzed factors, as well as in three out of four categories (with the exception of the hotels), *Facebook* has the best position according to use, followed by websites (with the exception of hotels – the first place), *Instagram*, *YouTube* and *Twitter* (*Twitter* shares the third place with *YouTube* in hotel accounts, while travel agencies do not use it).

Conclusion

Online promotional activities are an important potential in tourism development as a whole, as well as all its factors. Accordingly, this paper provides an overview of online promotional activities in the Moravica administrative district as a tourism destination through the conducted analysis. The results show that all the local tourism organizations use website, *Facebook* and *Instagram*, while a half of them use *Twitter* and *YouTube*. Most of the hotels use website (83.33%), *Facebook* (75.00%) and *Instagram* (66.67%). Most of the travel agencies use *Facebook* (67.86%) and website (60.71%), while none of the travel agencies uses *Twitter*. Only tourism events mostly (80%) use neither websites nor social networks. On the basis of all the information, we can draw a conclusion that the hypotheses H1, H2 and H3 have been accepted, while H4 has been rejected.

The contribution of this paper consists in the fact that it provides an overview of the current situation in online promotion in the Moravica administrative district as a tourism destination (not researched extensively so far), mainly through the analysis of significant factors of tourism in this area. All local tourism organizations have been included, all hotels, all travel agencies and tourism events highlighted as the important ones by the local tourism organizations. The results provide the foundation for potential improvement in the Moravica administrative district online promotion as a tourism destination.

Potential deficiencies of the research lie in the fact that it could have included other significant factors in tourism (e. g. other classified and unclassified accommodation facilities according to categories, facilities in the restaurant business, other events that can be considered as tourism events not highlighted by the local tourism organizations, etc), as well as a detailed website and social network use analysis. All the above stated may present directions for possible future research.

References

Abou-Shouk, M. A., & Khalifa, G. S. (2017). The influence of website quality dimensions on e-purchasing behaviour and e-loyalty: a comparative study of Egyptian travel agents and hotels. *Journal of Travel & Tourism Marketing*, *34*(5), 608-623. https://doi.org/10.1080/10548408.2016.1209151

Akincilar, A., & Dagdeviren, M. (2014). A hybrid multi-criteria decision making model to evaluate hotel websites. *International Journal of Hospitality Management*, *36*, 263-271. https://doi.org/10.1016/j.ijhm.2013.10.002

Cooper, C., Gletcher, J., Gilbert, D., Fyll, A., Wanhill, S. (2008). Tourism: Principles and Practice. England: Pearson Education Limited**.**

Dorra, K., & Hassen, P. M. (2015). Importance and effects of the color on attitudinal reactions of the user: the case of a website on Tunisian travel agency. *IOSR Journal of Business and Management (IOSR-JBM)*, *17*(3), Ver III (March 2015), 01-04. DOI: 10.9790/487X-17330104

Đokić, I. (2016). Planning of Integrated Marketing Communication as Part of a Strategic Marketing Plan. *Anali Ekonomskog fakulteta u Subotici*, (36), 79-93. (In Serbian: Đokić, I. (2016). Planiranje integrisanog marketing komuniciranja kao deo strategijskog plana marketinga. *Anali Ekonomskog fakulteta u Subotici*, (36), 79-93.).

Garabinović, D. (2017). The examples of good entrepreneurial marketing practice in the area of tourism in Dragacevo. In *Paper proceedings of 10th International Conference Science and higher education in function of sustainable development* (pp. 7-1 – 7-8). Mokra Gora, Užice: Business and Technical College of Applied Sciences. Retrieved from http://www.vpts.edu.rs/sed17/CD%20Proceedings%202017/proceedings/7-1.pdf (2nd December 2019)

Garabinović, D. (2019). Online marketing promotion of local tourism organizations: the analysis of the situation in Moravica administrative district. *Hotel and Tourism Management*, *7*(1), 71-81. https://doi.org/10.5937/menhottur1901071G

Garabinović, D., Anđelić, S. (2019). Connection between the number of manifestations and promotional activities of local tourism organizations and hotels on the social network Facebook. *Trendovi u poslovanju*, *2*(14), 23-35. https://doi.org/10.5937/trendpos1902023G (In Serbian: Garabinović, D., Anđelić, S. (2019). Povezanost broja manifestacija sa promotivnim aktivnostima lokalnih turističkih organizacija i hotela na društvenoj mreži Facebook. *Trendovi u poslovanju*, *2*(14), 23-35. https://doi.org/10.5937/trendpos1902023G)

Garabinović, D., Papić, M. (2018). Online marketing of popular tourist manifestations in the Moravica county and its tools. In M. Krstić (Ed.) *Proceedings of the second national scientific-professional conference with international participation "Trends in business 2018"* (pp. 267-280). Kruševac: Higher business school of vocational studies "Prof. dr Radomir Bojković" (In Serbian: Garabinović, D., Papić, M. (2018). Primeri upotrebe online marketinga popularnih turističkih manifestacija Moravičkog okruga. U M. Krstić (Ur.) *Zbornik radova Druga nacionalna naučno-stručna konferencija sa međunarondim učešćem „Trendovi u poslovanju 2018"* (str. 267-280). Kruševac: Visoka poslovna škola strukovnih studija „Prof. dr Radomir Bojković".)

Garabinović, D., Papić, M. (2019). Metrics of social network Internet marketing. In A. Veljović (Ed.) *Proceedings of scientific-professional conference with international participation "Information technologies, education, and entrepreneurship – ITOP 2019"* (pp. 147-154). Čačak: Faculty of Technical Sciences. (In Serbian: Garabinović, D., Papić, M. (2019). Metrike Internet marketinga društvenih mreža, U A. Veljović (Ur.) *Zbornik radova naučno-stručnog skupa sa međunarodnim učešćem „Informacione tehnologije, obrazovanje i preduzetništvo – ITOP 2019"* (str. 147-154). Čačak: Fakultet tehničkih nauka.)

Hung, C. L. (2017). Online positioning through website service quality: A case of star-rated hotels in Taiwan. *Journal of Hospitality and tourism management*, *31*, 181-188. https://doi.org/10.1016/j.jhtm.2016.12.004

Kalinić, Č., & Vujičić, M. (2019). A subnational assessment of hotel social media metrics: The case of Serbia. *Geographica Pannonica*, *23*(2), 87-101. https://doi.org/10.5937/gp23-19968

Kostić, Z. (2018). Innovations and digital transformation as a competition catalyst. *Ekonomika*, 64(1), 13-23. doi:10.5937/ekonomika1801013K

Krstić, B. & Stanišić, T. (2014). Impact of the technological readiness on competitiveness of the Balkan countries. In B. Krstic, B. & F. Darious (Eds.), *Determinants of improving the competitiveness of national economies and enterprises* (pp. 85-102). Niš: Ekonomski fakultet.

Krstić, B., Jovanovic, S. & Stanisic, T. (2014). Central and East European countries' Tourism Competitiveness as a Factor of Their National Competitiveness Level, *Journal of Tourism – Sstudies and Research in Tourism, 18*, 61-68, Retrieved from http://revistadeturism.ro/rdt/article/view/189/191

Ladhari, R., & Michaud, M. (2015). eWOM effects on hotel booking intentions, attitudes, trust, and website perceptions. *International Journal of Hospitality Management*, *46*, 36-45. https://doi.org/10.1016/j.ijhm.2015.01.010

Lei, S., & Law, R. (2019). Functionality evaluation of mobile hotel websites in the m-commerce era. *Journal of Travel & Tourism Marketing*, *36*(6), 665-678. https://doi.org/10.1080/10548408.2019.1624240

Leung, D., Law, R., & Lee, H. A. (2016). A modified model for hotel website functionality evaluation. *Journal of travel & tourism marketing*, *33*(9), 1268-1285. https://doi.org/10.1080/10548408.2015.1117408

Mariani, M. M., Di Felice, M., & Mura, M. (2016). Facebook as a destination marketing tool: Evidence from Italian regional Destination Management Organizations. *Tourism management*, *54*, 321-343. https://doi.org/10.1016/j.tourman.2015.12.008

Mašić, S., & Kosar, N. (2016). Hotels and social media – case study of Serbia. *TISC - Tourism International Scientific Conference Vrnjačka Banja*, *1*(1), 277-295. Retrieved from http://www.tisc.rs/proceedings/index.php/hitmc/article/view/221

Mašić, S., & Milošević, I. (2018). The online presentation analysis of the Serbian hotel offer. *TISC - Tourism International Scientific Conference Vrnjačka Banja*, *3*(1), 113-131. Retrieved from http://www.tisc.rs/proceedings/index.php/hitmc/article/view/6

Milićević, S., Beljić, B. (2018). Social Networks in Function of Promotion of Tourism Destination. In *International Symposium "Experience. Knowledge. Contemporary Challenges - Romania in the Year of the Centenary. The European and global socio-economic Context"* (pp. 637-645) December 13th - 14th, 2018, Bucharest, Romania: ARTIFEX University of Bucharest.

Ministry of Trade, Tourism and Telecommunications, Republic of Serbia (2019, 2nd October 2019). Categorized facilities Serbia – third quarter of 2019 [xls]. (In Serbian: Ministarstvo trgovine, turizma i telekomunikacija, Republika Srbija (2019, 2. oktobar 2019). Kategorisani objekti Srbija – treći kvartal 2019. godina [xls]). Retrieved from https://mtt.gov.rs/download/Категорисани%20објекти%20Србија%20-%20Трећи%20квартал%202019(2).xls (23rd November 2019, 09:29)

Noti, E. (2016). The Websites of National Tourism Organisations – A Challenge of E-Marketing. *ANGLISTICUM. Journal of the Association – Institute for English Language and American Studies*, *2*(3), 230-238.

Ongsakul, V., Ali, F., Wu, C., Duan, Y., Cobanoglu, C., & Ryu, K. (2020). Hotel website quality, performance, telepresence and behavioral intentions. *Tourism Review*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/TR-02-2019-0039

Ostovare, M., & Shahraki, M. R. (2019). Evaluation of hotel websites using the multicriteria analysis of PROMETHEE and GAIA: Evidence from the five-star hotels of Mashhad. *Tourism Management Perspectives*, *30*, 107-116. https://doi.org/10.1016/j.tmp.2019.02.013

Page, S. J. (2009). Tourism management – managing for change. Elsevier.

Papić, M., Garabinović, D., & Blagojević, M. (2018). An overview of online marketing promotion activities in the event tourism of the Moravica district. **Hotel And Tourism Management, 6**(1), 41 - 51. doi:10.5937/menhottur1801041P

Petrović, J., Milićević, S., & Djeri, L. (2017). The information and communications technology as a factor of destination competitiveness in transition countries in European Union. *Tourism Economics*, *23*(6), 1353-1361. https://doi.org/10.1177%2F1354816616653529

Petrović, J., Milićević, S. (2015), ICT as a Factor of Competitiveness of Tourist Destinations in the Case of Western Balkans Countries and the EU. In B. Krstić, Z. Paszek (Eds.) *Competitiveness of Enterprises and National Economies, Thematic Proceedings* (pp. 167-184). Niš: Faculty of Economics – University of Niš.

Podovac, M., & S. Petrović, V. (2019). Role and importance of promotion through social networks on the example of tourist organizations. *TISC - Tourism International Scientific Conference Vrnjačka Banja*, *4*(1), 536-552. Retrieved from http://www.tisc.rs/proceedings/index.php/hitmc/article/view/271

Radivojević, V., Krstić, B., & Stanišić, T. (2018). The role of technological readiness in the global competitiveness of Serbian economy. *Facta Universitatis, Series: Economics and Organization*, *15*(2), 111-123. https://doi.org/10.22190/FUEO1802111R

Salavati, S., & Hashim, N. H. (2015). Website adoption and performance by Iranian hotels. *Tourism Management*, *46*, 367-374. https://doi.org/10.1016/j.tourman.2014.07.017

Serbian Business Registers Agency – Tourism Register, http://pretraga2.apr.gov.rs/PretragaTurističkihAgencija (23rd November 2019.).

Stanujkic, D., Karabasevic, D., & Cipriana, S. (2018). An application of the PIPRECIA and WS PLP methods for evaluating website quality in hotel industry. *Quaestus*, (12), 190-198. Retrieved from http://www.quaestus.ro/en/wp-content/uploads/2012/02/Dragisa-STANUJKIC-Darjan-KARABASEVIC.pdf (25th May 2020, 14:20)

Statistical Office of the Republic of Serbia (2014). Comparative overview of the number of population in 1948, 1953, 1961, 1971, 1981, 1991, 2002 and 2011, Data by settlements. 2011 Census of Population, Households and Dwellings in the Republic of Serbia. Population. Belgrade. Retrieved from http://pod2.stat.gov.rs/ObjavljenePublikacije/Popis2011/Knjiga20.pdf (25th May 2020, 14:15)

Štetić, S., Šimičević, D., & Milićević, S. (2017). Information and communication technology as a driving force of changes in tourism. *Quaestus*, (10), 142-160. Preuzeto sa http://www.quaestus.ro/wp-content/uploads/2012/03/Snežana-ŠTETIĆ-Dario-ŠIMIČEVIĆ.pdf (02.12.2019., 14:59)

Theodhori, O., Shkira, E. (2013). Customer perception towards electronic services on tourist agencies websites in Albania. *International Journal of Management (IJM)*, *4*(5), 153-159. Preuzeto sa http://www.iaeme.com/MasterAdmin/Journal_uploads/IJM/VOLUME_4_ISSUE_5/10120130405018.pdf (02.12.2019., 14:30).

Tourist organization of Čačak, http://turizamcacak.org.rs/turisticka-ponuda/manifestacije/ (23rd November 2019, 10:15)

Tourist organization of Ivanjica, https://ivatourism.org/sr/turisticka-ponuda/sta-raditi/manifestacije.html (23rd November 2019, 10:36).

Tourist organization of Lučani, http://turizamdragacevo.org/category/manifestacije/ (23rd November 2019., 10:27)

Tourist organization of the Municipality of Gornji Milanovac, http://www.togm.org.rs/index.php/sta-raditi/manifestacije (23rd November 2019, 10:30)

Van Winkle, C., Bueddefeld, J., MacKay, K., & Halpenny, E. (2018). Engaging Festival Audiences through Social Media. *ENTER 2018 Conference on Information and Communication Technologies in Tourism*. https://ertr.tamu.edu/files/2018/01/ENTER2018_Submission_62-ok.pdf

Vidaković, M., & Vidaković, D. (2019). Digital media, creativity, and marketing, within the scope of the contemporary instant culture. *Anali Ekonomskog Fakulteta U Subotici*, *55*(41), 131-144. (In Serbian: Vidaković, M. & Vidaković, D. (2019). Digitalni mediji, kreativnost i marketing u okvirima savremene instant kulture, *Anali Ekonomskog fakulteta u Subotici, 55*(41), 131-144.) https://doi.org/10.5937/AnEkSub1941131V, Retrieved from https://anali.ef.uns.ac.rs/index.php/AnnalsEFSU/article/view/20

Virijević Jovanović, S., & Pijevac, V. (2018). The role of digital marketing in Serbian hotel industry. In I. Domazet, M. Radović-Marković & A. Bradić-Martinović (Eds.) *Digital Transformation, New Challenges and Business Opportunities* (pp. 269-289). Silver and Smith Publishers, London, UK.

Yang, C. C., & Chen, C. F. (2012). Market segmentation of website services in travel agencies. *Asia Pacific Management Review*, *17*(3), 233-246.

Yeung, T. A., & Law, R. (2006). Evaluation of usability: A study of hotel web sites in Hong Kong. *Journal of Hospitality & Tourism Research*, *30*(4), 452-473. https://doi.org/10.1177%2F1096348006290115

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THE GLOBAL DISTRIBUTION OF CHINESE INVESTMENTS – IMPORTANCE FOR THE ECONOMY OF SERBIA[4]

Abstract

Before the onset of the global economic crisis (2007), SEE countries generally focused their activities on attracting investment from developed and affluent European countries. The financial crisis has significantly affected the inflow of foreign investment, so that some Southeast European countries have become very attractive destinations for Chinese companies and their investments. This is precisely the period when Chinese companies received a clear signal from their home country to take advantage of the financial crisis that hit European countries, to diversify their investments and increase their market share. Due to lack of investment, Serbia opened its market and received fresh Chinese capital. The aim of this paper is to present the global distribution of Chinese investments, with particular reference to the importance they have for the Serbian economy. In order to get a clearer picture of the current situation, the secondary data for the period 2013-2019 years are used in the analysis, both regionally and globally. Based on the obtained results, it can be concluded that Serbia is currently the largest recipient of Chinese investments in the region, and in the upcoming period, the trend of Chinese investments growth is expected to be continued, which will further contribute to the development of the Serbian economy.

***Key words**: investment, economy, Serbia, China, investors, SEE countries*

***JEL classification:** E22, F21*

ДИСТРИБУЦИЈА КИНЕСКИХ ИНВЕСТИЦИЈА У ГЛОБАЛНИМ РАЗМЕРАМА – ЗНАЧАЈ ЗА ПРИВРЕДУ СРБИЈЕ

Апстракт

Све до појаве глобалне економске кризе (2007) земље југоисточне Европе су углавном усмеравале своје активности ка привлачењу инвестиција из

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развијених и богатијих европских земаља. Финансијска криза је знатно утицала на ток страних инвестиција, тако да су поједине земље југоисточне Европе постале веома атрактивне дестинације за кинеске компаније и њихове инвестиције. Управо је ово период када су кинеске компаније добиле јасан сигнал од матичне државе да искористе финансијску кризу која је погодила европске земље, да диверзификују своја улагања и повећају тржишни удео. Због недостатка инвестиција Србија је отворила своје тржиште и примила свеж кинески капитал. Циљ овог рада јесте да се прикаже дистрибуција кинеских инвестиција у глобалним размерама, са посебним осврtом на значај које оне имају за привреду Србије. Да би се добила јаснија слика тренутног стања у анализи ће се користити секундарни подаци за период 2013-2019. година, на регионалном и глобалном нивоу. Према добијеним резултатима може се закључити да је тренутно Србија земља у региону која прима највише кинеских инвестиција и да се у наредном периоду може очекивати тренд раста страних инвестиција из Кине, што ће још више допринети развоју српске привреде.

Кључне речи: *инвестиције, привреда, Србија, Кина, инвеститори, земље ЈИЕ*

Introduction

Improving macro competitiveness and creating an attractive business environment are basic prerequisites for attracting foreign investment and for the arrival of large multinational companies (Marjanović & Domazet, 2018). A multinational company often sets its long-term strategy by sacrificing its short-term interests (short-term profits) to pursue its long-term interests (approaching new markets). The decisions of multinational companies regarding the choice of investment placement market are of great importance for companies, as well as for the economies of countries that have strategically decided to increase their investment inflow. Given that FDI, with its many advantages such as technology and knowledge transfer, long-term increase in production, employment, exports and living standards, is one of the main determinants of economic growth and development, they are especially important for developing countries and transition economies.

Thanks to the implementation of FDI incentive policies, and partly due to other factors, and partly due to other factors (economic growth, increasing macroeconomic stability, geopolitical factors, cheap labor, etc.), Serbia has become an attractive destination for investors, recording the continued inflow of foreign direct investment. The FDI has been geographically diverse over the last few years, with most inflows coming from the European Union in the long run. However, there is a noticeable trend of increasing involvement of countries outside the European Union (Russia, Turkey, Switzerland), as well as Asian countries, especially China (NBS, 2020).

China has played an increasingly active and significant role in Serbia in recent years. For years, both countries have fostered friendly relations and mutual cooperation at all levels, which is why China is rightly considered the most reliable political and

economic partner today. On the other hand, Serbia has become a key strategic partner of China in the CEE region, especially since the launch of the 16 + 1 multilateral cooperation mechanism under the Belt and Road-BRI initiative, when the relationships between both countries have significantly deepened.

Chinese investment in Serbia is a good opportunity to stimulate economic development and foster future economic cooperation. The Sino-Serbian Strategic Partnership has already contributed to the conclusion of a series of investment agreements related to the implementation of joint projects in the sectors of energy, transport, agriculture and telecommunications. In addition to existing projects, Serbia has recently signed several agreements with China, i.e. memorandums of understanding, on future cooperation in innovation and infrastructure (such as co-operation projects in the construction of the Belgrade subway, the establishment of a joint industrial park, the construction and modernization of railway sections near to the border with Northern Macedonia, etc.).

A considerable part of the realized projects is financed by Chinese loans, which is often criticized. However, what can be considered a positive fact is that FDI has grown over the past few years, and this trend is expected to continue in the coming period.

Taking into account previously mentioned aspects and above all the fact that Chinese companies are increasingly investing capital outside their home country, the aim of this research was to (a) show the distribution and share of Chinese investment in the world, ie by individual regions of the world, (b) show the inflow of Chinese investments in Serbia and compared to selected SEE countries and (c) identify positive effects, as well as potential risks that could be a consequence of the growing inflow of Chinese investments in Serbia.

Based on the defined goals, the basic hypothesis of this paper is that Serbia has become an attractive investment destination for Chinese companies and that it attracts significantly more Chinese investments compared to some other SEE countries.

Literature review

As a form of capital investment, FDI is mainly linked to multinational companies whose primary goal is to own and manage the manufacturing plants they establish outside the home country. By the dislocation of their production systems, multinational companies achieve the most favorable supply of raw materials, energy and labor, and, on the other hand, market their products or services globally in the most profitable way.

In recent decades, foreign investment has become a highly topical issue primarily for international business scholars. It is important to emphasize that foreign investment is one of the key factors of economic development. Therefore, to increase production and exports and thus contribute to the stability of economic growth, it is necessary to attract as much investment as possible (Domazet & Marjanović, 2017). Looking at both the short and long term, GDP growth is directly influenced by FDI, while growth in local infrastructure and local investment provides indirect impact (Luke Chan et al., 2013). By applying appropriate fiscal measures, the state achieves an increase in the volume of investments, promote growth and development of the economy and, consequently, the competitiveness of the country concerned increases (Marjanović, 2018).

Country size as a location advantage and country risk as a disadvantage significantly influence the location selected by a foreign company (Garcia et al., 2013). Given the circumstances that a foreign company faces, the analysis shows that if the market size of a high-risk country is large relative to a low-risk country, the foreign company benefits from choosing a high-risk country, even if the host country imposes a lump-sum tax (Sanjo, 2012). Sun (2012) examined the impact of FDI on domestic exporting companies and concluded that these companies are responding to FDI increases by increasing exports, nevertheless increased foreign presence may increase production costs and make the domestic market more profitable.

The most important aspect of managing the relationship between foreign and domestic private investment is political stability, since the increase in foreign investment has the greatest impact on the decline in private investment, while increasing overall investment (Morrissey & Udomkerdmongkol, 2012). For a country to be attractive to foreign companies, it is necessary to have good results when it comes to four key parameters: economic activity, legal and political system, business environment and infrastructure. Without these positive parameters, it is very difficult for a developing country to be attractive to foreign investors (Groh & Wich, 2012).

Following the end of the financial crisis, particular attention was focused on the direction of foreign investment from developed countries to developing countries. Bayraktar (2013) explored the link between FDI and 'ease of doing' indicators as one of the possible sources of different FDI guidance, concluding that ease of doing business in developing countries may have a partial explanation for identifying larger FDI poured into these countries.

Long-term rapid economic growth and trade surpluses have produced rapid capital accumulation in China, leading to an increase in capital outflows abroad. Due to the global economic crisis, domestic investment is declining in many countries, which has contributed to Chinese investment entering the European market and filling the void (Dudáš & Dudasova, 2016). With the end of the financial crisis and the need for as many foreign investment inflows as possible, the limiting factors that prevent Chinese investors from investing in Europe are gradually disappearing. By then, trade between China and the EU was relatively low, institutional quality was lower compared to the US, there was less experience with respect to Europe and relatively many deals related to State Owned Enterprises (Ebbers & Zhang, 2010). The research has clearly shown that the obstacles to Chinese investment in Europe are disappearing step by step, and in that sense an increasing influx of these investments into European countries is expected in the future. The main motives for Chinese investment in Europe relate to market seeking and strategic asset seeking, such as advanced technologies, managerial knowledge and distribution networks (McCaleb & Szunomár, 2017; Blomkvist & Drogendijk, 2016). Mergers and acquisitions are the main forms of entry for Chinese investment in Europe, and the trend is likely to continue, since Chinese firms tend to target sectors in which European companies have world-class operational, managerial and innovation expertise (Matura, 2017).

Over the past decade, China has become one of the largest suppliers of FDI (Marquez, 2019). The sharp rise in China's investment in European economies can be explained by the coincidence between China's demand for European assets and Europe's supply of funds after the outbreak of the financial crisis (Meunier, 2019). China's economic

presence in Europe is divided into three parts in terms of volume, destination and type of procurement. The major destinations in Europe are Germany, the United Kingdom and France, where major capital investments are made, followed by other European as well as Western Balkan countries. The Western Balkan countries receive less investment than the most developed countries, mainly due to smaller market opportunities, but in no case can they be considered as small amounts because they contribute significantly to the economic development of these countries (Richet, 2019). China has very good bilateral relations with the EU and therefore investing in those countries may provide even better access to Chinese companies in the future (Jia, 2015; Parenti & Chen, 2019).

Hanemann et al. (2019) find that the level of Chinese investment has declined in recent years, mainly due to the political and regulatory response to Chinese capital worldwide. In advanced economies, the question of longstanding national security concerns and growing doubts about the compatibility of the economic system with modern market economies is being raised (Kirkegaard, 2020). The support to sectors which will be the bearers of economic growth in future will be of key significance for sustainable economic development and competitiveness improvement of the each country's economy (Aničić et al., 2019; Đuričin et al., 2017).

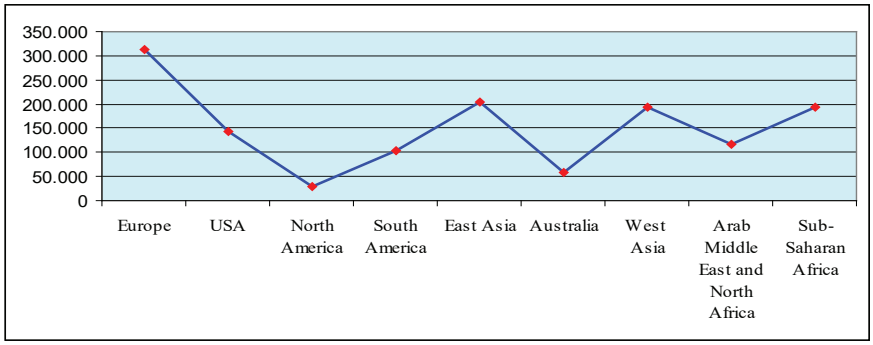
Data analysis and findings

Given that foreign investment has a significant impact on the development of each economy, the aim of the paper is to present the distribution of Chinese investment globally, with particular reference to the inflow of Chinese investment into Serbia. The magnitude of the expansion of Chinese investment around the world will be evident through the representation of nine global regions that were attractive to Chinese companies in the period under review. Subsequently, numerous Southeast European countries were included in the analysis, all with the aim of establishing at the regional level Serbia's position, that is, its competitiveness in terms of foreign investment.

The time period covered by this analysis is from 2013 to 2019. The analysis used secondary data based on official reports from China Global Investment Tracker.

According to the global distribution of Chinese investments in 2013-2019 (Chart 1), the situation is as follows: (1) Europe – $312.750 million, (2) US - $142.560 million, (3) North America – $29.940 million, (4) South America - $104.550 million, (5) East Asia - $204.860 million, (6) Australia - $58.890 million, (7) West Asia - $192.730 million, (8) Arab Middle East and North Africa – $115.840 million and (9) Sub-Saharan Africa – $193.270 million. Over the observed period, the largest amount of Chinese investment went to European countries, which clearly indicates that these countries have become increasingly attractive investment destinations for Chinese investors.

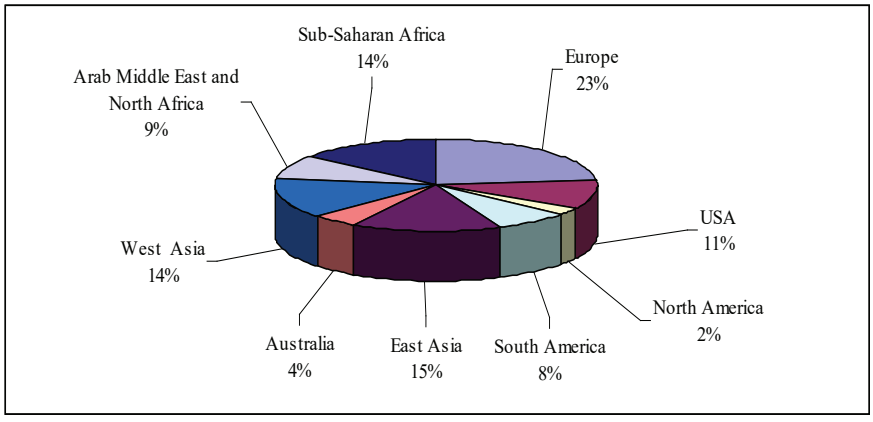
Chart 1. Total Chinese investments by regions, 2013 – 2019 (millions of dollars)



Source: authors, based on the China Global Investment Tracker data

From a global point of view, Chart 2 shows the worldwide distribution of Chinese investments, i.e. by individual world regions. Almost a quarter of all investments in the observed period went to Europe (23%), which is significantly higher than in other world regions observed.

Chart 2. Share of Chinese investments by regions, 2013-2019 (%)



Source: authors, based on the China Global Investment Tracker data

While investing in Europe, Chinese companies have focused mainly on the following sectors: Transport ($63.220 million), Agriculture ($54.580 million), Finance ($31.9 million), Energy ($31.390 million), Technology ($26.130 million), Entertainment ($23.940 million), Real estate ($22.540 million), Logistic ($18.690 million), while in other sectors (Chemicals, Health, Metals, Tourism and Utilities) this amount was significantly lower.

As can be seen from Table 1, Chinese companies have invested significant funds in Serbia in the past seven years. The largest amount of investments and construction contracts, over $6 billion, was indicated in 2017 and 2018. During this period Serbia has opened its economy wide to capital inflows, including the capital investment from China.

Table 1. Chinese investments in Serbia (millions of dollars)

Sector	2013	2014	2015	2016	2017	2018	2019	Total
Energy	-	970	-	230	1.160	140	-	2.500
Metals	-	-	-	120	120	1.260	380	1.880
Technology	-	-	-	170	-	-	-	170
Transport	1.180	-	-	450	870	2.080	-	4.580
Utilities	-	-	-	-	310	-	-	310
Other	-	-	-	-	-	260	-	260
Total	1.180	970	-	970	2.460	3.740	380	9.700

Source: authors, based on the China Global Investment Tracker data

In the period 2013-2019, most of the Chinese investments were attracted by the following sectors: (a) transportation (the largest amount of funds was directed towards the automotive industry and renewal of transport and road infrastructure (road and rail transport)), (b) metals (Chinese investors focused on companies operating in Serbia, mainly engaged in the production of coal, copper and steel) and (c) energy (Chinese investors were interested in the gas industry as well as alternative energy sources). This is not surprising given that China intends to implement the projects through the Belt and Road Initiative. This global project is estimated at around €113 billion and offers new development opportunities for all countries along its route. Due to different factors (geographic position, good political and economic relations etc.), Serbia has become one of the most important countries in the region of SEE countries, which is why China actively supports further investment through current as well as announced projects. In the previous period (Table 1), Chinese investments have reached approximately $10 billion (investments and construction contracts), with a tendency to increase in the upcoming period.

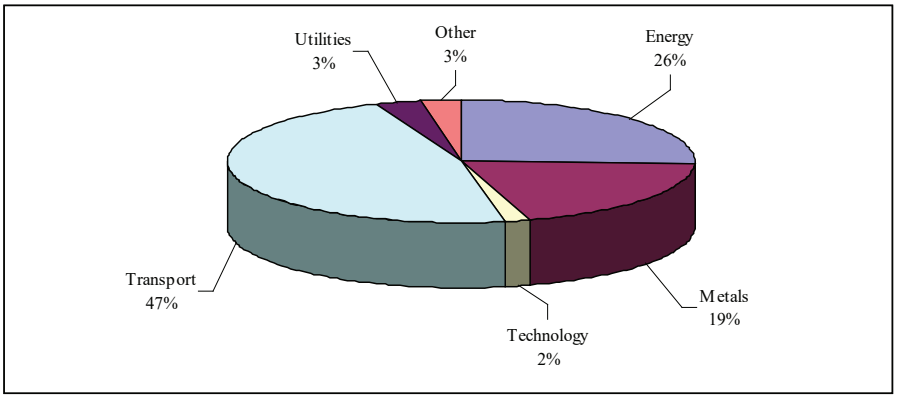
In the observed period, Chinese companies have invested over $3 billion in transportation infrastructure (construction of highways and railways), construction of bridges, as well as energy and other infrastructure facilities. Transport infrastructure projects, which are in different stages of implementation, are aligned with this global project. The renovation of the railway infrastructure, primarily the modernization and reconstruction of the railway line Belgrade-Budapest, is one of the larger projects that should contribute to a better connection of Central Europe with the port of Piraeus. It will have multiple significance for Serbia, which will be reflected primarily in increased revenues from the transport of goods through its rail network. Besides, the large investment projects important for Serbia, like construction of the Zemun-Borca bridge, construction of the highway through Serbia (Corridor 11) etc., should be mentioned, because they probably could not have been realized without Chinese investments.

Chinese companies have a direct influence on the development of the Serbian economy, which is also reflected in strategic partnerships and investment in companies of great importance with Serbia (RTB Bor, Zelezara Smederevo). The significant investments were also directed to the Central Banat District (Zrenjanin) and the construction of a tire manufacturing plant (Shandong Linglong Tire). Concerning the energy sector, Chinese investments are directed towards the Kostolac thermal power plant, where a large power plant is being built. The significance of Serbia for China is

also evident from the opening of China Bank in Belgrade, which is the fourth largest bank in the world in terms of total assets.

Total Chinese investments inflows in Serbia in 2013-2019. by sectors, expressed in terms of percentage, can be seen in the chart below.

Chart 3. Total share of the Chinese investment inflows in Serbia by sectors, 2013-2019 (%)



Source: authors, based on the China Global Investment Tracker data

As much as 47% of the total amount of all investments, is directed to the sector of transport, which is not surprising considering all the capital projects have been completed or started during this period. Also, the funds are directed to the sector of energy (26%) and metals (19%), while the amount of investments in other sectors is much smaller.

When comparing the inflow of Chinese investments into Serbia and other SEE countries from 2013 to 2019 (Table 2), it is obvious that other countries are lagging far behind Serbia in this segment.

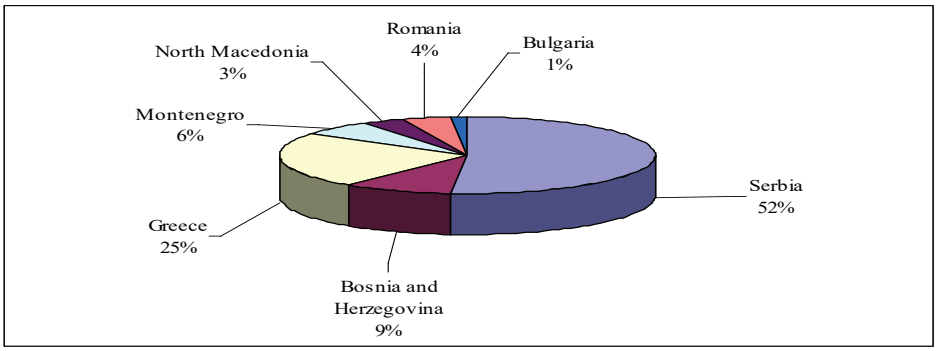
Table 2. Total Chinese investments inflows in SEE countries, 2013-2019 (millions of dollars)

Sector	Serbia	Bosnia and Herzegovina	Greece	Montenegro	North Macedonia	Romania	Bulgaria
Energy	2.500	1.050	2.310	100	-	810	-
Metals	1.880	-	340	-	-	-	-
Technology	170	-	560	-	-	-	-
Transport	4.580	740	1.290	1.120	490	-	250
Utilities	310	-	-	-	-	-	-
Other	260	-	-	-	160	-	-
Total	9.700	1.790	4.500	1.220	650	810	250

Source: authors, based on the China Global Investment Tracker data

In the observed period, significantly more Chinese investments were made in Serbia than in SEE countries. Namely, the next country in terms of investment inflows from China was Greece with $4.5 billion. It was followed by Bosnia and Herzegovina ($1.8 billion) and Montenegro ($1.2 billion), while other countries individually attracted less than $1 billion.

Chart 4. Share of total Chinese investments inflows into SEE countries, 2013-2019 (%)



Source: authors, based on the China Global Investment Tracker data

Expressed in a percentage (Chart 4), as much as 52% of the total amount of investments from China ended up in Serbia, 25% went to Greece, while all other countries have a significantly smaller share. This implicates that Serbia is a very attractive investment destination for Chinese companies, both because of its geographical location and favourable conditions and benefits granted to foreign investors. Therefore, it can be concluded that Serbia, due to its highly competitive position, became the leader in the region when it comes to attracting Chinese investments.

Discussion

Since the development of each economy is, to some extent, has been influenced by high technology and knowledge, Chinese companies are seeking to divert their potentials to the European market. Willingness to invest in European companies (compared to US companies) is also reflected in relatively easier access to the market and the acquisition of businesses.

In recent years, Serbia has paid attention to approving wide range of financial and tax incentives for foreign investors, especially when it comes to job creation. This is one of the segments that has favored Chinese companies to invest in Serbia. With the increasing growth of investments aimed at opening up new manufacturing facilities, there has been a decrease in the unemployment rate, which has also contributed to poverty reduction of a proportion of the population at risk of poverty. Growth in average gross earnings was also noticeable in the sectors where most investments were made. Also, it can be concluded that the investments had a positive effect both on the increase in production and on the growth of exports. One fact that should not be overlooked is that Chinese investment companies have brought technology and knowledge transfer as well as new management methods, which is very important for the advancement of the Serbian economy. Therefore, the growth of investments in Serbia in the observed period (2013-2019) had a positive effect on the overall economic and social development of the country.

In addition to all the benefits that can contribute to economic development, there are certainly some risks for Serbia when it comes to Chinese investment. One of the most important potential risks is the fact that a large part of Chinese investment are

loans. The rise in borrowing and the consequent increase in public debt may disrupt the country's macroeconomic stability. This problem, dubbed "debt diplomacy" (refers to China's policy of "trapping" countries through money lending by financing infrastructure projects, which makes them open to Chinese influence), has already been widely debated in the professional public.

One of the risks can be the crowding out effect, which occurs in a situation where financially and technologically powerful investors are pushing domestic companies out of the market, which leads to market monopoly. In this case, Chinese companies can dictate their conditions, making a big profit at the same time. The negative effect may be the danger of over-exploitation of domestic resources, the outflow of part of domestic accumulation through the transfer of profits and interest abroad, the irrational distribution of domestic accumulation under the influence of Chinese capital, increasing technological dependence, the possibility of dismissal of workers and increasing unemployment, and threatening national sovereignty. If a Chinese company has a significant participation in the Serbian market, there is a possibility of a more pronounced outflow of capital, which is most often manifested in times of economic crises. One of the risks for Serbia may also be the creation of unfair competition, which occurs in a situation where investors have the capital, skills and technology and domestic companies are not able to follow this trend.

Investing in certain favored sectors and industries can also be considered as a limiting factor. Much of the investments have so far gone primarily into infrastructure, industry and the energy sector, which may have reduced the opportunity for Chinese investments to contribute far more extensively to acceleration of the economic growth and development of Serbia's economy. Also, it is necessary to take into account the time, as well as the ways of financing and realization of these investments because when it comes to Chinese investments particularly, it is often talked about the total numbers, while the ways are not mentioned at all. In practice, it often happens that the announced amount of invested money is being "extended" for several years, while, for instance, Chinese materials, Chinese labor, etc. are used in the process of the construction of infrastructure facilities.

Speaking of risks, one should bear in mind the possible complications of Serbia's EU integration process. Namely, when it comes to Chinese investments, Serbia is often criticized for not adhering to procurement standards and a non-transparent approach to concluding and implementing certain Chinese projects. In this way, there is a breach of the obligation to align domestic legislation with EU regulation, which can be a serious obstacle if the decision to join Serbia to the European Union will be finally on the agenda.

Last but not least, the potential adverse effects of Chinese investment may include environmental problems, which may arise if investors do not comply with environmental regulations or if environmental requirements are due to the lack of transparency and speed of contracting (without proper analysis and assessment of possible adverse impacts on the environment) were not covered by the contracts at all.

Conclusion

The extent and intensity of the distribution of global foreign investments depend, first of all, on the situation in the world economy. For investors are then crucial several factors, like, for instance, the standard of treatment and protection they can get in a

particular country, the relatively cheap labor force, the availability of raw materials, and the size of the market itself. In order to create optimal conditions that will contribute to attracting foreign investment, it is extremely important policymakers in Serbia to focus on providing an even better investment climate for Chinese investors. Since most countries have liberalized the regulations that determine the framework for foreign investments, accomplishing the aim of maximizing their competitiveness and thus increasing the inflow of foreign capital, Serbia should also follow this direction (Domazet & Marjanović, 2018).

The inflow of investments from China is very important for Serbia because it contributes to the development of the Serbian economy, the economic stability of the country, but also to the strengthening and maturation of the business environment. Furthermore, advanced technological knowledge and skills, as well as managerial and management techniques, are brought in by new investments, too. All the above mentioned, in addition to the stimulating economic development, at the same time places Serbia at the leading position in the region in terms of economic growth and progress. With the approval of even more favorable conditions followed by well-managed economic policy, it can be expected that more and more Chinese investors will choose Serbia for the placement of their capital in the upcoming period. Therefore, the hypothesis can be confirmed that Serbia is a very attractive investment destination for Chinese companies and that in the previous period it attracted significantly more Chinese investments compared to some other SEE countries (according to the China Global Investment Tracker statistics).

In the forthcoming period, the strategic goal of the Government of the Republic of Serbia should be the encouragement and implementation of investment projects that entail job creation and improve the economic environment. In this regard, the continuation of intensive and fruitful cooperation with China would be of great importance.

References

Aničić, J., Aničić, D., & Kvrgić, G. (2019). Sustainable growth and regional competitiveness of Serbian Economy. *Ekonomika*, 65(2), 65-74.

Bayraktar, N. (2013). Foreign Direct investment and Investment Climate. *Procedia Economics and Finance*, 5, 83 – 92.

Blomkvist, K., & Drogendijk, R. (2016). Chinese outward foreign direct investments in Europe. *European Journal of International Management*, 10(3), 343-358.

Domazet, I., & Marjanović, D. (2018). FDI as a Factor of Improving the Competitiveness of Developing Countries: FDI and Competitiveness. In V. Malepati & C. Mangala (Eds.), Foreign Direct Investments (FDIs) and Opportunities for Developing Economies in the World Market (pp. 82-104). Hershey, PA: Business Science Reference.

Domazet, I., & Marjanović, D. (2017). Tax incentives as a factor of economic growth, In M. Malović & K. Roy (Eds.), The State and the Market in Economic Development (pp. 93-107). Brisbane, Australia: The International Institute for Development Studies.

Dudáš, T., & Dudasova, M. (2016). Growth of Chinese investments in Europe after the global economic crisis of 2008-2009. *Economic Annals*, 160 (7-8), 9-13.

Đuričin, S., Stevanović, S., & Baranenko, E. (2017). Analiza i ocena konkurentnosti privrede Srbije. Beograd: Institut ekonomskih nauka.

Ebbers, H., & Zhang, J. (2010). Chinese investments in the EU. *Eastern Journal of European Studies*, 1(2), 187-206.

Garcia, F., Jin, B., & Salomon, R. (2013). Does inward foreign direct investment improve the innovative performance of local firms?. *Research Policy*, 42, 231–244.

Groh, A.P., & Wich, M. (2012). Emerging economies' attraction of foreign direct investment. *Emerging Markets Review*, 13, 210–229.

Hanemann, T., Houtari, M., & Kratz, A. (2019). Chinese FDI in Europe: 2018 Trends and Impact of New Screening Policies. Rhodium Group and the Mercator Institute for China Studies, 7-21.

Jia, X. (2015). Chinese ODI in Europe: Trends and Implications for the EU. EU-Asia Centre.

Kirkegaard, J.F. (2020). Chines Investment in the US and the EU is Declining-for Similar Reasons. *China & World Economy*, 28(2), 59-83.

Luke Chan, M.W., Hou, K., Li, X., & Mountain D.C. (2013). Foreign direct investment and its determinants: A regional panelcausality analysis. *The Quarterly Review of Economics and Finance*. 54(4), 579-589.

McCaleb, A., & Szunomár, Á. (2017). Chinese foreign direct investment in Central and Eastern Europe, In J. Drahokoupil (Eds.), Chinese investment in Europe: corporate strategies and labour relations (pp. 121-140). European Trade Union Institute.

Marjanović, D. (2018). Competitiveness of the Serbian Economy Through the Prism of Tax Incentives for Foreign Investors. *Economic Analysis*, 51 (3/4), 95-104.

Marjanović, D., & Domazet, I. (2018). Unapređenje makro konkurentnosti – fiskalni aspekti. Beograd: Institut ekonomskih nauka.

Marquez, F.B. (2019). The presence of Chinese businesses in the world. *Journal of Evolutionary Studies in Business*, 4(2), 1-12.

Matura, T. (2017). Chinese Investment in the EU and Central and Eastern Europe. In C. Moldicz (Eds.), China's Attraction: The Case of Central Europe (pp. 49-71). Budapest, Hungary: Budapest Business School, University of Applied Sciences.

Meunier, S. (2019). Chinese direct investment in Europe: Economic opportunities and political challenges (Chapter 6). In K. Zeng (Eds.), Handbook on the International Political Economy of China (pp. 98-112). Cheltenham, UK: Edward Elgar Publishing.

Morrissey, O., & Udomkerdmongkol, M. (2012). Governance, Private Investment and Foreign Direct Investment in Developing Countries. *World Development*, 40 (3), 437–445.

NBS (2020). Makroekonomska kretanja u Srbiji (jun 2020). Available at: https://www.nbs.rs/internet/latinica/18/18_3/prezentacija_invest.pdf

Parenti, M.F., & Chen, S. (2019). EU-China Relations in the Framework of the BRIA Critical Analysis of EU Regulations on Trade and Investments. *The journal of economic sciences: theory and practice*, 76(1), 4-19.

Richet, X. (2019). Geographical and Strategic Factors in Chinese Foreign Direct Investment in Europe. *Asian Economic Papers*, 18(2), 102-119.

Sanjo, Y. (2012). Country risk, country size, and tax competition for foreign direct investment. *International Review of Economics and Finance*, 21, 292–301

Sun, S. (2012). The role of FDI in domestic exporting: Evidence from China. *Journal of Asian Economics*, 23(4), 434–441.

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CALCULATION OF TRANSFER PRICES: THEORETICAL AND PRACTICAL IMPLICATIONS ON THE RESULT

Abstract

With the increase in the volume of international exchange and the globalization of multinational companies, problems of transfer pricing control in transactions between affiliates and their alignment with the "arm's length" pricing principle are growing. A proper calculation of transfer pricing affects the amount of taxable income and provides a basis for checking whether in this way profit is "extracted" to other tax jurisdictions. The international transfer pricing guidelines have recommended several methods for calculating transfer prices, depending on the circumstances of the case, including several recommended parameters relevant to the calculation. Also, if the Cost Plus Margin method and Transactional Net Margin (TNM) method can be applied in an equally reliable manner, the recommendation is Cost Plus Margin. Many countries have accepted the international guidelines and incorporated them into their national regulations. However, in the absence of a serious analysis of the effects in practice, the possibility of deviations in the calculation of results was also accepted. If these results are ultimately the amount of tax paid or not paid in a country, then it is understandable why these deviations deserve special attention. The main hypothesis in this paper is that when both methods are applicable, the Cost Plus Margin method should not always be favored, as effects that should be prevented may occur. Due to the circumstances of the case, a proper calculation can be very debatable if certain parameters change a minimum. The paper discusses deviations of the transfer price from the "arm's length" principle when both methods are equally acceptable, and with minimum changes to two parameters: the size of the sample of comparable companies and the observation period. All this has been tested on the example of a multinational company from one of the developed countries in Europe, which has a related entity in one of Europe's developing countries. The tested party is a related entity as a developing country taxpayer. In the implication generally there are many problems and dilemmas that need to be overcome in the relationships between the party calculating the transfer prices, the companies themselves, and the tax administrations. It is very significant from which aspect the calculation is managed. If the aspect of the company is favored, then the best option is the one where the company will pay the lowest tax. However, if the tax administration is already authorized to request a change in the calculation, then it will work in the interest of the state, and the most unfavorable option for the corporation may be obtained by changing some of the parameters used. Both would be formally acceptable, but the tax amount would not be the same. Possible scenarios in the test case showed

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that internationally recognized recommendations regarding method selection have weaknesses because they do not include all the parameters of the methodology, which significantly affects the end result. In a situation where the observation timeframe is flexible and no minimum sample size of comparable companies is defined, there is practically space to manipulate the final result. In order to avoid ambiguity and various forms of manipulation in the transfer pricing calculation, it is necessary to further specify international guidelines for the development of transfer pricing in the domain of time and size of the sample. Additionally, the taxpayer's obligation to apply transfer price calculations should be introduced for all methods that respond to the circumstances of their case, and not just one of them. This generally can be overcome either by changing the guidelines or by defining rules in greater detail at the level of the depends on multiple parameters, both those defined in theory and those that are not national legislation of each state, whilst improving the professional capacity of the tax administration to control transfer pricing.

Purpose – The importance of properly calculating transfer pricing is emphasized, which depends on multiple parameters, both those defined in theory and those that are not, but should be. International guidelines recommend several methods for calculating transfer pricing, and which one should be given priority if two of them are equally acceptable? If they are TNM and Cost Plus, the latter takes precedence. The purpose of the paper is to show that in practice this may not be the case, which is the basic hypothesis on which it is based.

Research design/method/approach – The paper first considers the existing international methodology for calculating transfer prices and then the issue of calculation in practice in the case of minimal deviation of two significant components of comparability: sample size and time dimension of parameters. All this will be tested on the example of a multinational company from one of the developed European countries, which has a related party in one of the developing countries in Europe. The test party is a related entity of a taxpayer in a developing country. Several calculation scenarios are given for case of the aforementioned changes, which give different tax amounts. If a developing country accepts (by including in national regulations) an international recommendation on the advantage of the Cost Plus method, it will have accepted that in practice it will in some cases charge a smaller tax.

Findings – The hypothesis was confirmed that the Cost Plus method should not always take precedence over the TNM method. A more detailed analysis of the different scenarios for the particular circumstances of the case gives wider opportunities to properly determine the basis for taxation but also to prevent the country's tax losses. An argument is also given for defining national regulations in more detail to avoid unwanted occurrences.

Practical implication – It is necessary to amend international guidelines and national tax regulations, as well as to increase the professional capacity of the tax administration in this area. This will increase the control of transfer pricing, as well as the "extraction" of profits from the country to other tax jurisdictions

Originality/Value – Theory and practice need to be more connected. Practical examples show that some changes need to be made in this area to more effectively

prevent tax evasion. There are many objections to the existing concept of transfer pricing in literature, but no similar practical examples and studies are available to confirm deviations in the calculation as outlined in this paper.

Key words: *Transfer prices, arm's length principle, transactional net margin method, cost plus gross margin method, taxable income.*

JEL classification: K34, H26, O19, F61

ОБРАЧУН ТРАНСФЕРНИХ ЦЕНА – ТЕОРИЈСКЕ И ПРАКТИЧНЕ ИМПЛИКАЦИЈЕ НА РЕЗУЛТАТ

Апстракт

Са повећањем обима међународне размене и глобализацијом мултинационалних компанија, расту проблеми контроле трансферних цена у трансакцијама између повезаних компанија и њихово усклађивање са ценама „ван дохвата руке". Правилан обрачун трансферних цена утиче на износ опорезивог прихода и пружа основу за проверу да ли се профит на овај начин „извлачи" у друге пореске јурисдикције. Међународне смернице за трансферне цене препоручују неколико метода за израчунавање трансферних цена, у зависности од околности случаја, укључујући и неколико препоручених параметара релевантних за израчунавање. Такође, у случајевима када се метод „цена коштања плус маржа" и метод „трансакциона нето маржа" (TNM) могу применити на једнако поуздан начин, препорука је да се примени „цена коштања плус маржа". Многе земље су прихватиле међународне смернице и уградиле их у своје националне прописе. Међутим, у одсуству озбиљне анализе ефеката у пракси, на тај начин су се прихватиле и могућности за појаву девијација у резултатима обрачуна. Ако су ти резултати на крају висина пореза која се плаћа или не плаћа у некој земљи, онда је разумљиво зашто ове девијације заслужују посебну пажњу. Главна хипотеза у овом раду је да када су оба метода примењива, не треба увек давати предност методу „цена коштања плус маржа", јер могу да се појаве ефекти који су желели да се спрече. Управо у зависности од околности случаја, правилно израчунавање може бити веома дискутабилно чак и ако се неки параметри минимално промене. У раду су размотрена одступања трансферне цене од принципа „ван дохвата руке" када су оба метода подједнако прихватљива и уз минималне измене у два параметра: величини узорка упоредивих компанија и периоду посматрања. Све ово тестирано је на примеру мултинационалне компаније из једне од развијених европских земаља, која има повезано лице у једној од европских земаља у развоју. Тестирана страна је повезано лице као порески обвезник земље у развоју. У примени генерално постоји пуно проблема и дилема које треба превазићи у односу између онога који израчунава трансферне цене, самих компанија и пореске управе. Веома је важно с ког аспекта се врши обрачун. Ако се преферира аспект предузећа, тада је најбоља опција она за коју ће компанија платити најнижи порез. Међутим, ако пореска управа већ има право да затражи промену обрачуна, тада ће то радити у интерсу

државе, а најнеповољнија опција за фирму може се добити променом неког од коришћених параметара. И једно и друго би било формално прихватљиво, али висина пореза не би била иста. Могући сценарији у тестном случају показали су да међународно признате препоруке у избору метода имају слабости, јер не укључују све параметре саме методологије који значајно утичу на крајњи резултат. У ситуацији када је временски период посматрања флексибилан и није дефинисана минимална величина узорка упоредивих компанија, практично је отворен простор за манипулацију коначним резултатом. Да би се избегле нејасноће и различити облици манипулације у израчунавању трансферних цена, потребно је даље прецизирати међународне смернице за развој трансферних цена у домену временске димензије и величине узорка. Поред тога, требало би обавезати пореског обвезника да изврши калкулације трансферних цена по свим методама које одговарају околностима његовог случаја, а не само једној од њих. Ово се генерално може превазићи или променом самих смерница или ближим дефинисањем правила на нивоу националног законодавства сваке државе, уз неопходност побољшања професионалне способности пореске управе за контролу трансферних цена.

Сврха – Истакнут је значај правилног обрачуна трансферних цена, који зависи од више параметара, како од оних дефинисаних у теорији, тако и од оних који то нису, а требало би да буду. Међународне смернице препоручују неколико метода за обрачун трансферних цена, као и којој од њих треба дати предност уколико су две од њих подједнако прихватљиве. Уколико су то „TNT" и „Цост плус", предност има „Цост плус". Сврха рада је да покаже да у пракси то не мора да буде тако, што је и основна хипотеза од које се полази.

Дизајн/Методи/Приступ – У раду се најпре разматра расположива међународна методологија за обрачун трансферних цена а затим проблематика обрачуна у пракси у случају минималног одступања две значајне компоненте упоредивости – величине узорка и временске димензије параметара. Све ово ће се тестирати на примеру мултинационалне компаније из једне од развијених европских земаља, која има повезано лице у једној од европских земаља у развоју. Тестирана страна је повезано лице као порески обвезник земље у развоју. Дато је више сценарија обрачуна у случају наведених промена по којима се добијају различити износи пореза. Уколико земља у развоју прихвати (укључивањем у националне прописе) међународну препоруку о предности метода "Цена коштања плус" – у пракси је прихватила да ће у неким случајевима наплатити мањи порез.

Резултати – Потврђена је хипотеза да метод "Цена коштања плус" не треба увек да има предност у односу на метод "TNT". Детаљнијом анализом различитих сценарија за конкретне околности случаја, добијају се шире могућности за правилно одређивање основе за опорезивање али и за спречавање одливања пореза из земље. Такође се добија и аргумент за детаљније дефинисање националних прописа како би се избегле појаве које су желеле да се спрече.

Практичне импликације – Непходно је допунити међународне смернице и националне прописе о опорезивању, као и повећати стручни капацитет пореске администрације у овој области. Тиме ће се повећати и контрола обрачуна трансферних цена, као и "извлачења" профита из земље у друге пореске

јурисдикције.

Оригиналност/Вредност – Теорија и пракса треба да буду више повезане. Практични примери показују да у овој области треба извршити одређене измене како би се ефикасније спречила пореска евазија. У литератури се износи доста замерки на постојећи концепт обрачуна трансферних цена али нема доступних сличних практичних примера и студија који би потврдили одступања у обрачуну, на начин како је изложено у овом раду.

Кључне речи: *Трансферне цене, цене "ван дохвата руке", метод трансакционе нето марже, метод цена коштања плус бруто маржа", опорезиви приход.*

Introduction

At an era of accelerated expansion of the business activities of multinational companies in the markets of many countries, with different tax regulations, the problem that is constantly current is the correct calculation of transfer prices, i.e. the price that is formed in transactions between related parties (Elliot & Emmanuel, 2002). Since taxpayers are required to disclose these transactions in tax balance sheets, this is an area where the possibility of avoiding payment of taxes between different tax jurisdictions is recognized at the international level (Bhata, 2009). Over the years, international rules have sought and perfected (OECD, 2011; UN Guidelines, 2013) principles for adjusting transfer prices, based on the "arm's length" principle.

Many countries have accepted international guidelines and incorporated them into their national regulations. However, in application there are always a number of problems and dilemmas that need to be overcome on the relationship between the one who calculates transfer prices, the companies themselves and the tax administrations. (Timms, 2013; De Robertis, 2018; Durst, 2010; Durst & Culbertson, 2003). This is due to the fact that the amount of taxable income of a company that involves related parties in one or more countries depends on the result of the calculation itself. Accountability issues are further enhanced when an entity is in a developing country (Cooper, Fox, Loeprick & Komal, 2016; Sikka, 2009; Suraj, 2017; Ostwal, 2009; UNCTAD, 2015). All these authors are critics of this concept. In essence, they all agree that because of its complexity, this concept is increasingly subject to manipulation, such as transferring part of the profits to tax jurisdictions with lower taxation rates. Legislation is one way to prevent such abuse (Jovanović, 2018).

In this paper the importance of properly calculating transfer pricing is emphasized. That depends on multiple parameters, both those defined in theory and those that are not, but should be. International guidelines recommend several methods for calculating transfer pricing. Which one should be given priority if two of them are equally acceptable? If they are TNM and Cost Plus, the latter takes precedence. The purpose of the paper is to show that in practice this may not be the case, which is the basic hypothesis on which it is based.

Theoretical backgrounds

In the extensive literature and the aforementioned guidelines, the basic concepts and essence of the concept are clear. The "arm's length" principle is an international standard for the application of transfer pricing rules. When unrelated parties perform transactions, the conditions of their commercial and financial relations are usually the result of the market. All conditions that are in line with market conditions are considered to be in accordance with the "arm's length" principle. The use of the "arm's length" principle is based on the comparison of the conditions in a controlled transaction with the terms of the transaction between unrelated parties. Transactions are comparable if there is no difference between them or if the differences cannot significantly affect the transaction conditions (prices or margins). The aim of this analysis is to find comparable companies, i.e. transactions. A comparable uncontrolled transaction is considered to be a transaction that occurs between two independent parties and that is comparable to the controlled transaction under investigation.

Transactions are comparable when there is a similarity in one or more aspects: the subject of the transaction (e.g. the same or similar raw material is sold to unrelated parties); contractual terms (date of transaction, subject of contract, delivery terms, quantity discounts, rebates), economic or market conditions (comparable transactions take place in a similar market).

Internal or external comparable data can be sources of information for checking transfer prices. In the event that the taxpayer has purchased the same or similar product/service from both related and unrelated persons in similar volumes, markets and conditions, this information can be used for checking transfer prices, as internally comparable data. When an unrelated person buys/sells a product/service in similar quantities, markets, and conditions, this information can be used as an external comparable data. The usual sources of externally comparable data are commercial databases (e.g. Amadeus Buerau Van Dijk, Orbis Buerau Van Dijk, Thomson Reuters).

Transactions with affiliates must be checked using one of the available transfer pricing methods (OECD, 2010). At the international level, taxpayers applying tax planning try to minimize the tax liability of the group by directing most of the taxable income to the state where the effective tax rate is the lowest. At the national level, taxpayers will direct most of the taxable income to the member of the group that has current or transferred tax losses from previous years or the ability to use tax incentives.

An analysis of comparable data and the application of appropriate methods will result in a range of the "arm's length" principle prices. The range is the result of the fact that independent companies do not necessarily have to establish the identical price at which the transaction is concluded. In cases where the range is established, the transfer price is deemed to be no different from the "arm's length" principle price if the transfer price is within that the range. If the transfer price is outside of the range, the "arm's length" principle price is equal to the median of the specified range.

When transfer pricing does not reflect market relations and the "arm's length" principle, there may be distortions regarding the tax liabilities of the related parties and the state's tax revenues. If revenue based on transfer pricing is lower than the income on the basis of market prices, the taxable income increases. If the expense based on transfer pricing is higher than the expenditure on the basis of market prices, the expenditure for tax purposes is reduced.

A number of authors have addressed the lack of precision of international guidelines, some of which have been mentioned here. Also interesting are those who consider international guidelines to be too "soft" to prevent profit from moving out of the country, whether the focus is on calculating specific types of transactions (Li, 2012) or the method of "dividing profits" (Ron, 2012; Kroppen, Dawid & Schmidtke, 2012). Some authors point out the high complexity of the guidelines, as well as the lack of comparable billing data, and suggest introducing some fixed, simpler parameters (Luckhaupt, Overesch, & Schreiber, 2012).

For developing countries, right calculation is of particular importance, and to avoid the shortcomings of the guidelines, it is proposed to innovate and introduce an alternative method: the Apportionment Method (Ostwal, T. 2009; Jaiswal, 2017). This is due to the fact that comparability is a major component of transfer pricing, and parameter comparison is based on statistical instruments subject to variation. Therefore, the timing of the observation of the calculation parameters and the minimum sample size of comparable companies should be defined more precisely (Matavulj, 2019, p. 94).

All of the research mentioned was based on a critique of the guidelines and the need to improve them, due to the global tax redistribution between countries. However, the guidelines have not yet been changed, and developing countries continue to use them as a standard in their tax regulations. Thus, the complexity and imprecision in the calculation of this type of tax is still topical. No other similar studies addressing the hypothesis and calculation parameters set out in this paper were found.

Research Design and Hypothesis

The subject of the research presented in this paper is a concrete test of the application of international guidelines, if the TNM and Cost Plus methods are equally acceptable. The guidelines indicate that in this case, the Cost Plus method should be given priority. However, the guidelines do not state why this method is favored, or for whom - e affiliate or the tax administration.

The main hypothesis in this paper is that the guidelines imprecisely define the calculation parameters, so the Cost Plus method should not always be favored over the TNM method if both methods are equally acceptable. This is important because different tax rates would be obtained depending on the preferred method. Therefore, this assumption will be tested through simulated calculations using both methods, applying minimal variations in the two comparability components: the time dimension of the parameters and the sample size. The testing will be done on the example of a multinational company from one of the developed European countries, which has a related party in one of the developing countries in Europe. The test party is a related entity of a taxpayer of a developing country. Several calculation scenarios are given for case of the mentioned changes, which yield different tax amounts. If a developing country accepts (by including in national regulations) an international recommendation on the benefits of the Cost Plus method - in practice it will have accepted that it will in some cases charge a smaller tax. As a result, it will have also accepted the possibility of "moving profits" to another country, which it wants to avoid.

The structure of the paper follows this research assignment, first presenting the international methodology for calculating transfer prices, and then continuing to test

multiple variants of calculation using the TNM and Cost Plus methods, with a discussion of the obtained results and discrepancies. Finally, recommendations are made to prevent tax evasion, which is particularly important in the case of developing countries.

Methods for transfer pricing

According to international guidelines (OECD, 2010; UN 2013), the method used to check transfer prices generally depends on the circumstances of the case. It is possible to use a combination of several methods when necessary. The choice of method depends on:

- The nature of the transaction (e.g. procurement/sale of goods, business services, leasing, borrowing, consulting services, etc.);
- Availability and reliability of data for analysis;
- Degree of comparability between transactions;
- The appropriateness of using financial data of unrelated parties for analysis;
- The nature and reliability of the assumptions.

Each selected method must be practically applicable and must have a reasonable assessment of the results in accordance with the "arm's length" principle.

The methods used to determine the price of the transaction under the "arm's length" principle are:

- The comparable market price method, which compares the price of a product or service in transactions between related parties with the price of a product or service in transactions between unrelated parties, where transactions are carried out under comparable circumstances.
- The resale price method, which is based on the price at which the product is sold to an unrelated person, which is reduced by a comparable gross margin to determine the "arm's length" price for the same product purchased from a related party.
- The cost method, increased by the usual earnings-costs from transaction costs (sale of goods or services) to which the gross margin is added, depending on the functions being performed, the risks that are being accepted and the property being used.
- The transactional net margin method, entails the comparison of the net profit margins that a taxpayer realizes in transactions with affiliated persons with the net profit margins realized in similar transactions with unrelated entities, or between unrelated entities.
- Profit sharing method, which is used if a specific analysis of transactions between related parties is difficult, i.e. when the activities of related persons are united, as well as in cases of the existence of a valuable or unique intellectual property, when it is impossible to find comparable data that would allow each of them to separately analyze the compliance of their transfer pricing with "arm's length" prices.

Table 1: Comparative presentation of the methods for calculating transfer prices

Comparable Uncontrolled Price Method (CUP)	Resale Price Method	Cost Plus Method	Transaction Net Margin Method (TNM)	Transactional Profit Split Method
Compares prices of controlled and uncontrolled transactions, in comparable circumstances: the similarity of the subject of the transaction, contractual terms, economic and market conditions.	The price at which something is sold to an unrelated entity, after deduction for Gross Margin (GM) GM = (Sales Revenue - Cost of Goods Sold)/ Sales Revenue * 100	The cost price (CP) is equal to the direct costs (e.g. prepayment) and indirect costs (e.g. maintenance) related to the transaction, increased by GM GM = (Sales revenue - CP) / CP * 100	TNM = Net Profit/ Operating Income or Operating Expenses or Business Assets Net Profit = Operating Income - Operating Expenses	Operating profit, excluding the cost of income tax and the financial costs of a controlled transaction, is shared with related parties participating in that transaction. Exceptionally, the total profit can be taken.

Source: Author processing, based on international guidelines OECD (2010) and UN (2013)

Table 1a: A more detailed view of calculation formulas for TNM

ROA – Return rate on assets (usually only tangible assets)	= Operating profit / Operating assets
ROCE – The rate of return on the invested capital (total capital - cash - investments)	= Operating profit / Engaged capital
OM – Operating margin	= Operating profit / Sales revenue
ROTC – Return rate to total costs	= Operating profit / Total costs
Return rate on the cost of selling products sold	= Gross profit / Cost of selling products sold
Berry ratio	= Gross profit / Operating costs

Source: Author processing, based on international guidelines OECD (2010) and UN (2013)

After selecting the method, it is necessary to select the tested side, define a sample of comparable companies and the time period in which the selected indicators are observed. Depending on the method chosen, it is essential to further find the necessary data for calculating the average margin of comparable companies in the external database, then the interquartile range (from the 1st to 3rd quartile) and the median sample, to determine whether the margin of the tested company is within the specified range between the 1st and 3rd quarters, or instead use the median sample for the calculation of the "price out of reach".

Calculation of transfer prices in practice: The application of two methods and the change of comparable parameters

Literature lists a number of dilemmas (OECD, 2010, paragraphs 3.2–3.59) regarding the justification and applicability of selected transfer pricing methods, but until they are verified using for a specific case, the conclusions can be interpreted in different

ways. This is because there are theoretical criticisms of the application of this concept, as previously mentioned. We will test the reliability of transfer pricing when two methods are equally applicable. The treatment of the income to be taxed depends only on the estimate of the one who calculates the transfer pricing of the related entity and the extent of deviation from the comparable parameters.

According to the OECD Secretariat Note on Transfer Pricing Methods (Cooper, Fox, Loeprick & Mohindra, 2016, p. 173), Table 2 lists the most common examples for selecting the appropriate method in practice. In the particular case, further below, the recommendation from the guidelines will be: if the two methods, TNM and Cost Plus, are equally applicable priority is given to the latter. It is not specified in the guidelines why advantage is given to this method, nor whom it is favorst - he related entity or the tax administration. These questions will be answered after simulated calculation applying both methods, using minimal variations in two components of comparability: the time range of parameters and the sample size.

Table 2: Illustration of the most appropriate method selection in specific case circumstances

If…	…Can be applied	
If CUP and another method can be applied in an equally reliable manner	- CUP	
When one party to the transaction performs "benchmarkable" functions(e.g. manufacturing, distribution, services for which comparable values exist) and does not make any valuable, unique contribution (in particular does not contribute a unique, valuable intangible)	- One sided method - Choice of the tested party (seller or purchaser): generally, the one that has the less complex functional analysis	
The tested party is the seller (e.g. contract manufacturing or provision of services)	- Cost Plus - Cost-based TNM (i.e. net profit / costs) - Asset-based TNM (i.e. testing net profit / assets)	If Cost Plus and TNM can be applied in an equally reliable manner: Cost Plus
The tested party is the buyer (e.g. marketing/ distribution)	Resale price Sales-based TNM (i.e. testing net profit / sales)	If resale price and TNM can be applied in an equally reliable manner: resale price
When each of the parties makes valuable, unique contributions to the controlled transaction (e.g. contributes valuable unique intangibles)	Two-sided method Transactional profit split	
Multinational companies retain the freedom to use "other methods" not listed above, provided that they satisfy the "arm's length" principle. In such cases, the rejection of the above-described methods and selection of an "other method" should be justified.	Other methods	

Source: *Cooper, Fox, Loeprick & Mohindra, 2016, p. 173*

For simplification purposes, all the details of the analyzed case will not be shown below, as well as the differences in the tax treatments and administrations of the two countries - developed, in which the company's headquarters reside, and the less-developed, in which a related entity is registered. It is important to note that in our case, in both countries, the OECD's international guidelines are incorporated into national legislation, therefore the method of calculation is uniform. The main objective is to show differences in the tax base, if one or the other selected method is chosen and if only a small deviation in sample size and observation period is made when calculating transfer prices.

The basic setting in testing

The ABC company is registered for the production of other plastics products, code 2229. This company, located in one of the developing countries in Europe, is entirely dependent on the parent company. ABC Group, located in one of the developed European countries. This dependence is reflected in the fact that ABC gets all its raw materials from ABC Group, as its affiliated entity, then produces products according to its orders and sells them again to that same related entity. Considering that in our case the taxpayer produces and sells goods to its related entity, it is possible to apply two methods: Cost Price Plus Gross Margin and Transaction Net Margin (TNM). The ROTC formula (operating profit / total costs) is used in this case to calculate TNM. Other methods are not applicable because there is no other internally comparable data that could be used to check the transactions, and the nature of taxpayer's activity is production for the parent company rather than the resale products or services.

Using relevant ABC data, the difference in results of both methods are analyzed, as is the further influence on the change in results, i.e. on the final correction of the tax base that is included in the ABC tax balance. The ABC company is a tested party in the organization chain of ABC Group because it is a resident of the country in which the tax balance is submitted and because it is the simplest case to test (OECD, 2010). Table 3 lists the basic ABC balance data used in the testing.

Table 3: Basic ABC statement for 2017 year

Description	ABC transfer price
A. Revenues from sales	3.080 mil EUR
B. Total operating costs	3.067 mil EUR
B1. Direct costs of the products sold [2]	2.414 mil. EUR
B2. Other operating costs	0,653 mil EUR
C. Operating profit (A-B)	0,014 mil EUR
D. TNM % (C/B)	0,45%
E. GM % (A-B1)/B1	27,58%

Source: Data taken from the ABC Income Statement from Orbis (2018)

Given that there are no transactions with independent entities that could be used for comparison, the external Orbis database (2018) was used to establish a sample of comparable companies. Parameters selected as the strategy for this research, which are in line with the type, size and status of ABC, are:

- All active and independent companies (without related parties) engaged in the production of other plastic products, code 2229,
- All companies of these species located in Western and Eastern Europe,
- All companies that have generated revenues over 1mil. EUR,
- Data analysis for 4 years (2014–2017), used to obtain gross margin and transaction net margin, for use in the Cost Plus and Transaction Net Margin, as Operating Profit / Total Costs.

[2] *The assumption is that the cost price is equal to direct costs.*

By analyzing external data, a sample of 7 comparable companies was obtained, which can be used to further test the ABC transfer pricing.

Starting from paragraphs 3.58 and 3.59 of the OECD Guidelines (2010), which draw attention to situations where different results are obtained by applying different methods, as well as paragraphs 3.2, 3.38 and 3.46, in which the significance of the quantity and quality of the samples is analyzed, using the particular data we checked 4 calculation scenarios for each of the methods:

- Scenario 1: 7 companies in the sample, 4 years of observation,
- Scenario 2: 7 companies in the sample, 3 years of observation,
- Scenario 3: 6 companies in the sample, 4 years of observation,
- Scenario 4: 6 companies in the sample, 3 years of observation.

The choice of scenario will depend on the interest of the state or company that has to pay the tax. Small adjustments in parameters will result in large differences in tax amounts. It is necessary to define the calculation rules more precisely, because it is possible to manipulate results through the amount of taxable income of the company and the amount of tax collected by the state. Further consequences are possible in the other state where the company's headquarters are seated, where there may be double taxation or avoidance of tax payments, but these aspects will not be addressed in this paper.

Possible scenarios for both methods and discussion of the results

As already mentioned, after choosing the method, comparable companies are selected, with the corresponding data for calculating the gross or net margin, depending on the chosen method. In our case, the average margins, inter-quartile ranges and medians will be calculated (tables 4–7, recapitulation in tables 8–9), in order to ultimately present the difference in revenue adjustments (table 10) and the conclusion which scenario is the best for the company and the tax administration.

Table 4 gives an overview of average gross margins and interquartile ranges with a median for samples of 7 companies and 6 companies, for a period of 4 years (2014–2017), calculating the sales price using the Cost Plus method.

Table 4: Average gross margins and interquartile ranges for scenarios 1 and 3
% Gross margin of company ABC = 27,58%

Scenario 1		Scenario 3	
Company average gross margins, in %	Interquartile range	Company average gross margins, in %	Interquartile range
37.63%		37,63%	
97.68%	23,14%	97,68%	23,14%
116.51%	30,89%	62,73%	27,53%
62.73%	51,29% (median)	51,29%	44,46% (median)
51.29%	80,20%	23,14%	59,87%
23.14%	116,51%	24,16%	97,68%
24.16%			

Source: Calculation by the author based on data from the Orbis database (2018)

Scenario 1 (7 companies in the sample, 4 years of observation), the ABC gross margin rate is not in range, so the median of 51,29% would be used. In Scenario 3 (6 companies in the sample, the same observation period), the situation is different. The third company from the sample, with a gross margin of 116,51%, was eliminated, so the ABC gross margin of 27,58% fell into the interquartile range. This means it will be used to calculate the selling price. Differences in the applied gross margin rate, using the Cost Plus method, with a change of only 1 company in the sample, will also affect the differences in the amount of revenue (Table 10, revenue for scenarios 1 and 3). Table 10 eventually analyzes the differences across all scenarios and methods, the parameters of which are presented in the following tables.

In Table 5, the TNM rate was tested for samples of 7 and 6 companies for a period of 4 years (2014-2017), at the rate of TNM of ABC = 0,45%

Table 5: Average TNMs and interquartile ranges for scenarios 1 and 3
% TNM of company ABC = 0,45%

Scenario 1		Scenario 3	
Company average TNM, in %	Interquartile range	Company average TNM, in %	Interquartile range
12,24%		12,24%	
6,10%	1,47%	6,10%	1,47%
13,07%	3,56%	12,71%	3,55%
12,71%	6,10% (median)	1,47%	4,83% (median)
1,47%	12,47%	3,56%	10,71%
3,56%	13,07%	3,55%	12,71%
3,55%			

Source: Calculation by the author based on the data from the Orbis database (2018)

In the case of the TNM method, in Scenario 1, the ABC TNM rate (0,45%) is not in range, so the median that is used is 6,10%. Also in Scenario 3, the ABC TNM rate is not in range, but the median that is used is 4,83%. As in the previous case, the amount of taxable income would change depending on the scenarios and methods chosen, which is presented in greater detail in Table 10.

When reducing the number of years in the observation period from 4 to 3, i.e. the sample of 7 and 6 companies during the period 2015–2017, the test results for both methods are shown in tables 6 and 7.

Table 6: Average gross margins and interquartile ranges for scenarios 2 and 4
% Gross margin of ABC = 27,58%

Scenario 2		Scenario 4	
Company average gross margins, in %	Interquartile range	Company average gross margins, in %	Interquartile range
38,68%		38,68%	
92,55%	25,03%	92,58%	25,03%
120,65%	31,93%	65,08%	28,55%

65,08%	58,01% (median)	58,01%	48,35% (median)
58,01%	78,81%	25,17%	63,31%
25,17%	120,65%	25,03%	25,03%
25,03%			

Source: Calculation by the author based on the data from the Orbis database (2018)

In Scenario 2 (7 companies in the sample, 3 years of observation), using the Cost Plus method, and the ABC gross margin rate of 27,58%, the median used is 58,01%. In Scenario 4, the third company from the sample, with a gross margin of 120,65%, was eliminated. Because the ABC gross margin is out of margin range, the median of 48,35% is used in the calculation. In both scenarios, the result of the calculation is different, as is the taxable income.

Table 7: Average TNMs and interquartile ranges for scenarios 2 and 4
% TNM of company ABC = 0,45%

Scenario 2		Scenario 4	
Company average TNM, in %	Interquartile range	Company average TNM, in %	Interquartile range
12,29%		12,29%	
5,70%	3,31%	5,70%	3,31%
13,01%	4,22%	13,79%	4,06%
13,79%	5,70% (median)	3,31%	5,12%
3,31%	12,65%	4,55%	10,64%
4,55%	13,79%	3,89%	13,79%
3,89%			

Source: Calculation by the author based on the data from the Orbis database (2018).

In Scenario 2, using the TNM method, the ABC TNM rate of 0,45% is not within range, so the median of 5,70% is used. In Scenario 4, the ABC TNM rate is not within range too, but the median of 5,12% is used.

Tables 8 and 9 recapitulate all scenarios, first for the Cost Plus method (Table 8) and then for the TNM method (Table 9). All the rates shown below are used in specific calculations of taxable income using one method or the other.

Table 8: Recapitulation of the market range - transaction net margins
% TNM of company ABC = 0,45%

Number of companies in the sample/ number of years	The first Quarter	Median	Third Quarter
6 firms/3 years - Scenario 4	4,06%	5,12%	10,64%
6 companies/4 years - Scenario 3	3,55%	4,83%	10,71%
7 firms/3 years - Scenario 2	4,22%	5,70%	12,65%
7 companies/4 years –Scenario 1	3,56%	6,10%	12,47%

Source: Autor, data from tables 5 and 7

Table 8 shows that the ABC TNM rate is out of range in all scenarios, so the median that is used depends on the selected scenario.

Table 9: Recapitulation of the market range - of gross margin
% Gross margin of company ABC = 27,58%

Number of companies in the sample/number of years	The first Quarter	Median	Third Quarter
6 firms/3 years - Scenario 4	28,55%	48,35%	63,31%
6 companies/4 years - Scenario 3	27,53%	44,46%	59,87%
7 firms/3 years - Scenario2	31,93%	58,01%	78,81%
7 companies/4 years –Scenario 1	30,89%	51,29%	80,20%

Source: Autor, data from tables 4 and 6

Table 9 shows that only in Scenario 3, the ABC gross margin is within the given range of the average market margins, while in the other cases, for different median is used revenue calculation, depending on the selected scenario. In this situation, using the Cost Plus method, the ABC revenue for transfer prices will be 3.080 mil. EUR, (indicated in yellow in Table 10). Only in this case (sample of 6 companies and 4 years of observation) should the income adjustment not be the basis for taxation.

Table 10 shows revenues at "arm's length" principle prices for both methods, depending on scenario is used for comparative analysis. It also shows the correction of revenues, which represents a correction of the tax base.

Table 10: Correction of revenue for TNM and Cost Plus methods, for 4 scenarios
In mil. EUR

Scenarios	Revenue "arm's length" principle by TNM method	Revenue "arm's length" principle by the Cost Plus method	Correction of revenue by TNM method	Correction of revenue by Cost Plus method
1	3.254	3.652	0,174	0,572
2	3.242	3.814	0,161	0,734
3	3.215	3.080	0,134	0
4	3.224	3.581	0,143	0,501

Source: Calculation by the author, using data from tables 1, 8 and 9.

Bearing in mind the differences shown in the corrections by both methods, for the ABC company it is most beneficial to use Scenario 3 (a sample of 6 companies and 4 years of observation), because then it will not have to correct the tax base. From the aspect of the tax administration, the most favorable scenario would be Scenario 2 (7 companies, 3 years of observation) because the ABC company would then have to correct the tax base by EUR 734.000 and thus pay a higher tax.

On the other hand, according to the OECD guidelines both methods are applicable, but the Cost Plus method is preferred. It is evident that Cost Plus will not be applied in every scenario. The difference in the corrections by both methods, for each of the four scenarios in the analyzed example, ranges from a minimum of EUR 134.000 (for

Scenario 3, correction of revenue by TNM method) to a maximum of EUR 572.000 (for Scenario 1, correction of revenue using the Cost Plus method).

From previous calculations using both methods, with different parameters within the sample size and length of the observation period, the following can be concluded:

- It is significant which method, as well as the size of the sample and the period of observation for comparable companies, will be applied, because they all directly influence the amount of taxable company income.
- When both methods are applicable, should not favor the Cost Plus method, since possible variations in the comparability parameters are not taken into account.
- Using the Cost Plus method, when decreasing the number of years, the median or interquartile range also changes, with the median increasing slightly and the range expanding, while the ABC gross margin is within the range limits in both scenarios. By decreasing the number of years, the company's gross margin would be used and there would be no correction of the tax base. On the other hand, by reducing the number of companies in the sample by only one company, there is a change in the use of the gross margin rate, whereby for the smaller sample of companies the ABC gross margin rate can be used and in all other scenarios the median used, creating a higher ABC taxable income.
- If the TNM method is used, in all the considered scenarios, the ABC TNM rate would not be used because it is always outside of the ranges. Instead, it is necessary to use the median, which varies depending on the size of the sample and the length of the observation period. This indicates that there will certainly be a correction of the tax base, but how much ABC will have to pay in additionally will depend on the choice of the median.

Conclusion

According to international guidelines for the calculation of transfer pricing of related entities, all methods are equal and the choice of one of them is made depending on the circumstances of the particular case. It is also recommended that if in some cases two methods are acceptable, e.g. the Transaction Net Margin and Cost Plus method, priority is given to the Cost Plus method. However, it is not specified from which aspect this method is prefers, and whether this recommendation is valid even if two important comparison components are changed: the time dimension of parameters observation for calculation and the size of the sample of comparable companies. It is very important from which aspect the calculation is managed, especially in the case of developing countries. If the aspect of the company is favored, since it is obliged to attach a tax return to the balance sheet, then the best option is the one in which the company will pay the lowest tax. However, if the tax authority has the right to request a change in the calculation, then it will look at it from the standpoint of the state interest, and the most unfavorable option for the company can be applied.

The scenarios in the tested case showed that internationally recognized recommendations on the selection of methods have weaknesses because they do not include all the parameters of the methodology itself, which significantly affects the end

result. In a situation where the time period of observation is flexible and the minimum size of the sample of comparable companies does not exist, there is a plenty of room for manipulating the end result. There are many objections in literature to the concept of transfer pricing, but no practical examples and studies similar to the calculations outlined in this paper are available to confirm deviations.

The main hypothesis in this paper was confirmed: the Cost Plus method should not always take precedence over the TNM method. It is evident that OECD guidelines are not always applicable in practice. In the case tested in the paper, the difference in the corrections by both methods, for each of the four scenarios, ranged from a minimum of EUR 134.000 (for Scenario 3: correction of revenue using the TNM method) to a maximum of EUR 572.000 (for Scenario 1: correction of revenue using the Cost Plus method). For the tested company it is most beneficial to use Scenario 3 (a sample of 6 companies and 4 years of observation). From the aspect of the tax administration, the most favorable scenario would be Scenario 2 (7 companies, 3 years of observation). Using the Cost Plus method, when decreasing number of years, there will be no correction the tax base. On the other hand, by reducing the number of companies in the sample by only one company, there is a great change in the taxable income. If the TNM method is used, all considered scenarios require corrections of the tax base.

In order to avoid ambiguity and various forms of manipulation in the transfer pricing calculation, it is necessary to specify the international guidelines in the domain of time dimension and size of the sample. Additionally, the taxpayer's obligation to introduce transfer price calculations should be introduced for all methods that correspond to the circumstances of their case, and not just one of them. In this case, it should be defined whether it is acceptable to apply the most favorable option for the company (but not for the state), for the state (but not for the company) or perhaps some middle variant that would result from the tests performed on all parameters. This can be overcome either by changing the guidelines or by defining rules in greater detail at the level of the national legislation of each state, whilst improving the professional capacity of the tax administration to control transfer pricing.

References

Bhata, G. (2009). Transfer Pricing, Tax Havens and Global Governance. Discussion Paper/Deutsches Institut für Entwicklungspolitik, Bonn. ISBN 978-3-88985-455-1

Cooper, J., Fox, R., Loeprick, J., & Mohindra, K. (2016). Transfer Pricing and Developing Economies: A Handbook for Policy Makers and Practitioners. Washington, DC: World Bank.

De Robertis, G. (2018). The end of the arm's-length principle? What to Tax? Perspectives on tax are changing. Tax is changing perspectives. (pp. 14-17). KPMG International. Retrieved August 13, 2019 https://responsibletax.kpmg.com/page/the-end-of-the-arm-s-length-principle-

Durst, C.M. (2010). It's Not Just Academic: The OECD Should ReevaluateTransfer Pricing Laws. Tax Analysts, January 18, 2010. (pp. 247-256). Retrieved August 12, 2019, from https://www.taxjustice.net/cms/upload/pdf/Durst_1001_OECD_-_not_just_academic.pdf

Durst, C.M. (2010a). Making Transfer Pricing Work for Developing Countriesby. Tax Analysts, December 13, 2010. (pp. 851-854). Retrieved August 12, 2019, from https://www.taxjustice.net/wp-content/uploads/2013/04/Durst_2010_developing_countries.pdf

Elliot, J, & Emmanuel, C. (2002). International Transfer Pricing. In Lymer, A., & Hasseldine, J. (Eds.), The International Taxation System. Kluwer Academic Publishers, Dordrecht. 157 at 158.

Jaiswal, S. (2017). A Primer on Transfer Pricing: Norms, Standards, Misuse for Tax Avoidance and Impacts on Developing Countries, Centre for Budget and Governance Accountability (CBGA). New Delhi.

Jovanović, T. (2018). Kvalitet izveštavanja o transfernim cenama - pretpostavka kvaliteta poreskog izveštavanja povezanih lica. Anali Ekonomskog fakulteta u Subotici, (39) (str. 305-327).

Kroppen H-K., Dawid, R., & Schmidtke, R. (2012). Profit Split, the Future of Transfer Pricing? Arm's Length Principle and Formulary Apportionment Revisited from a Theoretical and a Practical Perspective. In Schön, W., & Kai A. K. (Eds.), Fundamentals of International Transfer Pricing in Law and Economics: MPI Studies in Tax Law and Public Finance 1 (pp. 267-293). Germany: Springer-Verlag Berlin Heidelberg. DOI 10.1007/978-3-642-25980-7. Retrieved August 20, 2019, from https://link.springer.com/chapter/10.1007/978-3-642-25980-7_5

Li, J. (2012). Soft Law, Hard Realities and Pragmatic Suggestions: Critiquing the OECD Transfer Prices Guidelines. In Schön, W., & Kai A. K. (Eds.), Fundamentals of International Transfer Pricing in Law and Economics: MPI Studies in Tax Law and Public Finance 1 (pp. 71-87). Germany: Springer-Verlag Berlin Heidelberg. DOI 10.1007/978-3-642-25980-7. Retrieved August 20, 2019, from https://link.springer.com/chapter/10.1007/978-3-642-25980-7_5

Luckhaupt, H., Overesch, M., & Schreiber, U. (2012). The OECD Approach to Transfer Pricing: A Critical Assessment and Proposal. In Schön, W., & Kai A. K. (Eds.), Fundamentals of International Transfer Pricing in Law and Economics: MPI Studies in Tax Law and Public Finance 1 (pp. 91-121). Germany: Springer-Verlag Berlin Heidelberg. DOI 10.1007/978-3-642-25980-7. Retrieved August 20, 2019, from https://link.springer.com/chapter/10.1007/978-3-642-25980-7_5

Matavulj, Lj. (2019). Transferne cene – izazovi primene u praksi. Zbornik radova, Knjiga II, sa VI Medjunarodne konferencije LEMiMA - Pravo, ekonomija i menadžment u savremenim uslovima (str. 83-95). Beograd: Fakultet za poslovne studije i pravo i Fakultet za informacione tehnologije i inženjerstvo.

OECD. (2011). OECD Paper: Transfer Pricing Legislation – A suggested approach, June 2011. Retrieved August 10, 2019, from http://www.oecd.org/ctp/transfer-pricing/45765682.pdf.

OECD. (2010). OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations. Retrieved August 10, 2019, from www.oecd.org/ctp/tp/cpm

ORBIS Database. (2018). Retrieved December 11, 2018 from https://orbis.bvdinfo.com/version-2019314/home.serv?product=OrbisNeo.

Ostwal, T. (2009). Tax Justice Transfer Pricing in Developing Countries - An Introduction.Network. Retrieved August 23, 2019, from https://www.taxjustice.net/wp- content/uploads/2013/04/TP_in_developing_countries.pdf

Ron, J. (2012). Transfer Pricing in the Courts: A Cross-Country Comparison. In Schön, W., & Kai A. K. (Eds.), Fundamentals of International Transfer Pricing in Law and Economics: MPI Studies in Tax Law and Public Finance 1 (pp. 185-244). Germany: Springer-Verlag Berlin Heidelberg. DOI 10.1007/978-3-642-25980-7. Retrieved August 20, 2019, from https://link.springer.com/chapter/10.1007/978-3-642-25980-7_5

Sikka, P. (2009). Shifting profits across borders". *The Guardian.* Retrieved 27. February 2017. https://www.theguardian.com/commentisfree/2009/feb/11/taxavoidance-tax

Sikka, P. & Willmott, H. (2010). The dark side of transfer pricing: Its role in tax avoidance and wealth retentiveness. Critical Perspectives on Accounting, 21(4), pp. 342-356.

Timms, D. (2013). The harmonisation of transfer pricing: The obstacles, the arm's length principle and the OECD guidelines, LLM Research Paperlaws 516: Taxation. Faculty of law, Victoria, University of Wellington. Retrieved August 25, 2019, from http://researcharchive.vuw.ac.nz/bitstream/handle/10063/3186/thesis.pdf?sequence=1

UN. (2013). United Nations Practical Manual on Transfer Pricing for Developing Countries. New York: UN. Retrieved August 10, 2019, from https://www.un.org/esa/ffd/wp-content/uploads/2014/08/UN_Manual_TransferPricing.pdf

UNCTAD. (2015). World Investment Report 2015: Reforming International Investment Governance. (pp. 198-206). Retrieved August 11, 2019, from https://unctad.org/en/PublicationsLibrary/wir2015_en.pdf

UN. (2017). Practical Manual on Transfer Pricing for Developing Countries. 2nd ed. United Nations. Retrieved August 11, 2019, from https://www.un.org/esa/ffd/wp-content/uploads/2017/04/Manual-TP-2017.pdf

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THE RELATIONS BETWEEN CONTEMPORARY LEADERSHIP STYLES AND THE DIMENSIONS OF NATIONAL CULTURE IN MODERN BUSINESS ENVIRONMENT

Abstract

The subject of this paper is the relationship between contemporary leadership styles and the dimensions of national culture. Leaders manifest a particular style of leadership, created under the influence of a large number of elements that determine it. Thus, the national culture is related to the behaviour of leaders in the business system. The aim of the paper is to show how national culture shapes a leadership style. Basic analytical and synthetic methods, methods of induction, deduction and generalization, exploratory method and content analysis were used in the paper. The paper will show that it is important to recognize the influence of the dimensions of national culture on leadership style, as these are concepts that can determine the success of a business. The importance of the work is reflected in the synthesis of literature review on the link between leadership styles and dimensions of national culture and is intended for contemporary leaders who need to improve their business.

Key words: *national culture, organizational culture, leadership style, leader, contemporary business*

JEL classification: *M14*

РЕЛАЦИЈЕ САВРЕМЕНИХ СТИЛОВА ВОЂСТВА И ДИМЕНЗИЈА НАЦИОНАЛНЕ КУЛТУРЕ У МОДЕРНОМ ПОСЛОВНОМ ОКРУЖЕЊУ

Апстракт

Предмет овог рада јесте однос између савремених стилова вођства и димензија националне кулутре. Лидери манифестују одређени стил лидерства, креиран под утицајем великог броја елемената који га одређују. Тако је инационална култура доведена у везу са понашањем лидера у пословном систему. Циљ рада је да покаже на који начин национална култура обликује стил лидерства. У раду су коришћене основне аналитичке и синтетичке методе, методе индукције, дедукације и генерализације, експлораторна метода као и анализа садржаја. Рад ће показати да је важно спознати утицај димензија националне културе

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на стил лидерства, јер се ради о појмовима који су блиско повезан и и који могу да определе успех пословања. Значај рада огледа се у синтези ранијих и новијих ставова аутора по питању везе између стилова вођства и димензија националне културе и намењен је савременим лидерима који треба да побољшају своје пословање и остваре пословне циљеве.

Кључне речи: *национална култура, организациона култура, стил лидерства, лидер, савремено пословање*

Introduction

The aim of this paper is to provide contemporary managers with an overview of literature in the field of organizational culture and leadership styles in a cross-cultural context, in order to improve their business in the context of different cultural milieus and thus ensure adequate business success for themselves and the organization.

The modern business world operates in very changing market conditions. Today's business is characterized by major changes, which occur over a short period of time. Such a situation requires the continued readiness of the organization to respond to the circumstances it faces. The response needs to be systematic, timely and based on knowledge. In today's market, companies need to plan each step ahead and to act according to plans within business opportunities. Organizations carry out their business within a certain organizational culture. In other words, organizational culture is an integral part of organizational behaviour, thus shaping the actions that the organization implements towards its stakeholders. Organizational culture may be more or less formal, but it largely determines each company's relationship to its internal and external environment while working. Organizational culture is influenced by a large number of factors, one of them being national culture. Thus, national culture, through organizational culture, has a significant impact on the leadership style that is implemented within the company.

The importance of national culture in contemporary business

Today's market is characterized by globalization processes. There is no sphere that has not been touched by globalization. The effects of this phenomenon have largely predetermined the functioning of business systems. Trade liberalization tries to be a part of every market, while the privatization of companies ends within transition economies. The goal is to improve the efficiency and effectiveness of all business systems. Numerous studies have shown that different national cultures play a different role in the functioning of organizational systems. National cultures are also part of the globalization process.

National culture has a strong influence on the organization and management of enterprises arising from its nature and content (Janićijević, 2014a). Even Kluckhohn perceived national culture as patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts (Kluckhohn, 1951). Hofstede interprets national culture as the collective programming of the mind which distinguishes the members of one group or category of people from another (Hofstede, 2001). Trompenaars defines culture as the way in which a group of people solves problems and reconciles dilemmas set before them (Trompenaars & Hampden, 1997).

Each country has its own customs, its own culture and the way it perceives certain situations. This affects the way the business is conducted within its boundaries. As globalization is increasingly manifesting its effects, the need to understand individual national cultures arises. Culture is characterized by: symbols, heroes, rituals, values (Janićijević, 2014b).

Which management practice will be prevalent depends on these elements and their interrelation. National culture also greatly influences the definition of individual values. Individual values are further transferred to organizational cultures. This would mean that there is a very significant link between organizational and national culture and that their interplay plays a major role in achieving business performance. The existence of a strong organizational culture (containing a tightly integrated set of values, beliefs and behaviours) leads to a higher level of productivity and, consequently, to the achievement of the organization's goals (Marcoulides & Heck, 1993). This is also referred to as the strong culture hypothesis (Dennison, 1984).

In addition to knowing their own organizational culture, each manager needs also to be familiar with the cultures of their clients' countries. It is necessary to master the skills of behaviour in different cultures in order for the business to be successful. By thoroughly analyzing the dimensions of national culture, managers foster and coordinate organizational cultures that are in line with key aspects of national culture (Mojić, 2011). Regardless of the fact that the knowledge, abilities and skills of managers are influenced by that culture, it is necessary to open up to other business practices as well.

The success or failure of a company in the international market depends primarily on its own potential to carry out an objective study of a given market and determine business-defined expertise, but also on the possibilities and ways of its incorporation in a foreign environment (Đokić & Gardašević, 2013).

The dimensions of national culture represent the basic assumptions shared by members of one national community about key issues each society is facing (Prodović & Prodović Milojković, 2018).

Contemporary leadership

Leadership is the process of designing and precisely defining tasks with consistent behaviour of the leader who needs to manifest behaviours in accordance with their speeches (Drucker, 1995). Leadership is a process of interactive and social character, which contains elements embedded in the situation, followers and effects of the work of the leader who determines the meaning and direction of the activity using power (Yukl, 1998). Leadership is the behaviour of an individual who guides activities of a group toward the attainment of a mutual goal (Newstrom, 2008). In the modern age, leadership needs to be seen as a process that allows leaders to act on employees, but in a specific way. They need to find mechanisms whereby they will influence employees, working conditions, the overall process of reaching the set goals, and it is recommended that their manifestation of influence be based on the manifestation of the following behaviours: empowering, enabling, and encouraging (Nešić, 2008). Leadership represents the ability of an individual to step outside their culture, to start evolutionary change processes that are more adaptive (Schein, 2010). In order to achieve a common goal, an influence of an individual on the others in a group is done through the leadership process (Northouse, 2013).

The leader is the creator of the mission and the visionary of the organization. In contrast, the manager's job is to put that vision into practice (Aleksić, 2007). Leaders

must adhere to the following principles: centralisation, flexibility, availability and importance (Nešić, 2008). There is a classification of circumstances that indicate that a person might grow into a very successful leader one day. The main circumstances related to such an achievement can be identified within the following: challenging tasks in the early years of career, a clear leadership role model, positive or negative, tasks that broaden knowledge in different fields, participation in team projects, the presence of a mentor who is willing to help, taking over responsibilities beyond the primary domain of responsibility, special risky tasks, formal and informal training (Conger, 1992).

An important link on the road to success is leadership, viewed in both dimensions, both of those who are led and those who lead. What requires changes in leadership is a person who has become a knowledge worker, the bearer of most of the assets of an enterprise in the form of intellectual capital, a highly educated individual, a specialist or an expert. As a result of these circumstances, significant changes in leadership are also necessary to successfully exert influence and, consequently, to guide all individuals towards achieving the organization's goals as a measure of business success (Stojanović & Marić, 2018).

In today's organizations, especially those that are mainly knowledge-based as a key resource in business, there is a continuing need for development (Pearce, Manz, 2005). Traditionally, the greatest efforts in the development of leadership, when it comes to organizations, are generally strictly focused on a formal hierarchical structure. Unlike the traditional approach to leadership development, according to the authors, it is necessary for all employees to be involved and contribute to the development of leadership in order for organizations to prepare their employees for responsible self-leadership and effective implementation of shared leadership (Stojanović & Marić, 2018).

Characteristics of some leadership styles

Differentiating between styles of leaders when motivating, mobilizing, and directing their followers has a special place in the study of the phenomenon of leadership.

In this regard, leadership style is in fact nothing more than a form of establishing a relationship between a leader and his followers, but also other employees in one organization, and a form by which the leader directs the behaviour of others in order to go in the desired direction and to achieve the pre-set goals. Over time, three large groups of leadership styles stood out: authoritarian leadership style, democratic leadership style, and free-rein leadership style (Lewin, 2013).

At Ohio University, research was conducted that found that there are two factors that characterize leadership styles. These factors are initiating structure and consideration. A leader with a pronounced initiating structure divides the work and determines who will perform the task and also shapes the relationships within the group. It is he who defines performance standards (Stogdill, 1963).

The program of research at Michigan University identified production orientation and employee orientation. Production-oriented leaders turn their attention to the tasks and want only the task-related goals to be achieved. Employee-oriented leaders want interpersonal relationships to be adequate, to be individual in their considerations, and their personal needs to be met (Bowers & Seashore, 1966).

Authoritarian leadership style is characterized by centralised decision-making processes in the figure of a leader. It is the leader who directs the activities of the entire group with an individual decision-making style (Blake & Mouton, 1985). Followers expect clear guidelines from their leaders in societes such as Korea, India or Venezuela.

Due to the hierarhical differences between the followers and leaders, a strong sense of dependence is expected. The leaders are not questioned by the followers because the followers respect and listen to them (Kirkman, Chen, Farh, Chen & Lowe, 2009).

Democratic leadership style is characteristic of those groups where the decision-making process is group-oriented. The leader makes the final decision only after consultation with all followers or their representatives, and it is especially important that opinions are respected. Democratic leaders are usually such as to draw strength and knowledge from the collective, while motivating them both to collaborate and to deliver concrete results (Blake & Mouton, 1985). In highly individualistic cultures, like the U.S., the responsibility for own destiny is on an individual. It is believed that in trying to use an authoritative leadership style, the leaders may have difficulty, given that authonomy and uncertanity are highly valued (Dickson, Den Hartog & Michelson, 2003; Den Hartog, House, Hanges, Ruiz-Quintanilla & Dorfman, 1999; Janićijević, 2019).

Free-rein leadership style is also called laissez faire. The leader does not guide the group in a formal sense, but allows it to fully express its opinions, to use its knowledge, skills and abilities and to decide which methods, plans and policies should be applied (Fiedler, 1995). Fiedler points out a model that rests on the idea that the effectiveness of a particular leadership style depends on: the specifics of the relationship between the leader and the follower, the clarity of the task structure, the power that the leader possesses. Fiedler argued that there are two types of leader-follower relationship. Relationships between the two persons, or the two sides, can be both good and bad. Leaders are forced to adapt their styles depending on the specifics of the environment, goals, situation and problems they face.

The leadership style and the perceptions of the employee are influenced by the culture (House, Hanges, Javidan, Dorfman & Gupta, 2004; Jackson, Meyer & Wang, 2013). Hanges and colleagues empirically confrmed that the cultural background and self-perception influence the employees' perception of leadership. Cultural values of employees in interaction with the leadership behaviour influence the outcomes such as affective, cognitive and behavioural. The leader's behaviour must be in line with the expectations of the followers' culure (Dorfman, Hanges & Brodbeck, 2004).

With the intensification of the globalization process and the expansion of business across national borders, the concept of culture-specific leadership becomes highly significant. This concept requires leaders to adapt to different cultural environments that create different cultural profiles of people (Jogulu, 2010).

Dimensions of national culture and their impact on leadership

There is also a big difference between the business culture of the developed countries and the developing countries. The following features are attributed to developing countries: the infrastructure is not sufficiently developed, the workforce is not skilled enough, technological development is not on an appropriate level, political instability is in place, social structures are very rigid, religions have a very significant impact on business, differences between respect for the men's and women's rights are large, which means that these countries are less liberal, individualism is low, there is a high degree of avoiding risks, insecurity and uncertainty, masculine values are low, power distance is low, thinking is associative. It is believed that cultures can be divided according to the following four criteria: power distance, uncertainty avoidance, collectivism, feminine values (Vasilić & Brković, 2017).

Power distance refers to the extent to which employees have the opportunity to express their views, to participate in the decision-making process, to enjoy the

circumstances of a democratic approach to management. This dimension can often show the degree of inequality, but viewed from the perspective of those entities that have power. Engelen and colleagues (2014) claims that in the cultures of a high degree of individualism and a low power distance, the effectiveness of high performace innovation expectations are higher. The involement of followers and their contribution to decision making is characteristic of societies with a small distance of power in which hierarchical differences do not stand out (Javidan, Dorfman, De Luque, & House, 2006). In societies with a high distance power, in which hierarhical differences stand out, intellectual stimulation of followers by a transformational leader is not advisable because he could be accused of incompetence (Hofstede 2001; Javidan et al. 2006).

Uncertainty avoidance mainly refers to decision-making processes. There are cultures within which it is desirable to make decisions in environments that are uncertain and where a high level of risk is considered to be associated with profit and good business results. Cultures with high uncertainty avoidance have a considerable aversion to something they encounter for the first time, whereas in nations with low uncertainty avoidance, the unknown is viewed as a chance to be even better (Janićijević & Marinković, 2015). A high level of uncertainty avoidance in a culture leads to authoritarian leadership, while a low level of uncertainty avoidance leads to participative leadership (Yukl, 2013).

The individualism/collectivism dimension addresses the issue of the relationship between the individual and the collective (Hofstede & Bond, 1984). Collectivism refers to the degree to which personal interests are subordinated to collective interests. Collective cultures are those cultures in which personal interests are put aside, all of which are subordinated to the common good. Individualism, on the one hand, in contrast to its opposite - collectivism, is primarily a social rather than an individual characteristic that expresses the degree to which people in society are integrated into groups (Gardašević, 2019). Collectivist national cultures nurture the values of empathy, harmony, respect, self-control, security, so that leaders in these cultures pay more attention to meeting the needs of others than achieving their own goals, and employees embrace performance standards by caring for the well-being of the collective as a whole. In collectivist cultures people are more prone to identify themselves with the group and the common vision or goals of the group are usually shaped by a charismatic leader. In individualistic cultures it is harder for a charismatic leader to emerge since all people are predominantly driven by their own interests and rational calculations (Janićijević, 2019). In collectivist cultures where maintaning harmony exceeds performace expectations, high performance expectations are not effective (Spreitzer, Perttula & Xin, 2005).

Feminine values and masculine values largely determine the way of doing business in certain national cultures. The degree of masculinity of a culture refers to the need for proving oneself, aggressiveness, materialism, competitive spirit. The feminine qualities are conciliatoriness and caringness. In masculine cultures, both women and men are more eager to prove themselves. In masculine cultures, leaders are ambitious and dominant, and they are expected to be responsible for success, while in feminine cultures, leaders tend to negotiate (Milovanović, 2014). Leaders in masculine cultures more often apply task oriented style, while leaders in feminine cultures apply people oriented style. In masculine cultures, the leader is usually aggressive and assertive and has typical male qualities. In feminine cultures, the leader is less visible, more prone to consensus, and has both male and female qualities (Janićijević, 2019).

The level of uncertainty avoidance also affects leadership styles, so that in cultures where this level is high, leaders formulate clear rules and pay special attention to planning, whereas in cultures with a low level of risk avoidance, leaders and employees

do not feel uncomfortable with volatile situations and are more open to changes and experiments. The leader in such cultures, usually the collectivist ones, has the task to protect his/her followers from uncertainty, and in return, the followers give the leader their complete loyalty and put all the power in his/her hands. The consequence is, of course, authoritarian people-oriented leadership. The leader is expected to be omnipotent and the leader's confidence is highly appreciated (Hofstede, 2001). In all cultures, employee innovation is facilitated by transformational leadership. One study conducted in 17 countries found that, regardless of national boundaries, transformational leadership is correlated with innovation, both at the individual, and at the group level. In countries with higher levels of uncertainty avoidance, this correlation is stronger. This research suggests that investing in transformational leadership can improve employee innovation, in most countries, but especially in the countries with a higher level of uncertainty avoidance (Watts, Steele & Den Hartog, 2020).

In one of the last studies, the authors analyzed the meetings of a working team in a corporation using a microanalytical technique. According to this research, leadership is practiced in different ways even when the team leaders are of the same national culture (Swedish). Namely, all participants jointly build the leadership. This paper emphasize the importance of understanding the authentic discourse of leadership and gives the guidelines for overcoming cultural differences and stereotypes, important for the future researches (Chan & Du-Babcock, 2019).

Relations between organizational culture, leadership and national culture

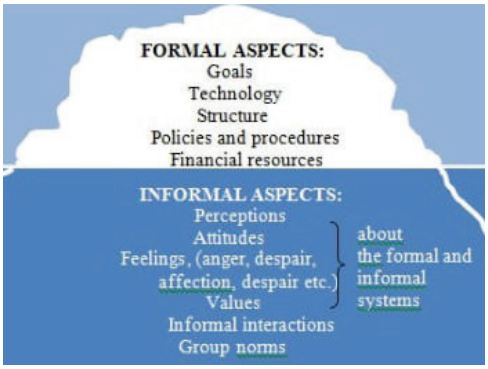
In recent years, the opinion that there is a very pronounced impact of organizational culture on the performance of the company has become prevalent in the organizational and management theory and practice (Šapić, Erić & Stojanović Aleksić, 2009).

Organizational culture is made up of several factors and influences. If we look at the actors who are directly involved in the life of culture in an organization that directly or indirectly creates it, there are individual values, the dynamics of development and influence, the leader and his role. Changes in organizational culture should be initiated by the top management (Medenica-Mitrović & Popović, 2019).

Research examining the variation of the influence of internal (organizational hierarchy) factors and external (national) factors for the first time reveals the importance of these factors in the way organizational culture is viewed. Their results address the impact of power through different levels of organizational culture. Thus, how the perception of security culture is interpreted in different organizational roles depends on the interaction of national distance of power and power arising from positions within the organization (Tear, Reader, Shorrock & Kirwan, 2020).

Many authors use the term "iceberg" (Figure 1) to refer to the content of organizational culture. The tip of the iceberg includes the elements that are easily visible in one organization (symbolic elements), while the "deep water" includes informal elements (Milanović, Cvijanović & Lazić, 2010).

Figure 1: Iceberg - Visible and invisible level of organizational culture



Source: Milanović, T., Cvijanović, J. & Lazić, J. (2010): Organizational Culture and Change

One of the basic classifications of organizational cultures can be defined by taking the degree of risk associated with the business and the speed of feedback on how successful the business ventures are as a criterion. Accordingly, the following organizational cultures are defined: the tough-guy macho culture, the "work hard play hard" culture, the bet your company culture and the process culture (Cvijanović, 2006).

The tough-guy macho culture is considered to be a typical culture for all organizations that have a high degree of risk in their business, therefore it is very important that all functioning be focused on the recognition of opportunities and the processes of rapid decision making in changing environments. It is particularly important to emphasize that the basic feature of this culture is distrust and orientation, which is not long-term. Within this culture there is a lack of collegiality and individualism comes first. Success is also known to come in a very short time, but it is not a long line between success and failure in the company (Pržulj, 2000).

The work hard play hard culture refers to an action-based culture that includes many forms of entertainment. This culture is characterized by mobility, fluctuation, and emphasis on quantity rather than quality. Reflections are not long-term oriented, hence success is not too much worried about (Drašković, 2014).

The bet your company culture refers to all companies whose business is conducted under conditions of insecurity and uncertainty. Organizations operating under such circumstances are mainly forward-looking and show a high degree of interest in investments. They are constantly reviewing their decisions and looking at them from a cost-effectiveness perspective. Members of this culture are independent in their work, but also seek feedback for their engagement (Handy, 1993).

The process culture, that is, the administrative culture, refers to a business in which the risk is not particularly pronounced. They are characterized by hierarchical relations, and cooperation occurs mainly on a vertical basis. These companies are not particularly interested in feedback and are largely closed to external stakeholders. They follow procedures and rules and it is not advisable to work outside of them. Reviewing efficiency and effectiveness is not frequent (Janićijević, 2013).

It has been proven that there is a very close link between organizational structure and organizational culture. In this regard, four cultures that can occur within organizations have been identified. They are: the power culture, the role culture, the task culture and the support culture (Cvijanović, 2006).

Centralization of leader power is typical of transactional leader, who is not inclined to delegate important tasks and responsibilities to his subordinates. Should a leader in such cultures attempt to involve employees in the decision-making process by delegating authority to them, employees would perceive such a leader as incompetent because they believe that the manager is paid to think. On the contrary, in cultures with low power distance, the expected leadership style is transformational. People in such cultures have a negative attitude towards the idea of a high concentration of power in one person, as it is perceived as dictatorial and undemocratic, and they find it more rational and efficient to have decision-making power delegated to more people (Vasilić & Brković, 2017).

Sarros, Gray and Densten (2002) conducted a study that found that leadership explained a higher percentage of variability in organizational culture (24%) than organizational culture explained variability in leadership styles (13%). From this we can see that the leader has more influence in determining the type of organizational culture than the organizational culture in determining the leadership style, but that there is mutual influence.

National cultures differ most in values, while organizational cultures differ most in: symbols, values, rituals (Janićijević, 2014b).

Research by another group of authors who argue that organizational culture influences leadership is not negligible. They show us that already established organizational cultures with established assumptions, values and beliefs impose certain rules of behaviour to the leader and that if he or she does not follow these rules, the leader cannot remain who he is (Nikolov, 2019).

A high degree of centralization of decision-making and formalization of roles and a preference for an organizational model of full bureaucracy is found in national cultures that have a high distance of power and high avoidance of uncertainty, as is the case with Serbia and other countries of the former Yugoslavia, and Latin American countries. The tendency to apply a high degree of formalization but a low degree of centralization to structuring as well as a model of professional bureaucracy is found in cultures with a low power distance but a high avoidance of uncertainty, which include the national culture of Germany (Ilić, Andrejić, Janošević & Ilić, 2019).

Conclusion

Modern business brings with it new rules that create new circumstances within which the activities of the organizational system will be realized. It is recommended that company management recognize its existing organizational culture, in order to identify room for improvement and to implement new principles of operation and management.

Defining the right set of factors that make up a leader is a very complicated task and a generally accepted solution is difficult to reach. The reason for this lies in the fact that each time carries some of its specifics that distinguish a particular type of leader that fits that time. Leadership style depends on many factors and it is clear that it is important to consider a number of factors when deciding on an efficient and effective leadership style.

Leadership style determines the organization's business to a great extent, since the right choice of leadership directly influences the process, which is crucial in the field of employee management. National culture defines people's behaviour, and people's behaviour reflects on the business organization in which they perform their tasks. This gives the impression that national culture largely determines the behaviour of all employees, including leaders. The specificity of

the national culture and leadership style applied in a company are closely related. Therefore, the recommendations for modern management are related to the necessity of looking for a link between the two concepts, in order to fully explain the behaviour of the leader in a company and to make sure that it is put into the function of achieving business results.

The importance of this paper is reflected in the synthesis of literature that connects contemporary leadership styles with the dimensions of national culture, as well as contemporary leadership styles with organizational culture, and indicates the importance of respecting them.

The paper is aimed at contemporary management and young leaders who can draw the most important conclusions from the overview of the leading views presented in this paper. Leaders are advised to know and respect the different cultural contexts and to be familiar with the organizational culture of the organization in which they operate, in order to better realize their leadership and management skills and thus contribute to the achievement of the ultimate goals of the organization.

The shortcomings of this paper are reflected in the absence of empirical research, therefore its implementation can be viewed as a suggestion for further research.

References

Aleksić, A. (2007). Uloga i značaj liderstva u uslovima globalnog poslovanja. *Sociologija, 49*(2), 145-160.

Blake, R. & Mouton, S. (1985). The managerial grid III. Houston: Gulf Publishing Company.

Bowers, G. & Seashore, E. (1966). Predicting organizational effectiveness with a four–factor theory of leadership. New York: Administrative Science Quarterly.

Chan, A. C. & Du-Babcock, B. (2019). Leadership in action: an analysis of leadership behaviour in intercultural business meetings. *Language and Intercultural Communication*, *19*(2), 201-216.

Conger, J. (1992). Learning to lead: The art of transforming managers into leaders. San Francisco, CA: Jossey-Bass.

Cvijanović, J. (2006). Korporativna kultura i organizaciona struktura. Beograd: Ekonomski institut.

Den Hartog, D.N., House, R.J, Hanges, P.J., Ruiz-Quintanilla, S.A. & Dorfman, P.W. (1999). Culture specific and cross-culturally generalizable leadership theories: Are the attributes of charismatic/transformational leadership universally endorsed? *Leadership Quarterly, 10*, 219–256.

Dennison, D. (1984). Bringing Corporate Culture to the Bottom Line. *Organizational Dynamics, 13* (2), 5-22.

Dickson, M.W., Den Hartog, D. N. & Michelson, J.K. (2003). Research on leadership in crosscultural context: Making progress and raising new questions. *Leadership Quarterly, 14*, 729–768.

Dorfman, P. W., Hanges, P. J. & Brodbeck, F. C. (2004). Leadership and culture variation: The identification of culturally endorsed leadership profiles. In R. J. House, P. J. Hanges, M. Javidan, P. W. Dorfman, & V. Gupta (Eds.), Culture, leadership, and organizations: The GLOBE study of 62 societies. Thousand Oaks, CA: Sage Publications.

Drašković, B. (2014). Lider-kreator organizacionih promena. Beograd: Fakultet za ekonomiju, finansije i administraciju.

Drucker, P. (1995). Managing in a Time of Great Change. New York: Truman Talley Books/Plume.

Đokić, M. & Gardašević, J. (2013). Značaj kulture u međunarodnom marketingu. *Časopis za ekonomiju i tržišne komunikacije, 4* (1), 44-55.

Engelen, A., Schmidt, S., Strenger, L. & Brettel, M. (2014). Top management's transformational leader behaviours and innovation orientation: A cross-cultural perspective in eight countries. *Journal of International Management, 20*(2), 124–136.

Fiedler, E. (1995). Reflections by an accidental theorist. New York: Leadership Quarterly.

Gardašević, J. (2019). Kulturološke razlike u motivima korišćenja društvenih mreža. Doktorksa disertacija. Fakultet za ekonomiju i inženjerski menadžment u Novom Sadu, Univerzitet Privredna akademija u Novom Sadu, Novi Sad, Srbija.

Handy, C. (1993). Understanding Organizations. (4th Ed.) London: Penguin Books.

Hanges, P., Lord, R. & Dickson, M. (2000). An information-processing perspective on leadership and culture: A case for connectionist architecture. *Applied Psychology, 49*(1), 133–161.

Hofstede, G. & Bond, M. H. (1984). Hofstede's culture dimensions: An independent validation using Rokeach's value survey. *Journal of cross-cultural psychology, 15*(4), 417-433.

Hofstede, G. H. (2001). Culture's consequences: Comparing values, behaviors, institutions and organizations across nations. Thousand Oaks, CA: Sage Publications.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W. & Gupta, V. (2004). Culture, leadership and organizations: The GLOBE study of 62 societies. Thousand Oaks, CA: Sage Publications.

Ilić, Đ., Andrejić, M., Janošević, M. & Ilić, S. (2019). Uticaj nacionalne kulture na proces upravljanja organizacionim promenama. *Vojno delo*, *71*(7), 419-440.

Jackson, T. A., Meyer, J. P. & Wang, X.-H. (2013). Leadership, commitment, and culture: A meta analysis. *Journal of Leadership & Organizational Studies, 20*(1), 84–106.

Janićijević, N. (2013). Organizaciona kultura. Beograd: Ekonomski fakultet.

Janićijevć, N. (2014a). Uloga nacionalne kulture u izboru strategije promena u organizacijama. *Ekonomski horizonti, 16*(1), 3-15.

Janićijević, N. (2014b). Uticaj organizacione kulture na organizaciono učenje, upravljanje znanjem i konkurentnost. Beograd: Ekonomski fakultet.

Janićijević, N. & Marinković, I. (2015). Empirical testing of Hofstede's measures of national culture and their impact on leadership in four countries. *Ekonomika preduzeća, 63*(5-6), 264-278.

Janićijević, N. (2019). The impact of National Culture on Leadership. *Economic Themes, 57* (2), 127-144.

Javidan, M., Dorfman, P. W., De Luque, M. S. & House, R. J. (2006). In the eye of the beholder: Cross cultural lessons in leadership from project GLOBE. *The Academy of Management Perspectives, 20*(1), 67–90.

Jogulu, D. (2010). Culturally-Linked Leadership Styles. *Leadership & Organization Development Journal, 31*(8), 705-719.

Kirkman, B. L., Chen, G., Farh, J.-L., Chen, Z. X. & Lowe, K. B. (2009). Individual power distance orientation and follower reactions to transformational leaders: A cross-level, cross-cultural examination. *Academy of Management Journal, 52*(4), 744–764.

Kluckhohn, (1951). The Study of Culture. In The Policy Sciences. Stanford: Stanford University Press.

Lewin, K. (2013). Frontiers in Group Dynamics. California: SAGE.

Marcoulides, G.A. & Heck, R.H. (1993).Organizational Culture and Performance: Proposing and Testing a Model. *Organization Science, 4* (2), 209-225.

Medenica-Mitrović, D. & Popović, M. (2019). Correlation and importance of socially responsible business and organizational culture of companies. *South Eastern European Journal of Communication*, *1*(1), 81-89.

Milanović, T., Cvijanović, J. & Lazić, J. (2010). Organizaciona kultura i promene. Beograd: Železnička tehnička škola.

Milovanović, V. (2014). Uticaj nacionalne kulture na efekte sprovođenja menadžmenta ukupnog kvaliteta. *Megatrend revija, 11* (2), 190-192.

Mojić, D. (2011). Uticaj nacionalnih kulturnih vrednosti na organizacionu kulturu i poslovnu praksu. *Singidunum revija, 8*(2), 145-151.

Nešić, L. (2008). Znati biti lider. Novi Sad: AB Print.

Newstrom, J. (2008). Leader and Leadership Proces. New York: McGraw- Hill.

Nikolov, I. (2019). Uticaj lidera na kreiranje i održavanje organizacione kulture. (Diplomski rad). Univerzitet u Beogradu, Fakultet bezbednosti, Retrieved March10,2020 from:

https://fedorabg.bg.ac.rs/fedora/get/o:20018/bdef:Content/get

Northouse, P. (2013). Leadership, Theory and Practice. Thousand Oaks, CA: Sage Publications.

Pearce, C. L., & Manz, C. C. (2005). The new silver bullets of leadership: The importance of self-and shared leadership in knowledge work. *Organizational Dynamics, 34* (2), 130-140.

Prodović, B. & Prodović Milojković, B. (2018). Hofstedov model nacionalnih dimenzija sa posebnim osvrtom na vrednosne dimenzije srpske nacionalne kulture. *Srpska politička misao, 59* (1), 225-244.

Pržulj, Ž. (2000). Kultura i preduzetništvo. Beograd: Zadužbina Andrejević.

Sarros, J. C., Gray, J. & Densten, I. L. (2002). Leadership and its impact on organizational culture. *International Journal of Business Studies, 10*(2), 1-26.

Schein, E. (2010). Organizational Culture and Leadership. San Francisco: Jossey-Bass Publishing.

Spreitzer, G. M., Perttula, K. H. & Xin, K. (2005). Traditionality matters: An examination of the effectiveness of transformational leadership in the United States and Taiwan. *Journal of Organizational Behavior, 26*(3), 205–227.

Stogdill, M. (1963). Manual for the Leader Behavior Description, Questionnaire form XII. Columbus: Ohio State University of Business Research.

Stojanović, S. & Marić, S. (2018). Komunikacija kao mera performanse liderstva. *Anali Ekonomskog fakulteta u Subotici, (40*), 81-94.

Šapić, S., Erić, J. & Aleksić, V. S. (2009). Uticaj organizacione i nacionalne kulture na prihvatanje organizacionih promena: istraživanje u srpskim preduzećima. *Sociologija/Sociology: Journal of Sociology, Social Psychology & Social Anthropology, 51*(4), 399-422.

Tear, M. J., Reader, T. W., Shorrock, S. & Kirwan, B. (2020). Safety culture and power: Interactions between perceptions of safety culture, organisational hierarchy, and national culture. *Safety science, 121,* 550-561.

Trompenaars, F. & Hampden, T. (1997). Riding the Waves of Culture. London: Nicholas Brealey Publishing.

Vasilić, N. & Brković, P. (2017). Nacionalna kultura kao determinanta stavova o stilovima liderstva. *Škola biznisa, 2,* 38-55.

Watts, L. L., Steele, L. M. & Den Hartog, D. N. (2020). Uncertainty avoidance moderates the relationship between transformational leadership and innovation: A meta-analysis. *Journal of International Business Studies, 51*(1), 138-145.

Yukl, G. (1998). Leadership in Organizations, 9/e. Pearson Education India.

Yukl, G. (2013). Leadership in organizations. (8th Ed.) Harlow, VB: Pearson.

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NATURAL RESOURCES AND REGIONAL DEVELOPMENT: CASE STUDY OF THE GORNJE POLIMLJE REGION IN MONTENEGRO

Abstract

The Gornje Polimlje has all characteristics of the geographical region, which some of the areas, or just part of them, left many author's works of impassable value. The northeastern part of Montenegro possesses, in qualitative and quantitative aspects, an enormous wealth of natural values. It was unexpectedly and unacceptably economically neglected in the last fifty years in Montenegro's development. The paper aims to present the natural resources of the Gornje Polimlje region and the way of their valorization in the function of equal development of this region. Tourism is seen as an activity that would produce great economic results with the least negative impact on nature. The conclusion is that natural resources are either underutilized or utilized in the wrong way. Further development should be based on the exploitation of natural resources, first of all on the development of sustainable tourism and the use of renewable energy sources.

Key words: mountains, tourism, Montenegro, Gornje Polimlje, regional development

JEL classification: R11

ПРИРОДНИ РЕСУРСИ И РЕГИОНАЛНИ РАЗВОЈ: СТУДИЈА СЛУЧАЈА РЕГИЈЕ ГОРЊЕ ПОЛИМЉЕ У ЦРНОЈ ГОРИ

Апстракт

Горње Полимље има све каракеристике географске регије, о чијим су појединим просторима или само неким аспектима, бројни аутори оставили дела непролазне вредности. Североисточна Црна Гора и у квалитативном и у квантитативном погледу поседује огромно богатство природних вредности, који су током последњих педесет година у развоју Црне Горе недопустиво и неочекивано мало економски валоризоване. Циљ рада је да представи

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природне ресурсе регије Горње Полимље и начин њихове валоризације у функцији равномерног развоја овог региона. Туризам се посматра као активност која би донела велике економске резултате са најмање негативног утицаја на природу. Закључак је да се природни ресурси или премало користе или користе на погрешан начин. Даљи развој треба да се заснива на експлоатацији природних ресурса, пре свега на развоју одрживог туризма и коришћењу обновљивих извора енергије.

Кључне речи: *планине, туризам, Црна Гора, Горње Полимље, регионални развој*

Introduction

The Gornje Polimlje region was a subject of study of numerous researchers from various scientific areas. This area was explored by geographers, geologists, biologists, and others. Jovan Cvijić researched the origin and geomorphological characteristics of the Gornje Polimlje. Most of the work concerned the impact of an ice age in this area. The main characteristics of relief, hydrographic, and hydropower were presented by Jovan Petrović, thus continuing Cvijić's research. Cvijić's interest in the Prokletije Mt., his reference to the wide range of geographic phenomena expressed on this peculiar mountain, has never been fully investigated. Important regional-geographical works on the Prokletije Mt. came from Cvijić's School of Geography. He provided significant scientific knowledge of the Prokletije Mt. with his glaciological and geomorphological approach. He defined the areas and the borders, introduced them to science, and explained a new national name for these mountains (Cvijic, 1994). This gave the followers a solid basis for geographical studies. This paper aims to present the natural potentials of Bjelasica Mt., Komovi Mt., and Prokletije Mt. in the function of regional development of the Gornje Polimlje. These mountains present a significant natural resource for the tourist valorization of this region and an overall tourist offer of Montenegro. The richness of mineral resources, hydro potential, and forests is another parameter of this area that presents viable economical resources. All domestic and foreign analyzes agree that this area has significant potential for the overall economic development of Montenegro. The number of natural resources can be very competitive in the region. The dominant part of this area is Prokletije Mt., one of the longest mountain ranges in the Balkans, similar to the Alpine mountains. The richness of nature is visible throughout this area, which is why the German experts added the name "wild beauty" to it. Tourism is emerging as the main factor of revitalization and development without major negative environmental impact (Park & Yoon, 2009; Sharpley, 2001). The development of tourism influences employment growth (Coccossis, 2008), brings numerous benefits to the local population, participates in cultural exchange (Besculides et al., 2002), improves basic infrastructure and public services. In addition to the positive effects, tourism also produces negative effects, which are reflected in environmental degradation and negative socio-cultural impact (Marjanović, 2019). To avoid the negative impact of tourism, it is necessary to apply sustainable tourism development. This term implies use of natural resources that meets all economic, social, and aesthetic needs while respecting cultural integrity, basic ecological processes, biological diversity, and lifestyles (WTO, 1993). Regional

development is very important because it affects the equal development of all parts of the country, and the overall development of all regions (Partal & Popa, 2012).

This paper aims to present natural resources in the function of the economic development of the research area. A qualitative-quantitative method was used to describe the data descriptively and numerically. Valorization of these areas refers to natural elements. The SWOT analysis shows the strengths, weaknesses, opportunities, and threats, on the one hand, and risks associated with further development on the other.

Geographical Position of the Research Area

The Gornje Polimlje is a region in the northeast of Montenegro. It is named the Gornje Polimlje because it covers the upper basin of the Lim River. It extends between 42^0 25 ′ and 42^0 55 ′ 5 ′ ′ north latitudes and 17^0 15 ′ 25 ′ ′ and 17^0 40 ′ east longitudes. It lies in a position of south-north. This area consists of the composite valley of Lim River and the mountains east and west of it. The Gornje Polimlje region shares its eastern border with the Metohija region and the Gornje Poibarje region. From the south to the north, the border leads from the Bogićevica Mt., then it spreads to the catchment of Zavoj Mt., Starca Mt., Čakor Mt., Mokra Planina Mt., Smiljevica Mt., and Turjak Mt. The north part of the Gornje Polimlje extends to the valley of Lješnica, Tivran gorge and branches of Bjelasica Mt., which separate it from the Srednje Polimlje region. The Gornje Polimlje shares its western border with Lower and Upper Kolašin, Kuči, and Albania. From the north to the south, it goes through the catchment of Lim River and Tara River on the Bjelasica group of the mountain, Trešnjevik Mt and Komovi Mt., and the catchment of Lim River and Morača River on the Prokletije group of the mountain. The southern border is the state border with the Republic of Albania and leads to the ridges of the Prokletije Mt., which presents the catchment of the Lim River and Drim River. Within these boundaries, going from south to north, the Gornje Polimlje consists of: The Plavsko-gusinjski basin, Polimlje, and the area of Andrijevica and Berane (Bakić, 2005). Considering the geographical position of the Gornje Polimlje, we can point out that it represents a natural connection with neighboring areas such as Kosovo and Metohija region, the Centralno Polimlje region, upper Potarje region, and the Kuč region, and through them the Montenegrin coast with the Pannonian Basin and central parts of the Balkans. Besides this natural predisposition has not been adequately valorized so far, first of all, because there were no quality roads that would contribute to the greater functional importance of this area (Golubović, 2015).

Mountains in a Function of Tourism Development

Strong geotectonic disturbances in the past have caused complex and varied relief. The most powerful and intense glaciation in the Balkans has left the deepest traces of glacier erosion in the form of numerous cirques, that left behind a dozen smaller lakes. Cvijić (1994) pointed out that, nowhere in the Balkans, glaciers left such deep erosion as in the Prokletije Mt.

The Prokletije Mt., with its natural beauties, is among the most interesting mountains. The raw wilderness and the tame, bare peaks of various shapes that rip clouds

and valleys of the Alpine type adorn this area. The Prokletije massif can be divided into four groups: northern, central, southern, and western mountain groups.

Based on the research of morphological characteristics relevant for tourism development, it is estimated that these mountains have a total leveling (capacity of ski terrains) in the range of about 93,000 m. Suitable areas for the development of winter tourism are north, northeast, and northwest, with a slope of potential ski terrain from 10^0 to 25^0, which provides opportunities for arranging trails of different categories. According to new research, the total leveling of the tourist-geographical units of Montenegro is 91,899 m or 26.6% of the leveling established in the mountains of the former Yugoslavia. The Prokletije chain possesses 45,392 m or 49.7% (Kasalica, 1992). In the area of Montenegrin Prokletije, several morphological zones are designated as potentials and perspective tourist areas. These are several attractive mountain zones: Čakor zone, Staračko-Zavojska zone, Bogićevica zone, Bor and Kofiljača zone, Karanfilsko-Bjelička zone, Visitor zone, and others. Mountain tourism is characterized by the existence of two qualitatively different tourist seasons, winter and summer. Development of the winter and summer season leads to a more moderate-income distribution throughout the year. Key tourism activities are based on activities in nature, primarily with ecotourism, geotourism, recreational activities, and the combination of natural components with cultural and historical values. Sustainable tourism refers to touristic activities that minimize negative impacts on the environment, have positive results on social communities and local economy (Antić et al., 2020). Ecotourism is one of the fastest-growing forms of tourism. Such rapid growth in demand for this form of tourism is linked to the fact that tourists in the world require more ecological experience (Abou Arrage & Hady, 2019). Geotourism presents a form of tourism related to geology, geomorphology, and natural resources with an emphasis on respect for the processes that create or have created such phenomena (Dowling & Newsome, 2006). Main focus of geotourism is on interpretation, promotion, and conservation of geoheritage (Bratić et al., 2020). The most represented form of tourism in this region is excursion tourism. Excursions are made by those who wish to stay outside urban centers for a short period, but also those who come from neighboring tourist centers (coastal municipalities, Podgorica, Serbia, Albania, etc.), and even though there is no official data on their number in the area of Prokletije Mt., one-day visitors represent a significant category. It is necessary to establish mechanisms for the implementation of the TSA (Tourism Satellite Account) indicators as soon as possible, to measure, evaluate and compare economic results of tourism in the Prokletije area with other tourist destinations in the country and abroad. The development of tourism in the city of Plav and the city of Gusinje, and in the area proposed as Prokletije National Park, will bring positive economic effects. The number of tourists and income will grow with increasing and improving the level of tourism, tourism services, providing a better road network, tourist signposts on peripheral routes, and better propaganda activities (PPPN of Prokletije National Park, 2018). In addition to the attractive peaks, glacial lakes known as "Gorske oči" are Plavsko lake, Ridsko lake, Tatarijsko lake, and Ropojansko lake. One of the forms of tourism that could take advantage of such an attractive natural environment is recreational tourism as an active vacation. Active vacation is a type of tourism that involves a combination of activities while using the holiday. It is most commonly associated with healthy living and leisure, to recover psycho-physical strength (Marjanovic, 2017). Active vacation includes many

activities such as hiking, cycling, walking through areas of exceptional beauty, picking herbs.

Fig. 1. Plavsko lake

Source: www.kurir.rs

The Plavsko Lake covers an area of 2 km^2 and it is the largest glacial lake in Montenegro. It covers the lowest parts of the Plavsko-gusinjski basin at an altitude of 906 m. It has an oval shape and the lake is accessible from all sides (Bakić, 2005).

The Prokletije area is rich in flora and fauna. Of 154 plant diversity centers on Earth, six are located in Europe, and one of them is the mountain system on the Balkan Peninsula. In terms of floristic richness and diversity, the Prokletije massif is in the first place. Till now, 750 species of highland vascular flora have been registered in this area, 18 of them are local and over 100 Balkan endemics (Leković, 2014).

The position of The Bjelasica-Komovi Mt. area has a polyvalent relation to the regional and global tourism market. Concerning the local and regional market, it is an area that is in contact with the attractive tourism potential of the coastal area of Montenegro, which is developed and modernized. Montenegro also opens a strong market for its mountain potential through excursion and later derived stationary mountain tourism. After the modernization and opening of new highways (Montenegro, Serbia, and Croatia), this area becomes a strong transit area. Montenegro is getting stronger transit links with southeastern Europe because of the regional complementarity and quality of the transport system.

Bjelasica Mt. and Komovi Mt. have a relatively favorable position to numerous tourist areas of the east and central part of southern Europe. After all, the fact that the European tourists have the largest share in the foreign tourist traffic realized in Montenegro, indicates the appropriate spatial relation of Bjelasica Mt. and Komovi Mt. to the biggest tourist emissive market in Europe. In terms of the external market, this space has the best position because of three key reasons:

- Increasing the overall tourist image in all countries in the region;
- Montenegro's traffic connection with its environment is rapidly developing;
- Global market interest in mountain destinations and products is growing (PPPN Bjelasica Komovi 2011).

Fig 2. Komovi mountine

Source: http://www.toandrijevica.me/turisticka-ponuda/priroda/komovi

The tourist offer is complemented by the glacial lakes of Bjelasica Mt., and they are very interesting to visitors when conquering the peaks of Crna and Zekova Glava. The lakes that are located at the foot of the peaks mentioned above are Pešića Lake, Great and Little Ursulovačko Lake, and Šiško Lake.

Montenegro is the only country in the Balkans that does not have a highway. A newly constructed highway will be a very important traffic facility in the regional and international development of the Gornje Polimlje. Part of the highway will pass at the junction of Bjelasica Mt. and Komovi Mt., and it will greatly contribute to a better tourist valorization of the Gornje Polimlje and a better connection with Serbia.

Mineral Resources in a Function of Economic Development

The Gornje Polimlje has a variety of natural resources for development, especially in the field of mining, hydro-energy, and bio-geographic features. These include deposits of brown coal, lead, zinc, architectural construction, and decorative stone. The general characteristic is that they are under-researched, for some of them it is known only as phenomena, they are little used, or they are not yet activated for developmental purposes. The Berane coal basin is the only brown coal basin in Montenegro. The total area of the basin is 40 km^2. The Petnjik coal deposit is the most significant. The most intensive exploitation was in the last two decades. The research identified several layers of coal. The main layer is developed over the entire layer, and it has a complex structure (Bakić, 2005). Its average exploitation thickness is 4,5m. Besides that, two more layers of coal are separated with exploitable thickness in the deeper layers of the deposit. The first is below the main layer at a distance of 6-10m. Its thickness is between 1-7m, and it is developed only in the part of the city of Petnjik. Mining experts point out that the structural assembly of this deposit has unfavorable elements of opening and exploitation. Frequent changes in the thickness of the layers, which cause a change in the way of excavation, make it difficult to excavate. However, its benefits are a small ratio of gas, because in the layers of coal up to 200m deep there is little methane. There are no springs

nearby, and in the thicker parts of the reservoir, there is no major groundwater that would threaten the exploitation. Its established coal reserves are 18,438,000 tons of B and C1 categories.

The Berane coal basin covers a bottom area of the Berane basin, which forms an alluvial plain on either side of the Lim River. Coal is widely distributed not only horizontally but also vertically, and occurs in over 20 layers of coal of varying thickness. Coal is up to 300 m deep. Its off-balance sheet reserves are estimated at 103,625,000 tons of C1 category (Gomilanović et al., 2000). Coal is very dominant in electricity production and it is confirmed by the fact that European countries have postponed shutting down aged thermal power plants until 2025, even if that had to be done in 2015, there are now rumors of an additional shift of that deadline to 2033.

The "Pogane glave" coal basin is located on the northern slopes of the Visitor Mt. Some laboratory tests were performed. Experts estimate that this area has about 2,000,000 tons of ore with about 1% lead, 2.5% zinc, and 0.1% copper.

Through mining and geological researches in the Gornje Polimlje, iron ore has been discovered in Kline in the area of Konjuha village and the Ševarinska River in the village of Vinicka. Reserves were not calculated for the occurrence of iron in Kline, and based on the data obtained from exploratory works, it can be concluded that they are small and that the chances for economically significant reserves are low.

The coal in the Ševarinska River occurs in the form of lenses. The depth of the ore is about 70 cm. According to published studies so far, the iron content ranges from 24.5% to 36.8%, but no estimates of possible reserves have been given. The deposits and the appearance of architectural, construction, and ornamental stone have been discovered in several localities, in particular: Željevica, Babov Potok, Trebačka River, Balj, Pčelinjak, and Piševska River.

Hydropotential of Gornje Polimlje

The most significant hydrological object in this region is the Lim River. Lim River has a dense river network. It is branched off in the mountainous part of the region, and the surface water is scarce by the Polica and a series of limestone surfaces. The main features of the Dapsićka River, Kaludarska River, Šekularska River, and Bistrica River, are water-rich upper streams, allochthones middle and lower streams, and significant hydro potential. In terms of annual water level, they belong to the level-pluvial regime of the Dinar type, which has high water levels in March, April, and May, while November is approximately equal to December. The low waters are in August or September and then in February and January (Golubović, 2015).

The hydropower capacity of Lim River is estimated by experts at 503 GWh with the possible construction of 3 hydropower plants: "Andrijevica" with 331 GWh, "Berane" with 78 GWh, and "Lukin Vir" with 94 GWh. On its tributaries, it is possible to build 19 mini-hydropower plants.

Small hydropower plants are an absolute advantage over other types of power generation facilities. Utilizing the water potential of watercourses is the most important alternative compared to energy obtained from fossil fuels, as water is a renewable resource. It is an inexhaustible source, and from an environmental impact point of view,

it is the cleanest way to use it. This is why energy derived from water is called pure energy. In the case of hydropower, we save the final reserves of coal and oil, as well as the financial resources for the import of expensive liquid fuel for thermal power plants. The use of renewable energy sources will have the effect of reducing harmful substances in the air and the greenhouse effect, which is one of the major problems worldwide (Pittock, 2005).

Forests Potentials

The forest fund is one of the most significant natural resources of the area. The forest floors are presented by:

1. thermophilic mountainous area of oak forests and mallow,
2. mesophilic transitional area of oak forests of sessile oaks,
3. mesophilic area of beech forests,
4. area of highland forest vegetation.

Above the forest fund, there is grassland or a highland area of alpine vegetation. In the structure of forests, most of them are highly economic, protective, and the smallest are low forests. The ratio of hardwoods and conifers of Prokletije Mt. is quite equal (NP Prokletije Management Plan 2016-2020).

In the municipality of Plav, forests cover an area of 29,829 ha, of which 25,270 ha or 84.7% is state-owned. The total area under forests amounts to 22,967 ha, while the non-overgrown areas (for planting and rocky areas) occupy 6,862 ha. The largest part of the forest area is occupied by high forests (12.107 ha or 52.7%) with partly rainforest character, then protective forests (7.789 ha or 33.9%) and finally by bushes and logging forests (3.071 ha or 23.4%).

The forests of the Municipality of Andrijevica cover an area of 17,434 ha. There is a trend of an increasing forest since the use of pastures is diminishing, the forest is being restored. Most of the forests in the territory of Andrijevica municipality are state-owned (about 80%), part of which is allocated for concession activities. By structure, natural forests dominate. Deciduous forests cover 12,726 ha (72%) while conifers cover 4,708 ha (28%). Following the plan of the Forest Administration of Montenegro, a set of measures for the protection of forests is undertaken by the competent authority for forest management (Strategic Development Plan of Andrijvice Municipality, 2017-2022).

The total area of forests in the Berane Forest Administration is 27,856.58 ha. According to the purpose and cultivation of forests, the structure of the surface is as follows:

1. Commercial forests 21.167,32 ha, of which:
    - high forests of 13,158.26 ha,
    - 2,462.31 ha of logging forests
    - shrubs 5,516.75 ha
2. Forests for other purposes 4,916.50 ha, of which:
    - high forests of 981.70 ha,
    - 3,934.80 ha of logging forests

3. Non-covered areas of 1,772.76 ha, of which:
   - suitable for planting forest 1,162.10 ha,
   - for other purposes 219.35 ha
   - barren 391.31 ha.

High forests account for 62.2% of the total forest area. The potential area of forest for production, including 1,162.10 ha of clean area for planting trees, is 22.329,42 ha.

SWOT Analysis

Based on the data from the previous text, an overview of the strengths, weaknesses, opportunities, and threats, and risks related to further regional development, was made. The principle of action should be based on rising the strengths and taking advantage of the opportunities that exist, as well as on eliminating weaknesses and preventive action on identified risks.

Table 1. SWOT analysis

Strengths
• Extraordinary natural beauties, based on green (forests) and blue (rivers and lakes) riches • New destination (environmentally friendly, unexplored, wild, untouched, unassailable) • Diversity of natural and cultural resources, attractive tourist sites • Prokletije National Park - high level of biodiversity (endemic species of flora, richness of forests, preserved high mountain natural areas - nature reserves) • Inter-ethnic stability (multicultural environment) • The existence of traditional villages and katuns around the outskirts of the Gornje Polimlje • Hospitality, local crafts and gastronomy of the local population • Hydro-potential • No serious pollutants • Significant reserves of mineral resources
Weaknesses
• Undeveloped infrastructure (primarily transport and communal) • Underdeveloped tourism infra-structure and supra-structure • Lack of local staff • Lack of tourist and other signalization • Lack of events of international importance • Undiscovered archaeological heritage • Contemporary construction not in harmony with the landscape and cultural environment • Lack of educational, thematic, picnic and recreational trails • Undeveloped sustainable local economy • Lack of marketing strategy, poor promotional - propaganda activity • Depopulation • Difficult economic situation of municipalities in the northeast of Montenegro • Insufficient environmental awareness of the local population
Opportunities

• Designing cross-border tourism products • Opening of official border crossings to Albania and Serbia • Active inclusion of the Gornje Polimlje in the tourist offer of Montenegro • Diaspora, exchange of experience, knowledge and skills, donations, investments and private-public partnerships through investments • Development of tourism products and offers • Specific types of tourism (sports, rural contents, agro-tourism, health, adventure, etc.) • Stimulating the production, supply and marketing of healthy foods • Development of small hydropower plants • Product branding • Availability of EU funds and other funds • Exchange of experience and cooperation with other similar and developed regions • Monitoring of European regulations and trends in the field of environmental protection • Using the Internet and media
Threats
• Intensive depopulation, shortage and outflow of skilled personnel • Aging of population • Economic recession and weak purchasing power of the domestic market • Poor investment climate and long depreciation period are limiting factors for investors • Unstable political situation in the world and the region • Changes in demand in the tourism market

Source: made by authors

Extraordinary tourist potentials and high mountain peaks could be taken as the main strength, which would create a tourist offer. The main weakness is the lack of basic infrastructure and suprastructure, as well as the absence of a long-term development plan. Complementary development of rural and mountain tourism, as well as cooperation with other economic entities in the region, are the main chances for further development. Given that the funds allocated for the promotion of tourist destinations are very limited, the popularity, wide spatial coverage, and low cost of advertising via electronic media should be exploited. Internet usage is one of the major components in contemporary marketing strategies and key tourism trends (Garabinović, 2019). The economic recession and the lack of domestic and foreign investors, as well as the faster development of rural areas in the region, are major threats to further regional development.

Conclusion

Based on all of the above, it can be concluded that Gornje Polimlje possesses exceptional natural potentials, which with adequate use and purpose would have long-term positive effects on regional development. Certainly, tourism should be given the most attention, since tourism is realized by the so-called invisible exports. Sustainable tourism is a form of tourism development that has a balanced impact on natural, economic, cultural, and social values. In many countries, tourism has emerged as a factor in the revitalization and development of underdeveloped areas. Ivolga & Erokhin (2013) state that tourism leads to sustainable rural development and can increase the quality of life in rural areas. Combining the tourist offer with the offerings of other regions would create a more complex tourist offer, which would attract tourists from other countries. One of the forms of cooperation that has shown positive results is the association of tourist clusters. Clusters represent one of the more successful methods of regional development.

Clusters are an integral part of developed economies that make a significant contribution to the competitiveness of cluster members at the regional and national levels (Paraušić et al., 2013). Clusters encourage innovation, knowledge application, research, and the development of new technologies (Jednak et al., 2018).

One of the priorities is the conservation and improvement of the water regime in this area, including both quantitative and qualitative characteristics of all surface and groundwater. The peculiarity of the watercourses is the exceptional hydro potential. Construction of mini-hydropower plants is underway on some rivers, which will condition the energy efficiency of northeastern Montenegro. Regarding the problems of the lakes, it is necessary to accept the necessity of rehabilitation, restoration of the original state as close as possible to (geological) time and form when they occurred. Accordingly, the necessary geodetic, geological, and hydrological observations and works need to be done. Glacial lakes are a natural phenomenon that is not so often represented in these areas. Preserving such landscapes and bending under a certain regime of protection would be a necessary activity.

Another important natural resource of the Gornje Polimlje is the brown coal mine in Berane, which holds reserves for the next 200 years. Activating ore mines and ore exploitation will bring considerable economic effects. There is a worldwide trend in the use of renewable energy and the reduction of fossil fuels, so this project should be approached with great caution. Strict use of land, and forest protection and conservation must be adhered to. Establishing an ecological network will ensure the connection and conservation of habitats and ecologically significant localities of interest to Montenegro and countries in the region.

To become more fully acquainted with this unique space, it is necessary to carry out further research, map the zones suitable for valorization, and to establish a continuous monitoring system. It is necessary to get more involved and use the funds provided by the EU, attract investors, and make an economic regional shift.

Regional development would halt the process of depopulation and outflow of skilled personnel. Creating new jobs would provide opportunities for young people to live a normal and stable life. Cross-border cooperation is one of the factors of regional development. Borders should not have the function of national barriers, but rather be places of intellectual, cultural, and economic interaction, which by joint action will lead to overall regional development (Molnar & Soos, 2016).

References

Abou Arrage, J., & Hady, S. A. (2019). Ecotourism and sustainability: Practices of the Lebanese nature-based operators. *Hotel and Tourism Management*, *7*(1), 11-23.

Antić, A., Peppoloni, S., Di Capua G. (2020). Applying the values of geoethics for sustainable speleotourism development. *Geoheritage, 12* (3), 1-9.

Bakić, R. (2005). Gornje Polimlje-priroda, stanovništvo i naselja, Geografski institut Filozofskog fakulteta, Nikšić;

Besculides, A., Lee, M. E., & McCormick, P. J. (2002). Residents' perceptions of the cultural benefits of tourism. *Annals of tourism research*, *29*(2), 303-319.

Bratić, M., Marjanović, M., Radivojević, A., Pavlović, M. (2020). M-GAM method in the function of tourism potential assessment: Case study of the Sokobanja basin in eastern Serbia. *Open Geosciencies, 12*(1), 1468-1485.

Coccossis, H. (2008). Cultural heritage, local resources and sustainable tourism. *International journal of services technology and management*, *10*(1), 8-14.

Cvijić, J. (1994). Jovan Cvijić i Prokletije, naučna monografija, Srpsko geografsko društvo, Beograd

Dowling, R.K., Newsome, D. (2006). Geotourism. Oxford: Elsevier

Garabinović, D. (2019). Online marketing promotion of local tourism organizations: the analysis of the situation in Moravica administrative district. *Менаџмент у хотелијерству и туризму*, *7*(1), 71-81.

Gomilanović, M. (2000). Mineralne sirovine Crne Gore, Ministarstvo industrije, rudarstva i energetike, Podgorica.

Ivolga, A., & Erokhin, V. (2013). Tourism as an approach to sustainable rural development: Case of Southern Russia. *Economics of Agriculture*, *60*(4), 789-800.

Jednak, S., Kragulj, D., & Parežanin M. (2018). Knowledge and industry clusters as drivers of economic development and competitiveness, Anali ekonomskog fakulteta u Subotici, 54, 3-17.

Kićović M. D. (1995). Turizam i zaštita prirode Gornjeg Polimlja, ITP "UNIREKS", Nikšić;

Prostorni plan posebne namjene Bjelasica i Komovi (2011). Ministarstvo održvog razvoja i turizma, Crna Gora

Strateški plan razvoja opštine Andrijevica 2017-2022; Opština Andrijevica

Prostorni plan posebne namjene NP Prokletije (2018). Opština Plav i opština Gusinje, Ministarstvo održivog razvoja i turizma; Vlada Crne Gore, Nacrt

Prostorno urbanistički plan opštine Berane (2013). Opština Berane, Crna Gora

Golubović, D. (2015). Zaštita i unapređenje hidrografskih objekta Gornjeg Polimlja, Univerzitet u Prištini, PMF Kosovska Mitrovica;

Kasalca, S. (1992). Sjeverna Crna Gora-turističko georafska studija, Univerzitetska riječ, Nikšić

Leković, S. (2014). Turistčke razvojne šanse severoistočne Crne Gore, AP „Print", Podgorica;

Lutovac. V. M. (2000). Ivangradska (Beranska kotlina), regionalna geografska ispitivanja, SO Berane, Berane.

Marjanović, M. (2017). Mogućnosti za razvoj rekreativnog turizma u Sokobanji. Zbornik radova Departmana za geografiju turizam i hotelijerstvo, Univerzitet u Novom Sadu, *46*(1), 36-46

Marjanović, M. (2019). Indicators of sustainable tourism – A case study of Sokobanja. CTTH 2019, Novi Sad, 185-195.

Molnar, G.I., Soos E. (2016). The instruments of the European Union cross-border regional cooperation. Anali ekonomskog fakulteta u Subotici, *52*, 3-24.

Strateški plan razvoja opštne Plav 2012 – 2017 (nacrt), Opština Plav

Paraušić, V., Cvijanović, J., & Mihailović, B. (2013). Market analysis of clusters in Serbian agribusiness. Economics of agriculture, *60*(4), 713-728.

Park, D.B.,Yoon, Y.S. (2009). Segmentation by motivation in rural tourism: A Korean case study. Tourism management, *30*, 99-108

Partal. C., Popa. A. (2012). Model of development in the South Muntenia regiona. Economics of agriculture, *59*(1), 196-202

Pittock, A.B. (2005). Climate change - turning up the heat. CSIRO. London

Sharpley, R. (2001). Rural tourism and the challenge of tourism diversification: Case of Cyprus. Tourism management, *23*, 233-244

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I would like thank on selfless contribution you gave in the process of quality improvement of papers published in journal EKONOMIKA.

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