CONNECTION BETWEEN CLUSTER DEVELOPMENT AND NATIONAL COMPETITIVENESS: REGIONAL FOCUS ON WESTERN BALKANS

Marija Petrović-Ranđelović[*], Zorana Kostić, Ivana Kostadinović

University of Niš, Faculty of Economics, Niš, Serbia
[*]*marija.petrovic@eknfak.ni.ac.rs*

Abstract

During the last decade of the 20th century, the importance of clusters has been increased as an integral element of development strategies aimed at improving national competitiveness in a globalized economic environment. Linking of firms in clusters increases business efficiency, but also the ability for innovate the business processes and reduce barriers to entry into a particular market. Monitoring the pace of cluster development is particularly important in countries that are trying to become innovations driven economy. The aim of this paper is to determine whether the speed and direction of changes in cluster development follow the changes in the achieved level of national competitiveness in the countries of the Western Balkans (Albania, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia) in the period 2008-2016. The realization of the basic goal of the research was carried out using the methods of correlation analysis, multi-criteria optimization, descriptive statistics and comparative method. Practical implications of the research results suggest that faster cluster development in the Western Balkan countries is just one of the many economic factors that can contribute to a faster transition to a higher stage of national economies development. The key contribution of this research is reflected in a clearer understanding of the importance that cluster development has in improving the national competitiveness of the Western Balkan countries and providing recommendations regarding the activities of competent state authorities whose implementation can lead to the improvement of the state of cluster development and raising the level of national competitiveness of the countries of the region.

Key words: clusters, business sophistication, national competitiveness, Western Balkans.

ВЕЗА ИЗМЕЂУ РАЗВОЈА КЛАСТЕРА И НАЦИОНАЛНЕ КОНКУРЕНТНОСТИ: РЕГИОНАЛНИ ФОКУС НА ЗАПАДНИ БАЛКАН

Апстракт

У току последње деценије XX века повећан је значај кластера као интегралног елемента стратегија развоја усмерених ка унапређењу националне конкурентности у глобализованом економском окружењу. Повезаност предузећа у кластере повећава ефикасност пословања, али и могућност за иновирање пословних процеса и смањење баријера за улазак на одређено тржиште. Праћење темпа развоја кластера нарочито добија на значају у земљама које настоје да постану иновацијама вођене економије. Циљ овог рада је да се утврди да ли брзина и смер промена у развоју кластера прати промене у достигнутом нивоу националне конкурентности у земљама Западног Балкана (Албанија, Босна и Херцеговина, Македонија, Црна Гора и Србија) у периоду од 2008. до 2016. године. Остваривање основног циља истраживања извршено је применом метода корелационе анализе, вишекритеријумске оптимизације, дескриптивне статистике и компаративног метода. Практичне импликације резултата истраживања указују на то да је бржи развој кластера у земљама Западног Балкана један од фактора који могу допринети бржем преласку у вишу фазу развоја националних привреда. Кључни допринос овог истраживања огледа се у јаснијем разумевању значаја који развој кластера има за унапређење националне конкурентности земаља Западног Балкана и пружању препорука у погледу активности надлежних државних органа чија примена може довести до унапређења стања развоја кластера и подизања нивоа националне конкурентости земаља региона.

Кључне речи: кластери, пословна софистицираност, национална конкурентност, Западни Балкан.

INTRODUCTION

Economic policy holders of all countries today face the challenge of maintaining and continually improving the level of national competitiveness with the aim of achieving a sustainable rate of economic growth and raising the level of well-being. An effective resolution of this problem in the conditions of a pronounced globalization of the world economy requires continuous monitoring and identification of key competitive advantages and competitive disadvantages, which are more viewed as a chance than a threat to maintain and improve the level of national competitiveness.

Over the years, economists have tried to explain the sources of national prosperity, while attaching less or greater importance to many factors such as macroeconomic stability, the rule of law, a transparent and efficient institutional framework, business sophistication, and so on. The multiplicity and diversity of these factors confirm the fact that competitiveness is a complex development phenomenon, which realization requires their complementary and simultaneous action.

There is a high degree of interconnection and mutual dependence between the state of cluster development and national competitiveness. Due to the fact that competitiveness is a complex phenomenon, at the very beginning it is logically imposed its precise definition.

The competitiveness phenomenon has become an issue of great interest both to the academic and the wider professional public over the last two decades. The actuality of this phenomenon in contemporary conditions is emphasized by the fact that in the basis of this concept there are those questions to which economic theory and practice are trying to provide an answer for decades backwards: an increase in economic well-being and an equitable distribution of wealth.

Despite the widespread use among economists, today, in official literature, there is no generally accepted definition of the concept of competitiveness. Differences in theoretical interpretations of this phenomenon are caused by different perceptions of the researchers on the level of its practical application, which has as a consequence the development of a number of definitions and models of competition, as well as the emergence of a number of indicators for measuring the achieved level of competitiveness (Radukić & Petrović-Ranđelović, 2012, p. 247).

Depending on the starting points of researchers in an effort to include factors affecting competitiveness, a distinction is made between the two levels of competitiveness: micro and macro competitiveness.

At the firm, *or micro-economic*, level there exists a reasonably clear and straightforward understanding of the notion of competitiveness based on the capacity of firms to compete, to grow, and to be profitable. At this level, competitiveness resides in the ability of firms to consistently and profitably produce products that meet the requirements of an open market in terms of price, quality, etc. (Martin, 2017, p. 2-1). At the basis of the definition of competitiveness at the micro level, there are microeconomic factors that determine behavior, preferences and standards at the firm level and which directly affect the productivity and innovativeness of the company. Among the microeconomic factors of competitiveness, the application of sophisticated business practices, the quality of the business environment, and the organization and structure of economic activity, i.e. the state of cluster development, is emphasized. Porter was among the first to point out the importance of these factors in overall productivity and national prosperity.

Observed from the macro level, there is no single definition of competitiveness, since the notion of macro or national competitiveness causes different connotations at different authors. This is so when defining national competitiveness, many authors emphasize the importance of various factors that affect competitiveness, such as low costs or the level of the exchange rate, the rate of economic growth or the level of technological development. At the national level, competitiveness reflects the ability of a

country to use its resources in a way that raises the standard of living for its citizens. As a result, an economy is able to sell a broad-range of goods and services in international markets and attract efficiency-seeking investment from abroad (Wares & Handley, 2008, p. 4).

Unlike microeconomic factors, macroeconomic factors of competitiveness indirectly affect the productivity of enterprises and they relate to institutions and regulations (legislative, regulatory and fiscal system and policy, as well as political institutions and social infrastructure) that create and regulate the business environment and set basic preconditions for national competitiveness.

One of the most frequently cited definitions of competitiveness was given by the World Economic Forum, which in its Global Competitiveness Reports strives to identify those factors that are important for achieving sustainable economic growth and the long-term economic progress of a national economy. According to the World Economic Forum (2008), competitiveness is defined as:

> "*The set of institutions, policies, and factors that determine the level of productivity of a country.* The level of productivity, in turn, sets the sustainable level of prosperity that can be earned by an economy" (World Economic Forum, 2008, p. 3).

Regardless of the level of practical application, competitiveness has the ultimate goal of supporting the company's ability to achieve success in international markets in order to achieve a better standard of living and quality of life for the population through continuous and sustainable economic growth and social development.

Since the concept of competitiveness today has become a generally accepted development framework, it can be concluded that it is becoming less used to describe a final state, but as an indicator for undertaking the necessary activities in order to achieve a predetermined, final goal. Many researchers claim that cluster development is a key component of these activities, or a necessary step on the road to achieving the laid goal. This directly leads to the conclusion that cluster development is one of the important strategies for improving the level of national competitiveness.

The countries of the Western Balkans, Albania, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia represent small and open economies that share common historical heritage and follow a relatively similar model of economic development on the way to building a market economy and developing a democratic society.

According to Porter (1990), all national economies over time pass through different stages of competitiveness, which correlate with stages of economic development, reflecting in that specific sources the advantages of national companies in international competition and the character and degree of internationally successful industries and clusters:

factor-driven economies, efficiency-driven economies, innovation-driven economies. (Petrović-Ranđelović & Miletić, 2016, p. 56). According to the development stage, the countries of the Western Balkans have been classified as economies driven by efficiency, which indicates that the factors from the domain of the *Improvement of efficiency* subindex have the greatest impact on the level of national competitiveness. This directly implies that these countries achieve the greatest competitive disadvantages in the domain of the *Innovation and sophistication* subindex, within which are the pillars of competitiveness that are vital to the competitive position of countries in the highest innovation driven stage of development. Particular concern is the fact that competitiveness shortcomings within this sub index are more pronounced in the domain of the 11th pillar, *Business sophistication*, which in itself constitutes a composite index that is formed as a weighted average of the value of nine subindices, of which the third quantifies the state of cluster development.

In accordance with the laid goal, this paper is structured as follows. After introductory considerations, in the first part of the work, qualitative research was carried out, i.e. a review of theoretical and empirical literature on the relationship between clusters and competitiveness was given. The aim of this part of the paper is to set up an analytical framework that would direct research on the manner of which clusters influence national competitiveness. In the third part of the paper, the methodology and the information base of the research are presented and the starting hypotheses are defined. The fourth part of the paper relates to the quantitative research with the aim of confirming the initial hypotheses based on secondary sources of information gathered from the Global Competitiveness Report of the World Economic Forum for the period from 2008 to 2016. In the last part of the paper, the synthesis of the survey results was carried out and recommendations were given for undertaking the desirable activities of the competent state authorities in order to improve the parameters of competitiveness in the domain of the cluster development of the observed group of countries.

CLUSTERS AS A DETERMINANT OF NATIONAL COMPETITIVENESS: THEORETICAL AND EMPIRICAL FRAMEWORK

Among economists there is general consensus that the geographical concentration of economic activities (industrial districts, growth poles, clusters, local production systems, innovation systems, etc.) represents a significant factor in the economic and regional development, innovativeness and competitiveness of a national economy. Theoretical explanations of such concentration date from the end of the 19th century and they found the roots in the book *Principles of Economics* (published in 1890) of English

economist Alfred Marshall (Marshall, 1890), which is analyzing the industrial districts in the 19th century in England, noted that companies from the same sector tend to be grouped in the same geographical area in order to optimize their business activities. Marshall's emphasis on the importance of territorial grouping of economic activities at a particular location for economic and regional development has been neglected for a long time, since scientists from different professions have tried to explain decisions about the location from the social and institutional rather than from the economic point of view. The reaffirmation of this concept has contributed work of Giacomo Becattini (Becattini, 1979) named *Dal 'settore' Industriale al 'distretto' industriale. Alcune considerazioni sull'unitŕ d'indagine dell'economia industriale (Industrial Districts. A new Approach to Industrial Change)* published in 1979. Standing firmly on Marshall's concept positions and its further development, Becattini anew give rise the debate on industrial districts as a model of industrial development and the leading paradigm of local development.

However, with the intensification of the process of globalization in the last decade of the 20th century, large debates have been launched on the importance of the geographical concentration of economic activity in the global economy. In the available empirical literature can be find quite contrary views among economists on this issue. Some argue that globalization, and in particular the liberalization of trade and capital flows, the expansion of multinational corporations and the transition of developed countries to the information society and economy has diminished the importance of regional specialization and the grouping of economic activity (O'Brien, 1992; Cairncross, 1997; Gray, 1998). Others argue that this process has contributed to the increasing importance of the location of economic activity, and that regional economies and clusters today have become the focus of growth and development and the increase in the welfare of the population (Ohmae, 1995; Coyle, 1997, 2001; Porter, 1998; Scott, 1998, 2001; Fujita, Krugman & Venables, 2000). In this regard, Michael Porter's claim in particular is pointed out, to whom:

> "In a global economy – which boasts rapid transportation, high speed communications and accessible markets – one would expect location to diminish in importance. But the opposite is true. The enduring competitive advantages in a global economy are often heavily localised, arising from concentrations of highly specialised skills and knowledge, institutions, rivalry, related businesses, and sophisticated customers" (Porter, 1998, p. 90).

After publication Michael Porter's book *The Competitive Advantage of Nations* (1990) the notion of competitiveness has not only become the main topic in public policy discourse, while at the same time the concept of clusters had been popularized through his diamond model as an analytical concept, and a key policy tool, as well.

The Porter's "diamond model" provides an approach in understanding the competitive position of a nation in global competition quite different from the classical theory. In doing this, it asserts that classical theory which explain the success of nations in particular industries based on the intensive use of factors of production (land, labor and, natural resources) they possess in abundance, so-called cost driven competition, and its political implications for improving the competitiveness of the nation on the basis of comparative advantages have been overshadowed by the globalization process and the power of technology. Porter offers the new productivity based theory of national competitiveness, arguing that:

> "The only meaningful concept of competitiveness at the national level is *productivity*. The principal goal of a nation is to produce a high and rising standard of living for its citizens. The ability to do so depends on the productivity with which a nation's labor and capital are employed" (Porter, 1990, p. 76).

In other words, a new theory must move beyond comparative advantage to the competitive advantage of nation (Porter, 1990, p. 77). Furthermore, he indicates that:

> "A rising standard of living depends on the capacity of a nation's firms to achieve high levels of productivity and to increase productivity over time. Sustained productivity growth requires that an economy continually upgrade itself" (Porter, 1990, p. 76).

Porter argues that in order to understand the concept of competitiveness it is necessary to make a distinction between general use and specialized production factors. Unlike the classic economic theory which argues that for the production process the most important factors are those factors in which one country is abundant and those that are intensively used in the production intended for export, and on this basis make it a key comparative advantage, Porter claims that the most important factors of production are not inherited, but rather created, specialized factors that require continuous investment and which is difficult to imitate. General factors of production, such as workforce or local sources of raw materials, no longer represent the factors on which a sustainable competitive advantage of a country can be built. Creating a sustainable competitive advantage requires the possession of factors that are specifically designed to meet the needs of the specific industry. Bearing in mind that companies have a competitive advantage in innovating the production process through the introduction of new technology or new methods and methods of production management, the most important specialized factors are those closely related to the innovation process. Under conditions where companies are faced with a lack of basic factors of production (selected factor disadvantages), they are stimulating on innovation, in order to make basic weakness into a chance to raise

competitive advantage. In other words, there is a strong link between competitiveness, productivity and innovation.

Porter believes that the availability of traditional (inherited) factors of production does not contribute to the creation of national competitive advantage, but that competitive advantage arises as the result of simultaneous action and interaction of four interrelated determinants that create a business environment in which companies realize their activities, which are related to: 1) factor conditions, 2) demand conditions; 3) related and supporting industries.; and 4) firm strategy, structure and rivalry.

For the purposes of this research, two elements of diamond deserve special attention. First, factor conditions (such as, skilled labor, infrastructure, physical resources and technology), which are necessary for successful competition in the specific industry. In economic literature, the belief is that factor conditions are an important determinant that affects the productivity of companies, by improving their efficiency, quality and specialization in a particular cluster area.

Porter argues that the degree of interaction between all four elements of the diamond of a national competitive advantage further increases by the companies' activities within the cluster. Therefore, the second element refers to the existence of interlinked and supportive activities in one country that are internationally competitive.

Since during the last decade of the 20th century Porter has made the greatest contribution to the development of the cluster concept and the promotion of the relationship between clusters and competitiveness, its definition represents not only the most cited definition of clusters, but also the framework for directing the activities of the economic policy maker in the direction of cluster development and improvement the level of national competitiveness. Clusters are geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition. They include, for example, suppliers of specialized inputs sub as components, machinery, and services, and providers of specialized infrastructure (Porter, 1998, p. 78). Since clusters promote both competition and cooperation, the later inclusion of the concept of cooperation between enterprises, Porter has significantly improved the definition of the cluster. Clusters are geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (*e.g.*: universities, standards agencies, trade associations) in a particular field that compete but also cooperate (Porter, 2000).

In an effort to provide an answer to the question why clusters are crucial in raising the level of national competitiveness, Porter argues that productivity, which is a key determinant of competitiveness, depends on the manner on which companies compete with each other, "not on the particular fields they compete in" (Porter, 1998, p. 80). In other words, in

modern business conditions in order to achieve a competitive advantage it does not matter what kind of resources companies possess, but the manner on which they are used (that is, from the application of sophisticated business processes and technologies). On the other hand, the application of sophisticated business processes and advanced technology is largely determined by the quality of the business environment, the synergy of all elements of the diamond of competitiveness. Clusters, according to Porter, contribute to raising the level of national competitiveness and creating competitive advantages in three ways:

> "First, by increasing the productivity of companies based in the area; second, by driving the direction and pace of innovation, which underpins future productivity growth; and third, by stimulating the formation of new businesses, which expands and strengthens the cluster itself" (Porter, 1998, p. 80).

By fostering competition between companies within the cluster, strengthening entrepreneurial initiatives, and providing easier access to specialized inputs, clusters directly contribute to creating a favorable business environment and indirectly affecting the level of national competitiveness.

Numerous empirical studies confirmed the important role of clusters in raising the level of national competitiveness. According to the Jefferson Institute (2003), national competitiveness is not determined by the size of the relative costs and does not result from the cheap labor in a national economy in relation to the cost of labor in other economies. The mere fact that workers' wages in an economy are low suggests that a domestic economy is unable to provide higher wages precisely because it is not sufficiently competitive. The competitiveness of the macro viewpoint refers to the ability to achieve higher factor income at a time when domestic companies are exposed to the direct impact of international matches. (Jefferson Institute, 2003, p. 25)

Just one of the key reasons that justice increased interest of economic policy makers at cluster development is reflected in the possibility of achieving higher productivity, wages and employment in the cluster than in the economy as a whole. This conclusion is confirmed by Porter (2003) who in the case in the study of American cluster in the period from 1990 to 2000 showed that those regions in America that have a high proportion of the employed labor force in the "strong" export-oriented clusters achieve better economic performance in terms of average wages, employment and patenting, as measures of innovative activities of the region. The results of his research show that export-oriented clusters achieve higher productivity than those that are domestically oriented, which is in line with higher patenting rates and higher wages in these clusters. As can be understood from Porter's analysis, he considers productivity as the sole source for competitiveness (Sala, Maticiuc, & Munteanu, 2016, p. 12).

Similar findings have also been found in the research of biopharmaceutical clusters in Denmark (Copenhagen Economics, 2007),

where it has been observed that the percentage increase in the spatial concentration of economic activities has led to an increase in average wages in the cluster by three percent. The greater the cluster specialization for performing certain activities, they are also potentially greater opportunities for achieving higher wages. Sölvell, Lindqvist, & Ketels (2003) indicate that cluster development today is an essential component of national and regional development strategies, and that the cluster initiatives, as organized efforts of enterprises within clusters, governments and research communities in order to increase the growth and competitiveness of clusters within the region, are a key element of the development agenda. Cluster initiatives according to those authors make a positive impact on the development of clusters, since researches had shown that more than 80% of respondents confirmed that such activities contribute to improving the competitiveness clusters. In addition, cluster initiatives contribute to the development of clusters not only in developed countries, but also in developing countries and countries in transition. These authors emphasize that the integration of cluster initiatives into other sectoral policies, regional and industrial policy, small and medium sized enterprises development policy, foreign direct investment attraction policy and scientific-research and innovation policy, and their effective implementation can contribute to achieving potentially large development benefits and raising the level of national competitiveness.

Analyzing the effects of economies of scale on the market structure, Krugman & Obstfeld (2009) have pointed out the need to underline a clear line between the external and internal economies of scale. According to these authors:

> "External economies of scale occur when the cost per unit depends on the size of the industry but not necessarily on the size of any one firm. Internal economies of scale occur when the cost per unit depends on the size of an individual firm but not necessarily on that of the industry" (Krugman & Obstfeld, 2009, p. 139).

Nevertheless, their effects on the structure of the industry are also different:

> "An industry where economies of scale are purely external (that is, where there are no advantages to large firms) will typically consist of many small firms and be perfectly competitive. Internal economies of scale, by contrast, give large firms a cost advantage over small firms and lead to an imperfectly competitive market structure" (Krugman & Obstfeld, 2009, p. 139).

External economies of scale, resulting from the concentration of production at one or more locations, or spatial concentrations of small enterprises into clusters, contribute to achieving competitive advantages and improving the level of national competitiveness.

Although numerous empire studies have confirmed the important role of clusters in promoting economic growth, employment and innovation, a recent Brenner & Gildner research (2006) on the example of the German regions indicates that cluster effects change over time. In their research, these authors found that over time, old clusters are beginning to generate negative effects in terms of adopting new technology if they are not flexible enough to adapt to new and changed circumstances and challenges.

METHODOLOGICAL FRAMEWORK OF RESEARCH AND HYPOTHESIS

The low level of competitiveness of the Western Balkan countries on the scale of global competitiveness has initiated the identification of potential sources of (no) competitiveness of the economies of these countries, among which the growing importance of cluster development has recently become increasingly important. In the Table 1 and Table 2 (Appendix A) is given an overview of the ranking and values for the group of Western Balkan countries according to the *State of cluster development* indicator for the period from 2008 to 2016. Right the examination of the problems with which the countries of the Western Balkans face in the area of improving competitiveness, especially in the domain of cluster development, is the subject of research that is covered by this paper. Bearing in mind the object and purpose of the research, the basic hypothesis from which the research begins is: the state of cluster development is correlated with the national competitiveness of the Western Balkan countries and the transition to a higher stage of development.

The methodological approach in the paper is focused on the application of modern statistical and software solutions for quantitative data analysis. During the research, correlation analysis, multi-criteria optimization, descriptive statistics and comparative method were used. Correlation analysis was used to determine the strength of the relationship between the achieved cluster development in the internal market and the competitiveness of the national economy. Multi-criteria decision making was used to monitor cluster development in the countries of the Western Balkans in the period 2008-2016. The task of the multi-criteria analysis is to identify when the greatest progress in cluster development in the Western Balkans countries has been achieved in the observed period 2008-2016. Special attention is paid to determining whether the speed and direction of changes in cluster development follow the changes in the achieved level of national competitiveness of the analyzed group of countries.

The paper used software Visual PROMETHEE (*Preference Ranking Organization Methods for Enrichment Evaluation*) as a method of multi-criteria analysis for ranking the final number of alternatives. In addition, a

statistical computer package SPSS (*Statistical Package for Social Sciences*) was also used for quantitative data analysis. During the analysis, the data from the regular annual reports on global competitiveness, published by the World Economic Forum, were dominantly used.

Evaluation of cluster policy in individual Western Balkan countries after 2008, shows that cluster policy is increasingly becoming part of many governments' economic policy strategies. In general, cluster development is largely limited by the insufficiently stimulating business environment for the small and medium-sized enterprises sector. (Kostadinović, Ilić & Kostić, 2015) The complexity and indirect nature of cluster policy interventions have influenced on countries to undertake activities which will promote regional development. Recognizing the fact that Western Balkans countries should continue to develop clusters more intensively, special attention should be paid to upgrading existing national and regional clusters policies, cluster bencmarking and cluster connecting with the aim to empower innovations. Low level of According to National Agency for Regional Development in Serbia only 15% of small enterprises and every fifth medium-sized enterprise participate in some form of association. The growing trend of cluster number in Western Balkan countries points the need for clustering, especially for small and medium-sized enterprises. Clusters can contribute to: the growth of innovations, more efficient use of available resources and, ultimately, regional development. (Костадиновић & Костић, 2014).

The World Economic Forum introduces a new global index of competitiveness with the aim of linking micro and macroeconomic factors of competitiveness, in order to test the starting hypothesis, we as the information basis for the realization of this research took the following data:

1. Set of data on parameters of competitiveness from the Global Competitiveness Report of the World Economic Forum for the period from 2008 to 2016;

2. Data on parameters of competitiveness according to the *State of cluster development* indicator, which belongs to the 11th pillar of competitiveness, *Business sophistication*, from the Global Competitiveness Report of the World Economic Forum for the period from 2008 to 2016.

In the focus of attention is the level of cluster development in five countries of the Western Balkans in the period 2008-2016. This indicator shows the distribution of clusters, the geographical concentration of enterprises, suppliers, manufacturers of related products and services, and specialized institutions in a particular field as well. In fact, this indicator is part of the eleventh pillar of composite global competitiveness index, which refers to the sophistication of the business, which is published by the World Economic Forum. For research purposes, data from the Global Competitiveness Index on the key variable that determines cluster development will be used. It takes a value from 1 to 7, with 1 indicating a

very low level of cluster development, that is, no clustering, while on the other hand, 7 indicates the large distribution and presence of clusters in many sectors.

RESEARCH RESULTS AND DISCUSSION

Raising the level of national competitiveness in the conditions of intensive globalization of the world economy is a priority task of the economic policy makers of all countries. Observed according to the parameters of competitiveness, the countries of the Western Balkans region recorded poor competitive performance in the period from 2008 to 2016 (Table 3, Appendix B). Of all countries, Montenegro achieved the best competitive performance in the observed period, absolutely in terms of the average GCI value (4.19 points), and relative, when it comes to ranking competitiveness in international frameworks (the average of the period 66th position). Despite improving the rankings for the four positions upward and increasing the GCI by 0.08 points in 2016, it can be concluded the relative lagging of the Serbian economy behind the countries of the region in terms of the achieved level of competitiveness. This conclusion is confirmed by the fact that the Republic of Serbia, according to given parameters of competitiveness, is better ranked only from Bosnia and Herzegovina, while it far lags behind Macedonia (the average of the period 75th position) and minor for Albania (the average of period 92nd position). Overall, taking into account the average achieved rank of the region in the given period and the average realized value of GCI, it can be only concluded that the region holds an unenviable position on the scale of global competitiveness.

Given Stevanović's recent research (2016), it can be noted that the movement of the overall index of *Business sophistication* is at an unsatisfactory level and extremely balanced among the countries of the region. Such findings confirm the conclusion that the countries of the region that are in the second stage of development do not have competitive advantages in this segment, but also that in the observed period there has been a significant improvement in the parameters of competitiveness in the domain of cluster development in the region. However, despite the absolute improvement in the value of the *State of cluster development* indicator in 2016 (World Economic Forum, 2016), observed relative to other countries covered by the World Economic Forum Report, it is noticeable that the countries of the region, except for Macedonia, are ranked at the very bottom.

Low level of cooperation between enterprises in clusters is one of the factors that affect the structure of the national market. On the strength of the connection between the state of cluster development and national competitiveness affects, among other factors, achieved level of cluster development. With this in mind, in this part of the paper, cluster development is being monitored in the context of their contribution to the

634

development of the competitiveness of national economies. Table 1 shows the descriptive statistics of the realized values of the indicators of cluster development in five countries of the Western Balkans by years.

Table 1 Descriptive statistics of State of cluster development for observed group of countries by years

	Cluster 2008	Cluster 2009	Cluster 2010	Cluster 2011	Cluster 2012	Cluster 2013	Cluster 2014	Cluster 2015	Cluster 2016
N Valid	5	5	5	5	5	5	5	5	5
Missing	0	0	0	0	0	0	0	0	0
Mean	2,5400	2,6200	2,8200	2,8000	2,7200	2,8400	2,9400	3,1200	3,2400
Std. Error of Mean	,11225	,09165	,11136	,16432	,22672	,26571	,25219	,14967	,14353
Median	2,5000	2,7000	2,8000	2,8000	2,7000	3,0000	3,0000	3,0000	3,1000
Std. Deviation	,25100	,20494	,24900	,36742	,50695	,59414	,56391	,33466	,32094
Variance	,063	,042	,062	,135	,257	,353	,318	,112	,103
Range	,70	,40	,60	,90	1,40	1,50	1,50	,80	,80
Minimum	2,20	2,40	2,60	2,40	2,00	2,00	2,00	2,90	3,00
Maximum	2,90	2,80	3,20	3,30	3,40	3,50	3,50	3,70	3,80

Source: Author's calculations according to the data of the World Economic Forum

The connection between the state of the cluster development and the index of global competitiveness shows that there is frequent oscillations in the direction and strength of the relationship between the observed variables. The nature of the connection suggests that faster and "smarter" linking enterprises into clusters is necessary in all Western Balkans countries. In addition, cluster policy is increasingly becoming part of many governments' economic policy strategies. However we should not ignore the fact that cluster development is largely limited by the insufficiently stimulating business environment for the small and medium-sized enterprises sector in selected group of countries. Faster cluster growth in national economies can affect the transition from a lower to a higher stage in the development of national economies that highlights innovation as a key generator of economic development.

Using multi-criteria optimization as a key method for assessing the cluster development in the Western Balkans countries from 2008 to 2016, ranking by years was made and the direction and pace of cluster development in these countries was determined. The analysis of the significance of the criteria includes determining the weight coefficients. It should be noted here that all countries (Albania, Bosnia and Herzegovina, FYR Macedonia, Montenegro and Serbia) are given equal importance in the analysis, since all countries are in the second phase of development, i.e. they are economies driven by efficiency.
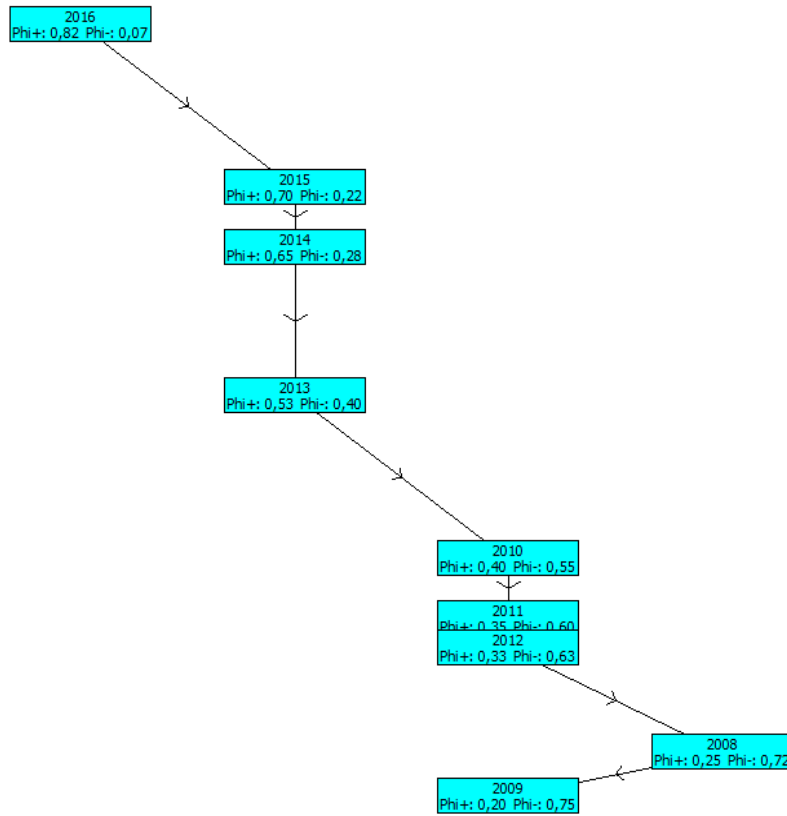
Figure 1. Promethee network
Source: Author's own presentation

Based on the network display, given in Figure 1, the progress of the Western Balkan countries in the development of enterprises cluster linking can be monitored. The analyzed years are represented by nodes, and arrows indicate the direction of change. Based on the network diagram, a positive trend in cluster development for the observed group of countries in the period 2013-2016 can be identified. In addition, the visual display shows that in 2014 and 2016 was made the greatest progress in relation to the previous year, respectively. In 2016, the countries of the Western Balkans achieved the highest value of this indicator, which indicates that the cluster state in these countries is at the highest level in the last ten years. However, the question arises as to whether the achieved level is sufficient to affect competitiveness and destine the countries of the Western Balkans towards innovations.
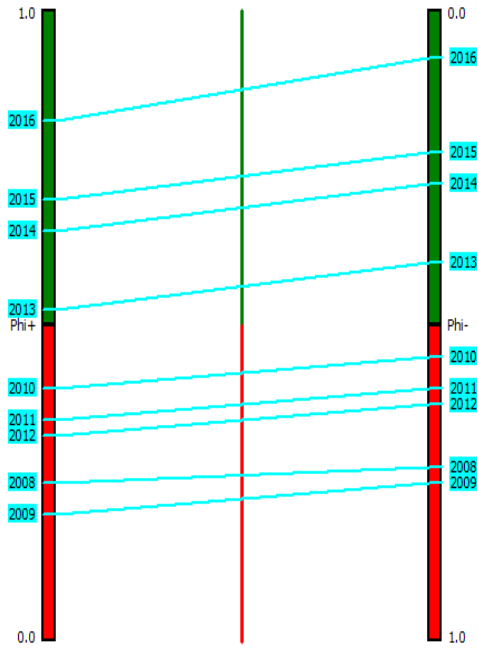
636

Figure 2. Promethee I Partial Ranking
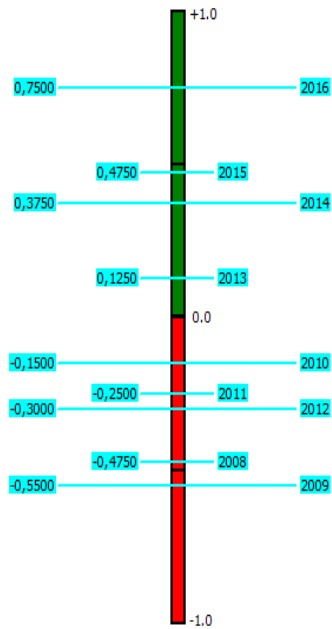Source: Author's own presentations

Figure 3. Promethee II Complete Ranking
Source: Author's own presentations

Bearing in mind that the lines in Figure 2 are not intersected, it can be concluded that it is possible to make a summarized comparison of the covered countries by years. Figure 2 and Figure 3 show that the countries of the Western Balkans, observed together, achieved the highest value of cluster development indicators in 2016, which is confirmed by the highest value of Phi, ranging from -1.0 to +1.0 (other complete ranking). Positive changes in the trend of this indicator have been recorded since 2010. In the period from 2009-2011 were not achieved significant results on cluster development. On the other hand, in 2014 and 2016, the highest rates of growth of cluster development in the Western Balkans countries were recorded.
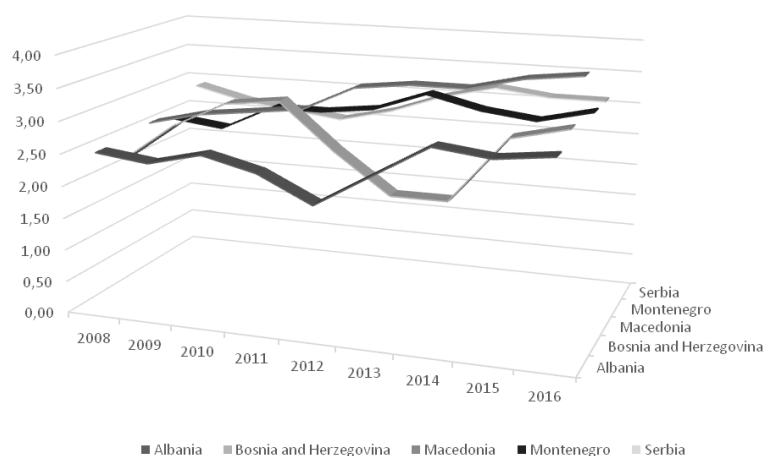
Graph 1. Comparative review of the global competitiveness index movement of the Western Balkans countries in the period 2008-2016.
Source: Author's systematization according to the data of the World Economic Forum

A comparative review of the global competitiveness index movement of the Western Balkans countries in the period 2008-2016 shows that the pace of cluster development does not follows the rate of change of the index. This suggests that further cluster growth and development in the countries of the Western Balkans is needed in order to have an impact on competitiveness.

In the continuation of the research, we followed the relationship between two metric variables: the state of cluster development and the global competitiveness index, which were measured at the 1-7 interval scale. In order to determine the strength of the relationship between the degree of cluster development and competitiveness, correlation analysis was used:

"Pearson's coefficient measures the degree of linear connection between two metric variables. From a sample of n elements, where metric variables X and Y are observed, the Pearson's correlation coefficient r is calculated using the formula:

$$r = \frac{\sum_{i=1}^{n}(X_i - \bar{X})(X_i - \bar{Y})}{\sqrt{\sum_{i=1}^{n}(X_i - \bar{X})^2 \sum_{i=1}^{n}(Y_i - \bar{Y})^2}}$$

The correlation coefficient *r* is a symmetric measure of association, which means that the correlation between the variables *X* and *Y* is equal to the correlation between *Y* and *X*. Pearson's correlation coefficient does not determine the cause-effect relationship between the variables. The existence of a causal link is determined on the basis of theoretical knowledge of the observed phenomena, and not from the mathematical measures of the association". (Soldić-Aleksić & Chroneos Krasavac, 2009, pp. 137-138).

In order to test the basic hypothesis, the paper measured and inspected a connection between the selected variables, its direction and its strength. Specifically, the state of cluster development is correlated with the competitiveness index if the Pearson correlation coefficient has a positive value, and *vice versa*.

The results suggest that a positive relationship between the analyzed variables did not exist during the whole period under review. Specifically, negative correlation (Pearson correlation coefficient had negative values) is characterized in the period from 2009 to 2011, and it was not statistically significant. A negative correlation means that in this period the decline in value of the state of cluster development is followed by the growth of the global competitiveness index in Western Balkan countries. However, here it is important to emphasize that low level of cluster development can not contribute to the improvement of national competitiveness.

Table 2 Correlations

		GCI 2013	Cluster 2013	GCI 2014	Cluster 2014	GCI 2015	Cluster 2015	GCI 2016	Cluster 2016
GCI	Pearson Correlation	1	,370	1	,944*	1	,508	1	,597
	Sig. (2-tailed)		,540		,016		,382		,288
	N	5	5	5	5	5	5	5	5
State of Cluster development	Pearson Correlation	,370	1	,944*	1	,508	1	,597	1
	Sig. (2-tailed)	,540		,016		,382		,288	
	N	5	5	5	5	5	5	5	5

*Correlation is significant at the 0.05 level (2-tailed).
Source: Author's calculations

According to the data shown in Table 2, the second half of the analyzed period, namely the period from 2014 to 2016, is characterized by positive values of the Pearson's correlation coefficient. In accordance with empirical rules for determining the strength of the correlation, there

is a moderate relationship between the index of global competitiveness and level of cluster development for Western Balkans in the period from 2014 to 2016. It is statistically significant only in 2014, with the level of realized significance Sig (2-tailed) 0.016. (Soldić-Aleksić & Chroneos Krasavac, 2009, p. 140).

CONCLUSION

The results of the previously conducted research directly lead to the conclusion that in the period from 2008 to 2016, the countries of the Western Balkans achieved poor competitive performance, both absolutely, according to the GCI, and relative to the position they occupy in the list of countries covered by the Global Competitiveness Report. Identifying key sources of competitive advantages, as well as mapping factors of no competitiveness, is important for tracing the future directions of the economic policy makers of the countries of the region in order to improve the level of national competitiveness.

According to the World Economic Forum (2012, p. 7) business sophistication concerns two elements that are intricately linked: the quality of a country's overall business networks and the quality of individual firms' operations and strategies. These factors are particularly important for countries at an advanced stage of development when, to a large extent, the more basic sources of productivity improvements have been exhausted. The quality of established business networks and supporting industries, measured by the quality and quantity of local suppliers and the degree of their interaction, is a significant determinant of national competitiveness.

The paper analyzes the influence of the speed and direction of changes in cluster development on changes in the achieved level of national competitiveness in the countries of the Western Balkans (Albania, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia) in the period 2008-2016. The connection between the state of the cluster development and the index of global competitiveness shows that there are frequent oscillations in the direction and strength of the relationship between the observed variables. The nature of the connection suggests that faster and "smarter" linking enterprises into clusters is necessary in all Western Balkans countries. In addition, cluster policy is increasingly becoming part of many governments' economic policy strategies. However, cluster development is largely limited by the insufficiently stimulating business environment for the small and medium-sized enterprises sector in selected group of countries. Faster cluster growth in national economies can affect the transition from a lower to a higher stage in the development of national economies that highlights innovation as a key generator of economic development.

Taking into account the fact that the countries of the Western Balkans are rank in the efficiency driven economies, and that to move beyond this

stage into the innovation driven economies stage, the development of well-functioning clusters is essential (Porter, 1998, p. 86), improving the competitiveness of the economies of the Western Balkans, encouraging the development of strategic clusters is in the strategic interests of the competent state authorities observed group of countries in the future. During the analysis, a positive trend in the development of clusters for the observed group of countries in the period 2013-2016 was identified. In 2016, the Western Balkans countries achieved the highest value of this indicator, which indicates that state of cluster development is at the highest level in the last ten years. However, there remains an open question as to whether the achieved level is sufficient to affect competitiveness and define the countries of the Western Balkans as innovations. The results that have emerged show that in the period 2008-2016 the pace of cluster development does not follow the pace of changing the global competitiveness index of the Western Balkan countries. Therefore, further growth and development of clusters in the Western Balkans countries is needed in order to achieve a significant impact on competitiveness. The initial hypothesis is not absolutely confirmed, that is, the accelerated cluster development affects the improvement of the national competitiveness of the Western Balkan countries, but it is not a sufficient factor for the transition of national economies to a higher stage of development.

Since cluster development today is one of the important strategies for improving the level of national competitiveness, in order to improve the state of cluster development, the competent state authorities of the countries of the region should focus their activities in the following period towards:

1. Including of all levels of government in the process of accelerated development and mapping of clusters;

2. Providing long-term support to all relevant actors in order to achieve long-term clustering goals, such as the emergence of new firms, the introduction of innovations, transfer of technology, technology and new knowledge;

3. Providing greater support for cluster development in a way that contributes to:

- Increasing the degree of connectivity between clusters and other elements of business infrastructure, as well as with local and regional development policies;
- Strengthening the relationship between cluster members in order to facilitate the flow of information, create new products and create and improve the conditions for innovation;
- Strengthening cooperation between clusters, both from the same as from different sectors, in order to develop new, better quality products, as well as to disseminate new knowledge and information;
- Acquiring new knowledge and raising the qualification level of employees and managers at cluster level, organizing various types

of training, expert visits, roundtables and expert debates, all with the aim of helping faster cluster development;

4. Promoting the development of clusters, especially successful clusters, in order to increase awareness of the possibilities of achieving multiple benefits from merging enterprises into clusters;

5. Promoting the cluster policy, which should be harmonized with technological, scientific, education policy, as well as with the policy of export promotion and attracting foreign direct investments, assessment of cluster development and strengthening of cooperation with the EU in the implementation of cluster development policy;

6. Since the improvement of the competitiveness of the economies of the Western Balkan countries is in the strategic interest of the European Union, the implementation of activities aimed at strengthening cooperation with the European Union in the field of cluster development is important not only for the more efficient functioning of existing ones, but also for the emergence of new clusters, whose establishment is a long-term process.

Appendix A

Table 1 Comparative review of the positions of the Western Balkans countries according to the State of cluster development indicator, 2008-2016

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Albania	126	130	123	130	144	145	126	131	121
Bosnia and Herzegovina	133	116	82	76	135	148	n.a.	122	108
Macedonia	123	109	107	101	91	95	95	73	55
Montenegro	128	128	115	117	125	121	122	126	113
Serbia	104	117	122	128	133	129	115	112	112

Note: Since Bosnia and Herzegovina does not have data for 2014, data for the previous year were used for quantitative analysis. In this way, adequate information base was provided for carrying out relevant conclusions. The number of countries involved in the World Economic Forum's Reports varies from year to year respectively: 134 (2008), 133 (2009), 139 (2010), 142 (2011), 144 (2012), 148 (2013), 144 (2014), 140 (2015), 138 (2016).
Source: Author's systematization according to the data of the World Economic Forum.

Table 2 Comparative review of the State of cluster development indicator values for the Western Balkans countries, 2008-2016

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Albania	2,5	2,4	2,6	2,4	2	2,5	3	2,9	3,0
Bosnia and Herzegovina	2,2	2,8	3,2	3,3	2,6	2	n.a.	3	3,2
Macedonia	2,6	2,8	2,9	3	3,4	3,5	3,5	3,7	3,8
Montenegro	2,5	2,4	2,8	2,8	2,9	3,2	3	2,9	3,1
Serbia	2,9	2,7	2,6	2,5	2,7	3	3,2	3,1	3,1

Note: Since Bosnia and Herzegovina does not have data for 2014, data for the previous year were used for quantitative analysis. In this way, adequate information base was provided for carrying out relevant conclusions. The number of countries involved in the World Economic Forum's Reports varies from year to year respectively: 134 (2008), 133 (2009), 139 (2010), 142 (2011), 144 (2012), 148 (2013), 144 (2014), 140 (2015), 138 (2016).
Source: Author's systematization according to the data of the World Economic Forum.

Appendix B

Table 3 Comparative review on movement of rank according to GCI on the global competitiveness scale and GCI values for the countries of the Western Balkans in the period from 2008 to 2016.

	Rank of Western Balkans countries according to GCI on the scale of global competitiveness						Value (1-7)					
	Albania	Bosnia and Herzegovina	Macedonia	Montenegro	Serbia	Average of the region[2]	Albania	Bosnia and Herzegovina	Macedonia	Montenegro	Serbia	Average of the region[2]
2008	108	107	89	65	85	91	3,55	3,56	3,87	4,11	3,90	3,80
2009	96	109	84	62	93	89	3,72	3,53	3,95	4,16	3,77	3,83
2010	88	102	79	49	96	92	3,94	3,70	4,02	4,36	3,84	3,97
2011	78	100	79	60	95	82	4,06	3,83	4,05	4,27	3,88	4,02
2012	89	88	80	72	95	85	3,91	3,93	4,04	4,14	3,87	3,98
2013	95	87	73	67	101	85	3,85	4,02	4,14	4,20	3,77	4,00
2014	97	n.a.	63	67	94	80	3,84	n.a.	4,26	4,23	3,90	4,06
2015	93	111	60	70	94	86	3,93	3,71	4,25	4,20	3,89	4,00
2016	80	107	68	82	90	85	4,06	3,80	4,23	4,05	3,97	4,02
Average of the period[1]	92	101	75	66	94	86	3,87	3,76	4,09	4,19	3,87	3,96

1) The average rank of the period and the value of GCI in the period from 2008 to 2016 were obtained on the basis of a simple arithmetic mean.

2) The average rank of the region and the value of GCI in the period from 2008 to 2016 were obtained on the basis of a simple arithmetic mean.

The number of countries involved in the World Economic Forum's Reports varies from year to year respectively: 134 (2008), 133 (2009), 139 (2010), 142 (2011), 144 (2012), 148 (2013), 144 (2014), 140 (2015), 138 (2016).

Source: Author's systematization according to the data of the World Economic Forum.

REFERENCES

Becattini, G. (1979). Dal settore industriale al distretto industriale. Alcune considerazioni sull'unità d'indagine dell'economia industriale. *Rivista di economia e politica industriale*, 1, 7-21.

Brenner, T., & Gildner, A. (2006). The long-term implications of local industrial clusters. *European Planning Studies*, 14(9), 1315-1328.

Cairncross, F. (1997). *The death of distance*. London: Orion Business Books.

Copenhagen Economics (2007). *Internal Summary Report WP4*. BSR InnoNet, Draft Version.

Coyle, D. (1997). *The weightless world*: *Strategies for managing the digital economy*. London: Capstone.

Coyle, D. (2001). *Paradoxes of prosperity: Why the new capitalism benefits all*. London: Texere Publishing.

Fujita, M. Krugman, P. & Venables, A. (2000). *The spatial economy: Cities regions and international trade*. Cambridge, Mass: MIT Press.

Gray, J. (1998). *False dawn: The delusions of global capitalism*. London: Granta Books.

Jefferson Institute (2003). *Konkurentnost privrede Srbije [Competitiveness of the Serbian economy]*. Beograd.

Костадиновић, И. & Костић, З. (2014). Стратешки правци развоја кластера у Србији и Хрватској – упоредна анализа [The strategic directions of clustes development in Serbia and Croatia – comparative analysis], У Аранђеловић, З. (Прир.): *Регионални развој и демографски токови земаља југоисточне Европе* (681-691). Ниш: Универзитет у Нишу, Економски факултет

Kostadinović, I., Ilić, I. & Kostić, Z. (2015). Clusters – A Specific Form of Connecting Business Entities in Order to Improve the Market Position. *Hyperion Economic Journal* vol. 3, issue 3(3), pp. 46-54.

Marshall, A. (1890) *Principles of economics*. London: Macmillan.

Martin, R. L. (2017) *A Study on the Factors of Regional Competitiveness: A draft final report for The European Commission, Directorate-General Regional Policy*. Retrieved from http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/3cr/competitiveness. pdf (15.05.2017.).

National Agency for Regional Development in Serbia. Retrieved form http://www.regionalnirazvoj.gov.rs/Lat/ShowNARRFolder.aspx?mi=85 (20.10.2017.).

O'Brien, R. (1992). *Global financial integration: The end of geography?* London: Pinter.

Ohmae, K. (1995). *The end of the nation state: The rise of regional economies*. London: Harper Collins.

Петровић-Ранђеловић, М. & Милетић, Д. (2016). Регионална анализа конкурентске позиције Републике Србије (Regional analysis of the competitive position of the Republic of Serbia). У Аранђеловић, З. (Прир.): *Регионални развој и демографски токови земаља Југоисточне Европе* (53-68). Ниш: Универзитет у Нишу, Економски факултет.

Porter, M. E. (1990). The competitive advantages of nations. *Harward Business Reeview,* March-April, 73-91.

Porter, M. E. (1998). Clusters and the new economics of competitiveness. *Harvard Business Review*, December, 77-90.

Porter, M.E. (2000). Location, competition and economic development: Local clusters in a global economy. *Economic Development Quarterly*, 14 (1), 15–34.

Porter, M. E. (2003). The economic performance of regions. *Regional Studies,* 37(6,7), 549-578.

Radukić, S., Petrović-Ranđelović, M. (2012). The challenges of competitiveness improvement of the Sebian economy in the post-crisis period. In B. Krstić and A. Chodyński (Eds.), *Current problems of competitiveness improvement in national economies and enterprises* (pp. 245-262). Niš: Faculty of Economics, University of Niš.

Sala, D. C., Maticiuc, M. D., & Munteanu, V. P. (2016). Clusters influence on competitiveness. Evidences from European Union countries. 10th International Management Conference: Challenges of modern management (10-17). BUCHAREST: ROMANIA. Retrieved from http://conferinta.management. ase.ro/archives/2016/PDF/1_2.pdf (10.04.2017.).

Scott, A. J. (1998). *Regions and the world economy*. Oxford: Oxford University Press.

Scott, A. J. (Ed.). (2001). *Global city regions: Trends, theory and policy*. Oxford: Oxford University Press.

Солдић-Алексић, J., & Chroneos Красавац, Б. (2009). *Квантитативне технике у истраживању тржишта: Примена СПСС рачунарског пакета* [*Quantitative techniques in market research: Application of SPSS computer package*]. Beograd: Centar za izdavačku delatnost Ekonomskog fakulteta u Beogradu.

Sölvell, Ö., Lindqvist, G., & Ketels, C. (2003). *The cluster initiative greenbook*. Stockholm: Ivory Tower AB. Retrieved from https://www.hhs.se/ contentassets/f51b706e1d644e9fa6c4d232abd09e63/greenbooksep03.pdf (10.04.2017).

Стевановић, Т. (2016). Софистицираност пословних процеса као детерминанта конкурентности Републике Србије [Business sophistication as a determinant of the competitiveness of the Republic of Serbia]. У Б. Крстић (Прир.), *Детерминанте конкурентности Републике Србије* [*Determinants of competitiveness of the Republic of Serbia*], (pp. 267-311). Ниш: Универзитет у Нишу, Економски факултет.

Wares, A. C., & Hadley, S. J. (2008). The cluster approach to economic development.*USAID Technical Brief*, 7, Retrieved from http://www. clustermapping.us/sites/default/files/files/resource/The%20Cluster%20Approach %20to%20Economic%20Development.pdf (15.05.2017.).

World Economic Forum (2008). *The Global Competitiveness Report 2008-2009*. Geneva, Switzerland.

World Economic Forum (2009). *The Global Competitiveness Report 2009-2010*. Geneva, Switzerland.

World Economic Forum (2010). *The Global Competitiveness Report 2010-2011*. Geneva, Switzerland.

World Economic Forum (2011). *The Global Competitiveness Report 2011-2012*. Geneva, Switzerland.

World Economic Forum (2012). *The Global Competitiveness Report 2012-2013*. Geneva, Switzerland.

World Economic Forum (2013). *The Global Competitiveness Report 2013-2014*. Geneva, Switzerland.

World Economic Forum (2014). *The Global Competitiveness Report 2014-2015*. Geneva, Switzerland.

World Economic Forum (2015). *The Global Competitiveness Report 2015-2016*. Geneva, Switzerland.

World Economic Forum (2016). *The Global Competitiveness Report 2016-2017*. Geneva, Switzerland.

ВЕЗА ИЗМЕЂУ РАЗВОЈА КЛАСТЕРА И НАЦИОНАЛНЕ КОНКУРЕНТНОСТИ: РЕГИОНАЛНИ ФОКУС НА ЗАПАДНИ БАЛКАН

Марија Петровић-Ранђеловић, Зорана Костић, Ивана Костадиновић
Универзитет у Нишу, Економски факултет, Ниш, Србија

Резиме

Питања и проблеми из домена унапређења националне конкурентности предмет су непрестаног интересовања како економске теорије тако и праксе. Актуелност овог проблема потврђује чињеница да се он својом тежином наметнуо као саставни елемент стратегија развоја свих земаља – како развијених тако и земаља у развоју и земаља у транзицији.

Могућности за унапређење достигнутог нивоа конкурентности зависе од расположивости различитих фактора који постоје у једној привреди. Након деведесетих година XX века, концепт кластера добио је значајну улогу у промовисању конкурентности и подстицању привредног развоја.

Предности концентрације економских активности на истом подручју одавно су уочене, премда највеће заслуге у популаризацији концепта кластера и наглашавању њиховог значаја за унапређење националне конкурентности припадају Мајклу Портеру (Michael Porter). Оно што кластере чини привлачним за предузећа која теже да се удружују јесте могућност остваривања веће продуктивности услед бржег протока информација и лакшег комуницирања између повезаних и подржавајућих индустрија, као и услед ефикасне размене идеја и иновација. Другим речима, већа продуктивност остварује се тамо где постоје кластери. Узимајући у обзир Портерову тезу да је једини смислен концепт конкурентности на националном нивоу продуктивност, развој кластера постаје важна стратегија за унапређење нивоа националне конкурентости.

Земље Западног Балкана су, поред проблема са којима се суочавају на путу ка тржишној економији и демократском друштву, суочене и са проблемом подизања укупне конкурентске способности као предуслова за остваривање динамичног привредног раста и развоја. Истраживањем је утврђено да су земље региона веома ниско рангиране на скали глобалне конкурентности, што указује на потребу предузимања неопходних активности надлежних државних органа ради унапређења нивоа националне конкурентности. У складу са добро познатом економском теоријом етапа развоја, све земље региона Западног Балкана сврстане су у ред ефикасношћу вођених економија, што непосредно имплицира да у оквиру подиндекса Иновације и софистицираност земље региона немају конкурентске предности. Истраживањем је утврђено да су конкурентски недостаци најјаче истражени у домену 11. стуба конкурентности – Софистицираност пословних процеса, који представља композитни индекс који се формира као пондерисани просек вредности девет подиндекса, од којих трећи по реду квантификује стање развоја кластера.

Применом савремених статистичких и софтверских решења за квантитативну анализу података, у раду је извршено испитивање утицаја брзине и смера промена у развоју кластера на промене у достигнутом нивоу националне конкурентности у земљама Западног Балкана (Албанија, Босна и Херцеговина, Македонија, Црна Гора и Србија) у периоду од 2008–2016. године. Резултати до којих се дошло у истраживању показују да (а) просечне вредности показатеља стање развоја кластера заостају за просечним вредностима индекса глобалне конкурентности, као и да (б) у периоду

од 2008. до 2016. године темпо развоја кластера не прати брзину промене индекса глобалне конкурентости земаља Западног Балкана. Стога, могло би се закључити да полазна хипотеза није апсолутно потврђена, односно да постоји повезаност између убрзаног развоја кластера и унапређења националне конкурентности замаља Западног Балкана, међутим, он није довољан фактор за прелазак националних економија у вишу фазу развоја.

Будући да квалитет укупне пословне мреже земље представља значајан елемент софистицираности пословних процеса, и даље ниске вредности овог показатеља упућују на потребу унапређења квалитета пословне мреже и подржавајућих институција ради унапређења конкурентске позиције земаља региона не само у домену Софистицираности пословних процеса већ и на скали глобалне конкурентности. Стога, потенцијале за унапређење конкурентности привреда региона треба тражити у домену подиндекса Стање развоја кластера, који као трећи елемент микроекономске конкурентности непосредно одређује квалитет пословног окружења и примену софистициране пословне праксе.

Имајући то у виду, у раду су дате препоруке у погледу приоритетних праваца активности надлежних државних органа у наредном периоду како би се унапредило стање развоја кластера и у исто време подигао ниво конкурентности привреда земаља региона.