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PERSPECTIVES FOR THE DEVELOPMENT OF KNOWLEDGE ECONOMY, INNOVATIVENESS, AND COMPETITIVENESS OF CEFTA COUNTRIES

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Abstract. *Knowledge and innovativeness are the key determinants of the competitiveness of countries in the contemporary economic conditions. Based on these facts, the paper presents a comparative analysis of readiness for the development of the knowledge economy, the achieved level of innovativeness and competitiveness of countries involved in the Central European Free Trade Agreement – CEFTA and a group of selected EU countries), which used to be CEFTA members. The aim of the study is to assess differences in the levels of readiness for the development of knowledge economy, innovativeness, and competitiveness of these two groups of countries. The research results confirm the significant lagging of CEFTA countries in relation to the selected EU countries, once CEFTA members.*

Key words: *competitive advantage, innovation, knowledge economy, CEFTA, selected EU countries.*

JEL Classification: O33, O52.

INTRODUCTION

The Central European Free Trade Agreement (CEFTA) today consists of the following members: Serbia, Bosnia and Herzegovina, Albania, Macedonia, Moldova, Montenegro, and Kosovo. Its former members are: Czech Republic, Slovakia, Hungary, Slovenia, Romania, Bulgaria, and Croatia, which ceased to be members of CEFTA once they joined the EU. The agreement now defines a single free trade zone of the Western Balkan countries and Moldova.

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CEFTA agreement replaced 32 previous bilateral free trade agreements, which significantly contributed to the development of trade relations in this region. Liberalisation and facilitation of trade among the signatory countries aims at: improving the economic development of national economies and the region as a whole, stabilisation and joining the EU, speeding up the process of joining the World Trade Organisation, increasing the region's ability to attract investment, encouraging integration of the signatory countries into the world economy.

The most important advantages of the CEFTA agreement are increased and improved exchange, direct flow of goods and services, linking the economies in all sectors, improved balance of payment of countries, improved trade relations among countries. In addition, the advantages of CEFTA are reflected in overcoming political tensions in the region, reducing the costs of production, introduction of modern technologies and compliance with international standards, strengthening competition, and increasing the competitiveness of domestic products.

For companies in the region, the process of trade liberalisation implies market conditions and fierce competition, which means the necessity of raising the technological level of production, productivity, efficiency, application of modern management and marketing. This is the first test that must be passed on the way to the EU. What is more, all selected EU countries were formerly members of CEFTA.

Through its Strategy for Sustainable Smart and Inclusive Growth – Europe 2020, adopted in Lisbon in 2010, the European Union clearly emphasised the importance of knowledge and innovativeness for the improvement of competitiveness and future economic development of regional economic integration (Europe 2020). It seems completely logical to ask, then, to what extent are CEFTA countries really able to follow the set objective of the EU to become the world's most developed knowledge economy, by continuously transforming their economies towards knowledge-based model. In this context, the main problem to be studied in this work can be reduced to the question of whether there is a lag of CEFTA countries in relation to the selected countries of the European Union, its former members, in the areas of readiness for the development of the knowledge economy, innovativeness, and competitiveness, and whether that gap, if any, can stand for the limiting factor of progress of these countries towards EU membership.

In order to get acceptable answer to the research question, the following analytical methods have been used:

- Comparative overview of the values of the parameters *Knowledge Economy Index (KEI), Global Innovation Index (GII), and Global Competetiveness Index (GCI),* in order to detect differences in the values of these parameters in respect of CEFTA countries and the group of selected EU countries;
- Cluster analysis according to the parameters of innovation, in order to explain the depth of the gap between the CEFTA countries and the group of selected EU countries;
- Correlation analysis of the parameters *Knowledge Economy Index (KEI), Global Innovation Index (GII), and Global Competetiveness Index (GCI),* in CEFTA countries and the group of selected EU countries; in order to point to differences in terms of the degree of correlation of the analysed variables.

The answer to the above question cannot be simple. This is, among other things, due to the fact that the political and many other unpredictable events can have an extremely

adverse effect on the quality of functioning of individual national economies[1]. However, upon abstracting this aspect of the problem, it can be said that pronounced readiness of CEFTA countries for the development of the knowledge economy, innovativeness, and competitiveness *per se* facilitates and accelerates their path to EU membership. Knowing that CEFTA countries are economically least developed part of Europe, and that in the recent past they functioned in a much different economic and political environment in comparison with the members of EU15, we chose to compare the indicators of readiness for the development of the knowledge economy, innovativeness, and competitiveness of CEFTA countries with the respective data relating to the group of six selected EU countries, which used to be socialist countries and later CEFTA members, and which, due to the successful completion of the transition process, joined the EU in the period from 1 January 2004 to 1 July 2013 (1 January 2004 – Hungary, Slovakia, and Slovenia, 1 January 2007 – Romania and Bulgaria, 1 July 2013 – Croatia), when they ceased membership in CEFTA (See Scheme 1).

1. THEORETICAL BACKGROUND

Over the past three decades, the rate of knowledge creation and distribution has significantly increased. In order to effectively advance towards knowledge-based economy, the countries must invest in the creation and dissemination of new knowledge (Despotovic et al., 2014). To tell the truth, in a sense, economic development has always been based on knowledge. However, the scope and importance of knowledge for economic processes have fundamentally changed in recent years (Nijkamp & Siedschlag, 2011). The growth of productivity, driven by technological and organisational innovation, has become the most important source of economic growth in knowledge economies (Huggins et al., 2008).

Powell and Snellman define the knowledge economy as the production of goods and services, predominantly based on knowledge-intensive activities, which generates technological changes, causing funda mental changes in the economy and society as a whole (Powell & Snellman, 2004) A key component of the knowledge economy is the dominant reliance of economic activities on the intellectual capacity of people.

In contemporary society, innovativeness is one of the most important factors of growth and development of the companies and the success and prosperity of the economy and society as a whole. Lack or inadequate level of innovativeness leads to stagnation in all areas of production and business of companies. That is why the slogan "innovate or perish" has become generally accepted at the level of individual companies, as well as at the level of individual countries.

Innovativeness at the micro level enables the creation of new or improvement of the performance of existing products and services, and better fulfilment of existing or creation of new consumer needs (Crespell & Hansen, 2008) For most authors, innovativeness is associated with creativity and the creation of new ideas, and their transformation into new products, services, and processes (Rothwell, 1994; Amidon, 2003; Akamavi, 2005). Moreover, innovation can be seen as a process that transforms knowledge into economic development and social welfare.

[1] In this respect, the possible adverse effect of the conflict in Ukraine on the economy of the EU and a number of European countries is worth mentioning.

In theory, there are rather conflicting views on the relevance of the concept of competitiveness. Due to the number and complexity of factors, as well as the very nature of the competitive processes, the concept of competitiveness is often very difficult to understand and confusing (Snieška & Bruneckienė, 2009). A number of economists, however, believes that competitiveness has traits of "natural law of modern capitalist economy" (Kitson et al., 2004).

Without going into in-depth analysis of issues related to the character and nature of the concept itself, it should be noted that the level at which the phenomenon of competitiveness is examined is the most important aspect of observation of this phenomenon (Kitson et al., 2004). In short, one should distinguish between microeconomic and macroeconomic aspects of the complex of , competitiveness.

At the micro level, competitiveness is the ability of companies to compete, grow, and be profitable (Powell, 2001; Martin, 2004). Therefore, competitiveness is the ability of companies to produce and sell products and services at a price that is lower than the competitors', or on the basis of other, non-price factors that are more attractive when compared to other companies (IMD & WEF, 1990).

Unlike the competitiveness of companies, the concept of macroeconomic competitiveness is, in the theoretical sense, a controversial phenomenon. It is most commonly identified with the ability to produce and market goods and services on the foreign markets, but also with the pace of growth of real gross domestic product per capita, or the capacity to increase the wealth of the country (Marginen, 2006).

We believe that the identification of a country's competitiveness with its ability to export goods and services to foreign markets is a too narrow approach, and that it does not answer the contemporary economic conditions. Furthermore, we believe that the interpretation of a country's competitiveness as a potential increase of wealth is ultimately reduced to work productivity, since higher gross domestic product means greater productivity (Aiginger, 2006).

National competitiveness resulting from the country's ability to generate innovation in order to achieve or maintain advantage over other nations in a number of key industries was first defined by (Porter, 1990). Further works emphasise that within the knowledge economies, the state should primarily focus on achieving a high living standard (Thurow, 1996; Huggins et al., 2008).

Many researchers, however, explicitly note that they are not interested in measuring the competitiveness of the country (Schuller & Lidbom, 2009). Others argue that companies have to be competitive, not the countries, because when companies cannot compete, they disappear (Krugman, 1994). The fact is, however, that the complex of the country's competitiveness is increasingly in circulation in theoretical as well as empirical research (Fagerberg, 1988).

The importance of the concept of competitiveness of the country is firmly incorporated in the economic policy. Therefore, understanding, quantification, and analysis of the factors of competitiveness of the country are becoming an important dimension of development policy, which is largely devoted to finding ways to improve quality of macroeconomic prerformance. While it is clear that the country's competitiveness is essentially linked to economic performance, the fact is that this complex is increasingly seen in relation to the relative position of the country to other countries, and far less in relation to its accumulated wealth (Nijkamp & Siedschlag, 2011).

Although these are two different aspects, i.e. two views on competitiveness, between macro and micro level there is a strong and direct relationship (Porter & Schwab, 2008). It is indisputable that knowledge and innovativeness form the basis of both concepts of competitiveness in today's conditions.

2. KNOWLEDGE ASSESSMENT METHODOLOGY

2.1. Knowledge Economy Index (KEI)

To facilitate the countries' construction of the knowledge society, the World Bank developed a Knowledge Assessment Methodology (KAM), which identifies specific sectors or areas to which economic policy makers should pay special attention. The approach is based on the quantification of two indices: Knowledge Economy Index (KEI) and Knowledge Index (KI).

KEI is an indicator that measures the ability of a country or region to develop a knowledge economy, i.e. which illustrates the suitability of the environment for the efficient use of knowledge for economic development (Figure 1). KEI is an aggregate index, which measures the country's readiness for the development of the knowledge economy. It is calculated as the average of the normalised performance of the country on all four pillars related to knowledge economy: economic and institutional regime, education and skills, ICT infrastructure, and innovation system (Chen & Dahlman, 2005).

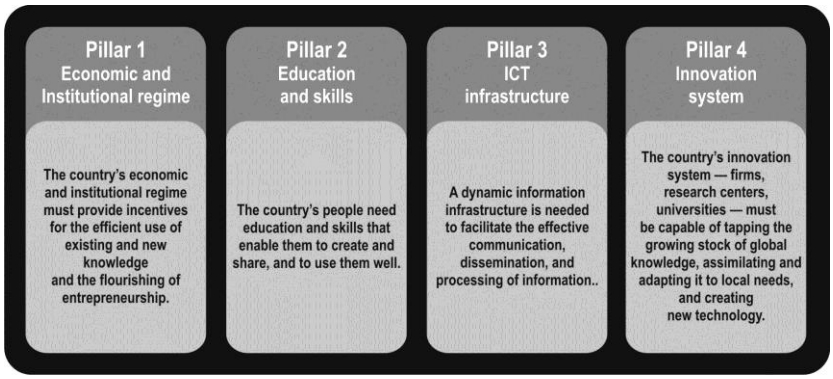

Fig. 1 Description of the pillars of the knowledge economy
(Source: Knowledge Assessment Methodology 2012, www.worldbank.org/kam)

Economic and institutional regime provides incentives for efficient use of existing and new knowledge, and leads to the affirmation of entrepreneurship. Educated and adequately trained population can create, share, and use knowledge. Companies' efficient innovation system, research centres, universities, consultants, and other organisations can be incorporated into the growing actions of global knowledge, assimilate, and adapt to local needs, and create new technology. Modern and affordable ICT infrastructure can facilitate effective communication, dissemination, and processing of information.

KI is an indicator of the total potential for the development of knowledge in a country, and measures its ability to create, adopt, and expand knowledge. It is calculated

as the average of the normalised performance of the most important indicators of a country or a region, included in the first three pillars of the knowledge economy.

Measuring and comparing countries on the basis of this methodology is suitable for providing a preliminary assessment of the development of knowledge economy. It provides a quick and concise insight into the major strengths and weaknesses, as well as areas in which progress has been made.

2.2. Global Innovation Index (GII)

The existence of a strong correlation between innovation and economic development has been documented in economic history and confirmed in economic theory (Grossman & Helpman, 1991; Cimoli & Dosi, 1995; Helpman, 1998). Recognising this fact, in 2007 INSEAD developed GII, in order to measure the achieved level and changes in innovativeness, and to identify obstacles that hinder the growth of innovativeness and, consequently, economic and social development of the observed countries. The main aspiration is to find indicators that best track the growth of innovativeness of the economy.

GII combines various indicators of innovativeness, which are obtained on the basis of carefully selected and weighted variables. Its main characteristic is that it is in the process of continuous improvement, so that it could track innovativeness in countries with different levels of development in the best possible way. The developers of GII started from the fact that innovativeness is important for economic growth and improving competitiveness, both for developed and developing countries. This approach supports the modern understanding of innovativeness that is not limited only to the results of research and development and the number of published scientific papers (Greenhalgh & Rogers, 2010).

Global Innovation Index (GII) relies on two sub-indices, the Innovation Input Index and the Innovation Output Index, each composed of the pillars (Figure 2). The relationship between Innovation Output Index and Innovation Input Index is indicated by Innovation Efficiency Index (IEI).

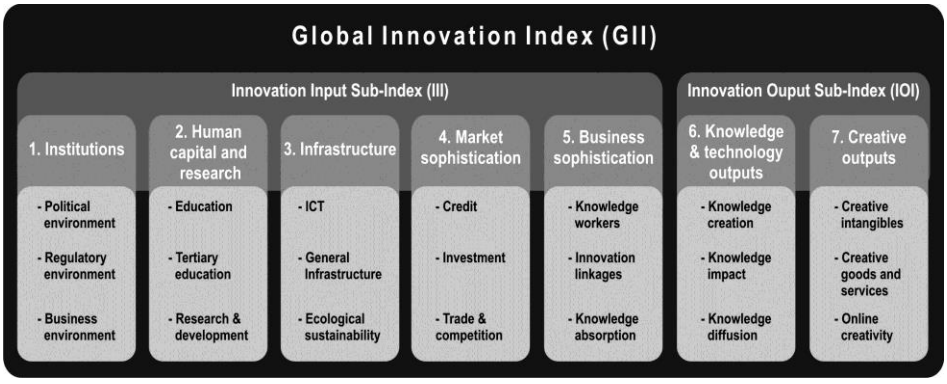

Fig. 2 Description of components of the Global inovation index
(Source: The Global Innovation Index, INSEAD & WIPO, 2012-2013.)

2.3. Global Competitiveness Index

By far the most commonly used approach to quantifying the competitiveness of countries is the GCI model that has been developed by Jeffrey Sachs and John McArthur in 2001, and which was first introduced in the Global Competetiveness Report 2001-2002 of the World Economic Forum. GCI is now considered the best and most comprehensive indicator of the competitiveness of countries. GCI groups the factors of competitiveness of countries into twelve pillars, given in Figure 3 (The Global Competetiveness Report, 2012-2013, INSEAD & WIPO).

Fig. 3 Description of components of the Global competitiveness index
(Source: The Global Competetiveness Report, 2012-2013, WEF)

The priorities of the policy of improving competitiveness depend on the stage of economic development of the observed economy. Depending on the stage in which the economy of a particular country is found, the factors are classified into three groups and receive different weights during GCI quantification.

In the initial stage of development, the economy can compete on the basis of the relative abundance of factors of production. In the following stage, the most important generators are efficiency and quality of products, while in the third stage of development, countries can maintain a high living standard solely on the basis of innovativeness (Sala-i -Martin et al., 2010). Although the results of all twelve pillars are displayed separately, it is important to know that they are not independent. On the contrary, they are intertwined, so that weaknesses in one area usually have a negative impact on other areas.

3. Results and Discussion

Assessment of CEFTA countries and the selected EU countries in respect of the achieved level of readiness for the development of knowledge economy, innovativeness and competitiveness begins by reviewing the values of the composite index at the level of individual countries. In order to evaluate the relative position of CEFTA countries in

relation to the selected EU countries, the analysis continues in the direction of comparative presentation of the observed characteristics by selected groups of countries, where the observed characteristics are given as the average of the results that the observed groups achieved in the field of readiness for the development of knowledge economy, innovativeness and competitiveness. In the next step, cluster analysis is performed, with the aim of testing the level of difference in terms of the parameters KEI, GII, and GCI, and accordingly performing the grouping of the observed countries into clusters, and detecting members of the observed groups that exhibit large deviation from the rest of the group. Finally, correlation analysis points to the degree of correlation of the observed indices, in respect of CEFTA countries and the selected EU countries.

Table 1 provides an overview of the values of KEI, GII, IEI, and GCI. The last column presents the values of GDP per capita for the analysed countries in 2013.

Table 1 The values of the observed indices and GDP per capita of CEFTA countries and the selected EU countries

Country/Region	KEI (1-10)	GII (0-100)	IEI (0-1)	GCI (1-10)	GDP per capita (US$)
Albania	3.85	30.90	0.60	4.53	3,912
B&H	4.02	36.20	0.70	5.12	4,461
Montenegro	4.20	41.00	0.70	/	6,881
Macedonia	4.14	38.20	0.70	5.65	4,682
Moldavia	3.94	40.90	1.10	4.92	2,037
Serbia	3.77	37.90	0.80	6.02	4,943
CEFTA	**3.98**	**37.50**	**0.77**	**5.25**	**4,486**
Bulgaria	4.31	41.30	0.90	6.80	7,033
Croatia	4.13	41.90	0.80	7.29	12,971
Hungary	4.25	46.90	0.90	8.02	12,735
Slovakia	4.10	42.20	0.70	7.64	16,899
Slovenia	4.25	47.30	0.80	8.01	22,192
Romania	4.13	40.30	0.90	6.82	7,934
Selected EU countries	**4.19**	**43.32**	**0.83**	**7.43**	**13,294**

Source: Knowledge Assessment Methodology 2012, www.worldbank.org/kam; The Global Innovation Index 2012, INSEAD & WIPO, and The Global Competetiveness Report, 2012-2013 WEF.

Data given in Table 1 confirm the significant lag of CEFTA countries by all indicators in relation to the group of selected EU countries. In 2013, the value of KEI for CEFTA is 5.25, and 7.43 for the control group. The lag of CEFTA countries in relation to the group of selected EU countries is even more pronounced when considering the value of GII. Regarding the parameter GDP per capita, the gap is evidently alarming, because CEFTA countries barely reach one-third of the average values of the selected EU countries. The average value of the GCI for CEFTA group is 3.98, and 4.19 for the selected EU countries.

Figure 4 illustrates the relationship among the average values of the *observed composite indices* for CEFTA countries and the selected EU countries.

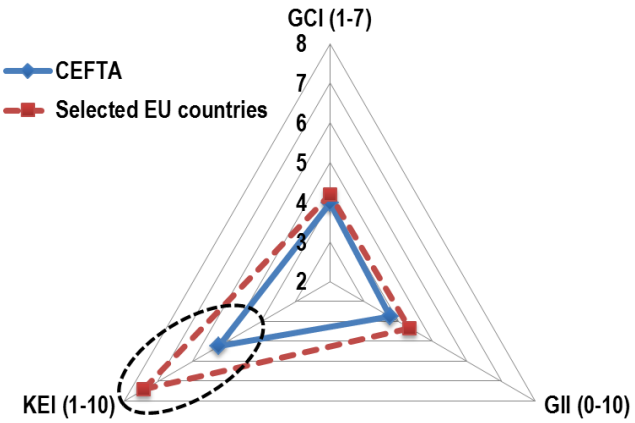

Fig. 4 Comparison of the observed variables

Comparative review of the observed indices indicates that CEFTA countries are lagging behind the selected EU countries mostly in respect of KEI value, while other parameters exhibit milder gap.

Figure 5 provides somewhat more detailed information, showing the average values of the observed variables in the 2011. 2012. and 2013. year.

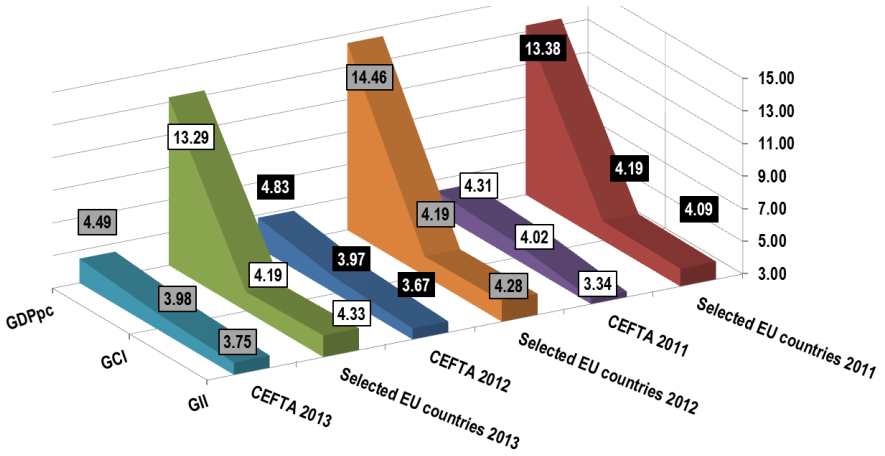

Fig. 5 Diagram of the average values of the observed variables in the period 2011 – 2013

3D area chart in Figure 5 shows that the average value of GCI, after a slight decline in 2012 compared to 2011, records slight growth in 2013, in respect of CEFTA countries. On the other hand, the average value of GII records growth in both groups of countries in this period. At the level of the selected group of EU countries, the average value of GCI shows unchanged value in the examined time interval. GDP per capita has similar cyclical trend in both analysed groups, with CEFTA countries significantly lagging behind the group of selected EU countries.

For the purpose of classification of the selected countries in two or more groups, based on their differences in terms of all observed variables (GCI, GII, KEI, and GDP per capita), cluster analysis has been conducted. The intention has been to use this multivariate technique to show the depth of the gap between the selected countries.

Figure 6 shows the dendrogram of the performed cluster analysis. *X* axis shows the level of difference between the analysed countries.

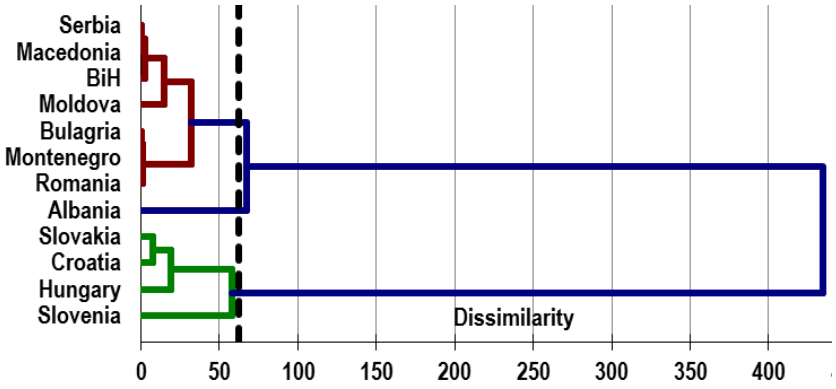

Fig. 6 Dendrogram of performed cluster analysis (Source: Authors)

In the process of grouping (clustering according to the data given in Table 1) of 6+6 selected countries (CEFTA countries and the selected EU countries), the bottom-up method of agglomerative hierarchical clustering has been used. In the initial step, each country has been treated as a separate cluster. Their grouping, based on similarities in terms of the values of the observed variables, in pairs of clusters, is the result of all subsequent iterations of grouping, until the observed entities have been consolidated within a single cluster. If the level of difference at about 60 is taken as a possible cross-section of the dendrogram, three clusters of observed countries can be clearly identified. The first cluster consists of 4 EU members, the second cluster includes only Albania, while the third cluster includes the remaining members of CEFTA and Romania and Bulgaria from the group of selected EU countries.

At the level of difference slightly greater than 65, Albania joins the third cluster. However, only at the level of diversity of about 450, the formation of a single cluster occurs, which indicates a significant gap between the first cluster (the selected EU countries without Bulgaria and Romania) and CEFTA countries.

On the other hand, there are also important differences among the countries within the clusters. The smallest difference among the members is seen within two subclusters: 1) Serbia, B&H, and Macedonia, and 2) Bulgaria, Romania, and Montenegro. Bulgaria and Romania are much closer to CEFTA countries than the rest of the selected EU countries.

Through linear correlation analysis, we have tried to get an answer to the question of whether there is a significant difference in terms of the degree of correlation among the analysed variables between the observed groups of countries. Since the analysis included reciprocal linear correlation between the two variables, methods of simple linear correlation analysis were used.

Matrix (Figure 7, 8, and 9) shows the correlation coefficients between the observed variables, according to the latest available data for groups of selected countries.

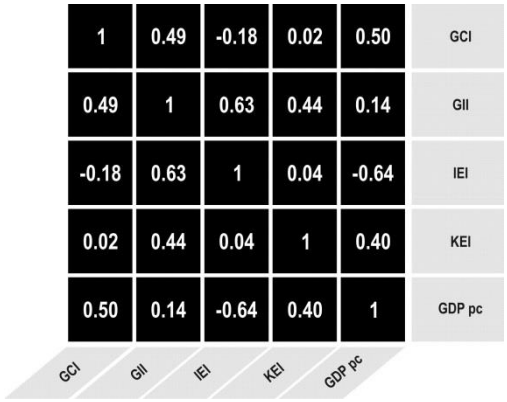

Fig. 7 Correlation matrix (Pearson) – CEFTA countries
(Source: Authors)

Correlation matrix by R (Figure 7) gives a numerical measure of the potential correlation of the analysed parameters of CEFTA countries. The values of correlation coefficients point to a weak correlation, i.e. to the existence of weakly expressed linear correlation between the observed variables in countries covered by the sample. The values of correlation coefficients between KEI and GII (R = 0.44) and GII and GCI (R = 0.49) indicate that there is no statistically significant linear correlation between the observed variables.

It is noted that all analysed correlations have the value of R that is significantly below 0.7, and are not significant for further consideration (less than the limit value equalling 0.811 for the level of significance of 5%). This is an indication that CEFTA countries do not base their competitiveness on innovativeness and knowledge economy, which is logical, given the amount of their GDP per capita.

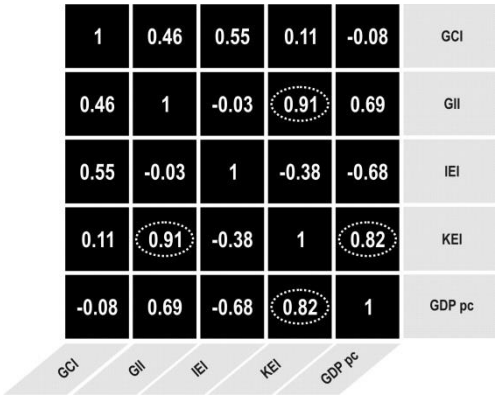

Fig. 8 Correlation matrix (Pearson) – the selected EU countries
(Source: Authors)

When the correlation matrix for the control group of countries is taken into consideration, it can be seen that the strongest correlation exists between GDP per capita and KEI (R = 0.82) and KEI and GII (R = 0.91). The values of correlation coefficients indicate the presence of high linear correlation. This indicates a strong potential of correlation of these indices in countries covered by the sample. As for the correlation between the variables GII and GCI, the value of the correlation coefficient (R = 0.46) indicates that there is no statistically significant linear correlation between the observed variables.

Upon testing the hypothesis of a linear correlation between the observed variables, with a probability level of significance test of 0.05, it can be concluded that there is a statistically significant linear correlation between variables GDP per capita and KEI and variables KEI and GII.

All other analysed correlations have the value of R below 0.7, and are not significant for further consideration (less than the limit value equalling 0.811 for the level of significance of 5%). This indicates that the countries included in the control group significantly base their innovation potential and GDP on the knowledge economy. However, in this group of countries, no impact of the knowledge economy on the competitiveness of the economy is detected.

Based on the cluster analysis, Romania and Bulgaria have been omitted from the selected group of EU countries, and correlation analysis was performed with the data on countries that have been grouped in the first cluster (Czech Republic, Slovenia, Croatia, and Hungary) (Figure 9).

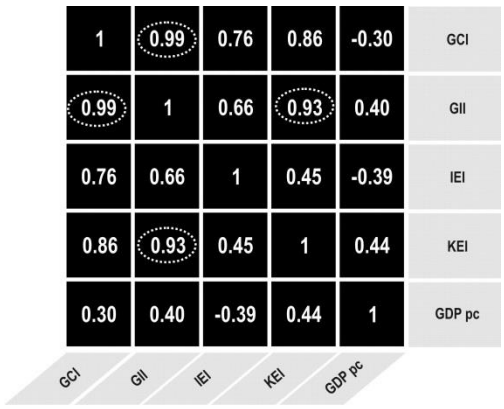

Fig. 9 Correlation matrix (Pearson) – the selected EU countries without Romania and Bulgaria
(Source: Authors)

When the correlation matrix for the first cluster of countries is taken into consideration (Scheme 8), it can be seen that the strongest correlation exists between GII and GCI (R = 0.99), as well as between KEI and GII (R = 0.93). The values of correlation coefficients indicate the presence of very high linear correlation between innovativeness and competitiveness (limit value of R is 0.95 for the level of significance of 5%). As for the correlation between the knowledge economy and innovativeness, the correlation is statistically significant for the level of significance of 10% (when the limit value for R is 0.9).

CONCLUSION

Radar chart analysis shows that CEFTA countries are significantly lagging behind the selected EU countries according to the observed indicators of GCI, GII, and KEI. The most prominent recorded lag exists in respect of the parameter KEI. In addition, there is a slight growth of GCI in CEFTA countries, and stagnation in the group of selected EU countries, as well as the tendency of growth of GII over the last three years in both groups of countries.

If the level of difference of about 60 is taken as a possible cross-section of the dendrogram, three clusters of observed countries can be clearly identified. The first cluster consists of 4 members of the EU, the second cluster includes only Albania, while the third cluster includes the remaining members of CEFTA and Romania and Bulgaria from the group of EU countries. Already at the level of difference slightly greater than 65, Albania joins the third cluster. However, only at the level of diversity of about 450, can a single cluster be formed, which indicates a significant gap between the first cluster (the selected EU countries without Bulgaria and Romania) and CEFTA countries.

On the other hand, there are also important differences among the countries within the cluster. The smallest difference among the members is seen in two subclusters: 1) Serbia, B&H, and Macedonia, and 2) Bulgaria, Romania, and Montenegro. Bulgaria and Romania are much closer to CEFTA group than to the rest of the selected EU countries, which suggests that EU membership is not in itself a guarantee of relatively rapid progress towards the knowledge economy.

Linear correlation analysis has revealed that in respect of CEFTA countries there is no statistically significant KEI-GII correlation, indicating the absence of potentially basic correlation between the achieved level of knowledge economy and innovativeness of these countries. In addition, for CEFTA countries, no statistically significant correlation between GII and GCI has been detected, which indicates that the competitiveness of these countries is not significantly based on innovativeness.

In contrast, for the group of selected EU countries, a very strong direct correlation between GDP per capita and KEI, and KEI-GII has been established, as well as between GII and GCI for the group of EU countries without Romania and Bulgaria. This suggests that the competitiveness of these countries relies heavily on the innovation potential and the achieved level of knowledge economy.

The lack of significant correlation between the observed parameters for CEFTA countries suggests that these countries do not rely on their innovation potential and the achieved level of knowledge economy in their struggle for competitiveness on the global market. In fact, it is likely that countries with higher GDP per capita can invest more in the process of creation and diffusion of knowledge. Correlation in itself does not allow us to predict with certainty whether the strengthening of certain forms of knowledge in CEFTA countries in the coming period will result in the growth of innovativeness of these countries. However, this study clearly shows that CEFTA countries are not so objectively capable to follow the set EU's goal to become the most developed knowledge economy by continuously transforming their economies to knowledge economies. Despite the fact that most members of CEFTA want to become EU members, it is interesting that even small differences in the levels of GCI and GII indices result in large differences in the level of GDP per capita. Further research would involve deepening the analysis and inclusion of the time component, in terms of testing the so-called lag effect, and giving more accurate prediction in respect of this issue. More specifically, can the lack of development of the knowledge economy, innovativeness and competitiveness be a limiting factor for entry into the EU?

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PERSPEKTIVE ZA RAZVOJ EKONOMIJE ZNANJA, INOVATIVNOST I KONKURENTNOST ZEMALJA CEFTA

Znanje i inovativnost predstavljaju ključne determinante konkurentnosti zemalja u savremenim uslovima privređivanja. Polazeći od ovih činjenica, u radu je data komparativna analiza spremnosti za razvoj ekonomije znanja, dostignuti nivo inovativnosti i konkurentnosti zemalja uključenih u Centralnoevropski Sporazum o slobodnoj trgovini -CEFTA i selektovane grupe bivših članica ovog sporazuma, a danas zemalja Evropske unije iz njihovog najbližeg okruženja. Cilj studije je da proceni razlike u nivoima spremnosti za razvoj ekonomije znanja, inovativnosti i konkurentnosti ove dve grupe zemalja. Rezultati istraživanja su potvrdili značajno zaostajanje zemalja CEFTA za selektovanim zemljama EU.

Ključne reči: *konkurentska prednost, inovativnost, ekonomija znanja, CEFTA, selektovane zemlje EU*