DO THE WESTERN BALKAN COUNTRIES BENEFIT FROM THE INCREASED COMPETITIVENESS IN THEIR ECONOMIES?

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ABSTRACT

The competitiveness of the Western Balkans' economies has gained in significance, becoming even European strategic interest, due to the acceleration of their EU accession process in recent period. Despite of the global financial and economic crisis in the last decade, the Western Balkans is continuously improving its competitiveness as a region, but the progress is uneven and much slower than in other EU countries. Even more, increased competitiveness in each of these countries, made different impact on their export, economic growth, and employment which requires more focused analysis.

The paper aims to present the comparative analysis of the increased competitiveness in the Western Balkan countries in the period 2005-2015, as well as to analyze if the competitiveness made an impact on different aspect of the economic development of analyzed countries.

Using the trend and regression analysis, this paper presents that at regional level there is positive correlation and impact of competitiveness on economic development and export of goods and services, but, no significant impact on employment rate.

However, separate country analysis shows some discrepancies from the general findings which are presented in the paper.

KEYWORDS: competitiveness, productivity, economic development, export, employment rate

1. INTRODUCTION

The importance of the national and regional "competitiveness" is underlined as a core concept and one of the main goals of the Lisbon Strategy (2006). In the literature on competitiveness, much effort is devoted in formulating a proper definition.

Krugman (1994) defined the national competitiveness as: [the] ability the produce goods and services that meet the test of international competition, while […] citizens enjoy a standard of living that is both rising and sustainable.

The OECD uses varying definitions, among which the following might be quoted: "[Competitiveness] may be defined as the degree to which, under open market conditions, a country can produce goods and services that meet the test of foreign competition while simultaneously maintaining and expanding domestic real income" (OECD Programme on technology and the Economy 1992). European Competitiveness Report stated that "Competitiveness at the national level is based on superior productivity performance and the economy's ability to shift output to high productivity activities which in turn can generate high levels of real wages." (European Competitiveness Report 2000), while the World Economic Forum understands the "competitiveness as the set of institutions, policies, and factors that determine the level of productivity of an economy, which determines the level of country's prosperity (World Economic Forum 2015)

An influential definition comes from the scientific literature: we can define (systemic) competitiveness of a territory as…"the ability of a locality or region to generate high and rising incomes and improve livelihoods of the people living there." (Meyer-Stamer 2008, p. 7)

What all above mentioned definitions have in common is that they understand the concept of competitiveness in the context of the superior performance of the economy, achieving higher GDP growth, higher exports with positive implications on the current account balance and higher employment on a sustainable basis.

2. LITERATURE REVIEW

The main relationship and impact of competitiveness on certain economic indicators such as increased national income, economic growth, export and employment derives from the above mentioned and many other definitions on competitiveness. However, there is also an empirical evidence of such relationship in the world scientific literature.

For example, analyzing the causality of the competitiveness and the GDP among 114 countries Kordalska&Olczyk (2015) empirically confirmed a strong unidirectional causality among the countries analyzed, i.e. GDP growth causes global competitiveness, while only for large economies, they found strong and significant influence of the competitiveness on the GDP growth rate. Their analysis supported World Economic Forum's claim that the GCI can "determine the aggregate growth rates of an economy" for the group of low-income countries. For almost 8 of the 15 countries with a lower income level they could justify the contribution of their global comprehensiveness level to their economic growth during the last decade.

Bierut and Kuziemska-Pawlak (2016) analyzing competitiveness and export performance of CEE countries, came to the results that higher competitiveness (especially innovation pillar) and better overall regulatory quality have positive and consistently significant impact on CEE economies' export performance.

Rashid and Akram (2017) empirically examined the impact of fluctuations in international trade competitiveness on employment in the UK manufacturing sector over the period 1999–2010. They find statistically significant but economically small effects of a shock to international trade competitiveness on the level of employment.

Waheeduzzaman,(2002) analyzed the contribution of international competitiveness on per capita income, human development, and inequality in 45 countries of the World. The results indicate that international competitiveness positively influences per capita income and human development in a country.

3. DATA AND METHODOLOGY

The empirical analysis presented in this paper is based on the World Economic Forum's Global Competitiveness Index (GCI) historical data for 5 Western Balkan countries (Albania, Bosnia and Herzegovina, North Macedonia, Montenegro and Serbia) over the period 2005-2015. The historical data in the dataset correspond to the data that was originally published in eleven past editions of the WEF Global Competitiveness Report. The GCI is a composite competitiveness index combining "hard data" on various national characteristics and "soft data" compiled from the WEF's annual Executive Opinion Survey. To ease the calculation of indexes, the WEF converts all hard data items onto a 1-7 scale using a min-max transformation. The theoretical maximum of GCI is 7. Computation of it is based on successive aggregations of scores from the indicator level. At the most disaggregated level, an arithmetic mean within a category is used to aggregate the individual indicators, while for the higher aggregation levels fixed weights for each category are applied (Schwab 2016/17).

The WEF constructs a Growth Competitiveness Index (GCI) which includes a weighted average of 114 different components. These components are grouped into 12 pillars of competitiveness and each of them measures a different aspect of it. They are: (1) institutions, (2) infrastructure, (3) macroeconomic environment, (4) health and primary education, (5) higher education and training, (6) goods market efficiency, (7) labor market efficiency, (8) financial market development, (9) technological readiness, (10) market size, (11) business sophistication, and (12) innovation (Global Competitiveness Report 2015-2014, pp. 4-8). These 12 pillars are organized into three groups: basic requirements (pillars 1-4), efficiency enhancers (pillars 5-10) and innovation and sophistication factors (pillars 11-12). The WEF puts a different weight on each of the three groups and divides countries according to their stage of development, because developing countries are competitive in the field of basic requirements, the competitiveness of emerging countries is based on the efficiency enhancers, and at least most developed countries compete thanks to their innovations.

The analysis is focused on testing the impact of the level of competitiveness on:

i. ***economic development*** (measured through GDP per capita, constant prices 2010),
ii. ***level of the export*** (measured through the indicator "export of goods and services as % of GDP"), as well as
iii. ***employment*** (measured through the employment rate as a % of the total work force -population from 16 -65 of an age).

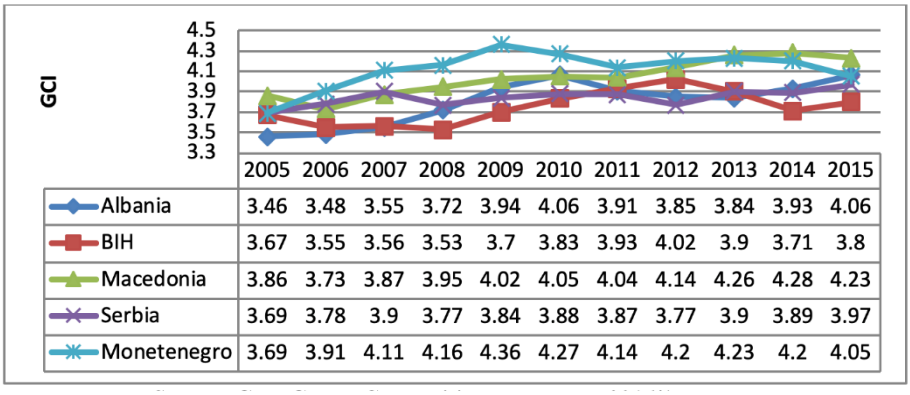
All these data are taken from the World Bank data base for the same countries and observed period.
For estimating the impact of competitiveness on income, export and employment of the observed Western Balkan countries, the model of panel regression is used. Thus, to examine if the increased competitiveness contribute to the increase of income, export and employment of the Western Balkans as a region and in each particular country, it is examined the level of correlation that the GEF's Global competitiveness index (considered as independent variable) has on the three indicators(representing dependent variables): GDP per capita (constant prices 2010), "export of goods and services as % of GDP" as well as the level of employment rate as % of total population between 16-65 of an age.

4. THE TREND OF COMPETITIVENESS IN WESTERN BALKAN COUNTRIES

Being part of Europe with EU aspiration, Western Balkan countries are struggling to catch up with European Union members, employing numerous of policies and measures to increase their nations' competitiveness. However, regardless the improving trend of the competitiveness level, the Western Balkans achieves the worst competitiveness indicators in Europe, as all of them are below the European average competitiveness score (4.72), as per latest Global Competitiveness Report 2016/17 data reaching the average regional score of 4.11.

Regardless the poor results in comparison with the EU countries and despite some turbulence over the global financial crisis, the Western Balkans as a region in the period 2005-2015, marks the upward trend of competitiveness. (Figure 1)

Figure 1: Global competitiveness in Western Balkan countries 2005-2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Albania	3.46	3.48	3.55	3.72	3.94	4.06	3.91	3.85	3.84	3.93	4.06
BIH	3.67	3.55	3.56	3.53	3.7	3.83	3.93	4.02	3.9	3.71	3.8
Macedonia	3.86	3.73	3.87	3.95	4.02	4.05	4.04	4.14	4.26	4.28	4.23
Serbia	3.69	3.78	3.9	3.77	3.84	3.88	3.87	3.77	3.9	3.89	3.97
Monetenegro	3.69	3.91	4.11	4.16	4.36	4.27	4.14	4.2	4.23	4.2	4.05

Source: GEF Global Competitiveness Report 2016/17, created by the author

However, analyzing the trend of competitiveness by country, significant differentiation can be noticed. Namely, although through the first half of the observed period Montenegro marked the highest competitiveness index in the Region, reaching the score of 4.36 in 2009), in the last five years, the competitiveness index is much worsened, with the lowest score in 2015 of 4.05 (which is just slightly above the competitiveness index achieved in 2006). The case with Albania is quite opposite. It started the analyzed period as the least competitive Western Balkan country (with GCI of only 3.46 in 2005), but reached it pick in 2010 (with GCI of 4.06) and with some downwards turbulence over the Sovereign debt crisis period, in 2015 it achieved the same level of competitiveness as it was in 2010. (4.06), being ranked as second competitive country in the Region, slightly above Montenegro and just behind North Macedonia.

Serbia and Bosnia and Herzegovina, on the other hand, are the countries which had almost the same level of competitiveness at the beginning and at the end of the observed period, but the trend of their competitiveness was developing differently over the observed period. Namely, while in the case of Serbia, its national competitiveness marked rather flatter trend with small ups and downs (starting from 3.69 in 2006 and reaching 3.97 in 2015), the trend of Bosnia and Herzegovina 's competitiveness is rather turbulent, and has quite different trend comparing with all other Western Balkan's countries. Namely , the competitiveness index in 2005 is 3.67 in 2005 , while in the period of worldwide economic growth it marked downward trend till 2008 (when GCI is 3.53) , then it started to increase in the most crisis period , reaching its pick in 2012 being ranked as third competitive country in the Region, and in the recent years Bosnia and Herzegovina's competitiveness is experiencing worsening trend , being the least competitive country in Western Balkans for 2015 with GCI of 3.8.

The most stable upward trend of competitiveness can be noticed in the case of North Macedonia, which is the most competitive country at the beginning and at end of the observed period, therefore increasing its competitiveness from 3.86 in 2005, till 4.23 in 2015, according to GEF's global competitive index.

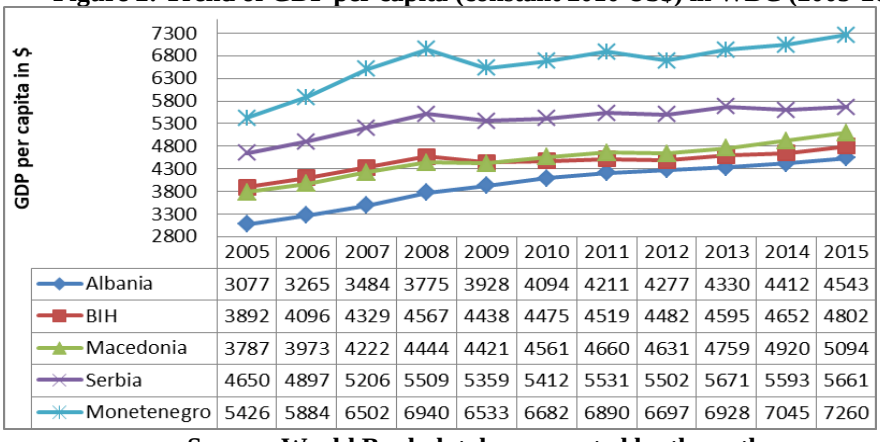
5. ECONOMIC INDICATORS' TREND IN WESTERN BALKAN COUNTRIES

Analyzing the trend of the three selected economic development indicators the following can be noted:

5.1 GDP per capita trend

Analyzing the economic development level through **GDP per capita (constant 2010 US$) ,**it can be concluded that there is positive, up-ward trend in all Western Balkan countries for the observed period. However, on the country level, there is significant difference regarding the level of economic development measured by this indicator throughout the whole observed period. In that respect Montenegro has the highest level of economic development and Albania the lowest, but the latter one, mark continuous increasing trend in the whole period, and succeeded to decrease the gap with other neighboring countries. Namely, within the observed period, the financial crisis made negative impact on the Western Balkan countries' economies, which caused economic turbulences and ups and downs in many economic indicators, including the indicators "GDP per capita". In that respect, Albania was the only one that despite the crisis, kept the upward trend of "GDP per capita" indicator. The other interesting observation is that, besides being one of the best and in the last period the champion in competitiveness among the Western Balkan countries, North Macedonia marked uneven and almost the lowest level of economic development, measured through GDP per capita indicator. The only country which worsened its ranking among the Western Balkan countries is Bosnia and Herzegovina, but it is also the least competitive country in the Region. (Figure 2).

Figure 2: Trend of GDP per capita (constant 2010 US$) in WBC (2005-2015)



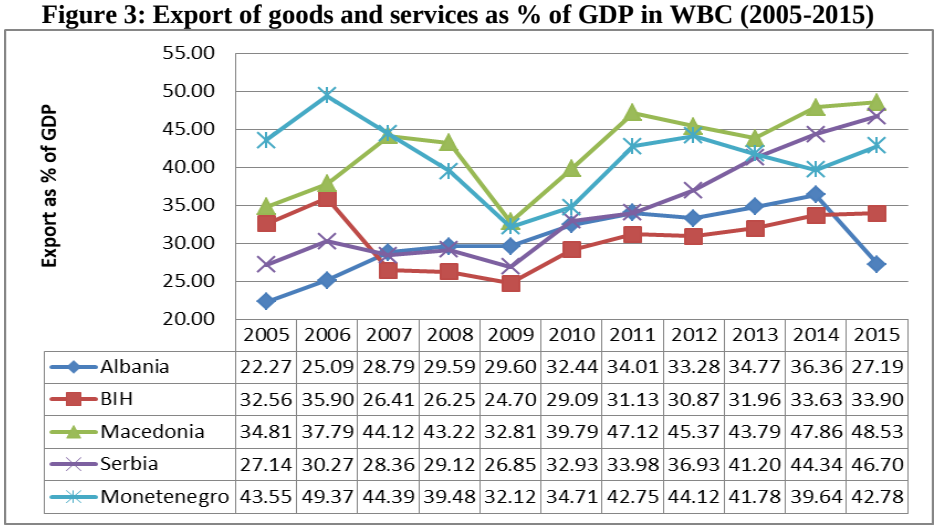
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Albania	3077	3265	3484	3775	3928	4094	4211	4277	4330	4412	4543
BIH	3892	4096	4329	4567	4438	4475	4519	4482	4595	4652	4802
Macedonia	3787	3973	4222	4444	4421	4561	4660	4631	4759	4920	5094
Serbia	4650	4897	5206	5509	5359	5412	5531	5502	5671	5593	5661
Monetenegro	5426	5884	6502	6940	6533	6682	6890	6697	6928	7045	7260

Source: World Bank database, created by the author

5.2. Trend of export of goods and services as % of GDP

The turbulences of the crisis period are even more obvious as we look at the export of goods and services trend. (Figure 3)

Figure 3: Export of goods and services as % of GDP in WBC (2005-2015)



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Albania	22.27	25.09	28.79	29.59	29.60	32.44	34.01	33.28	34.77	36.36	27.19
BIH	32.56	35.90	26.41	26.25	24.70	29.09	31.13	30.87	31.96	33.63	33.90
Macedonia	34.81	37.79	44.12	43.22	32.81	39.79	47.12	45.37	43.79	47.86	48.53
Serbia	27.14	30.27	28.36	29.12	26.85	32.93	33.98	36.93	41.20	44.34	46.70
Monetenegro	43.55	49.37	44.39	39.48	32.12	34.71	42.75	44.12	41.78	39.64	42.78

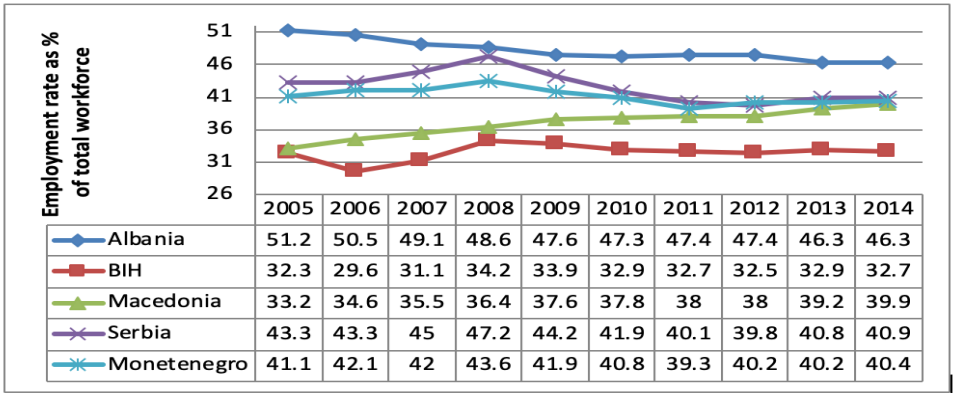
Source: World Bank database, created by the author

In that respect the most critical year for almost all observed countries was 2009, when they all reached their individual bottom, regarding the exported goods and services, mostly due to the canceled arrangement from the EU countries, which suffered tremendous consequences from global financial crisis. The trend of turbulences is evident for all Western Balkan countries except for Serbia, who previously suffering with both economical but as well as political problem, increased its openness to the World and increased its export of goods and services from 27.14 % to 46,7 % from the GDP. Albania as the country with the lowest level of participation of the export in GDP is also marking upward trend till 2014 when it reached the level of 36,37% of export in GDP, however experienced drop to 27.19% in the next year. North Macedonia and Montenegro are the two countries who have the highest level of export at the beginning of observed period but experience significant ups and downs in the export participation in their economies' gross domestic product.

5.3. Employment rate trend (employed as % of total work force)

Analyzing the employment rate as percentage of employed people in total workforce in each of the country (population between 16 and 65 years of an age), it can be concluded that the employment rate in almost all Western Balkan countries marks downward direction, continuously or in most of the cases after 2008. (Figure 4).

Figure 4: Employment rate trend in WBC (2005-2014)



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Albania	51.2	50.5	49.1	48.6	47.6	47.3	47.4	47.4	46.3	46.3
BIH	32.3	29.6	31.1	34.2	33.9	32.9	32.7	32.5	32.9	32.7
Macedonia	33.2	34.6	35.5	36.4	37.6	37.8	38	38	39.2	39.9
Serbia	43.3	43.3	45	47.2	44.2	41.9	40.1	39.8	40.8	40.9
Monetenegro	41.1	42.1	42	43.6	41.9	40.8	39.3	40.2	40.2	40.4

Source: World Bank database, created by the author

The only country that marks increasing trend in employment is North Macedonia, which somehow goes hand in hand with its continuous increasing trend of competitiveness. However, at the beginning of the observed period, North Macedonia was ranked as the second worst country in terms of the employment rate and kept the same ranking at the end of the observed period.

6. COMPETITIVENESS IMPACT ON ECONOMIC DEVELOPMENT INDICATORS IN WESTERN BALKAN COUNTRIES

To examine if the increased competitiveness contribute to increase of GDP, export and employment in the observed Western Balkan countries, it is examined the influence of the GEF's Global competitiveness index on the three already observed economic indicators: GDP per capita (constant 2010 in $), participation of the export in total GDP of each country and % of employed people in total workforce in each of the country (population between 16 and 65 years of an age).

For that purpose, the least square dummy variable (LSDV) approach is applied, whereas independent variable is considered competitiveness level, measured through the Global competitiveness index (GCI), mediated by the differences across countries, while as the dependent variables are used three already mention economic indicators.

In the empirical analysis are used the annual data series of five Western Balkan countries, covering the period between the year 2005-2015.

The main sources of data are used from the Word Bank data base as well as the Human Development data base and reports.

The Econometric Model that represents the fixed effects of three panel regressions by using binary variables is as follows:

$$\mathbf{lnGDPC}_{it} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1 lnGCI}_{it} + \boldsymbol{\gamma_2 E_2} + \cdots + \boldsymbol{\gamma_n E_n} + \boldsymbol{u_{it}}$$
$$\mathbf{lnEXP}_{it} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1 lnGCI}_{it} + \boldsymbol{\gamma_2 E_2} + \cdots + \boldsymbol{\gamma_n E_n} + \boldsymbol{u_{it}}$$
$$\mathbf{lnEMP}_{it} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1 lnGCI}_{it} + \boldsymbol{\gamma_2 E_2} + \cdots + \boldsymbol{\gamma_n E_n} + \boldsymbol{u_{it}}$$

where all three dependent variables GDPC, EXP, and EMP are the expression for the respective economic indicators, where ***i*** is the entity (country) and ***t*** is time; GCI is the independent variable that represents the level of competitiveness measured and expressed as Global Competitiveness Index; β_k is the coefficient for the IVs. With 'u_{it}' is presented the error term, or stochastic factor that is supposed to be with zero conditional mean and constant variance, ie $E(\varepsilon_i) = 0$ for each period i. E_n is the entity n, since they are binary (dummies), we have n-1 entities included in the model. γ_2 is the coefficient for the binary regressors (entities). All the data are transformed into logarithms.

6.1. Impact of the competitiveness on "GDP per capita" indicator

Analyzing the results which represent the correlation of these two indicators , it can be seen that in all countries (except in North Macedonia) the t-value , that present the strength of correlation between two observed variables is between 5.94 (BIH) and 13.86 (Montenegro), while at the regional level the t-value is 8.57, in any case much above 2 as a critical value. The statistically significance of the results (analyzed through p-value) is also at the highest level of 99%. Only in case of North Macedonia t-value is 1.44 (bellow critical value of 2), but with the statistical significance of 84%. (Table 1)

Table 1: Impact of GCI on GDP per capita

Log GDPC	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Log GCI WBC	1.566131	0.1827395	8.57	0.000	1.198709	1.933554
Albania	0.021957	0.3089928	6.54	0.000	0.322966	0.720947
BIH	0.1486712	0.0250306	5.94	0.000	0.0983437	0.1989986
N. Macedonia	0.0383711	0.0267093	1.44	0.157	0.0153315	0.0920737
Montenegro	0.3938563	0.0284234	13.86	0.000	0.3367073	0.4510053
Serbia	0.2934374	0.0243205	12.07	0.000	0.2445378	0.3423369

Source: author's calculation

Thus, it can be concluded that both, at the regional and at country level, there is significant positive influence of competitiveness on the level of GDP per citizen with statistically significance of 99%, except in case of North Macedonia, showing the results of insignificant positive impact of competitiveness on GDP per capita with statistical significance of the results of 84%.

6.2. Impact of the competitiveness on export of goods and services

Analyzing the impact of competitiveness on export of goods and services, the results are quite different than the previous ones. Namely at the regional level there is still positive correlation between two observed variables, but close to the critical level of t-value (2,05) and at the statistical significance of 95%. However, there is a great deal of differentiation among the countries.

In that respect, Albania, Serbia and North Macedonia have positive, but modest level of correlation between the observed variables, (both achieving the t-value slightly above critical 2), with statistical significance of 95%. Montenegro, however, is the only country that has negative and significant correlation between the competitiveness and export, with statistical significance above 95%. All other countries have positive but not significant correlation between the observed variables and results are statistically insignificant.(Table 2)

Table 2: Impact of GCI on export (as % of total GDP

Log EXP	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Log GCI WBC	0.9438083	0.461468	2.05	0.046	0.0159647	1.871652
Albania	0.708501	0.6401076	2.67	0.026	0.260477	0.156525
BIH	0.0243075	0.0632093	0.38	0.702	-0.1027833	0.1513982
N. Macedonia	0.707228	0.8061340	2.12	0.063	-0.1163748	0.530831
Montenegro	-0.694935	0.6580192	-2.58	0.030	-0.183478	-0.206392
Serbia	0.859564	0.45112	2.39	0.041	0.3147444	0.40438

Source: author's calculation

6.3.Impact of the competitiveness on employment rate

Analyzing the results from the regression, it can be concluded that at regional level there is no significant impact on competitiveness on employment rate, but the result are statistically insignificant. (Table 3)

Table 3: Impact of GCI on employment rate (as % of work force)

Log EMPL	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Log GCI WBC	0.0416364	0.1555352	0.27	0.790	-0.2720301	0.355303
Albania	-0.536202	0.983806	-5.45	0.001	0.7630681	-0.30933
BIH	0.245094	0.3460304	0.71	0.502	-0.573137	1.063326
N. Macedonia	1.185154	0.1936026	6.12	0.000	0.7387062	1.631603
Montenegro	-0.182390	0.400055	-0.46	0.661	-1.104919	0.7401378
Serbia	-0.519009	0.5330349	-0.97	0.359	-1.74819	0.7101713

Source: author's calculation

However, there is differentiation about the correlation results among the two observed variables among the Western Balkan countries. Namely, analyzing the t-value, the only strong and positive correlation and thus impact of competitiveness on employment rate is marked in North Macedonia (having the strength of correlation t –value of 6.12 at statistical significance of 99%). Albania, on the other hand, presents strong, but negative correlation between observed variables (having t-value of -5.45), with statistical significance of 99%. The other countries have either positive , but insignificant correlation (as it is the case of BIH with t-value of 0,71), or positive correlation (in case of Montenegro, the correlation indicator t-value is -0,46 and Serbia, with t-value equals to -0.97) but all of them with low statistical significance.

7. CONCLUSION

There is difference in the trend of improving competitiveness among Western Balkans countries. Generally, at regional level there is positive correlation and impact of competitiveness (GCI) on economic development (measured as GDP per capita) and export of goods and services participation as % in GDP, but, no significant impact on competitiveness on employment rate.

However, individual country analysis shows some discrepancies from the general findings. Namely, unlike other countries which follow the regional findings pattern, the competitiveness in North Macedonia shows insignificant positive impact on *GDP per capita*, but it is the only country in the Western Balkans region with the strong and positive impact of competitiveness on employment rate. Albania, on the other hand, presents, strong but negative impact of competitiveness on employment rate. Regarding the impact of competitiveness on export of goods and services, Albania, Serbia and North Macedonia show positive, but modest level of correlation between the observed variables, while the level of competitiveness in Montenegro shows negative correlation with its export of goods and services. All other countries have shown positive, but not significant correlation between the observed variables and results are statistically insignificant

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