

## Do GCI indicators predict SME creation? A Western Balkans cross-country comparative analysis

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### Abstract

In early stages SMEs were seen as insignificant supplement to large business supply, whereas today they have a very important social and economic role, because of their contribution to job creation. These contributions are very valuable in times of crises and rising unemployment. In Kosovo and the Western Balkan countries, including countries such as Albania, Macedonia, Montenegro, Serbia and Bosnia and Herzegovina, the development of SMEs can contribute in facing many challenges, effects of inequality, high level of unemployment and demographic challenges. In addition, SME development can contribute to strengthening the competitiveness and productivity, while also promoting the growth of income per capita. Besides the positive perception the creation of small and medium enterprises has, it is also indispensable to consider their extinction rate, being the most affected category of businesses, especially in the initial stages. It is proved that the net SME creation and cross-country differences in the relationship between new businesses and extinct businesses, can serve as a recommendation for policy makers in order to create a favorable climate for small and medium enterprises. GCI indicators that measures global competitiveness are used to determine if the climate of competitiveness predicts the development of SMEs.

**Keywords:** SMEs, GCI, Western Balkans.

### Introduction

SMEs are often considered as locomotives of economic growth (Gray & Stanworth, 1991). OECD estimates that small and medium enterprises account for 90% of firms and employ 63% of the workforce in the world (Munro: 2013) SMEs today are very different from large enterprises (Tucker & Berranger, 2002). SMEs participate in every sector of the economy and ensure a high level of employment in all sectors (Binks & Coyne, 1983). SMEs have a crucial importance in the economic development of any free society (Curran, 1986). SMEs are the main source of creation of new jobs and income generation and have shown rapid revitalization as of late. Employment in private enterprises is increasing and also structural changes within enterprises occur, which are expressed through a decline in the number of commercial enterprises and increase of manufacturing enterprises. The economic development of the Western

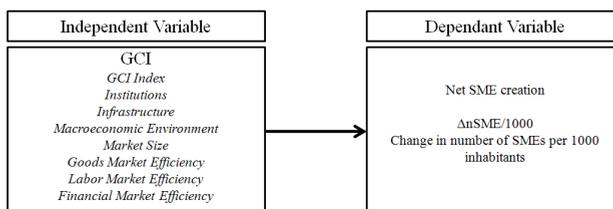
Balkans depends precisely on the development of SMEs. This paper attempts to determine how business climate affects SME creation. Business climate is presented by the Growth Competitiveness Index. GCI is used as a growth measure of national economies (van Stel, 2006). For Lall (2001) GCI is the leading competitiveness index.

## Methodology

Periodic Indicators of net SME creation will be drawn from statistical reports of agencies and departments for SME in Western Balkan countries. These constitute the dependent variables. Independent variables are indicators of Global Competitiveness Index (GCI). correlation will be used for analysis. Hypotheses to be confirmed are: H1: competitiveness index affects the net SME creation; H2: There are cross-country differences in net SME creation.

To make comparisons between the Western Balkan countries is the number of businesses in respective countries starting from 2009 until 2014 (6 years) is taken into analysis. Correction of total number of business to number of businesses per 1,000 inhabitants serves to provide a basis for comparison of the relative performance of countries in SME creation. The following tables show the number of businesses over the period 2009-2014 for Western Balkans: Kosovo, Albania, Macedonia, Montenegro, Serbia and Bosnia and Herzegovina.

Figure 1: Conceptual framework



Acute problem in data collection is Bosnia, a country which separates the data by federal organization. Data on the number of businesses for countries taken into analysis are issued by the Statistical Offices. These data have been processed, arranged and adapted by other indicators in order to have comparability between countries.

Table 1. Number of SMEs per 1000 inhabitants in Western Balkans

Years Countries	2014	2013	2012	2011	2010	2009
<b>Albania</b>	38.88	32.84	28.96	25.44	22.28	18.59
<b>Kosovo</b>	74.72	69.21	66.28	63.63	47.00	44.64
<b>Montenegro</b>	40.57	38.29	36.02	34.07	31.32	32.82
<b>Serbia</b>	46.44	45.18	44.90	44.95	45.59	43.00
<b>Bosnia H.</b>	9.18	9.15	9.07	8.74	9.06	9.15
<b>Macedonia</b>	34.04	34.40	35.97	35.39	36.61	34.34

Source: Statistics' Agencies of respective countries

### GCI Indices as predictors of SME creation

GCI indices for the Western Balkan countries are compared to see if there are correlations the number of businesses per capita. Kosovo is not involved in the study as the GCI indicators are not available. Global Competitiveness Index is an index that includes 12 pillars of competitiveness. GCI represents a weighted average of many different components that reflect one aspect of the complex concept of competitiveness (Schwad, 2009). Indexed indicators are used for the study and not comparative rankings across countries. Ranges from 1 to 7 measure one aspect of competitiveness which are aggregated to 1 indicating weak ranking and 7 indicating strong ranking.

Table 2. GCI and SME/1000 correlation

Years Countries	2014	2013	2012	2011	2010	2009	Corr.
Albania	3.8	3.85	3.91	4.06	3.94	3.7	0.0345
Macedonia	4.3	4.14	4.04	4.05	4.02	3.94	-0.0566
Montenegro	4.2	4.2	4.14	4.27	4.36	4.15	-0.0485
Serbia	3.9	3.77	3.87	3.88	3.84	3.76	0.2217
Bosnia H.	-	4.02	3.93	3.83	3.7	3.52	0.2750

Based on correlation indicators the competitiveness index does not correlate with the creation of small and medium enterprises in any country of the Western Balkans and as such is not important indicator in predicting the net SME creation.

Institutions - institutional environment is determined by the legal and administrative framework within which individuals, firms and countries interact to generate wealth. Its categorization is related to: the preservation of property rights, efficiency and transparency of public administration, the independence of the judiciary, business ethics and corporate governance (Schwab & Sala-i-Martin, 2014). The higher the institutions' indices the higher will be ranking. For example, if a country has independence of the judiciary, it is ranked with grade 7, if there is no independence of the judiciary then the rank will be 1.

Table 3. Institutions index and SME/1000 correlation

Years Countries	2014	2013	2012	2011	2010	2009	Corr.
Albania	3.4	3.32	3.65	4.01	3.96	3.62	-0.1928
Macedonia	4.3	4.05	3.8	3.68	3.75	3.68	-0.5759
Montenegro	4	4.16	4.38	4.52	4.46	4.28	-0.8254
Serbia	3.2	3.2	3.16	3.15	3.19	3.24	-0.4298
Bosnia H.		3.87	3.64	3.32	3.12	2.89	-0.0922

The only country with a strong negative correlation is Montenegro. In Montenegro there is a decline of the institution indicators index, an indicator that has fallen from 4.28 in 2009, and then there was an increase in 2010 and 2011, while in 2012, 2013 and

2014 indicators declined. This means that in Montenegro, the decline of institutions index predicts the number of businesses.

Market size - includes domestic market size and the size of the external market (export of goods to foreign markets). The bigger the domestic market and the bigger the external market where goods are exported, the ranking is higher.

Table 4. Market size index and SME/1000 correlation

Years Countries	2014	2013	2012	2011	2010	2009	Corr.
Albania	2.9	2.92	2.89	2.86	2.84	2.8	0.8911
Macedonia	2.9	2.9	2.85	2.79	2.8	2.85	-0.7463
Montenegro	2.2	2.14	2.08	2.05	2.1	2.23	0.2688
Serbia	3.7	3.68	3.64	3.61	3.6	3.7	-0.1959
Bosnia H.		3.09	3.07	3.03	3.1	3.18	-0.4279

The table above shows that only in Albania and Macedonia there is correlation between market size and number of businesses per 1,000 inhabitants. However, in Albania there is strong positive correlation, while Macedonia has strong negative correlation. This means that in Albania with the rise of market size indicators from 2.8 in 2009 to 2.9 in 2014, the number of businesses has risen almost proportionately. This means that the market size positively affects the creation of small and medium enterprises. Unlike Albania, in Macedonia market size has negatively affected the creation of SMEs. Market size Indicator increases but there is reduction of new business creation in Macedonia. Whereas in other Western Balkans countries market size had no impact on the creation of SMEs.

Infrastructure includes the quality and availability of transport, energy and communication infrastructure. Countries that have a developed infrastructure rank high. In all countries that are presented above, there is a positive correlation, but it is worth mentioning that there is strong positive correlation in Serbia. Increase on infrastructure indicators affects the creation of new businesses in Serbia. In Serbia infrastructure indicators rose from 2.75 in 2009 to 3.9 in 2014, while the number of businesses per capita increased by 43 businesses in 2009, at 46.44 businesses in 2014.

Table 5. Infrastructure index and SME/1000 correlation

Years Countries	2014	2013	2012	2011	2010	2009	Corr.
Albania	3.5	3.33	3.48	3.87	3.46	2.84	0.3714
Macedonia	3.7	3.63	3.65	3.66	3.45	3.04	0.1110
Montenegro	4.1	4.04	4.06	4.01	3.85	3	0.5387
Serbia	3.9	3.51	3.78	3.67	3.39	2.75	0.8465
Bosnia H.		3.67	3.44	3.24	3.16	2.18	0.3006

Macroeconomic Environment includes monetary and fiscal indicators, the rate of savings and evaluation of public debt. Countries that do not have debt have a regulated fiscal and monetary system rank better.

Table 6. Macroeconomic environment and SME/1000 correlation

Years Countries	2014	2013	2012	2011	2010	2009	Corr.
Albania	3.8	4.41	4.27	4.52	4.21	4.2	-0.4529
Macedonia	4.9	4.94	5.04	5.34	4.91	4.84	0.2881
Montenegro	4.5	4.07	3.85	4.45	5.09	4.6	-0.5574
Serbia	3.5	3.36	3.91	4.48	4.05	3.88	-0.2503
Bosnia H.		4.23	4.31	4.65	4.48	4.6	0.0262

Based on this indicator, it appears that the macroeconomic environment in the Western Balkans does not affect the net SME creation. Positive correlation is noted in Macedonia and Bosnia, but is not a strong ( $<0.7$ ) correlation, thus there is no impact. Negative correlation is noted in Albania, Serbia and Montenegro. Montenegro has the most negative correlation with  $-0.5574$ .

Financial market development includes efficiency, stability and reliability of the financial and banking system. Countries are ranked on the basis of stability and reliability of the financial and banking system.

Table 7. Financial Market development and SME/1000 correlation

Years Countries	2014	2013	2012	2011	2010	2009	Corr.
Albania	3.4	3.27	3.38	3.59	3.74	3.93	-0.8618
Macedonia	4.5	4.15	3.97	3.94	3.97	4.1	-0.7521
Montenegro	4.3	4.4	4.49	4.57	4.68	5.01	-0.8088
Serbia	3.5	3.48	3.68	3.74	3.84	3.87	-0.6183
Bosnia H.		3.53	3.41	3.24	3.47	3.66	-0.4848

The only indicator which has a negative correlation with the number of businesses per capita is the development of the financial market indicator. Decrease in this indicator contributes to the creation of new businesses. In Albania, the indicator of the financial market is down sharply from 3.93 in 2009 to 3.4 in 2014. This shows that with the decay of the financial market development comes the increase of number of businesses per capita.

Goods market Efficiency includes factors that indicate the competitiveness of domestic products against foreign products. Goods market efficiency shows how free is goods marketability abroad. For example, if a country like Kosovo does not set barriers for products from other countries is ranked positive, while a country like Serbia which prevents Kosovo products marketed in Serbia is ranked negative.

Table 8. Goods market efficiency and SME/1000 correlation

Years Countries	2014	2013	2012	2011	2010	2009	Corr.
Albania	4.2	4.06	4.33	4.46	4.19	3.39	0.4607
Macedonia	4.6	4.47	4.28	4.26	4.24	4.07	-0.4003
Montenegro	4.3	4.31	4.42	4.5	4.39	4.26	-0.3023
Serbia	3.8	3.64	3.57	3.49	3.57	3.7	0.1337
Bosnia H.		3.98	3.92	3.81	3.56	3.37	0.0309

Based on the indicators above, it appears that the goods market efficiency does not

affect the creation of new businesses. In some countries such as Albania, Serbia and Bosnia there is positive correlation, but correlation is so small that it is not significant. While in Montenegro and Macedonia there is negative correlation, but even in these countries it is very small and as such is insignificant.

Labor market efficiency - Labor market efficiency and flexibility are critical for ensuring that workers are allocated to their most efficient use possible in the economy and are given incentives to give their best at work. States that do not have meritocracy but nepotism, do not have labor market flexibility and have no gender equality at work, are ranked in the lower part of the scale.

Table 9. Labor market efficiency and SME/1000 correlation

Countries \ Years	2014	2013	2012	2011	2010	2009	Corr.
Albania	4	4.33	4.4	4.57	3.74	3.93	0.2412
Macedonia	4.2	4.21	4.13	4.33	4.38	4.18	0.5095
Montenegro	4.2	4.39	4.14	4.6	4.69	4.52	-0.7821
Serbia	3.7	3.9	4.04	3.94	4.06	4.18	-0.8251
Bosnia H.		4.15	4.08	4.15	4.17	4.1	0.2094

Labor market efficiency index has negative correlation with the number of businesses per capita only in Montenegro and Serbia. In these countries the indicator has dropped and with this indicator dropping the creation of new businesses per capita has increased in Montenegro and Serbia.

### Conclusions and recommendations

Competitiveness index variables partially predict net SME creation in Western Balkan countries. Some indicators show strong positive or negative correlation depending on the vector of influence. Based on correlation indicators it emerges that the competitiveness index does not correlate with the creation of small and medium enterprises in any country of the Western Balkans and as such it is not an important indicator in predicting the net SME creation.

It appears that there is correlation between the size of the market and the number of businesses per 1,000 inhabitants in Albania and Macedonia. However, in Albania there are strong positive correlations, while Macedonia has strong negative correlation, denoting that in Albania with an increase in market size indicator has increased the number of businesses almost proportionately, while in Macedonia the opposite can be evidenced. Concerning Infrastructure, all Balkan countries have a negative correlation, but it is worth mentioning the strong negative correlation in Montenegro. Decline in infrastructure results in creation of new businesses. Macroeconomic environment in the Western Balkans does not affect net SME creation. Macedonia and Bosnia have positive correlation, but it is not a strong correlation thus there is no impact.

The only indicator which has a negative correlation with the number of businesses per capita is the financial market development. Decrease of financial market

development indicator contributes to the creation of new businesses. Efficiency of market of goods does not affect the creation of new businesses. In some countries such as Albania, Serbia and Bosnia has positive correlation, but correlation is so small that it is not significant. The labor market efficiency index has a negative correlation with the number of businesses per capita only in Montenegro and Serbia. With the decline of this indicator the creation of new businesses increases, both in Montenegro and Serbia. The first hypothesis: the competitiveness index affects net SME creation is partly confirmed because not all its indicators have contributed to the net creation of SMEs. Indexes that have influenced (positively or negatively) the creation of SMBs are market size, infrastructure and financial market development, while other indexes have not had any impact. The second hypothesis: there are cross-country differences in net SME creation is fully confirmed as each Western Balkan country has its own particular characteristics.

From these conclusions the following recommendations can be extracted: the growth of size of the market, improvement of infrastructure and development of the financial market are adjustments that will directly affect the net SME creation.

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