Characteristics of Entrepreneurial Activities in Transitional Countries and Their Influence on Development

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GEM approach in measuring the volume of entrepreneurial activities and their interrelations with the general social, economic and entrepreneurial conditions, on the one side, and the results of economic activities at the level of national economy on the other side, gives a whole, systematically and methodologically well established understanding of entrepreneurship as a significant factor of the cited environment.

Thus, available data of the GEM project allow analysis and identification of potential specific group of transition countries compared to other countries with different development levels in terms of the achieved level of economic development, growth and size and structure of entrepreneurial activity by using the application of statistical methods for determining differences between groups using MANOVA, ANOVA and discriminant analysis. The results of this study showed that the group of transition countries show specific differences in terms of the achieved level of development, the level of economic growth and the size and structure of entrepreneurial activity as a special economic area with a high degree of homogeneity with respect to the observed phenomena, and selected variables in comparison to other groups of countries. Not all of this means that the entrepreneurship in less developed countries, in this case, transitional countries, should be discouraged for their contribution to economic development because of the identified environmental limits; on the contrary, small businesses and entrepreneurial projects represent the driving force to go through crises and the factor of economic stabilization in transitional countries.

Keywords: *entrepreneurship, entrepreneurial activity, transition, economic growth, economic development, GEM project.*

Introduction

Traditional analysis of economic growth did not provide an observed place, role to entrepreneurs, entrepreneurship, entrepreneurial processes, and its creation (Bosma & Levie, 2009). Many factors generally explained economic growth and development, both economic and noneconomic ones (Bleaney & Nishiyama, 2002). Seen through history, the biggest contribution in developing the theory of entrepreneurship and its role is ascribed to the Austrian economist L. Schumpeter (1934) to whom entrepreneurship is a driving force of all the changes disturbing the current state and cause to the creative destruction. It is indisputable that many economists attach much importance to entrepreneurship for the economic development, especially in critical situations, both in developed and developing countries, as a tool for solving the developmental problems in transitional countries (Giamartino, 1991), but no more than that. The GEM approach to the national level of economic activities of a country includes the total entrepreneurial activities, enables us outline this work.

The *central research aim and the key problem orientation* are related to the identification of the economic environment in transition countries as specific economic circumstances in terms of stages of economic development, growth and size and structure of entrepreneurial activity based on selected variables in comparison to other groups of countries defined by methodology of Word Economic Forum. Consequently, in the study the following *objectives* are set:

- To display the main parameters of the scope and structure of entrepreneurial activity and their relation to the degree of economic development and growth in transition countries compared to other groups of countries;
- To identify the characteristics of the group of transition countries in comparison with other groups of countries in the form of the existence of differences for selected variables and precisely defined borders between group of countries;
- To determine, primarily, the homogeneity of the group of transition countries, in relation to selected variables, i.e. to determine the contribution of variable characteristics of the group.

The research *methodology* involves the use of parametric procedures due to the characteristics of the selected variables and the number of observations in the sample. There will be used multivariate procedures MANOVA and discriminant analysis. Also, univariate ANOVA procedures will be applied. The application of the chosen methodology is aimed to determine the characteristics of each subsample's (group of countries) potential differences, boundaries, distance and homogeneity in order to make appropriate conclusions. The basis of this study consists of data for selected variables from Database of GEM project and World Economic Outlook Database. The novelty of this study is segregation of the group of transition countries, as a stage in the development, in comparison with other groups of countries in the form of existence of differences for observed variables.

The rest of work is structured in four parts. The second part points to the relationship of transition, entrepreneurship and development. The third part illustrates the methodology and sources of data processed by statistical procedures. In addition, in this part, selected indicators as research variables are specially represented. The fourth part comments the results carried out by statistical analysis, while the fifth part is reserved for conclusions.

Transition, Entrepreneurship and Development

The stage of social and economic development, called transition, concerning new history that has happened in all the former socialist countries, among which our country is, relates transition in market business frameworks with dominant private property, so it is considered the basic prerequisite for entrepreneurship development in the former socialistic countries (Smallbone & Welter, 2001; Sliburyte & Masteikiene, 2011).

Transition processes create economic and system conditions for entrepreneurship development and small businesses that will be the carrier of transformation processes, but most important are:

1. Private property;
2. Market as regulator of economic processes;
3. Managers as office holder management separation of property from management (Lekovic, 2006).

Money value plays an important role in these processes, which, if stable, does not cause damage to investors with the long-term loan contracts and fixed compensation. "In the period of changes, when prices are on the rise, entrepreneurs have favorable possibilities for profit increase because purchase is done on favorable prices. The fall of money value causes an encouragement to invest and a fall of entrepreneurial activities. They hesitate to start the long-term production process that requires investment much earlier than the possibility to return it. Urgent problems are not only of "profiteers" any more, but of employment" (Keynes, 1037). The previously cited Keynes' attitudes speak about another essential problem for entrepreneurship development, and it is the stability of money values, which, if not present, affects negatively entrepreneurial activities.

Transition as an economic environment for entrepreneurship development in the former socialistic countries carries two big limiting factors. Firstly, there are heavy historical heritage and economic and system conditions, which proceeded the transitional period, within the framework of which every entrepreneurial form of behavior was doomed to failure in advance. After the Second World War in Yugoslavia, as in other socialistic countries, except the U.S.S.R., where socialism came with the October Revolution and V. I. Lenin, the period of centrally planned management and social property, administrative pricing and interventionism of the state organs came. With the new social system, market, economic business criteria and competition were pushed into the background choking initiation, creativity and entrepreneurship. "Small number of large enterprises is all, a million of small is nothing", then "Small commodity producers should be destroyed by a long, slow organizational work because small commodity producers spoil proletariat and they are a constant reservoir for capitalism restoration". "To destroy classes does not only mean to expel capitalists; it means to destroy small commodity producers, they cannot be expelled, they cannot be destroyed, it is necessary to live with them, but they can be changed and re-educated" (Jojic, 1973). Fear can be seen from these Lenin's words, importance and power which he attached to small commodity producers as an indestructible root of capitalism, which, adapt, in unfavorable economic and social environment, to survive and further expansion when a favorable moment comes, and to which it must be approached in the way described in the citation.

"Socialism in the East collapsed because three the most important rights of people were not respected: religion, freedom and property" (Zlatkovic, 1994). People did not work, did not produce and did not buy on behalf of other people or to advance the society, but for their own interest. In this way, at the same time, not knowing, not intending, they advance interests of the society and increase the social welfare". Only absolute freedom of the individual to work as he thinks is the best for him and his competition with others, and the same is with individuals who follow their own interest in the struggle for poor goods, brings to the natural order of freedom, which necessarily leads to progress and welfare of humankind. These are the words of Adam Smith. Smith steadily believed that, in the way to progress, it was needed to eliminate all obstacles and troubles by which the state and its regulations limited the natural order that was the best for all the people. "As a specification of the nature and a product of the society, the human accepts this society only if it does not prevent him to use efficiently his work and his knowledge and skills, to be enterprising. Every prevention to be rich based on his work and capabilities represents the violation of the natural right of the human and restriction of his existence" (Jojic, 1973). Secondly, transition in most of the former socialistic countries, especially in our country, is not a determination but the running way from the past and looking for the solution for the deep social-political and economic-social crisis. Economic governance during transition is an innovative process: it is impossible to follow a uniform approach or to use the same growth model in order to achieve the same results (Starkeviciute, 2011). Such an approach to the reform of the social-economic system contributed to the appearance of "transition recession", which is reflected in the fall of the living standard, inflationary growth, instability of the rate of exchange, increase of the foreign-trade deficit, unemployment growth and other macroeconomic indicators, which had definitely negative trends. An urgent problem in transitional countries was an increasing unemployment caused by the fall of large enterprises, which were the state and social property (Drnovsek, 2002).

The essential reason for economic collapse, at the beginning of transitional period, in all the countries of Central and Eastern Europe and the former Soviet republics, as well as in our country, was the huge pressure of simultaneous blows, i.e. the following factors (Avramovic, 1994):

1. Inflation, which was characteristic for almost all the countries because of strict stabilization programs, on the

purpose to end inflation as soon as possible, budget balance, closing gaps in balance of payments, price liberalization to eliminate disparity with the deflation policy, caused the fall of production.

2. Abandoning of the centrally planned system of management without establishing market mechanisms caused an undefined state of economies in these countries. This is something quite contrary to the Chinese transition.

3. Import liberalization brought about the collapse of domestic production.

4. Privatization of the state and social property – with much uncertainty it represents one long-lasting process, which stopped investments and slowed down the current production.

5. Socialistic countries remained without the huge market after the collapse of the socialism system.

Of course, these five blows did not meet every country at once. Depending on the intensity of numerous factors, which met one country, the depth of crises was dependent. We can cite the case of Czechoslovakia, which did not suffer from inflation so much and did not have the big foreign-trade deficit, while Hungary introduced important market elements before the process of transition so these two countries easily adapted to the new (the old one before 1948) market business system. Because of all this, there was an appearance of one economic vacuum system, which was the fertile soil for all illegal flows and stimulated the "grey economy". One of the successful models of economic transformation is the Chinese model, which understood the existence of two parallel models of economic systems and well-planned and justified set of actions of the economic reform. Regarding the fact that it is about a mega economy, China could not allow the appearance of transition recession, as it was the case in most socialist countries. In China, the fall of so big economy required huge efforts and the long period of recovery and it could be disastrous relating to power redistribution and its future position in the world economy. All other transitional economies were characterized by deep recession, which generated many barriers of one non-defined social-economic environment for entrepreneurship development, the main task in the process of transition. Most barriers for growth and development of small and medium enterprises (SMEs) represent product of the environment (Doern, 2009). It is related to the crisis of institutions, non-defined political, legal and financial framework where the cited sector dominates. As this sector plays a vital role in the process of transition, it provides the exit from recession (Wells *et al.,* 2003). As a driving force, it generally strengthens the economy by creating new jobs and innovations. Every obstacle on the road in the form of cited barriers leaves irreparable consequences. The state is responsible for creation of favorable economic environment at all the levels (Smallbone, 2010) and it should provide an appropriate institutional, legal and cultural framework, as external environment is one of the essential conditions for entrepreneurship development both in transitional countries and in the countries of developed market economies (Smallbone & Welter, 2001). Well-developed SME sector provides all benefits to one economy, as well as in highly developed economies (Aidis, 2005). It means that there is no difference between the role of entrepreneurship and SME characteristics, related to the level of economic development (Smallbone & Welter, 2001). The connection between entrepreneurship and economic development was supported in developed countries, as the U.S.A. still in the second part of the 20th century (Birch, 1987). It is indisputable that large companies played the leading role in development of these countries. However, during the crises in the 1970s (crises in 1973/74 and 1978/1979) they showed their weakness and impossibility to adapt to new situations. Developed countries found their chance just in small business firms, which, in such situations, successfully amortized crisis blows. Thanks to big flexibility and innovations, small businesses adapted faster and better to newly created situations. The relationships between the environment and entrepreneurial strategies suggest that the entrepreneurial environment is characterized by dynamism and heterogeneity. Hostility can also exert influence on entrepreneurial perception, which, in return can make small businesses to adapt some strategic orientations as innovation, pro-action and risk taking (Tan, 1996). The trend of strengthening small businesses is present in almost all developed countries and represents the main determination of economic policy, relating to chances and possibilities it gives. Therefore, the EU, setting itself the goal to be the most competitive economy until 2010, determined the SMEs sector as one of the strategies. All these directives for development of the EU were defined by the European Charter for Small Enterprises, initiated by the European Commission and the Declaration[3] about policy which oblige all the EU candidate countries to help in realizing the goals of the EU (UNECE, 2000–2001).

The analysis in this work is oriented towards transitional economies, mostly in Central and Eastern Europe, related to other countries classified in line with the WEF. This classification indirectly means institutional, demographic and cultural differences as the result of the degree of economic development. Based on the previous analyses and exposed attitudes, it can be seen that the role and characteristics of entrepreneurial activities in all the stages of economic development are identical, but different types and phases of entrepreneurship may affect economic growth differently in different parts of the world (Sternberg & Wennekers, 2005). According to Bosma and Levies, the countries of the lower degree of development like *factor-driven economies* are characterized by dominant agricultural sector, which provide the existence of the population, the starting phase of industrialization and natural resources exploitation. Big unemployment and low standard of life exert influence on the people to provide their survival through entrepreneurial activities and self-employment. The countries being qualified as *efficiency-driven economies* are characterized by powerful industrial sector and productivity increase through the economies of scale. By the means of significant industrial support, the SME sector is formed dominantly productive. In the high market economies, classified as *innovation-driven economies*, the service sector broadens. Research, development and knowledge-based activities dominate as the stage in development. They contribute in such a way that entrepreneurs use the advantages of productivity based on innovations. The enhancement of total competitive

ability in the transitional economies requests the creation of modern knowledge-based economy, sustainable economic growth and enlargement of the country's economic competitiveness (Buracas *et al.,* 2012).

Data and Methodology

We shal anayze the sample of 48 countries classified in four subsamples in relation to the degree of development according to the methodology of the World Economic Forum (Schwab, 2009): Group 1 – Factor-driven economics (n – 8), Group 2 – Efficiency-driven transitional economies (n – 7)[7] , Group 3 – efficiency-driven other countries (n – 14) and Group 4 – Innovation-driven economies (n – 19). The subgroup within the framework of *efficiency-driven economies* was formed, to authors' determination, under the name of efficiency-driven transitional economies, which consists of seven transitional countries, mostly from Central and Eastern Europe plus China. It was done to carry out the analysis of selected features in relation to other groups. As the source for GDP characteristics per capita in US$, we used the data from the International Monetary Fund, World Economic Outlook Database, October 2010. The criteria to select countries for the sample were data availability for every country according to chosen variables. For the same criteria, the year to be observed was chosen; in this case, it is 2009 because in this year the number of 48 countries was provided in the sample, as well as satisfying structure in subsamples. Observed variables, development degree represented as GDP per capita in US$, total entrepreneurial activity reported as Overall Entrepreneurial Activity (OEA anybus), Total Early Stage Entrepreneurial Activity (TEA) including nascent and up to 3,5 years entrepreneurs, entrepreneurs more than 3,5 years (estbu) and the rate of economic growth (ΔGDP percent change) are the features or variables. They make together the research space in this work. The feature - development degree, represented as GDP per capita in US$ in relation to those for sample division - is the criterion feature.

As indicators of volume and structure of entrepreneurship, three variables/features were chosen: indicator of Overall Entrepreneurial Activity (OEA anybus), indicators of Total Early Stage Entrepreneurial Activity (TEA) that includes nascent up to 3,5 years entrepreneurs and indicator of entrepreneurs more than 3,5 years (estbbu). These chosen indicators of entrepreneurial activities reflect different phases of the entrepreneurial process. Every phase reflects different barriers in entrepreneurial development and different motives of entrepreneurial behavior (Reynolds *et al.,* 2005). These indicators are the result of methodology and research of GEM project, which was successfully implemented in Serbia in 2007, 2008, and 2009 by the GEM National Team. In 2009, GEM project included 55 countries, 48 of which were included as the sample in this work, according to the established criteria. The database for chosen indicators, besides many others, which also were the result of this project, is GEM 2009 Adult Population Survey Country, version 3b. All these indicators are defined as percentage of adult population (18–64 years old) involved in some phase of the entrepreneurial process or activity being researched.

As indicator of growth in this work, and also for this analysis, we use the variable of GDP growth rate (as percent change – ΔGDP), where the source of data for selected countries is International Monetary Fund, World Economic Outlook Database (October 2010).

In order to realize the research objectives defined by the following hypotheses, selected statistical procedures will be tested:

By the procedure of MANOVA, the hypothesis H_1 is tested, which is worded like:

H_1: There is a significant difference between subsamples for the observed thematic entirety.

By the procedure of discrimination analysis, the hypothesis H_2 is tested:

H_2: There is a clearly defined limit between subsamples for the observed thematic entirety.

By the procedure of ANOVA the hypothesis H_3 is tested:

H_3: There is a significant difference between subsamples to some features.

The available data, the observed phenomena and the number of observations in the sample allows the use of parametric statistical techniques, which contributes to more accurate analysis and conclusion. From multivariate procedures there will be used MANOVA and discriminant analysis to identify potential differences between defined groups of countries (transition compared to the other) and determine the characteristics that determine the specificity of the group. From univariate, ANOVA procedures will be applied in order to check the existence of potential differences between groups of countries on all observed variables.

Results and discussion

In the first part, central and dispersion parameters, measures of asymmetry and skewness in relation to the followed parameters will be reviewed. In the second part, the difference between the groups of countries will be analyzed, i.e. hypotheses will be proved or rejected. The central and dispersion parameter, measures of asymmetry and skewness of followed characteristics represent the groups of countries and orient towards the possibility of applying parameter procedures in the next analysis in point of view of the fact that distribution of values of all the observed characteristics ranges within the framework of normality according to schedule (p). Values of skewness (sk) and kurtosis (ku) point to the appearance of normal distribution curve (value distribution within the framework of normal distribution) relating to kurtosis (higher value ku), i.e. skewness (less value ku), symmetry (sk = 0), i. e. negative asymmetry (higher value sk). When the curve of value distribution of the observed characteristic inclines to higher values, i.e. there are more of higher values in relation to the normal distribution as it is the case with all the groups of countries according to all the observed characteristics.

Table 1

Central dispersion parameters, measures of skewness and analyzed characteristics per groups of countries

		Medium value	Standard devijation	min	max	Coefficient of variation	Interval of trust		Skewness	Kurtosis	p
Factor driven economies	GDP per capita in US$	6226,24	4937,27	481,9	14744,6	79,30	2097,46	10355,02	,62	-,96	,586
	TEA – nascent and up to 3,5 years	19,03	8,49	4,7	33,7	44,60	11,93	26,12	,08	-,15	,995
	estabbu – more than 3,5 years	11,11	7,03	4,1	22,0	63,26	5,24	17,00	,24	-1,51	,729
	OEA - anybus	29,32	13,02	8,4	53,5	44,41	18,43	40,20	,35	,10	,846
	ΔGDP - percent change	2,29	4,50	-3,3	9,0	196,85	-1,48	6,05	,17	-1,23	,996
Eficiency driven trasitional economies	GDP per capita in US$	8331,84	4345,02	3734,6	15283,7	52,15	4312,32	12351,36	,56	-1,09	,974
	TEA – nascent and up to 3,5 years	7,49	5,28	3,9	18,8	70,46	2,61	12,38	1,66	1,23	,297
	estabbu – more than 3,5 years	6,15	5,05	2,3	17,2	81,99	1,49	10,82	1,73	1,50	,317
	OEA - anybus	13,48	10,25	6,0	35,7	76,04	4,00	22,96	1,70	1,35	,324
	ΔGDP - percent change	-3,45	5,85	-7,9	9,1	169,46	-8,86	1,96	1,62	1,24	,434
Eficiency driven other economies	GDP per capita in US$	6671,79	2349,95	4170,9	11465,6	35,22	5314,63	8028,96	,58	-,81	,827
	TEA – nascent and up to 3,5 years	12,86	5,16	4,4	22,4	40,14	9,88	15,84	,28	-,58	,975
	estabbu – more than 3,5 years	7,88	3,62	1,4	13,5	45,93	5,79	9,97	,02	-1,03	,953
	OEA - anybus	20,29	7,82	7,2	33,8	38,55	15,77	24,80	-,05	-,85	,951
	ΔGDP - percent change	-,34	5,38	-18,0	3,5	1560,61	-3,45	2,76	-2,70	6,55	,297
Innovation driven economies	GDP per capita in US$	42117,53	13152,85	24111,4	78178,3	31,23	35776,51	48458,55	1,13	1,24	,377
	TEA – nascent and up to 3,5 years	6,24	2,81	3,3	13,3	45,01	4,89	7,59	1,05	,34	,577
	estabbu – more than 3,5 years	6,49	2,86	2,5	15,1	44,01	5,11	7,87	1,27	2,44	,632
	OEA - anybus	12,48	4,72	6,0	23,6	37,86	10,20	14,75	,69	-,18	,713
	ΔGDP - percent change	-3,81	2,24	-8,0	,8	58,72	-4,89	-2,73	-,20	-,25	,989

Notes: Value of asymmetry and skewness at intervals from -,*04 to ,04* are not discussed

Source: Authors' calculation

The higher value of coefficient variance (k. var.), evident with all the groups of countries, points to heterogeneity to all observed characteristics. The highest value is especially met in efficiency-driven traditional economies in all the observed characteristics: GDP per capita in US$ (52,15), TEA-nascent and up to 3,5 years (70,46), estabbu-more than 3,5 years (81,99), OEA-anybus (76,04) and ΔGDP-percent change (169,46).

Therefore, within the framework of the groups of countries of factor-driven economies, the lowest development degree of measured GDP per capita in US$ (medium value 6226,24 US$), we meet the highest medium values TEA –nascent and up to 3,5 years (19,03), estabbu-more than 3,5 years (11,11), OEA-anybus (29,32) and ΔGDP-percent change (2,29). The holders of the biggest individual values are in the same group of countries; that is for TEA-nascent and up to 3.5 years (33,67) in Uganda, estabbu-more than 3,5 years (21,95) in Uganda, OEA-anybus (53,54) in Uganda, while ΔGDP-percent change (9,01) in China. It makes this country an already known phenomenon of economic growth and development. Based on the previous assertions, minimal medium values of characteristics are present in innovation-driven economies (medium value GDP per capita 42117,53 in US$) and TEA-nascent and up to 3,5 years (6,24), estabbu-more than 3,5 years (11,11), OEA-anybus (12,48) and ΔGDP-percent change (-3,81), while the minimal medium value estabbu-more than 3,5 years (6,15) is in

efficiency-driven traditional economies. The holders of the smallest individual values come from the same groups of countries. Therefore, Japan has the smallest TEA –nascent and up to 3,5 years (3,3). Belgium has OEA-anybus (5,96), Finland has ΔGDP–percent change (-8,02), and Russia has the smallest estabbu-more than 3,5 years (2,30). Factor-driven economies (6671,79) have the same closeness as efficiency-driven other economies (6671,79) according to the degree of development. According to the level and structure of entrepreneurial activities and economic growth, efficiency-driven transitional economies (OEA-anybus 13,48; ΔGDP – percent change -3,45) are the closest to innovation-driven economies (OEA – anybus 12,48; ΔGDP – percent change -3,81).

As the groups of countries reflect different level of economic development, as one of the observed characteristics, that is the criterion one (based on which sample division is done to subsamples, and countries in subgroups), opposite proportion to characteristics of entrepreneurial activities and economic growth is obvious and is drastically expressed. It induces us to the following analysis on the purpose of searching for the answer to the previous observation. This negative correlation is visible in the illustrated correlation matrix (Table 2) that is the result of analyzing the structure of two separated factors (by the method of main components) of observed characteristics at the whole sample of 48 countries.

Table 2

Correlation matrix for all the countries to observed characteristics

	ΔGDP as a percent change	estabbu more than 3,5 years	OEA anybus	TEA nascent and up to 3,5 years	GDP per capita in US$
ΔGDP – as a percent change	1000				
estabbu – more than 3,5 years	449	1000			
OEA – anybus	539	876	1000		
TEA – nascent and up to 3,5 years	524	670	945	1000	
GDP per capita in US$	-359	-215	-417	-490	1000

Source: Authors' calculation

It is visible in the matrix that should be emphasized the negative correlation of the level of economic development measured as GDP per capita in US$ and all observed characteristics of the scope and structure of entrepreneurial activities, as well as growth level. The countries at the higher level of social-economic development have developed institutional system infrastructures, national welfare growth, economic development guided by industrialization and economies of scale, stability, social security and wide possibilities for employment. Significant participation of large companies, where most population has stable jobs, exerts influence on reducing the pressure on the early phase of entrepreneurial activities. On the other side, in the countries with the lower degree of development because of large unemployment, entrepreneurship is the only possibility. Therefore, in the countries of the lower degree of development (as in efficiency-driven economies), the fall of the level of entrepreneurial activities can be a good signal of economic stability and development. The biggest positive correlation (945) in the matrix is observed between the total entrepreneurial activities of the country OEA-anybus and the early stage of entrepreneurial activity TEA. It points to the fact that TEA has significant contribution in the total entrepreneurial activity of the country, but at the lower level of economic development (factor-driven economies TEA 19,03; estbbu 11.11). Here this participation reduces significantly in highly developed countries (innovation-driven economies – TEA 6,24; estbbu 6,49), where there is no risk because of stable economic circumstances at the early phases of entrepreneurial activities.

As open questions should be the subject of the next analysis, it is necessary to test the hypotheses and establish the existence of differences, their significance and limits as illustrated in Table 3 and Table 4.

Table 3

MANOVA and discriminative analysis between the groups of countries related to observed characteristics

Analysis	n	F	p
MANOVA	5	8,461	,000
discriminative	5	13,017	,000

Source: Autors' Calculation

Differences between the groups of countries and clearly defined limits are done by MANOVA procedures. Based on the value p = ,000 (MANOVA analysis) and p = .000 (discriminative analysis), hypothesis H_1 and hypothesis H_2 are accepted. It means that there is a difference and clearly defined limit between the groups of countries. As can be seen, the previous two analyses established the existence of significant differences and clear limits between the groups of countries. It points to the possibility of the existence of some features of every group, and it will be tested in the next procedures.

Table 4

ANOVA analysis for observed characteristics/variables

Characteristics/variables	F	p	Coefficient of discrimination
GDP per capita in US$	60,092	,000	,000
TEA – nascent and up to 3,5 years	13,504	,000	,035
estabbu – more than 3,5 years	2,477	,074	,049
OEA - anybus	8,841	,000	,040
ΔGDP – as a percent change	4,668	,006	,080

Source: Autors' Calculation

By the next analysis, we try to make differences between the groups of countries to all observed characteristics. As p<1, hypothesis H_3 is accepted. It means that there is a significant difference between the groups of countries to all observed characteristics with: GDP per capita in US$ (,000), TEA-nascent and up to 3,5 years (,000), estabbu-more than 3,5 years (,074), OEA-anybus (,000) and ΔGDP-percent change (,000).

The coefficient of discrimination points to the biggest contribution to discrimination between the groups of countries in relation to observed characteristics/variables, i.e. difference is the biggest with: ΔGDP-percent change (,080), estabbu-more than 3,5 years (,049), OEA-anybus (,040), TEA-nascent and up to 3,5 years (,035), GDP per capita in US$ (,000).

Based on the former consideration and the sample analysis of 48 countries, divided in four groups to the degree of development, in line with the applied methodology, the logic flow of researching is the determination of characteristics and homogeneity of every

group of country and distance between them. The fact that p = ,000 of discriminative analysis means that there is a clear defined limit between the group of countries, i.e. it is possible to determine characteristics of every group of countries in relation to observed characteristics.

Table 5

Characteristics and homogeneity of groups in relation to the observed characteristics/variables

	Factor driven economies	Efficiency driven transitional economies	Efficiency driven other economies	Innovation driven economies	dpr %
ΔGDP – as a percent change	biggest* [2]	smaller	bigger* [1]	smallest	39,216
estabbu – more than 3,5 years	biggest* [1]	smallest	bigger* [1]	smaller	24,020
OEA - anybus	biggest* [3]	smaller	bigger* [1]	smallest	19,608
TEA – nascent and up to 3,5 years	biggest* [3]	smaller	bigger* [2]	smallest	17,157
GDP per capita in US$	smallest	bigger	smaller	biggest* [3]	,000
n/m	7/8	6/7	13/14	19/19	
hmg %	87,50	85,71	92,86	100,00	
hmg - homogeneity					
dpr – contribution of characteristics of features					
*1 – related before, *2 – related before two, *3 – related before three					

Source: Authors' calculation

In Table 5, it is obvious that the characteristic of every subsample of the group of countries is defined by ΔGDP-present change because the contribution of characteristics of features is 39,22. Then, it follows: estabbu-more than 3,5 years (24,02 %), OEA-anybus (19,61 %), TEA-nascent and up to 3,5 years (17,16) and GDP per capita in US$ (,00 %). Homogeneity of factor-driven economies is 87,50 %, of efficiency-driven transitional economies is 85,71 %, of efficiency-driven other economies is 92,86 % and of innovation-driven economies is 100,00 %.

Based on the exposed, we can say that seven of eight countries have characteristics of factor-driven economies; homogeneity is 87,50 % (bigger). It means that one

country has other characteristics, not the characteristics of its own group. Six of seven countries have characteristics of efficiency-driven economies; homogeneity is 85,70 % (bigger) because one country has other characteristics. Characteristics of innovation-driven economies are found in 19 of 19 countries; homogeneity is 100,00 % (bigger).

Based on the previous analysis of characteristics and homogeneity of the groups of countries to observed characteristics, it can be clearly seen that there are precise limitations between every group of countries to observed characteristics, therefore, every group has expressed specificities in relation to other groups of countries. A large percent of homogeneity points to that fact.

Table 6

Distance (Mahalanobis) between the groups of countries in relation to observed variables

	Factor driven economies (1)	Efficiency driven transitional (2) economies	Efficiency driven other (3) economies	Innovation driven economies (4)
Factor driven economies	,000	2,42	1,25	4,69
Efficiency driven **transitional** economies	2,42	,00	1,21	3,85
Efficiency driven **other** economies	1,25	1,21	,00	4,20
Innovation driven economies	4,69	3,85	4,20	,00

Source: Authors' calculation

In the final part of the analysis, all these differences between the groups of countries will be also illustrated by calculating Mahalanobis distance, by which another indicator of similarities and differences is obtained, on the purpose of graphical illustration. The distances of different spaces can be compared, and in this way, we can see the distance between the groups of countries. The distances in this Table point to the fact that the least distance is between efficiency-driven other economies and efficiency-driven transitional economies (1,21). Innovation-driven economies and factor-driven economies are the farthest groups of economies (4,69). Based of the illustrated dendrogram, we can notice the mutual position relating to the distance between the groups of countries to all observed characteristics.

Conclusions

Entrepreneurial behavior and activities, in contemporary economic circumstances at the global level, are identified as a significant potential and valuable resource in creating economic growth, development and total social prosperity. By recognizing the phenomenon only, entrepreneurship and its glorification will not leave a deep trail and significant effects for economy and society. On the contrary, it will have the same destiny, uncertain result, as any other innovation that is the result of natural activities of an individual or the group.

With all the analyzed groups of countries, as well as with separated group of transitional countries within the framework of efficiency-driven economies, some specifies to all observed characteristics are identified. All the

applied statistical procedures point to the previous assertion, by means of which we obtained the presented results with significant differences, precise limits of separation, characteristics and homogeneity of the groups of countries, as well as their mutual distances. It contributed to all observed characteristics at the level of economic development (as criterion), the scope and structure of entrepreneurial activities and economic growth.

This means that in this study we have achieved the following results:

- Correlation analysis confirms the logical connection between the scope and structure of entrepreneurial activity and economic growth with the achieved level of economic development in terms of direction and strength of the relationship. This transition environment did not presents significant limitations in terms of determination of analyzed variables.

- By using MANOVA analysis and p values of parameters, there is confirmed the hypothesis H1 and concluded that there is a statistically significant difference between the examined groups of countries. Since all countries are grouped, a specific stage of economic development through the group of transition countries stands out as a distinct economic space;

- By using discriminant analysis and the values of parameters p, there is confirmed the hypothesis H2 and concluded that clearly defined borders were compared between groups of countries. Thus, the observed groups of countries are separate entities;

- In ANOVA analysis hypothesis H_3 is accepted. It means that there is a significant difference between the groups of countries to all observed characteristics.

- Also in the analysis of the characteristics of each group and the degree of homogeneity, we conclude that observed characteristics contribute significantly to the characteristics of the group and that each group exhibits a high level of homogeneity as confirmed by the analysis of Mahalanobis Distance between the groups of countries in relation to observed variables.

Traditional business environment of the former socialistic countries, besides many limitations and shortages represented in the first part of the work, is not a limiting factor of entrepreneurial activities and economic growth as observed derivations are completely appropriate to the reached level of economic development, disregarding to the social-economic characteristics of the environment. The separate group of transitional countries significantly differentiates. It has its characteristics and the significant level of homogeneity for the volume and structure of entrepreneurial activities and economic growth in accordance to the reached level of economic development. In this way the reached level of economic development measured by GDP per capita represents a very complex, strong and reliable indicator of the social-economic potential of the country, regarding to the capabilities for creating growth and development, as defined by the World Economic Forum methodology and the Global Competition Index. As entrepreneurship is also a social and economic phenomenon, it becomes the direct consequence of the previous strategy.

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Verslumo veiklos savybės pereinamosios ekonomikos šalyse ir jų įtaka plėtrai

Santrauka

Daugelyje šios srities darbų akcentuojama, kad verslumas ir centralizuotas planavimas ekonomikos sektorių yra svarbesnis, nei rinkos ekonomika (Smallbone ir Welter, 2001). Tačiau labai išvystytos šalys neatmeta ir rinkos ekonomikos plėtros galimybių, nes ji yra pateikiama strateginiuose dokumentuose. Vertinant ankstesnius tyrimus, galima teigti, kad verslumas, kaip veiklos rūšis, visose ekonomikose, nepaisant šalies išsivystymo lygio, atlieka tą patį vaidmenį. Tačiau verslumo veiklos apimtis ir kokybė priklauso nuo šalies ekonomikos augimo ir šalies išsivystymo lygio. Aplinkos kokybė yra viena iš pagrindinių skirtumų. Verslumo veikla, lyginant šiuolaikines ekonomikos aplinkybes pasauliniu mastu, yra pripažįstama kaip svarbi, galima ir vertinga, prisidedanti kuriant ekonomikos augimą, plėtrą ir bendrą socialinę gerovę.

Serbijos Respublikai ir kitoms, pereinamojo laikotarpio šalims, vykstant ekonominei plėtrai, verslumas ypač išsiskyrė, nes buvo kažkas naujo ir svarbaus. Paprastai ekspertai tai apibūdina kaip teigiamą, svarbų ir reikalingą reiškinį šioms šalims. Tačiau norint tikslingai nukreipti verslumo procesą, kaip svarbų veiksnį kuriant ekonomines struktūras, kai norime išsiaiškinti trokštamus, svarbius rezultatus ir naudą ekonomikai ir visuomene, būtina įvykdyti kai kurias esmines sąlygas. Siekiant išsiaiškinti būtinas sąlygas, kad būtų suprastas verslumas, sukuriamas GEM projektas. Remiantis šio tyrimo rezultatais galima išsiaiškinti ekonominės politikos atitinkamus būdus ir priemones. Reikia nepamiršti, kad ekonominio verslumo įtaką ekonomikos augimui apriboja ekonominės plėtros lygis. Tačiau neigiamai apibūdinama pereinamojo laikotarpio aplinka nėra ribojantis veiksnys.

Svarbiausias *tyrimo tikslas* ir *pagrindinė problema* yra susiję su nustatymu ekonominės aplinkos pereinamojo laikotarpio šalyse, kaip tam tikrų ekonominių sąlygų, ekonominės plėtros etapų, augimo ir verslumo veiklos dydžio bei struktūros, pagristos pasirinktais kintamaisiais, lyginant su kitomis grupėmis šalių, kurias apibrėžė *Pasaulio ekonominio forumo metodika*. Todėl darbe keliami šie *tikslai*: parodyti pagrindinius verslumo veiklos apimties ir struktūros parametrus ir jų santykį su ekonominės plėtros ir augimo laipsniu pereinamojo laikotarpio šalyse; nustatyti pereinamojo laikotarpio šalių grupės savybes ir palyginti su kitomis šalių grupėmis; atskleisti skirtumų egzistavimą tarp pasirinktų kintamųjų ir tiksliai nustatytų ribų šalių grupėse; išsiaiškinti pereinamojo laikotarpio šalių grupės vienodumą lyginant pasirinktus kintamuosius, t. y. nustatyti kokią įtaką turi grupės kintamųjų savybės. Tyrimo metodika susijusi su parametrinių procedūrų panaudojimu pavyzdyje ir pasirinktų kintamųjų savybėmis bei stebėjimų skaičiumi. Naudojama daugiamatės procedūros MANOVA ir diskriminanto analizė. Iš vienmačių procedūrų bus taikoma ANOVA. Taikant šias metodikas galima tiksliai nustatyti kiekvieno pavyzdžio (šalių grupės) galimus skirtumus, ribas, atstumą ir panašumą, taip pat padaryti atitinkamas išvadas. Šiame darbe duomenys kintamiesiems paimti iš GEM *projekto* duomenų bazės ir *Pasaulinės ekonomikos perspektyvos* duomenų bazės. Darbo naujumą sudaro siekis išskirti pereinamojo laikotarpio šalių grupes iš plėtros etapo, lyginant jas su kitų šalių grupių skirtumų egzistavimu. Visos, šiame darbe analizuotos šalių grupės, taip pat ir skirtingos pereinamojo laikotarpio šalių grupės, kuriose varomoji jėga yra efektyvumas, sistemoje atskleidžia visas šalių stebėtas savybes. Visos taikytos statistinės procedūros patvirtina ankstesnį teiginį, kuriuo naudodamiesi/taikydami mes gavome rezultatus, atskleidžiančius nemažus šalių grupių skirtumus su tiksliomis atskyrimo ribomis, savybėmis ir panašumu, taip pat ir jų tarpusavio atstumais. Tai lėmė visų stebėtų savybių ekonominės plėtros lygį (kaip kriterijų), verslumo veiklos apimtį ir struktūrą bei ekonominę plėtrą. Taigi šiame darbe buvo pasiekti tokie rezultatai: koreliacijos analizė patvirtina loginį ryšį tarp verslumo veiklos apimties ir struktūros bei ekonominės plėtros su pasiektu ekonominės plėtros lygiu, ryšių krypties ir stiprumo požiūriu. Pereinamojo laikotarpio aplinka nepateikė didelių apribojimų, analizuotų kintamųjų nustatymo požiūriu; MANOVA analizės ir parametrų *p* vertės naudojimas patvirtino hipotezę *H1*, todėl galima daryti išvadą, kad egzistuoja nemažas skirtumas tarp nagrinėtų šalių grupių. Kadangi visos šalys yra sugrupuotos kaip tam tikri ekonominės plėtros etapai, pereinamojo laikotarpio šalių grupės išsiskiria kaip atskira ekonominė erdvė. Naudojant diskriminanto analizę ir parametrų *p* vertes, hipotezė *H2* pasitvirtina ir daroma išvada, kad aiškiai apibrėžtos ribos buvo palygintos tarp šalių grupių. Tokiu būdu, stebėtos šalių grupės yra atskiri vienetai; ANOVA analizėje yra iškelta hipotezė *H3*. Vadinasi egzistuoja žymus savybių skirtumas tarp visų stebėtų šalių grupių. Taip pat, išanalizavę kiekvienos grupės savybių vienodumo laipsnį galima daryti išvadą, kad stebėtos savybės turi įtaką grupių savybėms. Kiekviena grupė parodo aukštą vienodumo lygį. Tą patvirtino *Mahalanobis atstumo* tarp šalių grupių analizė su stebėtais kintamaisiais.

Buvusių socialistinių šalių tradicinio verslo aplinka, be pirmojoje darbo dalyje pateiktų daugybės apribojimų ir trūkumų, nėra ribojantis verslumo veiklos ir ekonominio augimo veiksnys, nes nustatyti sprendimai visiškai atitinka pasiektą ekonominės plėtros lygį, nekreipiant dėmesio į aplinkos socialines-ekonomines savybes.

Raktažodžiai: *verslumas, verslumo veikla, perėjimas, ekonominis augimas, ekonominė plėtra, GEM projektas*.