"Important factors for the entrepreneurship in Central Europe"

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IMPORTANT FACTORS FOR THE ENTREPRENEURSHIP IN CENTRAL EUROPE

Abstract

The aim of this article is to define and quantify the significant factors (social environment, access to the financial resources and macroeconomic environment), which determine the perception of the entrepreneurial propensity of students for starting a new business in the Czech Republic, the Slovak Republic and Poland in academic year 2016/2017. Empirical research was realized through questionnaire on the basis of 1,352 students (more than 1%level of significance) of the economic universities in the last year of their study in the Czech Republic, Slovak Republic and Poland. The statistical hypotheses were verified using multiple linear regression modelling. The results showed that the entrepreneurial propensity of students in all countries is mostly affected by the social environment. Czech students gave the social environment higher impact on the entrepreneurial propensity for starting a new business than Polish and Slovak students. The results indicate that access to the financial resources is also important for the entrepreneurial propensity of students in the Czech Republic. As for Polish and Slovak students, the access to the financial resources is not a significant factor to the entrepreneurial propensity in their countries. The results having been processed are the basic information for the academic community, public sector, ministry of education in the country, and other organizations whose effort is to help the students to start a new business in her/his country.

Keywords   Czech Republic, entrepreneurial propensity, financial resources, macroeconomic environment, Poland, Slovak Republic, social environment, university student

JEL Classification   H70, L26, M13, M21

INTRODUCTION

The importance of entrepreneurial activity for the development of an economy is widely discussed and accepted (Bosma, Content, Sanders, & Stam, 2018). According to the Global Entrepreneurship Monitor report, establishing a business was identified as a good career path by almost 70% of the adults in the efficiency-driven countries (such as Slovakia and Poland), compared to around 60% in the factor- and innovation-driven countries. Furthermore, more than the half (58%) of people in Europe believe in entrepreneurship as a good career. However, on average, 26% of the adults in efficiency-driven countries showed an intention to establish a business in the next three years (Herrington & Penny, 2017).

When it comes at designing policies aimed at fostering entrepreneurship, the above figures are of a particular interest for policymakers. With the assumption that between intention to start a business and starting it in reality there is a strong positive correlation, policymakers should pay attention to the factors, which may lead to the encouragement of engagement of individuals to the entrepreneurial activity. Therefore, exploring these factors that influence the propensity of individuals towards becoming entrepreneur is a particular interest.

Liñán, Urbano, and Guerrero (2011) examined the effect of regional environment on entrepreneurial intention. Therefore, a linkage between entrepreneurial intention of individuals and regional conditions where these individuals live should be reasonable to consider (Kibler, 2013). Social and economic environments, including access to financial resources, might affect individual's propensity to become an entrepreneur in the future. Consequently, there is a need to shed light on these relationships. In the course of conducting this research, we did not find any study that covers these relationships at once. Motivated by this need, we conducted this study aiming at examining the relationship and the effect of those factors on entrepreneurial propensity of the university students in the Czech Republic, Slovakia and Poland.

By conducting this research, the following contributions to the literature in the field of entrepreneurship behavior are made (Brachert, Hyll, & Titze, 2017). First, it enhances the literature by shedding light on the researched regional dimension in the entrepreneurial process (Lusková & Buganová, 2015). Second, the research adds to the debate on the impact of environments in entrepreneurial cognition processes, especially the emerging literature that tests the theory of planned behavior in different regional environments (Hudáková & Masár, 2018). Third, implications for policy designing and the business start-up support could be derived by giving more information on how different environmental characteristics shape individuals' intentions towards becoming entrepreneur (Lusková & Hudáková, 2015).

This article presents the theoretical background about the current situation of the business environment and entrepreneurial propensity of small and medium sized enterprises in the Czech Republic, the Slovak Republic and Poland, deals with the important factors influencing the entrepreneurial propensity in general, the role of the state in shaping of the conditions for starting and operating a new business and the role of the family in entrepreneurial potential, in particular as for students in the last year of their study. The next section of the paper is devoted to the description of the data, methodology, methods and basic socio-demographic struck used. The results of the research are presented in the following section together with discussion of the results. The conclusion is formulated the implications of the findings, limitation of the research and directions the research in the next years.

1. LITERATURE REVIEW

The theory of planned behavior (Ajzen, 1991) is a widely used, tested and accepted framework for determining intention and behavior across many studies, which deal with entrepreneurial behavior (Engle et al., 2010; van Gelderen et al., 2008). It assumes that individual's behavior is determined by his/her intention and perceived behavioral control, in turn, this intention is predicted by the attitude towards the behavior, subjective norm and perceived behavioral control (Ajzen, 1991). Along with this theory, institutional theory (North, 1990) is used in this context. According to it, institutions can shape the entrepreneur's behavior by enabling or constraining him/her activity. Institutions differ across countries leading to the differences in the patterns of their economic behavior (Jackson & Deeg, 2008), and, in turn, the economic behavior is believed to be a function of the institutional environment (Aidis, Estrin, & Mickiewicz, 2008;

Engle, Schlaegel, & Dimitriadi, 2011; Virglerova et al., 2018).

Armitage and Conner (2001) conducted a meta-analysis and concluded by finding that a given behavior can be predicted by intent. Therefore, studying the intention of individuals can be considered as a good proxy for the real behavior of a person. As North (2005) and Bosma et al. (2018) point out, the economic component (productivity), institutional framework and social aspects of a society are the determinants of economic growth (Bruton, Ahlstrom, & Li, 2010).

Driven by the above discussion, we assume that entrepreneurial intentions can be a function of the economic and social environments and the available resources that an individual can use to start a business. In the remaining part of this section, our hypotheses are developed based on the discussion on entrepreneurial propensity

and its linkages with social and economic environments, including even the access to financial resources.

Entrepreneurial propensity. A large number of studies have identified significant cognitive predictors of entrepreneurial intention (Liñán & Fayolle, 2015). However, the definition of the entrepreneurial intention is needed. Thompson (2009, p. 676) defines it "as a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future".

Across the regions or countries, individuals perceive differently the intention to engage in entrepreneurial activity (Cepel et al., 2018, Bae et al., 2014; Engle et al., 2010, 2011). Çera, Cepel, Zakutna, and Rozsa (2018) conducted a study among university students in the Czech Republic and Slovakia and they found significant evidence that Slovak students have higher substantial interest in entrepreneurship than those from the Czech Republic.

Social environment. Cultural differences within a country are found as an important driver of the propensity to become entrepreneur (Jaén & Liñán, 2013). Due to their cultural and social characteristics, individuals show different intentions to become entrepreneur. In the same line, Liñán et al. (2011) studied the regional deviations in entrepreneurial cognitions by focusing at entrepreneurial intentions of students across Spain's regions. Their study emphasizes the role of regional differences in intention towards becoming entrepreneur, and the valuation of entrepreneurship contributes to this explanation. According to this study, developed regions reflect higher social valuation of the entrepreneur.

Engle et al. (2010) conducted an ambitious research by testing the theory of planned behavior among ten countries. They found that social norms affect the individual's intention to become entrepreneur. Moreover, Engle et al. (2011) concluded that social norms was a significant driver of individual's intention to become entrepreneur in each country. As the perception of individuals in social norms rises, the intention to engage in business start-up rises.

Economic environment. A vast of the literature of the field have tried to link together formal and informal institutions with entrepreneurial intention (Aidis et al., 2008; Engle et al., 2011; Jackson & Deeg, 2008).

Economic environment may affect the intention or propensity of individuals towards becoming the entrepreneurs. Thurik, Uhlaner, and Wennekers (2002) argue that regional environments, such as, among others, economic development, influence the opportunity structure and the resources, capabilities and interests, which, in turn, determine entrepreneurial behavior. In a more broader context, Ajzen and Fshbein (2005) claim that environmental conditions might influence the individual's intentions by affecting the beliefs and perceptions that they have and act in a certain way. Furthermore, Stam at al. (2010) argue that environmental conditions along with institutions, market opportunities, resources and demand for goods and services affect an individual's intention to become entrepreneur. Straus' (2008) research, and later Kibler's (2013) study, were based on the assumption that the environmental conditions, such as, among other factors, institutional and economic, shape individual's cognition and preferences. Consequently, we assume that environmental conditions shape the individual's intentions towards becoming a businessman.

By applying a hierarchical analysis, Griffiths, Kickul, and Carsrud (2009) found that GDP per capita is a significant factor that influences the entrepreneurial intention of individuals. Surprisingly, they concluded that as the GDP per capita rises, the intention to become an entrepreneur decreases. This goes in line with the results of the Global Entrepreneurship Monitor report, which point out that low-income countries have higher rate on intention to engage in a business start-up process than high-income countries (Herrington & Penny, 2017; Ključnikov et al., 2017). However, a favorable macroeconomic environment may have a positive correlation with the individual's entrepreneurial intention (Engle et al., 2011).

Access to finance. Access to the financial resources might be an incentive for individuals on taking further actions on engagement in business activities. Stam at al. (2010) point out that entrepreneur-

ship can be supported even by a bigger supply of resources for business capitalization and lower costs of borrowing money. Therefore, access to financial resources may play a crucial role concerning not only entrepreneurship activity, but also individuals' entrepreneurial propensity.

2. AIM, RESEARCH METHODS AND SAMPLE

The aim of this article is to identify and quantify the significant factors (social environment, access to the financial resources and macroeconomic environment), which determine the perception of the entrepreneurial propensity of students for starting a new business in the Czech Republic, the Slovak Republic and Poland.

The case study was carried out on a sample of 1,352 students from the Czech Republic (CZ), the Slovak Republic (SR) and Poland (PL). A student of last year of studies were a statistical unit, selected for this research. The authors used online questionnaire, because the respondents were young people, which do not time for nothing. Students stay many hours online on their phones. This approach is easy and fast. The attitudes of the students in relation to the topic of the research were obtained by a questionnaire method using an electronic questionnaire, which included 43 statements, and the respondent had only one option to choose to express his opinion. Link (Slovak and Czech version) (https://docs.google.com/forms/d/e/1FAIpQLSdEt ePpSyjA1cYlVmDJ2vYZ0LfOy8TbTMfQTWjEn2 IYi83YoQ/viewform).

The questionnaire covered: a) demographic characteristics – country of the study, gender and the university; b) selected factors of entrepreneurial propensity – social environment, business support from state, macroeconomic environment, quality of business environment, access to the financial resources, quality of university education, personality traits, business advantages and business disadvantages; c) statements on the entrepreneurial propensity (EP). The subject of this article are social environment, access to the financial resources and microeconomic environment, because these factors and their indicators are the most important of answers of students.

The research team used the data from 15 statements (34.8% of all 43 statements) from the online questionnaire for this paper. We have managed to collect the total of 1,352 (100%) fulfilled questionnaires, 409 of them were from the CR (30.3%), 568 were from the SR (42.0%) and 375 (27.7%) students were from PL.

To meet the main aim of the article, the following hypothesis was formulated:

H: *Such factors as the social environment, the access to the financial resources and the macroeconomic environment are statistically significant and determine the entrepreneurial propensity of students in the Czech Republic, the Slovak Republic and Poland.*

Factors (F1, F2, F3) and their indicators are presented in Table 1.

Entrepreneurial propensity (EP). As Thompson (2009) points out, whether an individual has intention to become entrepreneur or not, is not a dichotomies question of yes or no, but a question type starting form a very low to a very high degree of personal agreement concerning the possibility to engage in business start-up. Following the previous researches conducted in this area (Díaz-García & Jiménez-Moreno, 2010; Sánchez-Escobedo, Díaz-Casero, Hernández-Mogollón, & Postigo-Jiménez, 2011; Shinnar, Giacomin, & Janssen, 2012; Veciana, Aponte, & Urbano, 2005), entrepreneurial intention was measured by one single statement "I am convinced that I will start a business after I graduate from university", which is a five-point Likert scale: "1 = completely agree" to "5 = completely disagree".

The regression analysis was used to quantify the relationship between the variables and to verify the hypothesis H. We did not aim to forecast the values of the variables in our research. While the dependent variable (EP), the independent variables (F_1, F_2, F_3) and the indicators are metrics, the regression analysis is one of the appropriate statistical methods for their evaluation. The independent variables must satisfy the assumptions of linearity and a normal distribution of data to be the statistically sound regression model coefficients. We have verified the assumption of linearity by

Table 1. Descriptive statistics of factors and their indicators

Factor	Indicator	Mean	(SD)
P – entrepreneurial propensity			
P	I am convinced that I will start a business after I graduate from university	2.960	1.139
F1 – social environment*		3.029	0.757
F11	There is a businessperson in my family. I know/met before businessperson and I highly respect him/her	3.757	1.006
F12	Society in general appreciates businesspersons	3.148	1.139
F13	Politicians as well as public consider businesspersons to be beneficial for society	2.788	1.007
F14	Media provide true information regarding status and activities of businesspersons	2.425	0.872
F2 – access to the financial resources**		3.080	0.770
F21	There is no intensive financial risk in the business environment, i.e. having limited access to external financial sources, bad payment habits, etc.	2.659	0.981
F22	Business entities have easy access to bank credits	3.368	0.918
F23	I consider the credit conditions of commercial banks in my country to be appropriate	3.184	0.978
F24	The interest rates of commercial banks support business activities	3.108	0.909
F3 – macroeconomic environment		2.923	0.731
F31	I consider the macroeconomic environment of my country to be positive for doing business	2.706	1.010
F32	The state of macroeconomic environment of my country supports starting a business	3.006	0.991
F33	Present macroeconomic environment does not prevent me from starting a business	3.159	0.961
F34	Present level of basic macroeconomic factors (GDP, employment, inflation) supports business and creates interesting business opportunities	3.006	0.954

Note: * Indicators of social environment processed according to Radu and Redien-Collot (2008); ** Indicators of access to the financial resources are in line with Thompson's (2009, p. 679) statement and Stam at al.'s (2010) consideration regarding the resources that are needed for starting a business.

the graphical analysis of data using the scatter plot (de Waal, 1977). We verified the assumption of the normal distribution of the number of students´ evaluations of statements by the graphical analysis, the testing and the descriptive characteristics (skewness and kurtosis) using the z-score. We used a correlation matrix to verify the relationship between the dependent and independent variables. We used the T-test to verify the significance of the coefficients in the regression model. The basic linear multiple regression model, that defines the relationship between the dependent and independent variables, has following general form for Czech Republic, Slovak Republic and Poland:

2.1. General model:

$$EP = \beta_0 + \beta_1 \cdot F_1 + \beta_2 \cdot F_2 + \beta_3 \cdot F_3 + \varepsilon_t, \quad (1)$$

where EP – entrepreneurial propensity, β_0 – constant, β_1, β_2, β_3 – coefficients of independent variables F_i, F_i – independent variables (F_1 – social environment, F_2 – access to the financial resources, F_3 – macroeconomic environment), ε_t – error term.

2.2. Partial models:

$$F_i = \beta_0 + \beta_{i1} \cdot F_{i1} + \beta_{i2} \cdot F_{i2} + \\ + \beta_{i3} \cdot F_{i3} + \beta_{i4} \cdot F_{i4} \cdot \varepsilon_i, \quad (2)$$

where F_i – selected factors, β_0 – constant, β_{i1}, β_{i2}, β_{i3}, β_{i4} – coefficients of independent indicators F_{ij}, F_{ij} – independent indicators, ε_i – error term.

The coefficient of determination indicates the percentage of variability of the propensity for entrepreneurship of students that is explained by the chosen regression model (Engle et al., 2011; Belás et al., 2018). Then, we compared the coefficient of determination. We used the F-test to verify the significance of the entire regression model (Lancaster & Hamdan, 1964). We verified the presumption of multicollinearity by using a variance inflation factor (VIF test) (Liao et al., 2012). If the value of the VIF test for the independent variable is less than 5, then, we state that the coefficient is not affected by the multicollinearity. The linear regression model is statistically significant when p-value of the F-test is lower than the level of significance. The level of significance is 0.05. All these results were performed using the SPSS statistics analytical software for data evaluation. Figure 1 represents
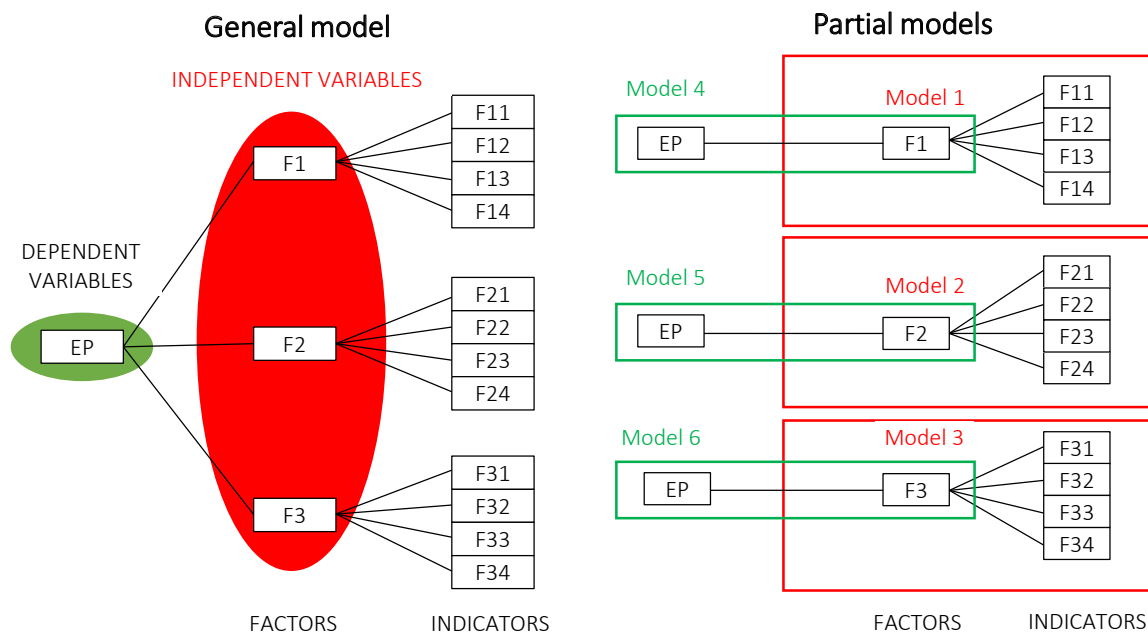
Figure 1. General predictive model and partial models

the general model and partial models of the relationships between the entrepreneurial propensity and the selected factors as the social environment, the access to the financial resources and macroeconomic environment.

In this research, we addressed 409 students from 14 universities in the Czech Republic, 568 students from 8 universities in Slovak Republic and 375 students from 3 universities in Poland. Structure of students of the universities by gender is as follows:

- in the Slovak Republic: 216 males (38.03%), 352 females (61.97%). Students from the Slovak Republic are studying at universities in the following cities: Bratislava, Trenčín, Žilina, Prešov, Banská Bystrica, Zvolen, Košice;

- in Czech Republic: 156 males (38.14%), 253 females (61.86%). Students from the Czech Republic are studying at universities in the following cities: Liberec, Brno, Praha, Olomouc, Pardubice, Ostrava, Zlín;

- in Poland: 145 males (38.7%), 230 females (61.3%). Students from Poland are studying at universities in the following cities: Toruń, Gdańsk, Szczecin.

3. ANALYSIS AND RESULTS

We used the regression analysis of data to test and verify the hypothesis *H*. The linear trends between the entrepreneurial environment and the selected factors can be found in the results of the graphical analysis. The results of the assumption of linearity and the normal data distribution are presented in Table 2.

The results presented in Table 2 confirm that all indicators ($F_{11}, .., F_{34}$) meet the assumption of linearity. The indicators F21, F23, F32 a F34 (Czech Republic); F21, F23, F31 (Slovak Republic) and F21, F22 and F23 do not meet the assumption of normal data distribution. Due to the size of the selected samples of students in the Czech Republic (409), in the Slovak Republic (568) and in Poland (375), the indicators cannot be considered as statistically insignificant (the sample size is larger than 100). The assumptions, as is the linearity and the normal data distribution, were confirmed for all factors (Model 4 – F1, Model 5 – F2, Model 6 – F3) of selected countries.

Table 3 summarizes the results of the verification of the dependence between the entrepreneurial propensity and selected statements (coefficient of correlation), and of the verification of the statisti-

Table 2. Verification of the assumptions of the regression models

Model type	The regression analysis assumption	Verification tool	Independent variables											
			Czech Republic				Slovak Republic				Poland			
Model 1	Indicators of factor F1		F11	F12	F13	F14	F11	F12	F13	F14	F11	F12	F13	F14
	Linearity	Scatter plot	O	O	O	O	O	O	O	O	O	O	O	O
	Normal distribution	*Z*-test	O	O	O	O	O	O	O	O	O	O	O	O
Model 2	Indicators of factor F2		F21	F22	F23	F24	F21	F22	F23	F24	F21	F22	F23	F24
	Linearity	Scatter plot	O	O	O	O	O	O	O	O	O	O	O	O
	Normal distribution	*Z*-test	X	O	X	O	X	O	X	O	X	X	X	O
Model 3	Indicators of factor F3		F31	F32	F33	F34	F31	F32	F33	F34	F31	F32	F33	F34
	Linearity	Scatter plot	O	O	O	O	O	O	O	O	O	O	O	O
	Normal distribution	*Z*-test	O	X	O	X	X	O	O	O	O	O	O	O

Notes: X – unfulfilled, O – fulfilled.

cal significance of the estimated regression model coefficients.

The results of testing the significance of the thus designed regression models (Model 1, Model 2, Model 3) with independent variables ($F_{11, ..., } F_{34}$) for each country are shown in Table 4.

Based on the results presented in Table 4 we can confirm that selected linear regression models are statistically significant (*p*-value of *F*-test is less than level of significance – Model 1: CR, SR and PL; Model 2: CR; Model 3: PL). The multicollinearity does not influence the results of the estimated regression model coefficients (VIF is less than 5 – Model 1: CR and Model 3: PL).

The results of testing of the significance of the designed general model with the independent variables (F_1, …, F_3) are shown in Table 5.

The data in Table 5 bring us some interesting results. The factors (F_1,…, F_3) meet the assumptions for the performing of the regression analysis (linearity, normal distribution). There is a strong correlation between: a) the dependent variable (EP) and independent variables (F_1, F_2) in the Czech Republic; b) the dependent variable (EP) and independent variables (F_1) in the Slovak Republic; a) the dependent variable (EP) and independent variables (F1, F_3) in the Poland. The results of the *T*-tests indicate a no statistical significance of F3 in the Czech Republic, F_2 and F_3 in the Slovak Republic and F_2

Table 3. Verification of the assumptions of the regression models

Type of model	Regression equation	Independent variables											
		Czech Republic				Slovak Republic				Poland			
Model 1	Indicators of factor F1	F11	F12	F13	F14	F11	F12	F13	F14	F11	F12	F13	F14
	Significance of the estimate coefficient	O	O	O	X	O	X	O	X	O	X	O	X
	Coefficient of correlation	SC	SC	SC	LC	SC	SC	SC	LC	SC	LC	SC	LC
Model 2	Indicators of factor F2	F21	F22	F23	F24	F21	F22	F23	F24	F21	F22	F23	F24
	Significance of the estimate coefficient	X	X	O	X	X	X	X	X	X	X	X	X
	Coefficient of correlation	LC	LC	SC	LC	LC	LC	LC	LC	LC	LC	LC	LC
Model 3	Indicators of factor F3	F31	F32	F33	F34	F31	F32	F33	F34	F31	F32	F33	F34
	Significance of the estimate coefficient	X	X	X	X	X	X	X	X	O	X	O	O
	Coefficient of correlation	LC	LC	LC	LC	LC	LC	LC	LC	SC	SC	SC	SC
Model 4	Selected countries	CR	SR	PL	Model 5	CR	SR	PL	Model 6	CR	SR	PL
	Factors	F1	F1	F1		F2	F2	F2		F3	F3	F3
	Significance of the estimate coefficient	O	O	O		X	X	X		X	O	X
	Coefficient of correlation	SC	SC	SC		LC	LC	LC		LC	SC	LC

Notes: X – unfulfilled, O – fulfilled, SC – strong correlation (R > 0.8), LC – low correlation (R < 0.8).

Table 4. Characteristics of entrepreneurial propensity of regression models

Model type	Country	The regression models (multiple linear regression function)	Characteristics of the regression models			
			Coefficient of determination (R^2)	Multiple correlation coefficient	ANOVA (*F*-test)	Multicollinearity (VIF)
Model 1	CR	$F_1 = 0.19 \times F_{11} + 0.12 \times F_{12} + 0.11 \times PF_{13}$	0.3380	0.5808	1.05E-6	3.815
	SR	$F_1 = 0.24 \times F_{11} + 0.13 \times F_{13}$	0.3180	0.5641	2.17E-7	N
	PL	$F_1 = 0.09 \times F_{11}$	0.2741	0.5237	0.041	N
Model 2	CR	$F_2 = 0.24 \times PF_{23}$	0.1610	0.4010	0.031	N
	SR	The regression models is no statistical significant because F – ratio of test equal 0.544				
	PL	The regression models is no statistical significant because F – ratio of test equal 0.371				
Model 3	CR	The regression models is no statistical significant because F – ratio of test equal 0.578				
	SR	The regression models is no statistical significant because F – ratio of test equal 0.712				
	PL	$F_3 = \cdot .36 \times F_{31} + 0.14 \times F_{33} + 0.21 \times F_{34}$	0.3403	0.5834	2.3E-32	2.846
Model 4	CR	$EP = 0.296 \times F_1$	0.479	0.693	9.8E-60	N
	SR	$EP = 0.103 \times F_1$	0.044	0.210	3.9E-7	N
	PL	$EP = 0.190 \times F_1$	0.202	0.449	4.8E-20	N
Model 5	CR	The regression models is no statistical significant because F – ratio of test equal 0.357				
	SR	The regression models is no statistical significant because F – ratio of test equal 0.717				
	PL	The regression models is no statistical significant because F – ratio of test equal 0.190				
Model 6	CR	The regression models is no statistical significant because F – ratio of test equal 0.075				
	SR	The regression models is no statistical significant because F – ratio of test equal 0.351				
	PL	$EP = 0.065 \times F_3$	0.024	0.156	0.002	N

Note: CR – Czech Republic, SR – Slovak Republic, PL – Poland, N – multicollinearity is not in the regression model (less than three statistical significant factors).

Table 5. Characteristics of the regression models

Verification of the assumptions of general models										
Country		Czech Republic			Slovak Republic			Poland		
Factors of EP		F1	F2	F3	F1	F2	F3	F1	F2	F3
Linearity	Scatter plot	O	O	O	O	O	O	O	O	O
Normal distribution	*Z*-score	O	O	O	O	O	O	O	O	O

Verification of the significance of the estimated coefficient and correlation									
Country	Czech Republic			Slovak Republic			Poland		
Factors of EP	F1	F2	F3	F1	F2	F3	F1	F2	F3
Significance of the estimate coefficient	O	O	X	O	X	X	O	X	O
Coefficient of correlation	SC	SC	LC	SC	LC	LC	SC	LC	SC

Characteristics of quality business environment of regression model					
Country	The regression models	Coefficient of determination (R^2)	Multiple correlation coefficient	ANOVA (*F*-test)	Multicolliearity (VIF)
CR	$EP = 0.30 \times F_1 + 0.21 \times F_2$	0.4834	0.6985	9.14E-58	N
SR	$EP = 0.24 \times F_1$	0.2473	0.4954	4.9E-6	N
PL	$EP = 0.17 \times F_1 + 0.03 \times F_3$	0.2072	0.4553	1.38E-18	N

Notes: X – unfulfilled; O – fulfilled; SC – strong correlation (R > 0.8), LC – low correlation (R < 0.8). CR – Czech Republic, SR – Slovak Republic, N – multicollinearity is not in the regression model (less than three statistical significant factors).

in Poland. The abovementioned regression models are statistically significant (CR: *p*-value = 9.14E-58; SR: *p*-value = 4.9E-6; PL: *p*-value = 1.38E-18). Selected factors explain: 48.34% of the variability of the answers of the students in relation to the EP in the Czech Republic; 24.73% of the variability of the answers of the students in relation to the EP in Slovak Republic and 20.72% of the variability of the answers of the students in relation to the EP in Poland.

4. DISCUSSION, LIMITATIONS, RECOMMENDATIONS

Figure 2 shows the statistical significance of the selected indicators (F_{11},..., F_{34}) and factors (F_1,..., F_3) and their relationships to the entrepreneurial propensity in the selected country (CR, SR and PL).

The comparison of regression partial models (see Table 4) in the Czech Republic, Slovak Republic and Poland results in common and different partial conclusions. The social environment is statistically significant factor on the environmental propensity of students in the all countries. Access to the financial resources is statistically significant

factor on the entrepreneurial propensity of students in the Czech Republic. The macroeconomic environment is the statistically significant factor on the entrepreneurial propensity of student in the Poland.

Indicators such as there is a businessperson in my family and I highly respect him/her and politicians, as well as public, consider businesspersons to be beneficial for society are statistically significant indicators on the social environment in the all countries. Indicators such as intensive financial risk in the business environment, i.e. having limited access to external financial sources, bad payment habits, etc.; business entities have easy access to bank credits; the credit conditions of commercial banks in my country to be appropriate and the interest rates of commercial banks support business activities does not determine the access to the financial resources in the Slovak Republic and Poland. The macroeconomic environment of my country to be positive for doing business, the state of macroeconomic environment of my country supports starting a business, present macroeconomic environment does not prevent me from starting a business, present level of basic macroeconomic factors (GDP, employment, inflation)
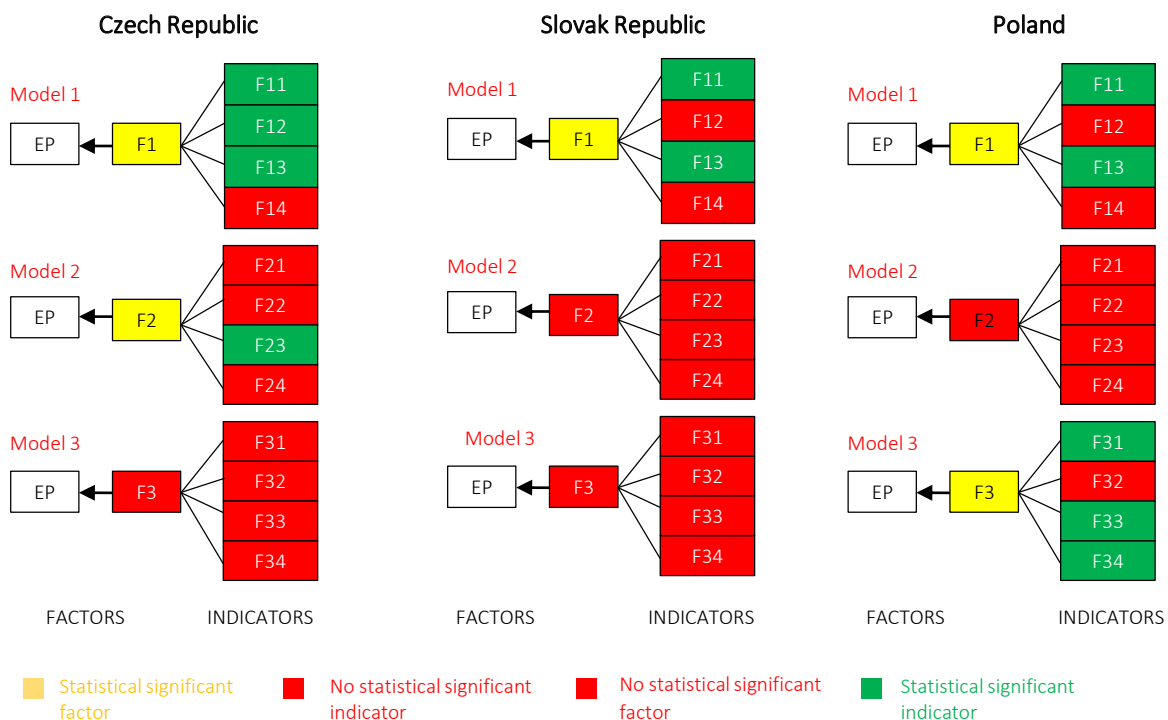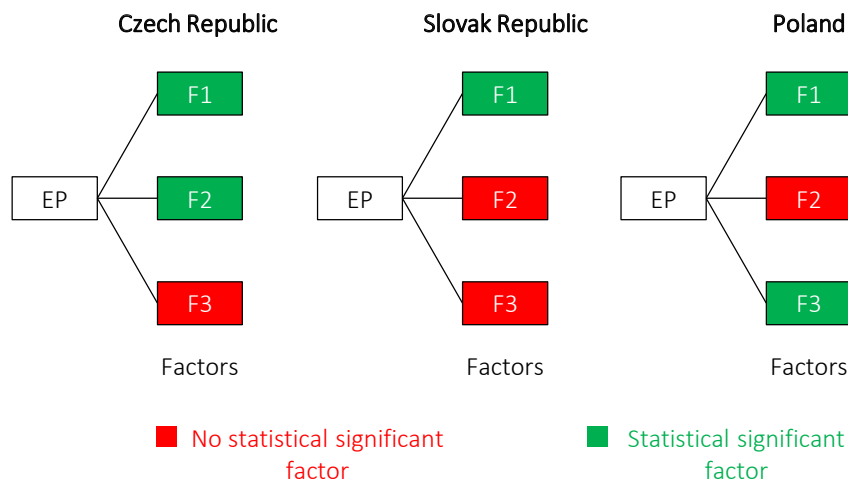
Source: Authors' results.

Figure 2. Results of partial regression models

Figure 3. Results of general regression models

supports business and creates interesting business opportunities does not determine the macroeconomic environment in the Czech Republic and in the Slovak Republic.

Figure 3 shows the statistical significance of the factors (social environment, access to the financial resources and macroeconomic environment) and their relation to the EP in the selected country (CR, SR and PL).

The social environment has the largest impact on the entrepreneurial propensity of the Czech students, followed by the access to the financial resources. The macroeconomic environment has no impact on the entrepreneurial propensity of the Czech students. The social environment is important factor on the entrepreneurial propensity of the Slovak students. The access to the financial resources and the macroeconomic environment have no impact on the entrepreneurial propensity of the Slovak students. The social environment is the most impact on the entrepreneurial propensity of the Polish students, followed by the macroeconomic environment. The access to the financial resources has no impact on the entrepreneurial pro-

pensity of the Czech students. The most important indicator of the social environment is that student have a businessperson in her/his family. The results of Alayo et al. (2019), Segaro et al. (2014) and Ripollés-Meliá et al. (2007) also indicate that family firms play a significant role for start own entrepreneurship.

The results showed that the country is important for the evaluation selected factors and their indicators to the entrepreneurial propensity of university students. This result of the entrepreneurial propensity is also in accordance with Griffiths et al. (2009). According to Engle et al. (2011), the economic factor is insignificant for entrepreneurial intention. Their statement is in contrast with our results in the Czech Republic, but their statement is in accordance with our results in Slovakia and Poland.

As regions differ in their levels of entrepreneurial activity and the availability of entrepreneurial resources and opportunities, individuals encounter environments that are more or less benevolent and munificent when aiming to become a successful entrepreneur (Stam et al., 2010).

CONCLUSION

The aim of this article is to define and quantify the significant factors (social environment, access to the financial resources and macroeconomic environment), which determine the perception of the entrepreneurial propensity of students for starting a new business in the Czech Republic, the Slovak Republic and Poland.

The results showed that the entrepreneurial propensity of students in all countries is mostly affected by the social environment. Czech students gave the social environment a higher emphasis (a higher impact) on the entrepreneurial propensity for starting a new business than Polish and Slovak students. Our results indicate that access to the financial resources is also important for the entrepreneurial propensity of students in the Czech Republic. As for Polish and Slovak students, the access to the financial resources is not significant factor to the entrepreneurial propensity in their countries. The indicators of the macroeconomic environment are also important to the for entrepreneurial propensity of Polish students for starting a new business in Poland. As for Czech and Slovak students, the macroeconomic environment is not a significant factor to the entrepreneurial propensity in their countries.

The authors are aware of the limitations of our research (e.g. regional nature of the study – central Europe´s countries, basic statistical methods as is multiple linear regression analysis), we believe that our article has brought several interesting findings and new incentives for the further research and discussion regarding assessing the selected factors and their indicators in the propensity of entrepreneurship of students and new ideas of improvement the process of starting business in the selected countries.

It is worth to concentrate our future research on the comparison of evaluation of the factors and their indicators with other countries of the Visegrad groups (Hungary) and after with Western countries of Europe. The authors would like to cooperate with Western researchers, because the authors believe that the factors and their indicators differently influence the entrepreneurial propensity of the students in these countries.

The results having been processed are the basic information for the academic community, public sector, ministry of education in country, and other organizations whose effort is to help the students to start a new business in her/his country.

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