

## ***Entrepreneurship of University Students: Important Factors and the Propensity for Entrepreneurship***

**Jaroslav BELÁS<sup>1</sup>, Ján DVORSKÝ<sup>2</sup>, Ladislav TYLL<sup>3</sup>,  
Katarína ZVARÍKOVÁ<sup>4</sup>**

**Abstract:** *The goal of this paper is to analyze the propensity for entrepreneurship shown by university students arising from the state support of entrepreneurship and the quality of higher education. Part of this goal includes a comparison of the defined factors between the Czech Republic and Slovakia. To fulfil such research objectives, we conducted a survey among university students in the Czech Republic and Slovakia. In total, we surveyed 409 students from the Czech Republic and 568 students from Slovakia. To verify the stated scientific hypotheses, we used regression analysis and Z-score. The results of our research delivered some interesting findings. Even though Czech university students rated the state support of entrepreneurship and the quality of education higher compared to their Slovak peers, they declared a statistically lower inclination for entrepreneurship. The regression model between interest in entrepreneurship and the state support of entrepreneurship combined with the quality of higher education in the Czech Republic is not statistically significant. This model is statistically significant in Slovakia. The variability of the selected independent variables - state support of entrepreneurship and quality of higher education – accounts for 88% of the variance of student interest in entrepreneurship in the Czech Republic. The variability of selected independent variables explains only 38% of the variance of student interest in entrepreneurship in the Slovak Republic.*

**Keywords:** *public sector, university students, propensity for entrepreneurship, state support of entrepreneurship, quality of education*

**JEL:** *H 52, I 23, M 13*

### **Introduction**

Developing people's interest towards starting a business plays a vital role in the former socialist countries in which, for a very long time, private property and free initiative were almost completely suppressed. The increase of entrepreneurial activities is a major issue on which the sustainability of future growth depends (Popescu et al, 2016).

---

<sup>1</sup>Professor, PhD., Engineer, Tomas Bata University in Zlín, Zlín, Czech Republic, e-mail: belas111@gmail.com

<sup>2</sup> Assistant Engineer, Tomas Bata University in Zlín, Zlín, Czech Republic, e-mail: jdvorsky@fame.utb.cz

<sup>3</sup> Engineer, PhD., University of Economics, Prague, Czech Republic, e-mail: ladislav.tyll@vse.cz

<sup>4</sup>Engineer, PhD., University of Zilina, Zilina, Slovakia, e-mail: katarina.zvarikova@fpedas.uniza.sk

There are many current problems among which we may include the issue of preferences in the professional lives of university students and their prospective propensity for entrepreneurship. It is apparent that this is a group of people who should be the most active segment in the population of the country in terms of their economic contribution. Specifically, university graduates should represent the driving force of the local economy thanks to their acquired knowledge, skills and natural intelligence.

In this paper, we research how the state support of entrepreneurship and the quality of education determines the propensity towards entrepreneurship of university students. The unique nature of our research lies in the fact that we quantify the dependence of propensity for entrepreneurship of university students on the perceived quality of higher education and on the quality of the business environment shaped by local government.

The structure of the paper is as follows. The theoretical part covers the results of secondary research in the fields of: the evaluation of quality of education and the state support of entrepreneurship. Following this, we define the goal of our research, methodology and describe the data we are working with. In the third part, we present the results of our research and provide a brief discussion relating to this topic. The final part will summarize our conclusions.

### **1. Theoretical Background**

Many different researches have confirmed that entrepreneurs who completed their higher education have substantially better prerequisites for business. Lafuente and Vaillant (2013) and Velez (2009) suggest that university educated people are more interested in the possibility of running their own businesses compared to those with lower levels of education. Naude et al. (2008) assert that higher education represents an important positive factor for entrepreneurship since such educated individuals are capable to see more market opportunities which affect the positive economic growth of the company (Rauch & Rijsdijk, 2013) . Higher education is also correlates positively with higher sales, profitability and sustainability of the company (Van der Sluis & Van Praag, 2008). Millian et al. (2014) report that educated entrepreneurs are more capable of attracting educated employees for their business, which has a positive effect on the return and productivity of the company.

Previous researches confirmed that entrepreneurs with higher education perceive the intensity of factors shaping business environment differently as they have better prerequisites for managing business and financial risks in companies (Belás et al., 2016; Ključnikov & Belás, 2016).

The role of the state in the process of shaping the business environment is being researched by many authors. Popescu et al. (2016) state that any market economy is based on an extensive and dynamic private sector. However, the state can help by targeting its educational policies towards encouraging and supporting

entrepreneurial education and creating a suitable business environment (Belás et al., 2015).

Policy makers are aware that entrepreneurial activities play a momentous part in stimulating economic growth and innovation in national economies (Oehler et al., 2015). The higher the levels of credibility and effectiveness in public policies and institutions' the more positive and robust impact they have on the entrepreneurial climate. Hence, the most obvious policy recommendation that can be derived from these findings is that a democratic and legal frame must; offer stability and social equality, is trusted by its citizens, provides proper protection of general business conditions, all of which are critical requirements for supporting entrepreneur activity (Dima et al., 2016).

The relationship between the state and entrepreneurs conflicts over time, since both economic subjects have contradictory ideas about how to manage the economy. Entrepreneurs in general assess the approach of the state towards their needs and interests rather negatively. They criticize the red tape for entrepreneurs (Morávek, 2013), dysfunctional systems of support for entrepreneurs, low quality of educational systems (g82, 2013) and most importantly any environment facilitating corruption (Transparency International, 2015; g82, 2013).

The extremely negative perception of the state on behalf of entrepreneurs is reflected in the Czech Republic where 84% report a feeling that the state just bullies them or is not fulfilling its role. Only 3% of companies said that the state helps them in business. In Slovakia, 53 % of entrepreneurs feel that the state bullies them, with 38 % of companies thought that the state does not fulfil its obligations and only 5% of entrepreneurs thought that the state fulfils its duties (Belás et al., 2014).

In this context, the results of Roman et al. (2013) show that the costs of recruiting may deter start-up businesses from hiring staff. This suggests that policy makers should reduce the administrative obligations associated with creating and increasing employment if employment growth is a desired societal outcome (which is prominent at the time of writing this paper).

The relationships between corruption and the quality of business environment play a crucial role in fostering or frustrating domestic innovative activity. Essentially, the better a state's control of corruption, the higher its levels of innovation and entrepreneurship (Anokhin & Schulze, 2009).

Based on research of the g82 agency (2013) corruption was declared as the major weakness of the Czech Republic in relation to entrepreneurs and entrepreneurship in general. According to Transparency International (2015) the corruption perception index had risen in 2014 compared to 2013 by three points with the Czech Republic being ranked 53rd position overall with a score of 51 points. A similar result was achieved by other countries such as Georgia, Malaysia, Samoa, Slovakia and Bahrain. Within Europe the Czech Republic ranked 25th out of the 31 evaluated countries e.g. after Hungary but still higher than Slovakia.

In this context Bondareva & Tomčík (2015) define the negative impact on the social and economic system. According to these authors corruption has a wide

scope of negative effects on the country; the inefficient redistribution and use of country's funds and resources, inefficiency in corruption financial flows, decreased tax revenues for the national budget, bankruptcies of entrepreneurs, decreased investments in production, deceleration of the country's economic growth, limited access to European financial funds for small entrepreneurs, spreading of organized crime, decline of the political legitimacy of the state, decline of social morality and many others. Combined these slow the competitive growth of the nation.

The results of our research confirmed that this phenomenon affects intensively the social and economic system of the Czech Republic, since 53% of entrepreneurs stated that they had come across corruption and 23% of them had not taken a stand against this problem. This may mean that they did not openly express their opinion given the sensitivity of these problems (Belás et al., 2015). At the same time, the battle against corruption and other forms of organizational wrongdoing remains a formidable task especially in Central and Eastern European countries (Bogdanovic & Tyll, 2016; Peters, 2017). The results by Virglerová et al. (2016) confirmed that the problem of corruption increases with company size. Encountering corruption and clientelism may be significantly more influenced by the duration of entrepreneurship rather than company size.

The role of education in the process of forming the propensity for entrepreneurship of university students is perceived from a variety of points of view in literature.

Jones et al. (2011) suggest that entrepreneurship education at universities positively encourages students to be an entrepreneur. Education can enhance the confidence level of the students which motivates them to select entrepreneurship as an alternative career choice. A similar opinion is provided by Popescu et al. (2016).

If university provides a positive environment and support to budding entrepreneurs, students would feel more empowered to start a business and ultimately have stronger intentions to become entrepreneurs. (Tredevi, 2016). A well-crafted entrepreneurship education curriculum can significantly raise students' enthusiasm and competence to become successful entrepreneurs (Becerra et al. 2016). This results in the recommendation that the traditional role of university to teach, observe and advise should be supplemented with philosophy to understand, measure and assist the aspiring student-entrepreneurs for the economic development of the nation (Bergmann et al., 2016).

Universities can foster students' first steps towards becoming entrepreneurs by offering entrepreneurship courses and motivating students to attend. (Bergmann et al., 2016; Gerstein and Hershey, 2016). Understanding finance, accounting, and management accounting as well as corporate planning and management is momentous for entrepreneurs. (Oehler et al., 2015; Simionescu et al., 2016).

University influences may encourage the first actions for starting a business but do not seem to lead to the establishment of new firms, at least not while people are studying. For students, the actual start-up of new firms is more strongly influenced by the regional than the organizational context. (Bergmann et al., 2016).

On the other hand, Wang & Wong (2004) state that the level of education has very limited effect on entrepreneurial choice and hence the authors suggest that entrepreneurship education does not have any effect on shaping the intentions of the students to become entrepreneurs.

Tredevi (2016) states that general educational support in terms of entrepreneurship do not increase students' intentions to be entrepreneurs. Rather, the results show that non-academic support from the universities such as training, helping to get inventions to be patented and motivational support improve the entrepreneurship intentions of students.

Per Farhangmehr et al. (2016) students having technical knowledge, self-competencies, innovation skills, analytical ability and problem solving capabilities can positively affect the entrepreneurial choice rather than only having academic knowledge. It is also found that entrepreneurship education does not help students get involved in entrepreneurship. The authors argue that entrepreneurship education may not be designed properly to meet the demand of the current business environment.

In this context Krpálek and Krpalková-Krelová (2016) emphasize that when educating for developing entrepreneurial potential it is important to teach with the activity approach, based on students' own experience (learning by doing). Education for developing entrepreneurial potential will be effective only in the situations when students acquire and develop knowledge and skills based on their own experience when a partnership in the process of learning is reached based on the concept of self-responsible learning.

An interesting point is provided by Popescu et al. (2016). High school graduates with an entrepreneurial focus have less inclination to be engaged in business in comparison to the graduates of high schools that offer general education. The authors state that the formal entrepreneurial education obtained at schools specialized in this field has an inhibiting effect on the main determinants of entrepreneurial intentions.

## **2. Aim, Methodology and Data**

The aim of this paper is to analyse the propensity for entrepreneurship shown by university students relating to state support of entrepreneurship and the quality of higher education. Part of this goal included a comparison of then defined factors between the Czech Republic and Slovakia.

To meet the above-mentioned goal, we conducted a survey amongst university students in the Czech Republic and Slovakia. We surveyed 409 students from 14 universities in Czechia and 568 students from 8 universities in Slovakia. The Czech students were from the following universities: Technical University of Liberec, Newton College in Brno – University of Applied Business, University of Economics Prague, Masaryk University in Brno, Sting Academy in Brno, College of Entrepreneurship and Law in Prague, Palacký University Olomouc and the Mendel University Brno. Students from Slovakia were studying at the following

universities: University of Economics in Bratislava, Alexandr Dubček University in Trenčín, University of Žilina, University of Prešov, Matej Bela University in Banská Bystrica, Technical University of Zvolen, Technical University of Košice, Pan-European University in Bratislava.

In developing this paper, we have established three research hypotheses:

**H1:** State support of entrepreneurship significantly determines the propensity for entrepreneurship of university students.

**H2:** The quality of the educational process significantly determines the propensity for entrepreneurship of university students.

**H3:** There are no statistically significant differences in the evaluation of propensity for entrepreneurship, state support of entrepreneurship and the quality of higher education in the Czech Republic and Slovakia.

As part of the research we have defined state support of entrepreneurship by the following statements:

**K1:** State support of entrepreneurship: we assume that the state significantly shapes the business environment, relationship to entrepreneurship and the propensity to start a business.

K11: The state supports entrepreneurship using its tools and policies.

K12: The state creates good conditions for starting a business.

K13: The state financially supports entrepreneurship.

K14: The legislative conditions for business are of a high quality.

**K2:** The quality of the higher education was defined by using the following statements:

K21: I evaluate the higher education in my country as being of high quality.

K22: I evaluate the system of education at my faculty (university) as a quality one.

K23: The knowledge I am obtaining at my faculty (university) would help me in my entrepreneurship.

K24: The knowledge students are obtaining in my country would help them to start a business.

**KY:** The propensity for entrepreneurship (dependent variable) was defined by the following statement.

KY: I have substantial interest in entrepreneurship (dependent variable).

To test hypotheses H1 and H2, we used regression modeling based on the theoretical and practical knowledge to clarify the relationships between variables and not to forecast them. The dependent and independent variables are metric, so regression analysis is the appropriate statistical technique. The independent variables must satisfy the assumptions of linearity, homoscedasticity and of the normal distribution of the data which makes them suitable as parameters of the regression modeling with a linear function. A graphical inspection of data using a scatter plot was used to verify the assumption of linearity. The presence of non-linear patterns between the dependent variable and independent variables could lead to the rejection of the assumption of linearity. To verify the assumed normal

distribution of data, we performed graphical analysis (comparison curve of a normal probability plot with a histogram for every independent variable) and z-value (standardized normal distribution) of descriptive characteristics of independent variables (skewness, kurtosis). Critical value of significance level 0.05 is the absolute value from number (1.96). The assumption of the constant variance of residuals (homoscedasticity) was verified using the Bartlett's test. Because the p-value of test was higher than 0.05, we did not find any statistically significant presence of heteroscedasticity. To check for multicollinearity, we used the correlation matrix (pairwise Pearson correlations) and t-test for testing, which accepted or rejected the independent variable. Critical value of test's characteristic is t-value > 1.965 (level of significance at 0.05; 437 degrees of freedom). We didn't find any multicollinearity issues. The correlation analysis also helped us identify the important independent variables for the linear regression model.

The basics of linear multiple regression model forms the relationship between the dependent variable (interest in entrepreneurship) and independent variables (state support of entrepreneurship, quality of higher education):

$$Y_{KY} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon_i, \quad (1)$$

where:  $Y_{KY}$  – dependent variable ( $KY$  = interest in entrepreneurship);

$\beta_0$  – constant;

$\beta_1, \beta_2$  – parameters of independent variables;

$X_i$ ;  $X_i$  – independent variables ( $i = 1$  (State support of entrepreneurship),  $i = 2$  (quality of higher education));

$\varepsilon_i$  – error term.

The error term in this definition of regression models must have the features of white noise (mean value of forecast error is zero and finite variance, also require that the samples must be independent and must have identical probability distribution). This way the linear formed regression model was verified by comparing the coefficient of determination  $R^2$  and adjusted  $R^2$  by analysing the p-value of the whole model. The required p-value of the whole model must be lower than the level of significance 0.05 – (p-value of "Analysis of variance"). The regression analysis was pursued by using the sophisticated statistical software SPSS.

In order to evaluate the hypothesis H3, we used the methods of descriptive statistics - count of students in groups - needed for the Z-score calculation. Pearson's coefficient was calculated and then interpreted by a judgment of the statistical significance of the differences between specific groups of students. The statistical hypothesis was adopted or rejected on the pre-set level of significance with a p-value of 0.05. While evaluating and identifying the statistically significant differences between the responses to the questions amongst selected groups of students, the Z-score was applied and their p-values calculated. Statistically significant differences in the positive answers of students were investigated by the

means of Z-score. These calculations were pursued using the free software available at: <http://www.socscistatistics.com/tests/ztest/Default2.aspx>.

### 3. Results and Discussion

The research results are presented in the following tables. Tables 1, 2 and 3 display the absolute frequencies of answers.

**Table 1. Evaluation of state support of entrepreneurship  
in the Czech Republic (CZ) and Slovak Republic (SK)**

<i>K11: The state supports entrepreneurship using its tools and policies.</i>	ČR	SR	<i>K12: The state creates good conditions for starting a business.</i>		ČR	SR
1.I.fully agree	6	7			8	12
2.I agree	129	119			114	81
The ratio of 1+2 on the total number (in %)	<b>33</b>	<b>22</b>			<b>30</b>	<b>16</b>
3.I take no position	87	86			95	81
4.I disagree	154	286			176	327
5.I fully disagree	33	70			16	67
Total:	409	568			409	568
<i>K13: The state financially supports entrepreneurship.</i>			<i>K14: The legislative conditions for business are of a high quality.</i>			
1.I fully agree	5	6			4	10
2.I agree	99	134			102	89
The ratio of 1+2 on the total number (in %)	25	25			<b>26</b>	<b>17</b>
3. I take no position	133	109			160	154
4.I disagree	155	277			122	265
5.I fully disagree	17	42			21	50
Total:	409	568			409	568

The results of our research suggest that Czech university students evaluate the state support of entrepreneurship in a more positive way than their Slovak peers. 33% of Czech university students agreed with the statement that the state supports entrepreneurship. Only 22% of students in Slovakia agreed with the same statement. Almost the same situation was found in the case of the quality of conditions for starting up your own business (30%/16%) and in regards to the quality of the legislative environment (26%/17%). The level of state support of entrepreneurship was evaluated identically at 25% in both countries.



**Table 2. Evaluation of the quality of higher education  
in the Czech Republic (CZ) and Slovak Republic (SR)**

<i>K21: I evaluate the higher education in my country as being of high quality.</i>	<i>CZ</i>	<i>SR</i>	<i>K22: I evaluate the system of education at my faculty (university) as a quality one.</i>	<i>CZ</i>	<i>SR</i>
1. I fully agree	18	26		41	56
2. I agree	262	267		249	323
The ratio of 1+2 on the total number (in %)	<b>69</b>	<b>52</b>		71	67
3. I take no position	47	74		50	53
4. I disagree	75	171		63	122
5. I fully disagree	7	30		6	14
Total:	409	568		409	568
<i>K23: The knowledge I am obtaining at my faculty (university) would help me in my entrepreneurship.</i>			<i>K24: The knowledge students are obtaining in my country would help them to start a business.</i>		
1. I fully agree	39	60		10	29
2. I agree	239	304		219	280
The ratio of 1+2 on the total number (in %)	68	64		56	54
3. I take no position	66	90		111	105
4. I disagree	55	92		64	140
5. I fully disagree	10	22		5	14
Total:	409	568		409	568

Based on our research, we may conclude that Czech university students evaluate the quality of the education system higher than their Slovak peers since they showed a higher level of agreement in response to all related questions. Higher education was evaluated as being of high quality in almost 69% of students (in SR it was only 52%), the quality of education at their own faculty (university) is recognised by 71 % of students in the CR and only 67% in the SR and almost the same situation was found in the case of the quality of knowledge obtained for the support of entrepreneurship (68%/64%; 56%/54%).

**Table 3. Propensity for entrepreneurship**

<b>KY: I have substantial interest in entrepreneurship</b>	<b>CZ</b>	<b>SR</b>
1. I fully agree	64	89
2. I agree	138	245
The ratio of 1+2 on the total number (in %)	<b>49</b>	<b>59</b>

**Entrepreneurship of University Students: Important Factors and the Propensity  
for Entrepreneurship**

<b>KY: I have substantial interest in entrepreneurship</b>	CZ	SR
3. I take no position	82	119
4. I disagree	104	93
5. I fully disagree	21	22
Total:	409	568

In our research, there was a substantial interest in entrepreneurship shown by 49% of Czech and 59% of Slovak students.

To verify the assumption of linearity we used a scatter plot. From data mapping there could be seen a straight course (linear) between the interest of students in entrepreneurship and the independent variables (state support of entrepreneurship, quality of higher education). The assumption of linearity is therefore satisfied. Comparison between the histogram of independent variable K2 (state support of entrepreneurship in the Czech Republic and Slovak Republic) and curve of normal distribution shows that it is possible to observe the differences in the number of responses of individual student groups and the curve of normal distribution. The results of descriptive characteristics (skewness, kurtosis) are shown in Table 4.

**Table 4. Skewness, kurtosis, Z - value and Bartlett's test of independent variables**

Independent Variable	Czech Republic			
	Skewness (S)	Kurtosis (K)	Z-value (S) (K)	Bartlett's test
K2	-0.375	-2.638	1.857	0.058
			-1.325	
K6	1.815	2.595	0.251	0.746
			1.508	
Independent Variable	Slovak Republic			
	Skewness (S)	Kurtosis (K)	Z-value (S) (K)	Bartlett's test
K2	3.614	0.777	2.589	0.089
			0.475	
K6	1.413	1.483	1.907	0.174
			1.181	

The results of Bartlett's test are good for every independent student group, because p-value is for each variable higher than the critical area ( $p - \text{value} > 0.05$ ). Therefore, we don't reject the null hypothesis on homoscedasticity. The assumption of normal distribution for each independent variable was confirmed with z-test. Results of skewness and kurtosis (see table) and their z-value showed

that variable state support of entrepreneurship in the Slovak Republic does not satisfy this assumption ( $z$  - value  $> 2.589$ ). Results were confirmed also by a graphical inspection of the scatter plot. For other variables the assumption of a normal distribution of students in the frequency responses was confirmed ( $z$  - score skewness and  $z$ - score kurtosis is lower than 2.000). However, with a sufficiently large sample size (586 students) normality error of assumption reduces the data (Hair, 2010). The results of t-test are rejected by the statistical significance of variable K2 in the regression model for the Slovak Republic ( $t$ -value = 1.139), because it is lower than the critical area. Intensity of correlation between dependent variables and independent variables for each country are shown in Table 5.

**Table 5. Correlation matrix of variables in the Czech and Slovak Republics  
between dependent and independent variables**

Czech Republic				Slovak Republic			
Matrix	KY	K1	K2	Matrix	KY	K1	K2
KY	1			KY	1		
K1	0.730	1		K1	0.089	1	
K2	0.866	0.485	1	K2	0.937	0.316	1

The results of the correlation matrix show a very low correlation between interest in entrepreneurship and the state support of entrepreneurship in the SR ( $R = 0.089$ ). The correlation between other variables is very strong (rating scale after Hair, 2010). The results of  $z$ -value, Bartlett's test (see table 4), and a correlation matrix (see table 5) accept independent variable (K1, K2) as significant parameters of the linear regression model in the CR. Also variable K6 is a significant parameter of the linear regression model in SR. The linear regression results for the two countries (CZ and SR) are displayed in Table 6.

**Table 6. Characteristics of the regression model in CZ and SR**

Czech Republic				
Least squares multiple regression				
R <sup>2</sup>				0.8753
Adjusted R <sup>2</sup>				0.7506
Multiple correlation coefficient				0.9355
Residual standard deviation				0.1864
Regression equation				
Variable	Coefficient	Std. Error	t-Stat	p-value
Constant	0.844			
K2	0.471	0.195	2.418	0.049
K6	0.314	0.134	2.345	0.043
Analysis of variance				
F-ratio				7.020
Significance level				0.125

**Entrepreneurship of University Students: Important Factors and the Propensity  
for Entrepreneurship**

<b>Slovak republic</b>				
Least squares multiple regression				
R <sup>2</sup>			0.3778	
Adjusted R <sup>2</sup>			0.3614	
Multiple correlation coefficient			0.6147	
Residual standard deviation			0.1578	
Regression equation				
Variable	Coefficient	Std. Error	t- Stat	p-value
Constant	0.345			
K2	0.178	0.156	1.139	0.372
K6	0.757	0.151	5.000	0.037
Analysis of variance				
F-ratio			12.607	
Significance level			0.007	

The results of regression models in the Czech Republic showed that:

- The independent variables of regression models in the Czech Republic are significant (K1: t - statistics = 2.418, K6: t - statistics = 2.345),
- Variability of the selected independent variables (state support of entrepreneurship and quality of higher education) explains 87.53% of the variance of student interest in entrepreneurship which can be considered satisfactory with the probability of 0.95,
- Another 13.47% of the variability of student interest in entrepreneurship is explained by factors not included in our research with a probability of 0.95,
- Regression models between dependent variables (interest in entrepreneurship) and independent variables (state support of entrepreneurship and quality of higher education) in the Czech Republic is not statistically significant at the level of significance 5%.

The results of the regression model in the Slovak Republic showed that:

- The independent variables (state support of entrepreneurship) of regression models in Slovak Republic is not statistically significant (K1: t - statistics = 1.139) but independent variables (quality of higher education) are statistically significant (K2: t - statistics = 5.000),
- Variability of selected independent variables (quality of higher education) explain 37.78% of the variance of student's interests in entrepreneurship which can be considered satisfactory with a probability of 0.95,
- Another 62.22% of the variability of students' interests in entrepreneurship is explained by factors not included in our research with a probability of 0.95,

- The differences between the coefficient of determination and adjusted coefficient of determination are minimal ( $R^2 = 0.378$  and Adjusted  $R^2 = 0.361$ ),
- Regression models between dependent variable (interest in entrepreneurship) and independent variable (quality of higher education) in the Slovak Republic is statistically significant (F-ratio = 12.607, significant level = 0.007).

From the above conclusions (see Table 6) we may proceed to the formulation of the regression equation with a linear function for students' interests in entrepreneurship in the Slovak Republic:

$$Y_{KYI} = 0.757 * X_2 \quad (2)$$

where  $Y_{KYI}$  – dependent variable ( $KY$  = interest in entrepreneurship);

$\beta_2$  – parameters of independent variables  $X_2$ ;

$X_2$  – independent variables (quality of higher education).

The regression equation with a linear function for students' interest in entrepreneurship in the Czech Republic is not statistically significant. It is not possible to quantify factors (quality of higher education and state support of entrepreneurship) and their impact on students' interests in entrepreneurship in the Czech Republic with the used linear regression model with just two factors.

In Table 7 we display the results of the comparison between the attitudes of Czech and Slovak university students using Z-score. Statistically significant results are marked in bold.

**Table 7. The comparison of results between the Czech and Slovak Republic.**

Construct	Z - score of positive answers (CR/SR)	p - value	Interpretation of Z-score
K11	3.772	< 0.001	There are statistically significant differences in responses of respondents
K12	<b>5.008</b>	<b>&lt; 0.001</b>	There are statistically significant differences in responses of respondents
K13	0.278	0.780	There are no statistically significant differences in responses of respondents
K14	<b>3.214</b>	<b>0.001</b>	There are statistically significant differences in responses of respondents
K21	<b>5.284</b>	<b>&lt; 0.001</b>	There are statistically significant differences in responses of respondents
K22	1.387	0.165	There are no statistically significant differences in responses of respondents
K23	1.262	0.208	There are no statistically significant differences in responses of respondents

<b>Construct</b>	<b>Z - score of positive answers (CR/SR)</b>	<b>p - value</b>	<b>Interpretation of Z-score</b>
K24	0.493	0.624	There are no statistically significant differences in responses of respondents
KY	<b>-2.917</b>	<b>0.003</b>	There are statistically significant differences in responses of respondents

The results of our research have delivered very interesting findings. As compared to Slovak students, the students in the Czech Republic agree far more with the statement that the state supports entrepreneurship and creates quality conditions for starting up businesses. They also evaluated in a more positive way the legislative environment in their own country as well as the quality of higher education. Nevertheless, they showed statistically significant lower propensity for entrepreneurship.

#### **4. Discussion**

Besides the already analyzed factors that determine the propensity for entrepreneurship of university students there are other important factors.

The results of the papers by Pruett et al. (2009) and Gurol and Atsan (2006), show that family support can enhance the motivation of students in their entrepreneurial choice. If parents are entrepreneurs it motivates the students to be entrepreneurs as well Geldhof et al. (2014). However, the results by Pruett et al (2009) also suggest that a lack of social support and training is negatively affecting students becoming entrepreneurs. Similarly, a possible lack of financing and lack of self- skills also negatively affect the student's choice of entrepreneurship.

In the context of motivating factors about 46% of students replied that they would like to be an entrepreneur being independent and having freedom in their working life. Similarly, around 58% of the students said that being your own boss motivates them to have an entrepreneurial life. At the same time, some 88% of students believe that creativity can enhance the chances of being an entrepreneur so they can seize new market opportunities. On the other hand, in terms of demotivating factors it is found that 73% of the students identified lack of finance as a major obstacle for entrepreneurship. Moreover, 67% students are not confident about their business plan and finally, 62% replied that they lack the relationship with clients to sell their products Birdthistle (2008).

The paper by Gurol, Y and Atsan, N (2006) highlighted the characteristic differences between entrepreneurial and non-entrepreneurial students. There are significant differences between the traits of entrepreneurial students in comparison to students who are not likely to be entrepreneurs. Hence, students with entrepreneurial traits are more innovative, risk taking, persistent and have a higher focus on achievements in their life. Their result shows that about 53% of entrepreneurial students have a father who owned a business and that it is why after their studies they would like to be entrepreneurs as well.

The empirical results show that the ability to create new ideas and put them into action are the most significant factors affecting the intention for becoming an entrepreneur amongst the students. Moreover, it is also found that self-confidence can have a positive effect on the choice of entrepreneurship. Similarly, the ability to challenge and be creative has significant statistical power in explaining the entrepreneurial choice among students. However, conservativeness has a negative effect on entrepreneurship and thus reflects that the ability to accept new things can enhance the possibility to be an entrepreneur Ishiguro (2015).

Staniewski and Awruk (2015) found the three most important factors that are perceived by the respondents to be motivating for entrepreneurship. Self-satisfaction and self-realization, opportunity for higher income and lastly, to be independent. On the other hand, independence in actions, pursuit of self-testing, the affirmation of one's own value and higher social status are found to be less important motivating factors for entrepreneurship. However, lack of experience, lack of capital, lack of risk taking ability, lack of technical knowledge and the tax burden are found to be the most important obstacles for entrepreneurship.

The main results of this study clearly illustrate that the need for achievement and the propensity towards taking risks play an important role in determining the entrepreneurial intention. (Popescu, C.C. et al., 2016).

Whilst individual human characteristics are most important; the organizational and regional contexts also play a role and have a differentiated impact depending on the source of the venture idea and the stage of its development. University programmes which support entrepreneurship amongst students are more effective when coordinated with the respective strategies of the region where the university is located. Many regional governments have developed entrepreneurship support policies themselves but very often not explicitly addressing the local universities so a coordinated strategy of both parties—government and university—may be more successful than these isolated efforts. Regional governments should view local universities as an important part of the regional entrepreneurial ecosystem, whilst universities should acknowledge the crucial role of the regional environment as an important driver of their students' entrepreneurial activities Bergmann et al. (2016).

## 5. Conclusion

The goal of this paper is to analyse the propensity for entrepreneurship found within university students in relation to the state support of entrepreneurship and the quality of higher education. This includes a comparison of certain defined factors between the Czech Republic and Slovakia.

The results of our research delivered interesting findings. Czech university students were more positive about the state support of entrepreneurship and the quality of the education system in comparison to their Slovak peers. Nevertheless, they showed statistically significant lower propensity for entrepreneurship.

The regression model between interest in entrepreneurship and state support of entrepreneurship combined with the quality of higher education in the Czech Republic is not statistically significant. This model is however statistically significant in Slovakia. The variability of selected independent variables (state support of entrepreneurship and quality of higher education) explains 88% of the variance of students' interests in entrepreneurship in the Czech Republic. The variability of selected independent variables explains only 38% of the variance of students' interests in entrepreneurship in the Slovak Republic.

We admit that our research has its limits as well as other similar researches (limited number of respondents, structure of the research sample). Nevertheless, it delivered very interesting clear findings.

Future research will focus on more detailed exploration of the indicated trends. We will also research other important factors like the; family environment, access to funding, advantages/disadvantages of entrepreneurship, and their impact on the propensity for entrepreneurship by university students.

## References

- Anokhin, S. & Schulze, W. S. (2009). Entrepreneurship, innovation, and corruption. *Journal of Business Venturing*, vol. 24, pp. 465-476.
- Becerra, A.D., Androniceanu, A., Georgescu, I., (2016). Sensitivity and vulnerability of European countries in time of crisis based on a new approach to data clustering and curvilinear analysis. *Administratie si Management Public*, (27), pp. 46-61.
- Belás, J., Vojtovič, S. & Ključnikov, A. (2016). Microenterprises and Significant Risk Factors in Loan Process. *Economics and Sociology*, vol. 9(1), pp. 43-59.
- Belás, J., Bartoš, P., Ključnikov, A. & Kozubíková, L. (2015). Významné determinanty kvality podnikateľského prostredia MSP. *Scientific papers of the University of Pardubice Series D*, vol. 22(35), pp. 5-17.



Belás, J., Macháček, J., Bartoš, P., Hlawiczka, R. & Hudáková, M. (2014). Business risks and the level of entrepreneurial optimism of SME in the Czech and Slovak Republic. *Journal of competitiveness*, vol. 6(2), pp. 30-41.

Bergmann, H., Hundt, C. & Sternberg, R. (2016). What makes student entrepreneurs? On the relevance (and irrelevance) of the university and the regional context for student start-ups. *Small Business Economy*, vol. 47(1), pp. 53 - 76. DOI:10.1007/s11187-016-9700-6.

Birdthistle, N. (2008). An examination of tertiary students desire to found an enterprise, *Education + Training*, vol. 50(7), pp. 552-567.

Bogdanovic, M. & Tyll, L. (2016). Attitude of Management Students towards Whistleblowing: Evidence from Croatia. *Central European Business Review*, vol. 5(1), pp. 45-61.

Bondareva, I. & Tomčík, R. (2015). Porovnanie ekonomického rozvoja Slovenskej republiky a Českej republiky na základe Indexu globálnej konkurencieschopnosti. *In Scientific Papers of the University of Pardubice, Series D*, vol. 22(33), pp. 6-16.

Dima, B., Lobonț, O. R., Moldovan, N. C. Does the Quality of Public Policies and Institutions Matter for Entrepreneurial Activity? Evidences from the European Union's Member States. *In Panoeconomicus*, 2016, Vol. 63, Issue 4, pp. 425-439.

Farhangmehr, M., Goncalves, P. & Sarmento, M. (2016). Predicting entrepreneurial motivation among university students: The role of entrepreneurship education, *Education + Training*, vol. 58(7/8), pp. 861-881.

g82. (2013). Podnikatelé a podnikání v ČR. Výskum. Retrieved from:  
[http://www.ey.com/Publication/vwLUAssets/Podnikatelsk%C3%BD\\_pr%C5%AFzkum\\_EOY\\_a\\_g82/\\$FILE/EYG82\\_EYPodnikatel\\_roku\\_2013\\_pruzkum.pdf](http://www.ey.com/Publication/vwLUAssets/Podnikatelsk%C3%BD_pr%C5%AFzkum_EOY_a_g82/$FILE/EYG82_EYPodnikatel_roku_2013_pruzkum.pdf)

Geldhof, G. J., Weiner, M., Agans, J. P., Mueller, M. L. & Lerner, R. M. (2014). Understanding entrepreneurial intent in late adolescence: the role of intentional self-regulation and innovation. *Journal of Youth Adolescence*, vol. 43, pp. 81-91.

Gerstein, M., Hershey, H. F. (2016). Rethinking Higher Education: Focusing on Skills and Competencies, *Psychosociological Issues in Human Resource Management*, 4(2), pp. 104–121.

Gürol, Y. & Atsan, N. (2006). Entrepreneurial characteristics amongst university students: Some insights for entrepreneurship education and training in Turkey. *Education + Training*, vol. 48(1), pp. 25-38.

Ishiguro, J. (2015). What influences entrepreneurial career choice? An exploratory analysis of the sally caird;s get2 for Japanese high school students. *Academy of Entrepreneurship Journal*, vol. 21(1), pp. 44-57.

Jones, P., Miller, C., Jones, A., Packham, G. & Zbierowski, P. (2011). Attitudes and motivations of Polish students towards entrepreneurial activity, *Education + Training*, vol. 53(5), pp. 416-432.

Ključnikov, A. & Belás, J. (2016). Approaches of Czech Entrepreneurs to Debt Financing and Management of Credit Risk. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, vol. 11(2), pp. 343-365.

Ključnikov, A., Belás, J., Kozubíková, L. & Paseková, P. (2016). The Entrepreneurial Perception of SME Business Environment Quality in the Czech Republic. *Journal of Competitiveness*, vol. 8(1), pp. 66-78.

Krpálek, P. & Krpálková-Krellová, K. (2016). Possibilities for Developing Business Potential in Economic Education. Examples of Implementation in Slovakia and the Czech Republic. *Economics and Sociology*, vol. 9(4), pp. 119-133. DOI: 10.14254/2071-789X.2016/9-4/7

Lafuente, E. M. & Vaillant, Y. (2013). Age Driven Influence of Role-Models on Entrepreneurship in a Transition Economy. *Journal of Small Business and Enterprise Development*, vol. 20(1), pp. 181-203.

Millian, J. M., Congregado, E., Roman, C., Van Praag, M. & Van Stel, A. (2014). The Value of an Educated Population for an Individual's Entrepreneurship Success. *Journal of Business Venturing*, vol. 29, pp. 312-632.

Morávek, D. (2013). Většina podnikatelů tráví papírováním celé dny, byrokracie se prý navíc zvyšuje. Retrieved from <http://www.podnikatel.cz/clanky/vetsina-podnikatelu-travi-papirovanim-nekolik-dni-byrokracie-se-navic-zvysuje/>

Naude, W., Gries, T., Wood, E. & Meintjies, A. (2008). Regional determinants of Entrepreneurial Startups in a Developing Country. *Entrepreneurship and Regional Development*, vol. 20, pp. 111-124.

Oehler, A., Hofer, A. & Schalkowski, H. (2015). Entrepreneurial education and knowledge: empirical evidence on a sample of German undergraduate students. *The Journal of Technology Transfer*, vol.40 (3), pp. 536-557 DOI 10.1007/s10961-014-9350-2 .

Peters, M.A. (2017). Disciplinary Technologies and the School in the Epoch of Digital Reason: Revisiting Discipline and Punish after 40 Years. *Contemporary Readings in Law and Social Justice*, 9(1), pp. 28–46.

Popescu, C. C., Bostan, I., Robu, I. B. , Maxim, A. & Diaconu, L. (2016). An Analysis of the Determinants of Entrepreneurial Intentions among Students: A Romanian Case Study. *Sustainability*, vol. 8(8), 771; doi:10.3390/su8080771

Pruett, M., Shinner, R., Toney, B., Llopis, F. & Fox, J. (2009). Explaining entrepreneurial intentions of university students: A cross cultural study,

*International Journal of Entrepreneurial behavior and Research*, Vol. 15(6). pp. 571-574.

Rauch, A. & Rijsdijk, S. A. (2013). The Effects of General and Specific Human Capital on Long-Term Growth and Failure of Newly Founded Businesses. *Entrepreneurship Theory and Practice*, vol. 37(4), pp. 923-941.

Román, C., Congregado, E. & Millán, J. M. (2013). Start-up incentives: Entrepreneurship policy or active labour market programme? *Journal of Business Venturing*, vol. 28, 151–175.

Simionescu M., Dobeš K., Brezina I., Gaal A. (2016), GDP rate in the European Union: simulations based on panel data models, *Journal of International Studies*, 9(3), pp. 191-202.

Staniewski, M. & Awruk, K. (2015). Motivating factors and barriers in the commencement of one's own business for potential entrepreneurs, *Economic Research*, vol. 28(1), pp. 583-592.

Transparency International (2015). Index vnímaní korupce 2014. Retrieved from: <http://www.transparency.cz/vysledky-zebricku-zemi-podle-indexu-vnimani-korupce-2014/>

Tredevi, R. (2016). Does university play significant role in shaping entrepreneurial intention? A cross-country comparative study, *Journal of Small Business and Enterprise Development*, vol. 23(1), pp. 790-811.

Van der Sluis, J. & Van Praag, M. (2008). Education and Entrepreneurship Selection and Performance: A Review of the Empirical Literature. *Journal of Economic Surveys*, vol. 22(5), pp. 795-841.

Velez, C. M. (2009). The Probability of Transition to Entrepreneurship Revisited: Wealth, Education and Age. *Annals of Finance*, vol. 5, pp. 421-441.

Virglerová, Z., Dobeš, K. & Vojtovič, S. (2016). The Perception of the State's Influence on its Business Environment in the Small and Medium Size Enterprise segment in the Czech Republic. *Administratie si Management Public*, vol. 26, pp. 78-96.

Wang, C. K. & Wong, O. K. (2004). Entrepreneurial interests of university students in Singapore. *Technovation*, vol. 24, pp. 163-172.

Z Score Calculator for 2 Population Proportions, Retrieved from:

<http://www.socscistatistics.com/tests/ztest/Default2.aspx>.

Reproduced with permission of copyright owner.  
Further reproduction prohibited without permission.