ENTREPRENEURIAL INTENTION CREATION OF STUDENTS IN POLAND, SLOVAKIA AND CZECHIA

Okręglicka M., Havierníková K., Mynarzová M., Lemańska-Majdzik A.

Abstract: The concept of entrepreneurial intention is developed within management studies as a source of competitive advantage and economic development in the world. University education plays an important role in promoting entrepreneurship and stimulating the entrepreneurial intention of students. The main aim of the paper is to find out whether among universities from selected V4 countries we can observe differences in approaches of universities toward students’ entrepreneurial intention creation from students’ point of view. The conclusions are based on the results of a questionnaire survey which was conducted in 2016 in selected universities among 300 students. The general conclusion is that although Polish students seem to have the strongest entrepreneurial intentions, the university’s role in creating entrepreneurial intention, as assessed by them, is lower compared to Slovak or Czech students.

Keywords: entrepreneurial intention, entrepreneurial orientation, education

DOI: 10.17512/pjms.2017.15.2.15

Article history: Received October 10, 2016; Revised January 6, 2017; Accepted January 15, 2017

Introduction

Entrepreneurial intention (EI) is a consolidated rapidly evolving area of research within the field of entrepreneurship, with a growing number of studies using EI as a strong theoretical framework (Fayolle and Liñán, 2014). The increasing interest in exploring the factors that build one’s EI is due to the crucial role that entrepreneurs and entrepreneurial activities nowadays play in fostering economic and social development (Bagheri and Pihie, 2014; Štverková et al., 2012).

In today’s competitive world entrepreneurship is one of the main concerns of various institutions and organizations including universities around the world (Yıldırım et al., 2016). One reason for the increasing interest in entrepreneurship education is the positive impact of entrepreneurship on sustainable economic growth. Entrepreneurship education can be one way to increase the prevalence rate of entrepreneurs and, thereby, stimulate economic growth, job creation (Boďa and Jašková, 2009; Grenciková et al., 2013; Olšovská et al., 2015), sources of innovation and productivity. Due to this fact many countries decided to invest in an entrepreneurship-friendly institutional infrastructure in general and

* Małgorzata Okręglicka Ph.D., Czestochowa University of Technology, Ing. Katarína Havierníková PhD., Alexander Dubček University of Trenčín, Ing. Monika Mynarzová Ph.D., VŠB - Technical University of Ostrava, Ing. Anna Lemańska-Majdzik Ph.D., Czestochowa University of Technology

✉ Corresponding author: m.okreglicka@wp.pl
✉ katarina.haviernikova@tnuni.sk; monika.mynarzova@vsb.cz; lemanska@zim.pcz.pl
entrepreneurship education in particular (Walter and Block, 2016; Sipa et al., 2015).
The research question for this article is whether universities in the analysed countries have influence on shaping the entrepreneurial attitudes of students by providing necessary knowledge and skills.

Theoretical Background

The literature provides no universally accepted definition of the term “entrepreneurial intention”. An intention can be identified as a necessary property for establishing new venture in the entrepreneurial process and as a predictor of a new reliable company (Kadir et al., 2012). Karabulut (2016) believes that EI initiates entrepreneurial actions. EI shows a desire of an individual to choose entrepreneurship as professional career. People with EIs plan to take calculated risks, gather required resources and create their own venture. Engle et al. (2011) defines entrepreneurial intent as a degree of openness an individual has to personally start a new business. Hmieleski and Corbett (2006) state that EIs can be defined as intentions toward starting a high-growth business. Thompson (2009) defined individual entrepreneurial intent 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”.

Due to the importance attributed nowadays to the entrepreneurial capacity as a source of competitive advantage and economic development in a globalised world, research focused on analysing EIs is becoming increasingly important. Understanding the level of EIs provides insight to researchers and policy makers for predicting the entrepreneurial potentials and future entrepreneurship activities that can be utilized for achieving economic objectives (Yıldırım et al., 2016). Wu and Wu (2008) distinguish two categories of reasons for studying entrepreneurial intention - individual and social aspects. In order to become entrepreneurs, individuals must first become nascent entrepreneurs. This process, which is the basis for creation of entrepreneurial intentions and behaviour, is of utmost importance. Regarding the social aspects, the level of entrepreneurial intention reflects economic potential and economic environment of a country.

![Figure 1: The main factors of EI (Remeikiene et al., 2013)]
In the theoretical background, there are numerous approaches to the study of EI. Various theories and models have been developed to explain the decision to establish a new business, each addressing different factors of intentional entrepreneurial activity. Some studies attribute the intention to become an entrepreneur to personal traits and cognitive abilities. Other researchers, in turn, emphasize the role of factors such as education and training that motivate and prepare students for establishing a new venture (Krueger et al., 2000). Some studies are based on an integrated approach that examines both various internal (personal) and external (contextual and environmental) factors that influence one’s decision to establish new venture and how interactions among these factors affect the decision (Yıldırım et al., 2016). As can be seen in Figure 1, personality traits have a direct impact on EI.

Fayolle and Liñán (2014) carried out a review of the literature on EIs and divided most influential papers in this field of research (published in 2004-2013) into five main sub-areas of research. The first category includes papers studying the core EI model. These papers (Hmieleski and Corbett, 2006; Thompson, 2009 etc.) analyse the central elements of the model and address theoretical aspects of methodological issues affecting this model. The second category encompasses papers focusing on the effect of personality traits, psychological variables, demography and experience on entrepreneurial intention. The impact of university studies is analysed by Guerrero et al. (2008). Wilson et al. (2007) found entrepreneurship education to have a bigger effect on women’s self-efficacy and, through it, on intentions. This category is, according to Liñán and Fayolle (2015), also represented, among other things, by works of Carr and Sequeira (2007), Segal et al. (2005), Liñán and Santos (2007), Guerrero et al. (2008). The third group of papers looks at the relationship between entrepreneurship education and business intent of its participants. They are classified study by Fayolle et al. (2006), Pittaway and Cope (2007), Souitaris et al. (2007) etc. The role the context and institutions play in the configuration of entrepreneurial intentions is addressed by papers from the fourth category. Authors of these papers (De Pillis and Reardon (2007), Engle et al. (2011) etc.) focus on the influence of regional, cultural and institutional environments on the formation of entrepreneurial intentions. The fifth research area considers the entrepreneurial process and the intention-behaviour link. This area is represented by works of Kolvereid and Isaksen (2006) and Nabi et al. (2006). In addition to the five above-mentioned categories, Liñán and Fayolle (2015) identified the sixth category which includes a number of new research papers that cannot be classified into the five areas. This category represents “new research areas” - sustainable entrepreneurship, social entrepreneurship and other.

University education plays an important role in promoting entrepreneurship as a career choice, by providing necessary exposure through knowledge about entrepreneurship (Ambad and Damid, 2016). The number of universities that offer courses on entrepreneurship to prepare students and provide them with the necessary theoretical and practical knowledge has increased. In addition,
the courses are considered to be the best channel to create awareness in students to apply their skills and knowledge as potential entrepreneurs (Mat et al., 2015). The literature identifies several advantages of entrepreneurship education. The existence of entrepreneurship education can indicate the desirability of entrepreneurship and therefore sensitise students to entrepreneurial careers (Walter and Block, 2016). Entrepreneurship education influences students’ carrier choice and improves a student’s vision to start their own business with innovation (Wilson et al., 2007). Peterman and Kennedy (2003) discovered that participation in an entrepreneurship program significantly increased the perceived feasibility of starting a business, which implies that entrepreneurial education can enhance entrepreneurial intention. Individuals learn to more effectively or rapidly bring business ideas to the market than others, or feel more capable of doing so. Also Küttim et al. (2014) stated that participation in entrepreneurship education exerts a positive impact on entrepreneurial intentions. According to Rauch and Hulsink (2015), students participating in entrepreneurship education show an increase in attitudes and perceived behavioural control, and they have developed entrepreneurial intentions. They stated that EIs mediate the effect of entrepreneurship education on subsequent behaviour accompanied by creation of new business ventures.

In contrast, there are studies which suggest negative, discouraging effects of entrepreneurship education, arguably because it leads to students gaining a more realistic perspective on their own entrepreneurial abilities and preference and the requirements of successful entrepreneurial careers (Oosterbeek et al., 2010).

**Methodology and Research Description**

The main objective of this quantitative research was to find out whether among universities from selected V4 countries differences can be observed in attitudes of universities toward students’ entrepreneurial intention creation from students’ point of view. The survey was conducted in 2016 in selected universities in Poland, Slovakia and Czechia.

Sampling was mixed: purposeful and random. The first stage was purposeful, as it consisted of selecting three higher education institutions in the three countries analysed with economic/business/management departments. The study involved students of Master’s degree courses, because this group of respondents was considered to be able to meet the conditions set out in the assumptions for the study of entrepreneurial attitudes, due to, among other things:

- appropriate level of knowledge possessed by students of second-cycle studies,
- age of the respondents,
- completed compulsory practice during studies,
- labour market experience,
- first attempts at running one’s own business.
Phase II sampling was random in character, because such a sample allows for representative sampling, and inference about the population on the probabilistic basis. On the basis of information on the number of students of particular courses from three universities, random sampling (without replacement) was performed, which is used in the case of a finite population. Selected respondents completed the survey questionnaire in a paper or electronic form. In total, 300 full questionnaires were obtained, which were subjected to further statistical analysis. Phase III consisted of evaluation of the surveys. Based on the Grmanová (2015) and Budíková et al. (2010), for evaluation we used the Pearson chi-square statistic by means of which we verified the assumption about independence of respondents’ answers. The following formula of test statistic $\chi^2$ was used:

$$\chi^2 = \sum_{i=1}^{m} \sum_{j=1}^{n} \frac{(f_{by} - f_{ey})^2}{f_{ey}}$$

$f_{by}$ - empirical data, actual observed frequency, $f_{ey}$ theoretical, expected frequency.

For evaluation of each question, we formulated the following hypothesis:

$H_0$: There is no dependence between answers of students from each country.

$H_1$: There is dependence between answers of students from each country.

The stated hypothesis was tested on $p$ value 0.05.

The strength of dependence was measured by Cramér’s V coefficient:

$$V = \frac{K}{\sqrt{n(m-1)}}$$

where $K$ - Pearson statistic, $m=\min\{r,s\}$.

Coefficient takes value from 0 to 1. If the value obtained is closer to 1, the strength of dependence between the assessed variables is higher. The explanation of Cramér’s V coefficient:

- result between 0,0-0,1 insignificant (negligible) dependence,
- result between 0,1-0,3 weak dependence,
- result between 0,3-0,7 medium dependence,
- result between 0,7-1,0 strong dependence.

Results of research

The analysis starts with the presentation of basic respondent structure. Table 1 presents the structure of students by country and gender. 72.67% of women and 27.33% of men participated in the surveys.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Poland</th>
<th>Slovakia</th>
<th>Czechia</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>41</td>
<td>21</td>
<td>20</td>
<td>82</td>
</tr>
<tr>
<td>Female</td>
<td>72</td>
<td>75</td>
<td>71</td>
<td>218</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>96</td>
<td>91</td>
<td>300</td>
</tr>
</tbody>
</table>
In order to achieve the main aim of this paper, we used evaluation of five main questions. The null hypothesis about independence, described earlier in the paper, was stated. We tried to find out whether there is dependence between the answers of students from each country.

With the set of questions we wanted to find out whether students consider starting their own business after graduation and whether the knowledge, professional skills and soft skills gained through their study at the university would help them to set up their own business. We also wanted to know what type of support from the university would be the most important for students in setting up and running their own business.

In the first question, students declared if they considered starting their own business after graduation. The percentage distribution of students’ answers is presented in table 2.

<table>
<thead>
<tr>
<th>Type of answer</th>
<th>Poland</th>
<th>Slovakia</th>
<th>Czechia</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>39.82%</td>
<td>23.96%</td>
<td>29.67%</td>
</tr>
<tr>
<td>no</td>
<td>19.47%</td>
<td>28.13%</td>
<td>37.36%</td>
</tr>
<tr>
<td>don’t know</td>
<td>40.71%</td>
<td>47.92%</td>
<td>32.97%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>96</td>
<td>91</td>
</tr>
</tbody>
</table>

The results of Pearson statistic (Pearson Chi-sq.: 12.702, df=4, p=0.013) showed that we have to reject the H0 about independence. It means that there is statistical dependence between students’ answers. Cramér’s V coefficient was used for evaluation of the strength of dependence, but its result (V=0.146) showed only weak dependence.

In the second question, students rated how well their university prepared them during their studies to start their own business. Table 3 presents percentage distribution of student’s answers. The biggest number of Polish (40.71%) as well as Slovak (47.92%) students declared that they didn’t know if they would start their own business after graduation. The most Czech students (47.92%) know that they will not start their own business.

<table>
<thead>
<tr>
<th>Type of answer</th>
<th>Poland</th>
<th>Slovakia</th>
<th>Czechia</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td>17.70%</td>
<td>7.29%</td>
<td>5.49%</td>
</tr>
<tr>
<td>disagree</td>
<td>46.02%</td>
<td>20.83%</td>
<td>29.67%</td>
</tr>
<tr>
<td>neither agree nor disagree</td>
<td>21.24%</td>
<td>44.79%</td>
<td>36.26%</td>
</tr>
<tr>
<td>agree</td>
<td>14.16%</td>
<td>26.04%</td>
<td>27.47%</td>
</tr>
<tr>
<td>strongly agree</td>
<td>0.88%</td>
<td>1.04%</td>
<td>1.10%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>96</td>
<td>91</td>
</tr>
</tbody>
</table>

Based on the results of Pearson statistic (Pearson Chi-sq.: 33.070, df=8, p=0.000) the H0 about independence of the level of students’ agreement with this question
an their country of origin is rejected. The result of Cramér’s V coefficient (V=0.235) showed weak dependence.

The third question pointed to the importance of students’ professional skills obtained during the studies (Tab. 4). The most Polish students (38.05%) disagreed that professional skills gained at the university would be sufficient for their own business. In contrast, the most Slovak (36.46%) and Czech students (41.76%) agreed. The result of Pearson statistic (Pearson Chi-sq.: 25.379, df=8, p=0.001) showed that the null hypothesis about independence is not confirmed. The result of Cramér’s V coefficient (V=0.206) showed weak dependence between students’ answers.

Table 4. Professional skills gained at the university (accounting, finance, management, marketing, etc.) will be sufficient/useful for own business

<table>
<thead>
<tr>
<th>Type of answer</th>
<th>Poland</th>
<th>Slovakia</th>
<th>Czechia</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td>11.50%</td>
<td>14.58%</td>
<td>5.49%</td>
</tr>
<tr>
<td>disagree</td>
<td>38.05%</td>
<td>15.63%</td>
<td>19.78%</td>
</tr>
<tr>
<td>neither agree nor disagree</td>
<td>24.78%</td>
<td>27.08%</td>
<td>30.77%</td>
</tr>
<tr>
<td>agree</td>
<td>21.24%</td>
<td>36.46%</td>
<td>41.76%</td>
</tr>
<tr>
<td>strongly agree</td>
<td>4.42%</td>
<td>6.25%</td>
<td>2.20%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>96</td>
<td>91</td>
</tr>
</tbody>
</table>

The fourth question was focused on findings related to the use of skills gained during university studies for one’s own business after graduation. We asked students if the soft skills gained at the university (such as communication, critical thinking, interpersonal skills, language, etc.) would be sufficient and useful for running one’s own business (Tab. 5). Most students from all the countries confirmed that they agreed that soft skills gained during their study would be sufficient and useful for running one’s own business (39.82% of Polish students, 34.38% of Slovak students, 48.35% of Czech students).

Table 5. Soft skills gained at the university will be sufficient/useful for own business

<table>
<thead>
<tr>
<th>Type of answer</th>
<th>Poland</th>
<th>Slovakia</th>
<th>Czechia</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td>8.85%</td>
<td>8.33%</td>
<td>4.40%</td>
</tr>
<tr>
<td>disagree</td>
<td>21.24%</td>
<td>18.75%</td>
<td>13.19%</td>
</tr>
<tr>
<td>neither agree nor disagree</td>
<td>23.01%</td>
<td>32.29%</td>
<td>25.27%</td>
</tr>
<tr>
<td>agree</td>
<td>39.82%</td>
<td>34.38%</td>
<td>48.35%</td>
</tr>
<tr>
<td>strongly agree</td>
<td>7.08%</td>
<td>6.25%</td>
<td>8.79%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>96</td>
<td>91</td>
</tr>
</tbody>
</table>

The calculation of Pearson statistic (Pearson Chi-sq.: 7.891, df=8, p=0.444) showed that there is no dependence between students’ answers. At the same time, the Cramér’s V coefficient (V = 0.115) confirmed weak dependence.

The fifth question was used to find out what type of support from the university would be the most important for students. The respondents could select one of the possibilities stated in Tab. 6. According to most students from Poland (27.43%),
the most important support from the university is the possibility of gaining assistance from the university in obtaining EU funds. The most Slovak students (28.13%) think that the best possibility is the possibility of obtaining information about sources of financial support for academic business, while most Czech students (42.86%) think that the best possibility is the possibility of obtaining assistance in establishing contacts with commercial companies. Results of Pearson statistic (Pearson Chi-sq.: 22.755, df=12, p=0.030) showed that the null hypothesis about independence is rejected. In fact, the result shows that there is dependence between students’ answers, which is also confirmed by very low level of Cramér’s V coefficient (V=0.195), when we can confirm insignificant dependence.

Table 6. The most important type of support from the university in setting up and running own business

<table>
<thead>
<tr>
<th>Type of answer</th>
<th>Poland</th>
<th>Slovakia</th>
<th>Czechia</th>
</tr>
</thead>
<tbody>
<tr>
<td>the possibility of obtaining information about sources of financial support for academic business</td>
<td>22.12%</td>
<td>28.13%</td>
<td>16.48%</td>
</tr>
<tr>
<td>the possibility of obtaining assistance in establishing contacts with commercial companies</td>
<td>26.55%</td>
<td>27.08%</td>
<td>42.86%</td>
</tr>
<tr>
<td>the possibility of university assistance in obtaining EU funds</td>
<td>27.43%</td>
<td>17.71%</td>
<td>24.18%</td>
</tr>
<tr>
<td>the opportunity to participate in training useful for the implementation of research results to the economy</td>
<td>18.58%</td>
<td>16.67%</td>
<td>8.79%</td>
</tr>
<tr>
<td>access to equipment (hardware) used, e.g. for developing solutions capable of being used in the economy</td>
<td>3.54%</td>
<td>5.21%</td>
<td>4.40%</td>
</tr>
<tr>
<td>promotion of technological results produced at the student’s company conducted by university</td>
<td>0.00%</td>
<td>5.21%</td>
<td>3.30%</td>
</tr>
<tr>
<td>other</td>
<td>1.77%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>96</td>
<td>91</td>
</tr>
</tbody>
</table>

Conclusion

The role of university education in strengthening students’ entrepreneurial intentions is undeniable. Providing the necessary knowledge and skills and shaping the entrepreneurial attitudes among students stimulate their entrepreneurial behaviours and, consequently, result in students starting their own business. The general conclusion from the research is that although Polish students seem to have the strongest entrepreneurial intentions, the university’s role in creating entrepreneurial intention, as assessed by them, is lower compared to Slovak or Czech students. In addition, we can reject the null hypothesis in 4 out of 5 analysed questions, confirming the dependence between students’ answers in the 3 countries. Only in the fourth question, which addresses sufficiency/usefulness of soft skills gained at the university for setting up one’s own business, the null hypothesis is confirmed.
Finally, it should be stated that the article is not without limitations. The major constraint of the research is its limited scope – only 300 students were surveyed - and focus on students from economic/business/management fields of science. It can, however, encourage other researchers to design and conduct more extensive research in the future.

References

Grmanová E., 2015, Základy zo štatistiky, Trenčín: TnUAD.


KREOWANIE INTENCJI PRZEDSIĘBIORCZYCH WŚRÓD STUDENTÓW W POLSCE, SŁOWACJI I CZECHACH

Streszczenie: Problematyka intencji przedsiębiorczych, badana w ramach nauk o zarządzaniu, stanowi źródło przewagi konkurencyjnej organizacji i rozwoju ekonomicznego na świecie. Edukacja uniwersytecka odgrywa ważną rolę w promowaniu przedsiębiorczości oraz stymulowaniu intencji przedsiębiorczych wśród studentów. Celem głównym artykułu jest pozyskanie wiedzy czy wśród uniwersytetów z wybranych krajów V4 można zaobserwować różnice w podejściu do kształtowania intencji przedsiębiorczych przez uczelnie wyższe, z punktu widzenia studentów. Wnioski opierają się o badania ankietowe, które były przeprowadzone w 2016 r. na wybranych uczelniach wyższych wśród 300 studentów. Ogólnie można stwierdzić, że, pomimo iż polscy studenci wykazują się najsilniejszymi intencjami przedsiębiorczymi, oceniają oni rolę uniwersytetów w kształceniu tych intencji niż słowaccy i czescy studenci.

Słowa kluczowe: intencje przedsiębiorcze, orientacja przedsiębiorcza, edukacja

摘要：企業家意圖的概念在管理研究中發展成為世界競爭優勢和經濟發展的源泉。大學教育在促進創業精神和刺激學生創業意圖方面發揮重要作用。本文的主要目的是要找出來自所選V4國家的大學是否可以從學生的角度觀察大學對學生創業意圖創造方法的差異。結論是基於2016年在300名學生中選定的大學進行的問卷調查結果。一般的結論是，雖然波蘭學生似乎擁有最強大的創業意圖，但與斯洛伐克或捷克語學生相比，該大學在創造企業家意圖方面的作用（由他們評估）較低。

關鍵詞：創業意圖，創業導向，教育