ENTREPRENEURIAL INTENTIONS OF STUDENTS: A CASE OF SLOVAKIA

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Abstract

Despite the attention being paid to entrepreneurial intentions in the literature, little empirical research has been conducted on developing the link between personal characteristics, education and exposure to entrepreneurship in transition economies. Moreover, only a few empirical studies have investigated this issue in Slovakia. The conducted empirical study based on a survey examines entrepreneurial intentions of students in Slovakia. The empirical findings are based on 235 responses from students. To evaluate the entrepreneurial intentions, the questionnaire of own construction drawing heavily from already used questionnaires was used. The authors have used Kruskal-Wallis test as an evaluation method. Based on the results it can be concluded the entrepreneurial intentions are determined by gender and family background. Higher levels of entrepreneurial intentions are confirmed among males and among students from entrepreneur families. This study contributes to the European research that studies the entrepreneurial intentions by means of an empirical investigation in a transition economy such as Slovakia.

Key words: entrepreneurial intentions, personal characteristics, education, exposure

JEL classification: M13, M21

1 Introduction

Last three decades in the Central and Eastern European countries (CEEC) are characterized by many changes in economic, social, cultural, and other areas. After regime change at the end of 1980s, many CEEC pass through the transformation process from centrally planned into market-oriented economies. Entrepreneurship is seen as a critical factor in promoting innovation, creating employment
opportunities and generating social and economic wealth in a country’s economy (Wong et al., 2005). Higher opportunity to be self-employed decreased demand for entrepreneurship education. This growth has been based on the implicit premise that entrepreneurship education can contribute to the development of students’ entrepreneurial attitudes, abilities, and skills, and hence enhance their intentions to launch new ventures (Piperopoulos and Dimov, 2015).

Entrepreneurship education should definitively be one of the biggest entrepreneurship intention drivers. By entrepreneurship education, we are referring to education for entrepreneurial attitudes and skills. Entrepreneurial intentions are desires to own or start a business (Bae et al., 2014). Entrepreneurship education consists of any pedagogical program or process of education for entrepreneurial attitudes and skills (Fayolle et al., 2006).

This paper extends the existing research on entrepreneurial intentions by examining the impact of selected factors (age, gender, education level, form of study, work experience and family background) on entrepreneurial intentions. It specifically deals with moderating influence of personal characteristics, education and exposure on the entrepreneurial intentions of students in Slovakia. Our paper therefore contributes to the developing body of knowledge on factors determining students’ intentions to choose an entrepreneurial path.

The rest of the paper is structured as follows: Section 2 reviews the empirical literature on entrepreneurial intentions. Section 3 presents the data and the methodology. In section 4, empirical results are summarized and implications are discussed. Section 5 concludes.

2 Literature Review

Entrepreneurship education is associated with entrepreneurial self-efficacy, which may increase entrepreneurial intentions (Zhao et al., 2005; Wilson et al., 2007). After the Shapero’s publications (Shapero, 1984; Shapero and Sokol, 1982) literature oriented to entrepreneurial intentions started to growth. There are some other publications that helped to develop intentions approach (Gartner, 1985; Shaver and Scott, 1991). With respect to entrepreneurial intentions educational background is an important factor (Guerrero et al., 2008). Entrepreneurship courses orientation, was examined by Piperopoulos and Dimov (2015). They argue that higher self-efficacy can be associated with lower entrepreneurial intentions in the theoretically oriented courses and higher entrepreneurial intentions in the practically oriented courses. An entrepreneurship education may cultivate a student’s attitudes and intentions, as well as the founding of a new firm (Liñán, 2008). Martin et al. (2013) found a statistically significant relationship between entrepreneurship education
and human capital outcomes, such as entrepreneurship-related knowledge and skills a positive perception of entrepreneurship, and intentions. Jamieson (1984) proposed a three-category framework for entrepreneurship education: education about enterprise; education for enterprise; and education in enterprise. Kolvereid and Moen (1997) study of Norwegian business schools show that graduates with an entrepreneurship major are more likely to start a new venture and have significantly stronger entrepreneurial intentions and aspirations than other graduates. At the same time, study of an entrepreneurship course in Netherlands suggests an insignificant effect on students’ entrepreneurial skills and even a negative effect on their entrepreneurial intentions to launch a new venture (Oosterbeek et al., 2010).

In the literature on individual-level determinants of entrepreneurship it is argued that individuals who are, for instance, more achievement oriented (Collins et al., 2004), more risk tolerant (Stewart Jr. and Roth, 2001), more independence seeking (Douglas and Shepherd, 2002), more self-efficacious (Chen et al., 1998), more creative (Lee and Wong, 2004), more susceptible to decision-making biases (Simon et al., 1999) are more likely to launch their own business. Bae et al. (2014) showed some interesting findings in the research where gender, entrepreneurial family background, and cultural values are testing as an important factors of entrepreneurship intentions. They found non-significant effects for two individual differences: gender and entrepreneurial family background. In contrast, cultural dimensions played a significantly positive role in the entrepreneurship education – entrepreneurial intentions relationship. However, family members often play a crucial role in providing financial and human resources for business start-up (Zhang et al., 2003).

Family influences are crucial for the development of young people’s occupational intentions (Jodl et al., 2001). Several scientists argue that exposure to a family business can predispose offspring’s entrepreneurial intentions by increasing their perceptions that self-employment is a feasible career option (Laspita et al., 2012). Some authors suggest that the existence of family member with entrepreneurial experiences increases entrepreneurial ambitions because such individuals can serve as role models (Pruett et al., 2009). Davidsson and Honig (2003) found that there was a positive relation between having parents and/or close friends in business and the encouragement and support from the family. Klyver (2007) found that family members are most strongly involved in the early stages of the lifecycle when the decision to start or not is yet to be made. Key persons can be grandparents also. Grandparents' narratives about their former businesses may provide their grandchildren with knowledge about entrepreneurship and lead to the development of entrepreneurial self-efficacy. They may directly provide their grandchildren with financial and non-financial resources needed to start a business. Entrepreneurial grandparents may provide their grandchildren with
the same or similar information and knowledge about entrepreneurship and its benefits as compared to other occupational careers (Laspita et al., 2012).

Other important factor examined by the scientists is connected with personality. The role of personal factors in the development of an entrepreneurial career has been widely investigated (Zacher et al., 2012; Altinay et al., 2012). The influence of personality traits is the highest determinant in business start-up intentions in budding entrepreneurs (Nga and Shamuganathan, 2010). Another intention connected with entrepreneurship is associated with current state of the country (GDP, unemployment, poverty, living conditions). Given the economic and social relevance of entrepreneurs, it is important to understand what drives young people's intent to start a business, especially those from developing countries (Tolentino et al., 2014). Social capital, as an indication of the characteristics of the social network, is also a major background factor affecting intention (Liñán and Santos, 2007). The strength of the entrepreneurial intentions varies across cultures (Carsrud et al., 2011). Culture is a major determinant explaining why some societies are more entrepreneurial than others (Stephan and Uhlmaner, 2010). Only few empirical studies have explored the role of organizational drivers for entrepreneurial intentions. Specifically, Lee et al. (2011) studied entrepreneurial intentions in a corporate setting. Organizational culture, acting through institutional belief systems and norms, can be a very effective means of directing the attitude and behavior of organizational members towards entrepreneurial activities (Huyghe and Knockaert, 2015).

Two dominant models of entrepreneurial intention include Shapero's (1975) Entrepreneurial Event Model and Ajzen's (1991) Theory of Planned Behaviour. In the first model, entrepreneurial intention reflects the perceived desirability and feasibility of becoming an entrepreneur. In the second model, entrepreneurial intention is determined by one's personal attitude toward the behaviour, perceived social norms and perceived behavioural control.

The link between entrepreneurship education and entrepreneurial intentions is generally under researched. In his social cognitive theory, Bandura (1977) mentions that one's expectations concerning self-efficacy are developed from four sources of information: performance accomplishments, vicarious experience, verbal persuasion and physiological states. Zhao, Seibert, and Hills (2005) argue that entrepreneurship education could provide all four or at least some of these sources. Women make up a substantial part of the university student population in Visegrad countries, ranging between 55 and 60% of total tertiary students (Eurostat 2015). Previous studies have shown, however, that women display lower entrepreneurial intentions than men (Santos et al., 2016). Therefore, the objective of the paper is to evaluate the impact of education, gender and exposure to entrepreneurship on entrepreneurship intentions of university students in Slovakia.
3 Data and Methods

A questionnaire of own construction (though drawing heavily from already used questionnaires (Carr and Sequeira, 2007; Chandler et al., 2009; Liñán and Chen, 2009; McGee et al., 2009; Vanevenhoven and Liguori, 2013) was used as a tool of data collection. The data collection was conducted from July 2015 to March 2016. The questionnaire was divided into several sections, each addressing different variable (Table 1). The content of the survey was developed with consideration of earlier research on entrepreneurship education. The study employs measures which on the one hand reflect entrepreneurial intentions of students and on the other tries to assess factors which can affect these measures. We accounted for entrepreneurial exposure. In particular, we followed Vanevenhoven and Liguori (2013) by asking respondents to indicate whether their parents, siblings, or grandparents had ever started a new venture, and simplifying slightly another question whether they ever worked for a new venture/startup. Additionally, we accounted for their employment experience and self-employment experience. We used also a number of control variables addressing questions of respondents' gender, age, field of education, level (bachelor, engineering, master, postgraduate) and mode of studies (regular, weekend) which they attend (Table 1).

Table 1 Variables, coding and measurements

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable code</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>I_1</td>
<td>continuous variable</td>
</tr>
<tr>
<td>Gender</td>
<td>I_2</td>
<td>0=Male; 1=Female</td>
</tr>
<tr>
<td>Education level</td>
<td>I_3A</td>
<td>1=bachelor; 2=engineer; 3=master; 4=PhD./postgraduate</td>
</tr>
<tr>
<td>Study form</td>
<td>I_3B</td>
<td>0=daily (present form); 1=weekend (external form)</td>
</tr>
<tr>
<td>Study focus</td>
<td>I_3C</td>
<td>1=business (economics and management); 2=technical; 3=natural/life; 4=other</td>
</tr>
<tr>
<td>Work experience</td>
<td>I_4</td>
<td>0=no; 1=yes</td>
</tr>
<tr>
<td>Exposure</td>
<td>I_5 to I_7</td>
<td>0=no; 1=yes</td>
</tr>
<tr>
<td>Carrier plans</td>
<td>I_15A to I_15H</td>
<td>1-5 scale: 1=strongly disagree; 3=neutral; 5=strongly agree</td>
</tr>
</tbody>
</table>

Source: Own processing.

The data was collected in the Slovak Republic. In order to obtain a more representative view of the role of entrepreneurship education a survey targeting university
students was administered. The questionnaire was distributed in the combined
manner, both in printed and digital form. Four Slovak universities were involved
(Slovak university of Agriculture, University of Constantine the Philosopher, Comenius University and University of Ss. Cyril and Methodius). It was directed mostly,
though not exclusively towards students of the final semesters, either of bachelor
or master studies. Smaller part of participants, however, was less advanced in their
education. It was also intended to cover a sample of both business and non-business
students and to obtain responses from both bachelor and master students.

Since the assumption of the normality was violated (Kolmogorov-Smirnov
test, p value 0.023), non-parametric statistical methods were used. To verify the
existence of statistically significant differences between the individual groups of
respondents (depending on a particular factor, see classification units, table 1)
the Mann-Whitney U test and Kruskall-Wallis test were used. Mann-Whitney
U test is the non-parametric alternative test to the independent sample t-test.
Kruskall-Wallis test is the non-parametric alternative to ANOVA.

The main objective of the research is to assess the influence of selected fac-
tors on the respondents’ decision regarding their future carrier immediately after
graduation and 5 years after graduation. We evaluated the influence of selected
personal characteristics (age, gender), education (study grade, study focus) and
previous exposure to entrepreneurship (job experience, family background). The
research design is as follows (Figure 1):

**Figure 1 Research model**

Based on the literature review we set 3 hypotheses, each of them connected to dif-
f erent factor (driver):

*Source: Own processing.*
H1: Respondent’s intentions towards becoming entrepreneur are determined by his/her personal characteristics.
   H1A: Respondent’s intentions towards becoming entrepreneur are determined by his/her gender.
   H1B: Respondent’s intentions towards becoming entrepreneur are determined by his/her age.
H2: Respondent’s intentions towards becoming entrepreneur are determined by his/her education.
   H2A: Respondent’s intentions towards becoming entrepreneur are determined by his/her study grade.
   H2B: Respondent’s intentions towards becoming entrepreneur are determined by his/her study focus.
H3: Respondent’s intentions towards becoming entrepreneur are determined by his/her earlier experience with entrepreneurship.
   H3A: Respondent’s intentions towards becoming entrepreneur are determined by his/her job experience.
   H3B: Respondent’s intentions towards becoming entrepreneur are determined by his/her exposure to the entrepreneurship in the family circle.

4 Results and Discussion

The reliability of the questionnaire was verified using Cronbach’s Alpha method. The Cronbach’s Alpha of all questionnaire sections (apart from the carrier plans sections) was higher than 0.7, therefore we conclude the questionnaire’s reliability is sufficient. The overall results can be seen in table 2.

Table 2 Reliability of the questionnaire evaluation

<table>
<thead>
<tr>
<th>Study description</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier plans</td>
<td>0.502</td>
</tr>
<tr>
<td>Causation</td>
<td>0.831</td>
</tr>
<tr>
<td>Effectuation</td>
<td>0.750</td>
</tr>
<tr>
<td>Intentions</td>
<td>0.943</td>
</tr>
<tr>
<td>Skills and competences</td>
<td>0.938</td>
</tr>
</tbody>
</table>

Source: Own processing.

Out of the total number of 235 respondents, there were 136 women and 99 men. The majority of students is studying at the bachelor level (68%) at daily form (70%).
The prevailing education focus was economics and management (64%). There were 28% of respondents whose family member is an entrepreneur (Table 3).

Table 3 **Description of survey sample**

<table>
<thead>
<tr>
<th>Structure of respondents: Number</th>
<th>Structure of respondents: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>women</td>
<td>136</td>
</tr>
<tr>
<td>men</td>
<td>99</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
</tr>
<tr>
<td>bachelor</td>
<td>160</td>
</tr>
<tr>
<td>master</td>
<td>75</td>
</tr>
<tr>
<td>Form of study</td>
<td></td>
</tr>
<tr>
<td>full time form</td>
<td>166</td>
</tr>
<tr>
<td>distance form</td>
<td>69</td>
</tr>
<tr>
<td>Education focus</td>
<td></td>
</tr>
<tr>
<td>economics and management</td>
<td>150</td>
</tr>
<tr>
<td>technical sciences</td>
<td>85</td>
</tr>
<tr>
<td>Entrepreneur in the family</td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>170</td>
</tr>
<tr>
<td>yes</td>
<td>65</td>
</tr>
</tbody>
</table>

**Source:** Own processing.

Based on the achieved average scores we conclude men are more inclined to become an entrepreneur both immediately after the graduation and 5 years after the graduation. The differences based on the education level are almost non-existent, the entrepreneurial intention of students studying at the bachelor and master levels are very similar. The attitude of students of the distance form of study towards becoming an entrepreneur is more positive when compared to the attitude of the students of the full time form. The entrepreneurial intentions of students of technical sciences are similar to the intentions of students of economics and management. The most obvious difference in entrepreneurial intentions is based on the fact, whether the students are hailing from a family of entrepreneurs (Table 4).

Table 4 **Entrepreneurial intentions – Average scores**

<table>
<thead>
<tr>
<th>Gender</th>
<th>immediately after graduation</th>
<th>5 years after graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>women</td>
<td>2.54</td>
<td>3.30</td>
</tr>
<tr>
<td>men</td>
<td>2.84</td>
<td>3.71</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bachelor</td>
<td>2.64</td>
<td>3.49</td>
</tr>
<tr>
<td>master</td>
<td>2.72</td>
<td>3.44</td>
</tr>
</tbody>
</table>
With respect to structure of data and the results of tests of normality, we used Mann-Whitney and Kruskal-Wallis tests for evaluation of existence of statistically significant differences in attitudes of respondents (Table 5). However, the results should be approached with caution, since both these tests are not that robust as their parametric alternatives (they do use the variables’ ranks instead of their values).

The results confirmed the existence of statistically significant differences in entrepreneurial intentions of respondents based on their gender 5 years after the graduation (H1A was confirmed). Another statistically significant difference in entrepreneurial intentions was confirmed in attitudes of students with and without entrepreneurial family background (H3B was confirmed). There were no other statistically significant differences, the rest of the hypotheses (H2, H2A, H2B and H3A) was not confirmed.

Table 5 **Entrepreneurial intentions - Results of tests**

<table>
<thead>
<tr>
<th></th>
<th>immediately after graduation</th>
<th>5 years after graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form of study</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time form</td>
<td>2.36</td>
<td>3.19</td>
</tr>
<tr>
<td>distance form</td>
<td>2.80</td>
<td>3.59</td>
</tr>
<tr>
<td><strong>Education focus</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>economics and management</td>
<td>2.61</td>
<td>3.52</td>
</tr>
<tr>
<td>technical sciences</td>
<td>2.79</td>
<td>3.40</td>
</tr>
<tr>
<td><strong>Entrepreneur in the family</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>2.53</td>
<td>2.82</td>
</tr>
<tr>
<td>yes</td>
<td>3.61</td>
<td>3.88</td>
</tr>
</tbody>
</table>

Note: ***,**, ,* denote statistical significance at the 1%, 5%, 10% levels respectively.

Source: Own processing.
Gender differences in entrepreneurial intentions are very frequent single research topic. Our results suggest, the males exhibit a more positive attitude towards entrepreneurship and a higher entrepreneurial intentions. Strobl et al., (2012) came to a similar conclusion, as well as Dabic et al., (2012); Kautonen et al., (2010) and Yordanova, (2011). Nevertheless, these results need further explanation. The association of entrepreneurship with a male gender stereotype seems to explain part of this difference (Gupta et al., 2008, 2009).

Our findings regarding the family background are in line with those of Carr and Sequeira (2007); Bhandari, (2012); Hadjimanolis and Poutziouris, (2011), who tested the influence of prior family exposure to entrepreneurship (parents’ occupation, the family business background). These studies concluded the family background to be an important factor moderating the entrepreneurial intentions.

5 Conclusion

Our study shows the importance of the family background in forming entrepreneurial intentions. Our analysis has revealed that a family background characterized by previous exposure to entrepreneurship (family members are entrepreneurs) has a positive impact on students’ entrepreneurial intentions.

The results support the body of literature that finds systematically higher levels of entrepreneurial intentions, self-efficacy and social norms among males versus females across cultures. From a policy perspective, the study shows a need for the development of policy instruments that may support female entrepreneurship. Assisting women to start and grow enterprises would reduce unemployment, contribute to economic growth in the country and create wealth. The findings of our study have implications for policymakers looking for measures to increase entrepreneurial intentions among women.

Acknowledgment

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