ENHANCING THE ENTREPRENEURSHIP INTENTIONS OF UNDERGRADUATE BUSINESS STUDENTS

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ABSTRACT. The paper investigates the perception of how different factors such as personal characteristics (psychological and non-psychological) and environmental conditions associate with undergraduate business students' entrepreneurship intentions. Data were collected from 230 undergraduate business students from Lithuania. The findings suggest that both personal and environmental factors determine entrepreneurship intention of undergraduate students. Although one personal psychological factor – uncertainty avoidance – did not correlate with entrepreneurial intentions. Overall, the results provide support for university entrepreneurship programs. Educational institutions in order to nurture students' entrepreneurship intentions have to focus on university environment, entrepreneurial knowledge, and non-psychological characteristics of the students.

KEYWORDS: entrepreneurship intentions, undergraduate students, Lithuania.

JEL classification: A22, P2.

Introduction

Entrepreneurship in young people under 25 is untapped source of new business start-ups and economic growth which is particularly important for the transition countries. Governments of these countries are focusing their effort on entrepreneurship development policies among young people in order to unlock this potential resource (Hytti and O´Gorman, 2004) and stimulate the development of the economy.

Entrepreneurial intentions’ phenomenon has been considered by scientists a significant construct in entrepreneurship theory and research (Hmieleski and Corbett, 2006; Wilson et al., 2007; Grundey and Sarvutyte, 2007; Diskiene et al., 2008; Grundey et al., 2008; Foltean and Feder, 2009). Although the recognition of personality cognitions and traits, personal circumstances, and micro- and macro-environmental conditions associated with entrepreneurship has not been recognized for some time as important constructs determining individual entrepreneurial intentions (Gartner, 1985; Shane and Venkataraman, 2000; Bernat,
There is a lack of research proving the mediating constructs' effect on individuals' entrepreneurial intentions.

This study aims to answer the following question: what factors determine entrepreneurship intention of undergraduate students? The paper looks at the understanding how personal characteristics (psychological and non-psychological) and environmental conditions associate with undergraduate business students' entrepreneurship intentions.

This paper is structured as follows. First, the review the literature on entrepreneurship intentions is provided and the research hypotheses are developed. Second, the research method is presented. Third, the research results, discussion, conclusions, limitation and managerial implication are provided.

1. Literature Review and Hypotheses

Many studies focused on psychological personality characteristics as a basis for developing a model of entrepreneurship intentions (Stewart et al., 1999; Stewart and Roth, 2001; Ciavarella et al., 2004; Collins et al., 2004). The entrepreneurial research has examined a wide range of psychological personality characteristics (need for achievement, risk-taking propensity, locus of control, creativity, autonomy, leadership, uncertainty, ambiguity, and etc.) alongside with non-psychological personality characteristics (entrepreneurial education, training, experience, income, knowledge, and etc.) (Barahona, 2006; Busenitz and Lau, 1996; Choi and Shepherd, 2004; Mitchell et al., 2000; Zaharia et al., 2009a; Serbanica et al., 2009). Consequently the personal and non-personal (environmental) factors seem to be dominant variables that have effect on entrepreneurial behavior. Thus, the conceptual framework of the research is presented in Figure 1.
1.1 Financial Independence

Students' desirability to have financial independence could have a positive relationship with the need to create their own business as independent individuals have difficulties in accepting rigid organizations and adverse to hierarchical management. Thus, they will be willing to be financially independent and to make their own decisions independently of other people beliefs (Kohn, 1996; Douglas and Shepherd, 2002). Douglas and Shepherd (2000) argue that in the context of career choice, an individual expects to gain utility from income. Even though the self-employed person is still answerable to stakeholders such as financiers, and his/her level of independence varies, independence is typically higher in the self-employment career option (Bird, 1989; Katz, 1994). Thus, it is hypothesized:

\[ H1: \text{Financial independence relates positively to individual entrepreneurial intention.} \]

1.2 Autonomy

In entrepreneurship concept autonomy is a very important dimension since it enables both opportunity-seeking and advantage-seeking behaviors (Ireland et al., 2003). Because of its importance to entrepreneurship, Lumpkin and Dess (1996) highlighted autonomy as a key dimension of an entrepreneurial orientation. Moreover, autonomous individuals, operating outside their usual work routines and practices to stimulate entrepreneurial development and growth, represent an important source of creativity and initiative in many organizational settings (Burgelman and Sayles, 1986). Research indicates that autonomy is an important dimension of venture development (Kanter et al., 1990; Burgelman, 2001). Thus, it is hypothesized:

\[ H2: \text{Autonomy relates positively to individual entrepreneurial intention.} \]

1.3 Achievement Orientation

The relationship between achievement orientation and entrepreneurs has been proven by several studies (Caird, 1991; Robinson et al., 1991). One study, for instance, looked at the “goal-setting”, “perseverance”, “drive”, and “energy levels” of undergraduates (Louw et al., 2003). Young people were also found to hold stronger beliefs in “hard work” than nonparticipants (Bonnett and Furnham, 1991). Entrepreneurship literature has found that persons who believe that their skill and ability set is adequate for achieving success with a new venture are motivated to exert the necessary effort (Douglas and Shepherd, 2000; Pop et al., 2009). Recent researches have demonstrated that need for achievement distinguish entrepreneurs from the general population (Stewart and Roth, 2001; Collins et al., 2004). Thus, it is hypothesized:

\[ H3: \text{Achievement orientation relates positively to individual entrepreneurial intention} \]

1.4 Uncertainty Avoidance

Emmet (1999), Glennon (1966), Begley and Boyd (1987), Lambing and Kuehl (2000) document evidence, that entrepreneurs tolerate uncertainty and ambiguity better than others. Douglas and Shepherd (2002) found that the intention to be an entrepreneur is stronger for those with more positive attitudes to risk. Thus, it is hypothesized:

\[ H4: \text{Uncertainty avoidance relates positively to individual entrepreneurial intention} \]
1.5 Entrepreneurial Experience

Shapero and Sokol (1982) claim that family, peers, colleagues, mentors, and presumably any significant others may have a significant influence on entrepreneurial intentions. Shane (2003) claimed that individuals who have any kind of exposure to entrepreneurs (friends, parents) are more likely to start their own business. Athayde (2009) found that pupils with a self-employed parent were significantly more likely to opt for self-employment than pupils with no self-employed parents. They were also more likely to consider working in a small business. Thus, it is hypothesized:

H5: Entrepreneurial experience relates positively to individual entrepreneurial intention

1.6 Entrepreneurial Knowledge

Knowledge is considered another important factor for the advantage-seeking individuals (Holcomb et al., 2007; Kim and Miner, 2007; Zaharia, 2009). Additionally, the cognitive processes may form the knowledge, which in turn influences individuals’ behavior (Corbett and Hmieleski, 2007). Thus, it is hypothesized:

H6: Entrepreneurial knowledge relates positively to individual entrepreneurial intention

1.7 External Environment and University Environment

Hunger et al. (2002), Korunka et al. (2003), Westlund and Bolton (2003) claim that broader environmental factors are important dimensions of entrepreneurial intentions. Bruyat and Julien (2001), Gartner (1985), Low and MacMillan (1988), Shane and Venkataraman (2000), Kopycinska et al. (2009), Bernat et al. (2009) and identify that micro- and macro-environmental conditions are associated with entrepreneurship. Solymossy (2000) discusses entrepreneurship being modeled as an economic phenomenon with elements for the individual, the firm, and the environment, each of which influences success. Governmental and political activities have particularly strong effects on entrepreneurs. Thus, it is hypothesized:

H7: External environment relates positively to individual entrepreneurial intention
H8: University environment relates positively to individual entrepreneurial intention

2. Method

2.1 Sample and Data Collection

Previous studies (Shane, 2003) found that age, education level, marital status can influence entrepreneurial intentions, our study was designed to control for these three variables by focusing on a homogeneous population, Lithuanian undergraduate first or second years business students below 25 years old.

The questionnaires were delivered for students during the courses in order to increase the return. Overall 238 questionnaires were returned. After editing the responses 230 questionnaires were analyzed.
2.2 Measures

The questionnaire was developed in English. The questionnaire incorporated two groups of questions: introductory (student characteristics) and the main body of the questionnaire. The first section of the questionnaire incorporated questions related to the respondent’s demographic characteristics such as gender, age, marital status, parents’ employment status, nationality, and family income level.

Table 1. Operationalisation of the variables and Cronbach’s Alpha

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement orientation</td>
<td>I always achieve what I set out to do</td>
<td>0.708</td>
</tr>
<tr>
<td></td>
<td>There is no better feeling that accomplishing a goal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I enjoy finding solutions to complex problems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I want to be the most successful person in this class</td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>I won’t need the approval of others in my own business</td>
<td>0.686</td>
</tr>
<tr>
<td></td>
<td>I like the idea of answering only to myself</td>
<td></td>
</tr>
<tr>
<td></td>
<td>It would be great to not have to answer to a boss</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Being my own boss is a dream come true</td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial knowledge</td>
<td>I have enough knowledge in entrepreneurship</td>
<td>0.781</td>
</tr>
<tr>
<td></td>
<td>My entrepreneurship knowledge is enough to start business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My education has prepared me well to run my own business</td>
<td></td>
</tr>
<tr>
<td>Financial independence</td>
<td>I will receive higher income if I have my own business</td>
<td>0.704</td>
</tr>
<tr>
<td></td>
<td>My income will be lower if I work for someone else</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I will be more financially independent if I have my own business</td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial experience</td>
<td>My friends are successful entrepreneurs</td>
<td>0.651</td>
</tr>
<tr>
<td></td>
<td>My family has successful entrepreneurs</td>
<td></td>
</tr>
<tr>
<td>Uncertainty avoidance</td>
<td>I would rather be safe than sorry</td>
<td>0.579</td>
</tr>
<tr>
<td></td>
<td>Avoid taking chances if possible</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I like situations that are safe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am cautious in trying new things</td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial intention</td>
<td>I am interested in becoming an entrepreneur</td>
<td>0.858</td>
</tr>
<tr>
<td></td>
<td>My long term goal is to own a successful business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I would love having my own business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I will work very hard to become an entrepreneur</td>
<td></td>
</tr>
<tr>
<td>External environment</td>
<td>Current economic situation of the country is favourable to start my own business</td>
<td>0.634</td>
</tr>
<tr>
<td></td>
<td>Current legislations, regulating the establishment of a new business in the country, are favourable to start my own business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In general the opinion of the society towards the entrepreneurs is very high</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Current level of the development of the technologies in the country is favourable to start my own business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There are deep traditions of the entrepreneurship in the country</td>
<td></td>
</tr>
<tr>
<td>University environment</td>
<td>The culture of the university/business school I am currently studying gives me a good example of how should the entrepreneurial organization look like.</td>
<td>0.825</td>
</tr>
<tr>
<td></td>
<td>Professors empowers me with the entrepreneurial spirit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teaching-learning methods used during the classes stimulate entrepreneurial spirit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>After graduating the university I will be equipped with needed knowledge, skills and attitudes to start my own business</td>
<td></td>
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</table>
The main body of the questionnaire included questions that asked respondents to indicate to what extent they agree or disagree with the statements focusing on the following factors: psychological characteristics of respondents (financial independence, autonomy, achievement orientation, and uncertainty avoidance), non-psychological characteristics (entrepreneurial experience and entrepreneurial knowledge), environmental conditions (external context and university environment), and entrepreneurial intention. Before the survey administration, a pre-test of the questionnaire with a small group of respondents was conducted. After pre-test results, on question “I have the tools necessary to run my own business” was rejected, because students couldn’t understand what it means. Other pre-test results were satisfactory.

Operationalisation of the variables applied in the study is presented in Table 1. A seven-point Likert scale (where 1 - completely disagree and 7 - completely agree), was used in the survey.

2.3 Measure Validation and Data Analysis

In order to ensure variables included in our proposed research construct were internally consistent, all multi-item measurement scales were first evaluated for accuracy and applicability. This involves an assessment of reliability (Hair et al., 2006) and generalisability of the scale (Lord and Novick, 1968). Reliability refers to the degree to which the observed variable measures the “true” value (Hair et al., 2006). The reliability of a questionnaire is measured by a degree to which the same questions provide the same results in a repeat research.

Nunnally (1978) suggests that the minimum standards for the coefficient alpha of reliability in the development of measures are: reliability coefficients (Cronbach’s alpha) around 0.90 is considered as “excellent”, values around 0.80 for “basic research” and values between 0.5 to 0.6 for “exploratory research”. The reliability assessment of each factor ranged from 0.579 to 0.858. All measures demonstrate acceptable psychometric properties in terms of reliability estimates. It can be thus inferred that the questionnaire of this particular study is reliable (Table 1).

Survey data was analysed using SPSS. The relationship among variables was tested by calculating correlations (Spearman’s rho) as the distribution was not normal. Burns (2000) suggests that correlations with coefficients of 0.2 – 0.4 are low; relations between variables are weak, correlations with coefficients of 0.4 – 0.6 are medium correlations; relationship between variables is medium; coefficients of 0.7 – 1.0 are high; relationship between variables is strong.

3. Results and Discussion

3.1 Characteristics of Respondents

Respondents’ characteristics are presented in Table 2.

The respondents represented a rather homogenous group: all respondents are business undergraduate students studying at private university, younger than 25 years old (81.7 younger than 20), the equal percentage of females and males, 99.1 percent are single, and 94.7 percent are Lithuanians.
There are no statistical important differences (Kruskall-Wallis test) in the entrepreneurial intents between students which parents have their own business and students, which parents work for someone else. We do not confirm the results of other entrepreneurship studies (Brockhaus and Horwitz, 1986; Brush, 1992; Cooper, 1986; Krueger, 1993), which found that students from families with entrepreneurs have a more favourable attitude toward entrepreneurship than those from non-entrepreneurial backgrounds.

Concerning the gender of the students, there is no statistical important differences (Kruskall-Wallis Test) in the entrepreneurial intents between male and female.

### 3.2 Test of Hypotheses

The correlations of hypothesized relationships are presented in Table 3.

First, in respect to psychological characteristics, four hypotheses (H1-H4) were raised. The statistical analysis provided contradictory findings. H1-H3 hypotheses were supported, H4 was not supported. A detailed presentation of hypothesis support follows. H1 was tested and the results revealed that the relationship between financial independence and entrepreneurial intention was positive and significant \( r = 0.481, p < 0.01 \). The results support previous studies of Douglas and Shepherd (2002) and Koh (1996) suggesting that the students’ desirability to have financial independence could have a positive relationship with the need to create their own business. The relationship between autonomy and entrepreneurial intention (hypothesis H2) was also positive and significant \( r = 0.435, p < 0.01 \).
Table 3. Verification of hypothesised relationships

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationships</th>
<th>Correlation coefficient</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Financial independence - entrepreneurial intention.</td>
<td>0.481**</td>
<td>Yes</td>
</tr>
<tr>
<td>H2</td>
<td>Autonomy - entrepreneurial intention.</td>
<td>0.435**</td>
<td>Yes</td>
</tr>
<tr>
<td>H3</td>
<td>Achievement orientation - entrepreneurial Intention</td>
<td>0.284**</td>
<td>Yes</td>
</tr>
<tr>
<td>H4</td>
<td>Uncertainty avoidance - entrepreneurial Intention</td>
<td>-0.011</td>
<td>No</td>
</tr>
<tr>
<td>H5</td>
<td>Entrepreneurial experience - entrepreneurial intention</td>
<td>0.477**</td>
<td>Yes</td>
</tr>
<tr>
<td>H6</td>
<td>Entrepreneurial knowledge - entrepreneurial intention</td>
<td>0.365**</td>
<td>Yes</td>
</tr>
<tr>
<td>H7</td>
<td>External context - entrepreneurial intention</td>
<td>0.234**</td>
<td>Yes</td>
</tr>
<tr>
<td>H8</td>
<td>University environment - entrepreneurial intention</td>
<td>0.339**</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note: *p<0.05, **p<0.01

Source: prepared by authors.

The results support earlier studies of Lumpkin and Dess (1996) indicating that autonomy is important dimension of an entrepreneurial orientation. Again, the relationship between achievement orientation and entrepreneurial intention (hypothesis H3) was positive and significant (r = 0.284, p < 0.01). This finding supports several studies (Durand and Shea, 1974; Morris and Fargher, 1974; Robinson et al., 1991; Caird, 1991; Louw et al., 2003) statement that achievement orientation increases entrepreneurship intensity. H4 was tested and the results were contradictory. The relationship between uncertainty avoidance and entrepreneurial intention (r = -0.011, p > 0.05) was insignificant. This finding did not support previous Douglas and Shepherd (2002) findings stating that the intention to be an entrepreneur is stronger for those with more positive attitudes to risk.

Second, in respect to non-psychological characteristics, two hypotheses (H5-H6) were raised. Both hypotheses were supported. The relationships between entrepreneurial experience and the entrepreneurial intensity (r = 0.477, p < 0.01) was positive and significant. These results support earlier studies (Shane, 2003; Athayde, 2009) in terms of individuals exposed to entrepreneurship and entrepreneurs are more likely to start business themselves. The relationships between entrepreneurial knowledge and entrepreneurial intensity (r = 0.365, p < 0.01) was positive and significant. It means that students, who think that they have more entrepreneurship knowledge more tend to start their own business.

Third, in respect to environmental conditions, hypotheses H7-H8 were raised. Again, both hypotheses were supported. The relationship between external context and entrepreneurial intention (r = 0.234, p < 0.01) and the relationship between university environment and entrepreneurial intention (r = 0.339, p < 0.01) were significant. These findings support previous studies (Bruyat and Julien 2001; Gartner, 1985; Low and MacMillan, 1988; Shane and Venkataraman, 2000) which identify that micro- and macro-environmental conditions are associated with entrepreneurship intensions.
Conclusions and Limitations

This study seeks to answer the following question: what factors determine entrepreneurship intention of undergraduate students? Based on various factors within three identified contexts (personality psychological and non-psychological characteristics, and environmental conditions), this study investigates the relationships among these factors and entrepreneurial intention.

The research findings show that both personal and environmental factors may determine entrepreneurship intention of undergraduate students. This study suggests that actions to structure entrepreneurship activity need to be considered not only on internal psychological but also internal non-psychological level as well as external level. Thus, potential entrepreneurs who possess both relevant psychological and non-psychological characteristics and occur in beneficial environmental context may be expected to be more adept at resource acquisition and opportunity exploitation than those who lack either critical internal and non-psychological characteristics or not relevant environment.

Our study offers some limitations that suggest future research direction. Small sample (230 students) is the principal factor conditioning the limitation of this study. Second, this study was carried out in a transitional country (Lithuania). Third, this study tested a theoretical model that integrates various factors within personality psychological characteristics, non-psychological characteristics, and external environmental contexts. Scholars wishing to investigate entrepreneurial intention among undergraduate students may still need to use or develop additional factors, as well as investigate in more detail existing ones.

Managerial implications

The findings of this study have important implications for practice. The results clearly show the importance of psychological, non-psychological, and environmental factors for entrepreneurship intensions and provide support for university entrepreneurship programs. Thus, educational institutions in order to nurture students’ entrepreneurship intensions have to focus on university environment, entrepreneurial knowledge, and non-psychological characteristics of the students. The research also demonstrates how other variables, for example external context, financial independence, autonomy, achievement orientation and uncertainty avoidance hypothesized to influence entrepreneurial intention may be assessed.

References

Implications for Industrial Sectors


Kuriant bakalauro studijų programas reikėtų ypatingai atsižvelgti į verslumo kultūros skatinimą universitete: verslumą skatinančių mokymo metodų taikymą, teigiamos dėstytojų orientacijos į verslumą stiprinimą, verslo praktikų pritaukimą į mokymo procesą ir t.t.

REIKŠMINIAI ŽODŽIAI: verslumo intencijos, bakalauro studijų studentai, Lietuva.