Environmental Engineering and Management Journal *July 2019, Vol. 18, No. 7, 1527-1534*
http://www.eemj.icpm.tuiasi.ro/; http://www.eemj.eu

"Gheorghe Asachi" Technical University of Iasi, Romania

STUDENT'S ENTREPRENEURIAL INTENTIONS: ROLE OF ENTREPRENEURIAL EDUCATION AND RISK TAKEN ABILITY

Ana Iolanda Vodă[1*], Daniel Covatariu[2], Ovidiu-Aurel Ghiuță[3]

[1]"Alexandru Ioan Cuza" University of Iasi, Institute for Interdisciplinary Research, Social Sciences and Humanities Research Department, Lascăr Catargi no. 54, 700107, Iași
[2]"Gheorghe Asachi" Technical University of Iasi, Faculty of Civil Engineering and Building Services, 1 Prof. Dimitrie Mangeron Blvd., 700050, Iași
[3]"Ştefan cel Mare" University of Suceava, Faculty of Food Engineering, The Business Incubation Lab, 13 Universitatii Street, 720229, Suceava

Abstract

After the recent global financial and economic crises, unemployment, especially among young people have become a particularly serious problem. Fostering young entrepreneurship represent not only a tool to combat young unemployment and social exclusion but also a way to encourage innovation and a country's economic growth. Education and training can contribute in building an entrepreneurial society and may shape individuals attitudes versus risk-taking. Risk taken ability is an important personality factor who have an influence in process decision making or in entrepreneurial intention. Our main objectives are directed towards identifying whether there is a significant relationship between willingness to take risks, entrepreneurship education and students intention towards entrepreneurship. The present study tested two hypotheses on a sample of 115 university students using a questionnaire-based survey. The response scales use anchors such as 5-point Likert scale (1, strongly disagree to 5, strongly agree) and semantic differentials metrics. Tests and modelling were performed using Statistical Package for Social Science (SPSS) software, SPSS 21.0. According to our research objective and developed hypotheses, several data analysis have been used: Principal Component Analysis (PCA) and OLS regression models. Our findings reveal that both Risks taken Ability and Entrepreneurial Education significantly influence the entrepreneurial intentions of Technical University students.

Key words: education, engineering students, entrepreneurial intention, risks taking

Received: November, 2017; Revised final: March, 2018; Accepted: July, 2018; Published in final edited form: July, 2019

1. Introduction

Entrepreneurship represents a dynamic and mind-set process which enhances innovation, creativity, risk-taking abilities and good management skills (OECD, 2004). Entrepreneurs can be seen as master builders who innovate, anticipate prospects, perceive opportunities by accepting risks and failures (Eroglu and Piçak, 2011) aiming to create economic and social value within different economy sectors (Kirby, 2004) in adverse conditions, dominated by uncertainty and limited resources (Hébert and Link, 2009; Kirby, 2004; Vodă and Chiriac, 2012).

In many advanced industrialized states enhanced entrepreneurial activity represent the key in achieving technological progress (Baumol, 1986; Schumpeter, 1934), rejuvenate industries that are declining in profitability and growth and supply new jobs opportunities to compensate for employment problems generated by „corporate restructuring and downsizing" (Birley, 1986; Mueller and Thomas, 2001). In less developed countries, entrepreneurship

* Author to whom all correspondence should be addressed: e-mail: yolanda.voda@gmail.com; Phone: +40723134636

activities are important in enhancing economic growth (Harper, 1991; Klein and Bullock, 2006; Sáez-Martínez, et al., 2014). This is why many countries have relocated their resources to activities that support and encourage entrepreneurship (Acs et al., 2008; Klapper and Love, 2011; Tantau et al., 2017). For instance, in Central and Eastern Europe, incentives along with education programs have been developed by the government to encourage new venture development (Audretsch, 1991; Sharma, 1997).

In order to encourage an increase in entrepreneurial activities it is important to investigate what determinants affects entrepreneurial intentions. The intentions to become an entrepreneur may be seen as the „first milestone in an evolving, long-term entrepreneurial process" (Crant, 1996) because they form the foundations of the new organizations (Krueger, 1993). Choo and Wong (2006) confirm that intention is „the single best predictor of entrepreneurial behavior" (Choo and Wong, 2006). There are various models that analyze the entrepreneurial intentions focusing on different explanatory variables. For instance gender, age, education level and past entrepreneurial experiences have been found to influence entrepreneurial intentions (Crant, 1996). Other authors extended the studies by adding additional variables into the equation, such as locus of control, need for achievement, tolerance for ambiguity (Okhomina, 2010), self-efficacy (Wilson et al., 2009), contextual elements, namely capital access, information access and social networks (Kristiansen and Indarti, 2004), individualism or collectivism, introversion or extraversion (Zeffane, 2013), education (Zhang et al., 2014), risk-taking behavior among other (Remeikiene et al., 2013) and so further. Therefore, the main determinants that affect the intentions to become an entrepreneur are centered on: a *cognitive framework*, implying personal factors of influence and *a contextual frame* related to the environmental factors like family, social environment, etc. In other words, the specialized literature is focused not only on the individual internal nature and the why he is build, but also on the surrounding environment where the individual acts and belongs to.

Although many studies focused on some entrepreneurial intention's determinants, they offer mixed results. For instance, some analysis (Norton and Moore, 2006) show no differences in terms of risk-taking propensity between entrepreneurs and non-entrepreneurs, while others (Gurel et al., 2010) reveal that entrepreneurship has always been associated with higher risk-taking propensity.

Also, many scholars consider that individuals do not need to be born with specific characteristics to be entrepreneurs (Belwal et al., 2015). The necessary abilities can be tough (Belwal et al., 2015; Shefsky, 1994) and entrepreneurial education represents an important asset in achieving that (Remeikiene et al., 2013). Meanwhile, students participating in entrepreneurial education tend to be more innovative and more successful than others with different background and „are more likely to start their own firms in the future" (European Commission, 2015). Similar results have been found by other authors (Fayolle et al., 2006) who also support the claim that entrepreneurship education has a positive effect on various entrepreneurship outcomes.

On the other hand, other authors reveal that the „effect of entrepreneurship education program on students' self-assessed entrepreneurial skills is insignificant and the effect on the intention to become an entrepreneur is even negative" (Oosterbeek et al., 2010). In order to bridge those gaps, we proposed the following research questions: "Does students' intentions differ because of their attitudes towards risk?", "Is there a direct relationship between entrepreneurial education and students' intention towards entrepreneurship?", "Does the university education encourage students to become self-employed?". The overall purpose of this study is to validate the relationship between student's attitude towards risks, entrepreneurial education and their intentions to engage in venture creation.

The paper is organized as follows: the subsequent section is focused on Hypotheses development and review of previous research, then in Section 3 the methodology and data are provided. In the next section, we present and interpret our empirical results. In the last section, we summarize and conclude, explain study limitations and offer possible recommendations.

2. Material and methods

2.1. Review of previous research and hypotheses development

Nowadays fostering entrepreneurship has become a „priority in business life due to turbulent and dramatic change in external organizational environments"(Brazeal and Herbert, 1999). In order to bridge the gaps found in the literature our study will focus on the impact of willingness to take risks and entrepreneurship education programs on Romanian students' intention towards entrepreneurship, taking into account demographic factors as well as respondents' individual background. The main reason for choosing university students is because they represent an important share of the potential entrepreneur's supply. In other words, students' attitude and knowledge of entrepreneurship represents important assets that may reflect their intention to start a new business in the future (Wang and Wong, 2004).

Risk taken ability is one of personality factors who have an influence in process decision making or in entrepreneurial intention (Barbosa et al., 2007; Zhao et al., 2010) alongside self-efficacy, need to achievement and locus of control (Hermawan et al., 2016; Pihie, 2009; Popescu et al., 2016; Rayawan and Efrata, 2017). We chose to test the influence of attitudes towards risk of students in entrepreneurial intentions.

H1: The risk taken ability influence the students' entrepreneurial intentions.

There is wide agreement on the importance of entrepreneurship for a country's economic growth and development. The literature suggests that there is a strong connectionbetween „education, venture creation and entrepreneurial performance, as well as between entrepreneurial education and entrepreneurial activity" (Noel, 2002; Raposo and Paco, 2011). Small businesses are the main catalyst for economic growth (Drucker, 1985). „Across the EU28, the contribution of SMEs in the non-financial business sector is considerable. SMEs make up 99.8% of all enterprises, 57.4% of value added, and 66.8 % of employment. Also in USA, the contribution of SMEs in the non-financial business sector is considerable. SMEs make up 98.9% of all enterprises, 53.3% of value added, and 52.05 % of employment"(European Commission, 2016a). Since the recent economic recession, unemployment, in particular among young people has become a serious concern among policymakers. Encouraging entrepreneurial activities and new venture creation represent an important tool to combat young unemployment and social exclusion but also a way to encourage innovation.

For those particular reasons but not limited to, fostering young entrepreneurship represent one of the core objective of Europe 2020 strategy (European Commission, 2016b). And, in order to prepare the young generation for becoming entrepreneurs, the governments must boost the development of entrepreneurship courses. The easiest way is to introduce the entrepreneurship in the academic curricula for all the students unconcerned the field of their studies. Here, we search if for the sample the entrepreneurial education influence the intention to be entrepreneur.

H2: There is a direct relationship between entrepreneurial education and students' intention towards entrepreneurship.

2.2. Methods of research

The survey method had been used to collect all essential data. Respondents were asked to indicate the extent to which they agreed or disagreed with each item based on a five point interval scale from strongly agree to strongly disagree. The survey contained also some demographic questions such as gender, age, sex, entrepreneurial high school profile and so further. All the questionnaires were distributed personally to students.

From the total amount of 200, only 115 set of questionnaire were satisfactory completed and remained in the analysis. The main reasons for lowering the questionnaire number were respondents incorrect answering or duplicated result that is regarded invalid. The questionnaire was divided into 2 sections designed to collect data on different issues.

The first section identifies the main socio-economic demographic characteristics and educational background of the respondents such as: age, sex, study level, entrepreneurial high school profile, university profile and so further. Section 2 comprehends items related to entrepreneurial intention, willingness to take risks and entrepreneurial education.

The intentions to become an entrepreneur were evaluated based on several questions from(Liñán and Chen, 2009; Yurtkoru et al., 2014). Five items were used to measure the respondents' attitude towards becoming entrepreneurs themselves. For instance: „My professional goal is to become an entrepreneur" or „I am determined to create a firm in the future". Students' willingness to take risks is measured using International Personality Item Pools scale (IPIP, 2015). Ten items measure students' attitude towards risk and we used all them. Entrepreneurial education construct aim to discover if students perceive their university education as adding value to becoming an entrepreneur and if the studies have exerted any influence on the decision to become an entrepreneur in the future. To measure entrepreneurial education a scale developed by Remerkiene et al. (2013) and Turker and Selcuk (2009) is used. For instance: "My university education encourage me to develop business ideas for being an entrepreneur". The questions were evaluated based on semantic differentiation metric scale (Likert scale equal intervals with values write from 1 to 5), ranging from strongly agree to strongly disagree.

For keyed items, the response "Strongly disagree" is assigned a value of 1, "Disagree" a value of 2, "Neither agree nor Disagree" a 3, "Agree" a 4, and "Strongly Agree" a value of 5. For – keyed items, the response "Strongly disagree" is assigned a value of 5, "Disagree" a value of 4, "Neither agree nor Disagree" a 3, "Agree" a 2, and "Strongly Agree" a value of 1.

Tests and modeling were performed using Statistical Package for Social Science (SPSS) software, SPSS 21.0 (IBM Corporation, Armonk, NY, USA). According to our research objective and developed hypotheses, several data analysis have been used: Principal Component Analysis (PCA) and regression models. PCA was used in order to estimate the score for each dimension, the positive or negative impact of the associated items on total score.

Out of the total items (Fig. 1), 10 were used to construct scale for risk propensity (Risk RD1…Risk RD10), 5 for entrepreneurial intention (E11, E12, E13, E14 and E15) and 4, for entrepreneurial education (Education UE1, Education UE2_1, Education UE2_2, and Education UE3). All the variables measure the construct in the same direction. For each construed we have performed the Bartlett test of Sphericity and Kaiser-Mayer-Olkin Measure of sample adequacy. The score for the independent variables used in the study was based on the following regression from the Eqs. (1-2):

$$Assoc\_Risks = a_1 xRISKCRD_1 + a_2 xRISKRD_2 + a_3 xRISKRD_3 + \\ + a_4 RISKRD_4 + a_5 RISKRD_5 + a_6 xRISKRD_6 + a_7 RISKRD_7 + \\ + a_8 RISKRD_8 + a_9 RISKRD_9 + a_{10} RISKRD_{10} \quad (1)$$

$$Entrep\_edu = b_1 xUE_1 + b_{2\_1} xUE_{2\_1} + b_{2\_2} xUE_{2\_2} + b_3 xUE_3 \quad (2)$$

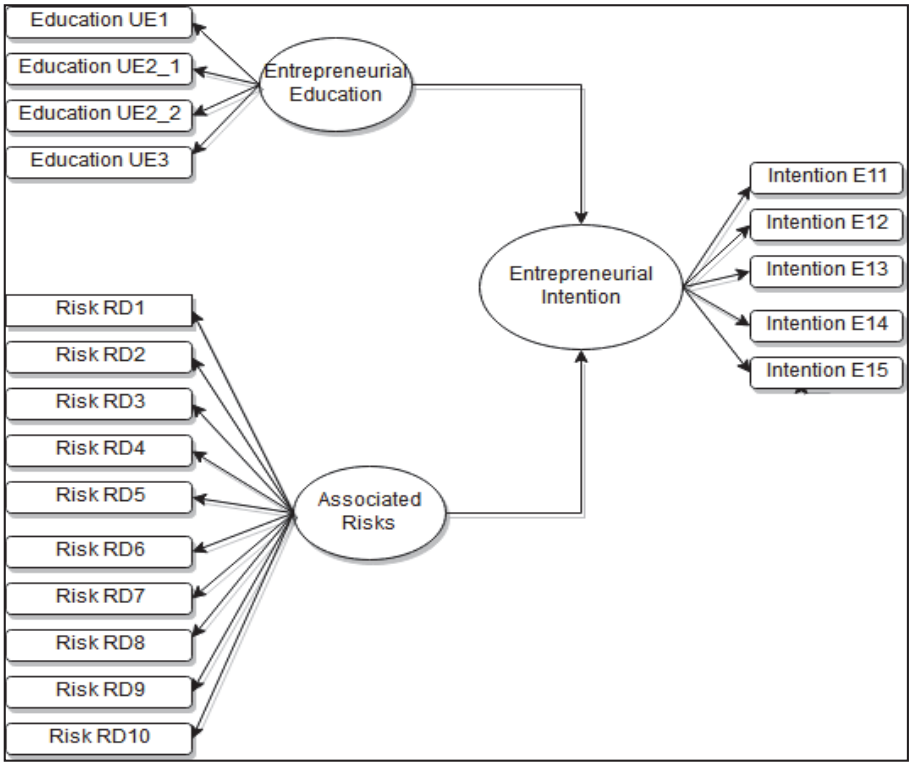

Fig. 1. Entrepreneurial intention construct and determinants

In these equations, a_i = 1, …., 10, b_j = 1, …,3, represent the willingness to take risk and university entrepreneurial education estimation parameters. Risk RD=1, ...10, UE=1,...4 are the items used in the survey. Willingness to take risks and entrepreneurial education effects on students' intention to become self-employed is measured using the following regression models from the Eqs. (3-4):

$$Entrep\_\text{intention} = \beta_0 + \beta_1 xAssoc\_Risks + \\ + \beta_2 xEntrep\_Edu + \xi \quad (3)$$

$$Entrep\_\text{intention} = \beta_0 + \beta_1 xAssoc\_Risks + \\ + \beta_2 xEntrep\_Edu + \beta_3 xGender + \beta_4 xAge + \xi \quad (4)$$

In the above cases, β= 0,....n are regression model parameters. We also used two control variables in the model, namely: gender and age.

3. Design of experimental group

The students pursuing Bachelor and Doctoral programs within "Gheorghe Asachi" Technical University from Iaşi, Romania were the target population of this study. This selection is determined by the fact that according to Dunn and Holtz-Eakin (2000) young people (aged 15-29) are more creative and show more innovative ideas. Also, author's results demonstrates that the average age for people who „start-up a firm for the first time is usually 26" (Dunn and Holtz-Eakin, 2000).

Students were randomly selected from the Faculty of Civil Engineering and Building Services, "Gheorghe Asachi" Technical University from Iasi, Romania, during the academic year 2016-2017. Before administering the questionnaire all the participants received more information about the aim of the survey, and they were reminded that their participation was voluntary and their answers would remain anonymous.

The structure of sample can be seen in Table 1. The age distribution of survey respondents is grouped into three age groups: 18-20 years old, 21 to 24 and 25 and above. A large proportion of the respondents were situated between 21 and 24 years old (47.8%). Only 22.6% of the respondents were 25 and above years old. Gender is coded as a dichotomous variable, as 0 for female and 1 for male. The majority of the respondents were males (82.7%) and only a small proportion were

females (17.4%). Education structure of the respondents imply data regarding: high school profile that the respondents graduated, entrepreneurship courses in high school, tertiary education and faculty type. Most of the respondents have graduated a high school either in Sciences (59.1%) or with a Technical profile (21.3%). Moreover, 61.7% of the respondents have not participated in any courses relating to entrepreneurial education. The final sample is composed of 95 students enrolled in bachelor program and 20 in a doctoral program.

4. Results and discussion

For each category we have estimated a score based on the coefficients of the associated score functions using PCA analysis with latent variables. For the Entrepreneurship intention the respondents answers to the questions E11, E12, E13, E14 and E15 positively influences the estimated score for this category. In the case of the associated risks taken ability, the respondents' answers to RD1, RD4, RD 6 and RD9 questions negatively influenced the estimated score, while the answers for questions RD2, RD3, RD5, RD7, RD8 and RD10 have a positive influence. For the Entrepreneurial Education, the respondents' answers to the questions UE1, UE2_1, UE2_2 and UE3 positively influence the score estimated. The values for the KMO tests (KMO=0.859, KMO=0.729, KMO=0.707) shows that the included items explain a significant proportion (85.90%, 72.90% and over 70%) of the variance calculated for each category (Table 2).

From the Table 3 it can be noticed that both Associated Risks and Entrepreneurial Education significantly influence the Entrepreneurial Intentions of Technical University students (Model 1). Entrepreneurship has always been associated with risk-taking behavior.

Our research findings reveal that students with a greater risk acceptance have stronger levels of entrepreneurial intention. These results are in line with other research findings. For instance, Douglas and Shepherd (2002) and Zhao et al. (2010) analyses reveal that the „intention to be an entrepreneur is stronger for those with more positive attitudes to risk and to independence" (Zhao et al., 2010). Our findings validate the assumed hypotheses H1. Universities provide particular knowledge and train the students to gain innovative enterprise skills and capture the opportunities in business venture. Entrepreneurship education prepare students to be successful in their career when they intend to start a new business as provides information, training and educates anyone that is interested in entrepreneurial activities (Nian et al., 2014).

In our research entrepreneurial education has a positive impact on the personal decision to become an entrepreneur which allows us to accept the hypotheses H2. Similar results have also been found in other studies (Belwal et al., 2015; Remeikiene et al., 2013). In Model 2 (Table 3) age and gender were added as control variables. For the age we used 3 categories for a nominal scale: 18-20 years, 21-24 years and +25 years. In our analysis findings reveal that neither gender nor age influence entrepreneurial intention of students. Gender is treated as a dichotomous variable, with value "1" for men and "0" for women. No significant influence has been found between sample gender and their entrepreneurial intentions. With these results we can emphasize that the hypotheses H1 and H2 are valid: the attitudes towards risk and the entrepreneurial education influence the entrepreneurial intentions of the students.

Table 1. Demographic characteristics of the sample (n=115)

Variable	*Respondents number*	*Percentage (%)*
Age		
18-21 years	34	29.6
21-24 years	55	47.8
+25 years	26	22.6
Gender		
Male	95	82.7
Female	20	17.4
High school profile		
Humanities	5	4.4
Sciences	68	59.1
Technical	36	31.3
Services	6	5.2
Entrepreneurial high school profile		
Yes	44	38.3
No	71	61.7
Education level		
Bachelor's	95	82.6
Doctoral studies	20	17.4
Source: prepared by the authors		

Table 2. Parameter Estimations

	Items	*Questions*	*Results*	*KMO and Sig.*
Entrepreneurship intention	*E11*	"My professional goal is to become an entrepreneur."	0.159	KMO = 0.859 (Sig<.05)
	E12	"I will make every effort to start and run my own firm."	0.254	
	E13	"I am determined to create a firm in the future."	0.242	
	E14	"I have very seriously thought of starting a firm."	0.257	
	E15	"I have the firm intention to start a firm someday."	0.261	
Associated risks	*RD1*	"I would never go hang-gliding or bungee-jumping."	-0.196	KMO=0.728 (Sig<.05)
	RD2	"I seek danger."	0.284	
	RD3	"I take risks."	0.169	
	RD4	"I would never make a high risk investment."	-0.146	
	RD5	"I am willing to try anything once."	0.184	
	RD6	"I stick to the rules."	-0.062	
	RD7	"I seek adventure."	0.254	
	RD8	"I enjoy being reckless."	0.147	
	RD9	"I avoid dangerous situations."	-0.191	
	RD10	"I know how to get around the rules."	0.157	
Entrepreneurial education	*UE1*	"University education encouraged me to develop creative business ideas."	0.328	KMO=0.707 (Sig<.05)
	UE2_1	"University presents useful knowledge about business: technical (verbal and written communication, organizational skills)."	0.349	
	UE2_2	"University presents useful knowledge about business: business management (planning, decision making, marketing, financial knowledge)."	0.326	
	UE3	"University develops personality traits necessary for an entrepreneur (internal locus of control, proactiveness, innovativeness, risk-taking, persistence, adaptability to changes)"	0.314	
Source: prepared by the authors				

Table 3. Models estimations

	Model 1 – OLS Regression	*Model 2 – OLS Regression*
Intercept	3.428***	3.077***
	(0.488)	(0.607)
Associated Risks	0.208**	0.209**
	(0.88)	(0.90)
Entrepreneurial Education	0.189**	0.184**
	(0.86)	(0.86)
Gender	-	0.103
		(0.260)
Age	-	0.147
		(0.140)
R	0.260	0.285
Observations	115	115
Source: prepared by the authors		

*Dependent variable: Entrepreneurial intentions, *** 1%, ** 5%, * 10% statistical significance*

5. Conclusions

The support of entrepreneurial activities is recommended as a method to stimulate growth. As a result education programs to stimulate new venture creation have been developed in the transition economies of Central and Eastern Europe. We consider that education represent one of the essential factors distinguishing entrepreneurs from non-entrepreneurs, reduces unemployment and boosts the country economy. Besides education, risk taken ability is an important personality factor who have an influence in process decision making or in entrepreneurial intention. In line with the above statements, our main objective of the paper was to analyze if the entrepreneurial intentions are influenced by certain behavioral traits such as risk taken ability and to evaluate if there is a direct relationship between education and students' intention towards entrepreneurship.

The main results of this study clearly illustrate that both risk taken ability and entrepreneurial education influence students' intention towards entrepreneurship. In model 1 we see a positive influence (with a statistical signification with 5% not 1%) of "risk taken ability and entrepreneurial education" in almost the same level. In model 2 we have introduced two more control variables, which have no influence on our dependent variable. In both regression models the attitudes towards risk and the entrepreneurial education influence the entrepreneurial intentions of the students.

Some limitations associated with this research include the following: first, the selected sample was gathered from a single technical university so our results are limited for generalization; second, within the demographic variables, the group gender shows that our sample was dominated by males (almost 83%) and few women perceptions was taken into account (less than 20%). Beside these limitations, the research

offers useful insights on the factors that may influence students' entrepreneurial intentions.

Thus, future research should include other traits associated with entrepreneurial behavior and macro level factors which will help provide a more complete framework for explaining entrepreneurial behavior. Additionally, a larger scale samples is needed before the generalizability of our findings.

Acknowledgements

This work was supported by a grant of the "Alexandru Ioan Cuza" University of Iași, within the Research Grants program, Grant UAIC, code GI-UAIC-2017-03.

References

Acs Z.J., Desai S., Hessels J., (2008), Entrepreneurship, economic development and institutions, *Small Business Economics*, **31**, 219-234.

Audretsch D., (1991), The role of small business in restructuring Eastern Europe, 5th Workshop for Research in Entrepreneurship, Vaxjo, Sweden, 17-19.

Barbosa S.D., Gerhardt M.W., Kickul J.R., (2007), The role of cognitive style and risk preference on entrepreneurial self-efficacy and entrepreneurial intentions, *Journal of Leadership & Organizational Studies*, **14**, 86-104.

Baumol W.J., (1986), Entrepreneurship and a century of growth, *Journal of Business Venturing*, **1**, 141-145.

Belwal R., Al Balushi H., Belwal S., (2015), Students' perception of entrepreneurship and enterprise education in Oman, *Education+Training*, **57**, 924-947.

Birley S., (1986), The role of new firms: Births, deaths and job generation, *Strategic Management Journal*, **7**, 361-376.

Brazeal D.V., Herbert T.T., (1999), The genesis of entrepreneurship, *Entrepreneurship: Theory and Practice*, **23**, 29-46.

Choo S., Wong M., (2006), Entrepreneurial intention: triggers and barriers to new venture creations in Singapore, *Singapore Management Review*, **28**, 47-64.

Crant J.M., (1996), The proactive personality scale as a predictor of entrepreneurial intentions, *Journal of Small Business Management*, **34**, 42-49.

Douglas E.J., Shepherd D. A., (2002), Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization, *Entrepreneurship Theory and Practice*, **26**, 81-90.

Drucker P.F., (1985), Entrepreneurial Strategies, Innovation and Entrepreneurship Practice and Principles, Harper & Row, New York, USA.

Dunn T., Holtz-Eakin D., (2000), Financial capital, human capital, and the transition to self-employment: Evidence from intergenerational links, *Journal of Labour Economics*, **18**, 282-305.

Eroglu O., Piçak M., (2011), Entrepreneurship, national culture and Turkey, *International Journal of Business and Social Science*, **2**, 146-151.

European Commission, (2015), Entrepreneurship Education: A road to success, On line at: http://ec.europa.eu/growth/toolsdatabases/newsroom/cf/itemdetail.cfm?item_id=8056&lang=en.

European Commission, (2016a), Annual report on European SMEs 2015/2016, On line at: http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review-2016_en.

European Commission, (2016b), Europe 2020 Strategy, On line at: https://ec.europa.eu/info/strategy/european-semester/framework/europe-2020-strategy_en.

Fayolle A., Gailly B., Lassas-Clerc N., (2006), Effect and counter-effect of entrepreneurship education and social context on student's intentions, *Estudios de Economía Aplicada*, **24**, 509-523.

Gurel E., Altinay L., Daniele R.,(2010), Tourism students' entrepreneurial intentions, *Annals of Tourism Research*, **37**, 646-669.

Harper M., (1991), The role of enterprise in poor countries, *Entrepreneurship: Theory and Practice*, **15**, 7-11.

Hébert R.F., Link A.N., (2009), *A History of Entrepreneurship*, Routledge Studies in the History of Economics, 1st Edition, London, UK.

Hermawan R.W.,Soetjipto B.E., Rahayu W.P., (2016), The effect of entrepreneurial self-efficacy and locus of control on entrepreneurship interest through entrepreneurship literacy, *IOSR Journal of Business and Management (IOSR-JBM)*, **18**, 141-148.

IPIP, (2015), International Personality Item Pool, A scientific collaborator for the development of advanced measuresof personality traits and other individual differences', On line at: http://ipip.ori.org/newJPI-RKey.htm.

Kirby D.A., (2004), Entrepreneurship education: can business schools meet the challenge?, *Education+Training*, **46**, 510-519.

Klapper L.F., Love I., (2011), Entrepreneurship and development: The role of information asymmetries, *The World Bank Economic Review*, **25**, 429-239.

Klein P.G., Bullock J.B., (2006), Can entrepreneurship be taught?. *Journal of Agricultural and Applied Economics*, **38**, 429-439.

Kristiansen S., Indarti N., (2004), Entrepreneurial intention among Indonesian and Norwegian students, *Journal of Enterprising Culture*, **12**, 55-78.

Krueger N., (1993), The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability, *Entrepreneurship: Theory and Practice*, **18**, 5-22.

Liñán F., Chen Y.W., (2009), Development and Cross-Cultural application of a specific instrument to measure entrepreneurial intentions, *Entrepreneurship: Theory and Practice*, **33**, 593-617.

Mueller S.L., Thomas A.S., (2001), Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness, *Journal of Business Venturing*, **16**, 51-75.

Nian T.Y., Bakar R., Islam M., (2014), Students' perception on entrepreneurship education: the case of University Malaysia Perlis', *International Education Studies*, **7**, 40-49.

Noel T., (2002), Effects of entrepreneurial education on intent to open a business: an exploratory study, *Journal of Entrepreneurship Education*, **5**, 3-13.

Norton W.I., Moore W.T., (2006), The influence of entrepreneurial risk assessment on venture launch or growth decisions', *Small Business Economics*, **26**, 215-226.

OECD, (2004), *Promoting Entrepreneurship and Innovative SMESs in a Global Economy: Towards a More Responsible and Inclusive Globalization*, Proc. of 2nd OECD Conf. of Ministers Responsible for Small and Medium-Sized Enterprises (SMEs), Promoting Entrepreneurship and Innovative SMEs in a Global Economy: Towards a More Responsible and Inclusive Globalization, Istanbul, Turkey,

Okhomina D., (2010), The relationship between personality traits and entrepreneurial behavior and the moderating role of a supportive environment, *International Journal*

of Business and Economics Perspectives, **5**, 139-154.
Oosterbeek H., Van Praag M., Ijsselstein A., (2010), The impact of entrepreneurship education on entrepreneurship skills and motivation, *European Economic Review*, **54**, 442-454.
Pihie Z.A.L., (2009), Entrepreneurship as a career choice: an analysis of entrepreneurial self-efficacy and intentions of university students, European Journal of Social Sciences, 9, 338–349.
Popescu C.C., Bostan I., Robu I.B., Maxim A., (2016), An analysis of the determinants of entrepreneurial intentions among students: a Romanian case study, *Sustainability*, **8**, 771-793.
Raposo M., Paco A., (2011), Entrepreneurship education: Relationship between education and entrepreneurial activity, *Psicothema*, **23**, 453-457.
Rayawan W., Efrata T.C., (2017), The effect locus of control and need for achievement towards entrepreneurial performance, *Review of Management and Entrepreneurship*, **1**, 36-49.
Remeikiene R., Startiene G., Dumciuviene D., (2013) Explaining entrepreneurial intention of university students: the role of entrepreneurial education, Active Citizenship by Knowledge Management & Innovation: Proc. of the Management, Knowledge and Learning Intern. Conf., 9-12 June, Zadar, Croatia, 299-307.
Sáez-Martínez F.J., González-Moreno Á., Hogan T. (2014), The role of the University in eco-entrepreneurship: Evidence from the Eurobarometer survey on attitudes of European entrepreneurs towards eco-innovation, *Environmental Engineering and Management Journal*, **13**, 2541-2541.
Schumpeter J.A., (1934) *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and The Business Cycle*, Transaction Publishers Press, New Jersey.
Sharma S. (Ed.), (1997), *Restructuring Eastern Europe: the Microeconomics of the Transition Process*, Edward Elgar Publishing Press, Cheltenham, UK.
Shefsky L.E., (1994), *Entrepreneurs are Made Not Born,* Glencoe/McGraw-Hill School Pub Co.
Tantau A.D., Chinie A.C., Borisov D., (2017), Triggering events for corporate entrepreneurship leading to investments in renewable energy, *Environmental Engineering and Management Journal*, **16**, 2857-2868.
Turker D., Selçuk S., (2009), Which factors affect entrepreneurial intention of university students?, *Journal of European Industrial Training*, **33**, 142-159.
Vodă A.I., Chiriac C., (2012), An inexhaustive criticism of the standard economic theory from an Austrian perspective related to growth and development, *Review of Applied Socio-Economic Research*, **3**, 195-202.
Wang C.K., Wong P.K., (2004), Entrepreneurial interest of university students in Singapore, *Technovation*, **24**, 163-172.
Wilson F., Kickul J., Marlino D., Barbosa S.D., Griffiths M.D., (2009), An analysis of the role of gender and self-efficacy in developing female entrepreneurial interest and behavior, *Journal of Developmental Entrepreneurship*, **14**, 105-119.
Yurtkoru E.S., Acar P., Teraman B.S., (2014), Willingness to take risk and entrepreneurial intention of university students: An empirical study comparing private and state universities, *Procedia-Social and Behavioral Sciences*, **150**, 834-840.
Zeffane R., (2013), Need for achievement, personality and entrepreneurial potential: A study of young adults in the United Arab Emirates, *Journal of Enterprising Culture,* **21**, 75-105.
Zhang Y., Duysters G., Cloodt M., (2014), The role of entrepreneurship education as a predictor of university students' entrepreneurial intention, *International Entrepreneurship and Management Journal*, **10**, 623-641.
Zhao H., Seibert S.E., Lumpkin G.T., (2010), The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review, *Journal of Management*, **36**, 381-404.