Center for Economic Theories and Policies Sofia University St. Kliment Ohridski Faculty of Economics and Business Administration

ISSN: 2367-7082



Perceptions of University Entrepreneurship Support among Bulgarian Science and Engineering Students

Desislava Yordanova

BEP 03-2020 Publication: April 2020

Online: http://www.bep.bg Contact for submissions and requests: bep@feb.uni-sofia.bg

PERCEPTIONS OF UNIVERSITY ENTREPRENEURSHIP SUPPORT AMONG BULGARIAN SCIENCE AND ENGINEERING STUDENTS

DESISLAVA YORDANOVA

Sofia University "St. Kliment Ohridski" Faculty of Economics and Business Administration Department of Business Administration e-mail: d yordanova@feb.uni-sofia.bg

Abstract: The transformation of Bulgarian universities into entrepreneurial universities is a slow process. Bulgarian universities not only exhibit narrow understanding of the concept of innovative and entrepreneurial university, but also do not recognize entrepreneurship promotion as a strategic goal (OECD, 2014). The research objective of the present study is to explore the current efforts of Bulgarian universities to support student entrepreneurship by examining the perceptions of university entrepreneurship support among Bulgarian science and engineering students. Our empirical findings reveal that the studied Bulgarian universities provide little educational support, concept development support and business development support to their students. The paper provides practical implications of the findings and recommendations for future research.

Keywords: university entrepreneurship support, student entrepreneurship, Bulgaria. JEL: M14, O3, L3

INTRODUCTION

It was acknowledged that knowledge-based entrepreneurship is an engine for economic growth, employment generation and competitiveness in an entrepreneurial society (Audtersch, 2009). Increasing interest by academics and policy makers is devoted to technology entrepreneurship for its significant contribution to economic progress (Mosey et al., 2017). Students are important source of entrepreneurs in the knowledge society (Veciana, 1998, cited in Veciana et al., 2005), while universities are seen as "natural incubators" of entrepreneurs (Etzkowitz, 2003:112). "Universities can play an important role in stimulating entrepreneurship" (Kraaijenbrink, Groen, and Bos, 2010:110). Universities need to operate more entrepreneurially and to create favourable conditions for entrepreneurship among students and academics (Kirby, 2006). The provision of entrepreneurship education at university level is an important factor for stimulating and preparing future entrepreneurs. However, Kraaijenbrink, Groen, and Bos (2010) argue that universities can have a broader role in stimulating student entrepreneurship. Davey et al. (2016) stress that despite the significant political and academic attention to issues related to the triple helix of business, higher education and government as well as entrepreneurship and entrepreneurial universities, little research about the role of the university in developing entrepreneurship has been published. The research combining individual-level and organizational-level factors to explain student and graduate entrepreneurship is scarce (Walter, Parboteeah and Walter, 2011). Universities are considered as an ideal setting for research on entrepreneurship involving different levels of analysis (Mosey, 2016; Mosey et al., 2017).

Bulgarian higher education institutions exhibit narrow understanding of the concept of innovative and entrepreneurial university (OECD, 2014). Entrepreneurship promotion is not a strategic goal for Bulgarian higher education institutions and they have rarely links with the entrepreneurial ecosystem in the country (OECD, 2014). Bulgarian universities can play important role in stimulating students' start-ups during their studies or after graduation. However, there is a lack of understanding to what extent Bulgarian universities actually provide entrepreneurship support to their students. Therefore, the research objective of the present study is to investigate perceptions of university entrepreneurship support among Bulgarian science and engineering students. The empirical findings may help Bulgarian universities to devise and implement policies and measures to support early stages of student entrepreneurship.

The paper is structured as follows. Next section contains a review of the literature on university entrepreneurship support. The following section describes the research methodology adopted in the study. Next, the empirical findings of the study are presented. The final section discusses conclusions, limitations, practical implications and recommendations for future research.

1. UNIVERSITY ENTREPRENEURSHIP SUPPORT: A LITERATURE REVIEW

Various lines of research reveal how universities may provide entrepreneurship support to students. The provision of entrepreneurship courses and programs is a widespread practice in most developed and developing countries including countries from Central and Eastern Europe (Solomon and Fernald, 1991; Klandt, 2004; Katz, 2003; Matlay, 2001; Blenker et al., 2011). Entrepreneurship education is seen as important factor for building entrepreneurial capacity (Hannon, 2006). The role and the need for entrepreneurship education and training are justified by the view that entrepreneurship is a discipline (Drucker, 1985) that "can be taught" (Kuratko, 2005:580, Gorman et al., 1997). This standpoint finds a considerable support in entrepreneurship theoretical and empirical research (Veciana, 1999). Indeed, the investigation of entrepreneurial traits failed to provide conclusive evidence about who the entrepreneur is (Gartner, 1989). Instead, Gartner (1989) emphasizes that behaviours rather than personality traits differentiate entrepreneurs from non-entrepreneurs and calls for shifting attention to what the entrepreneur does (behavioural approach). While psychological traits are impossible or difficult to change, the entrepreneur's skills and abilities, which determine entrepreneurial behaviour can be learned (Veciana, 1999). A large body of literature on entrepreneurship education demonstrates that entrepreneurial intentions and behaviour among students are positively associated with entrepreneurship education. Bae et al. (2014) perform a meta-analysis of 73 studies with a total sample size of 37285 individuals and demonstrate a small significant correlation between entrepreneurship education and entrepreneurial intentions (r = 0.143), which is greater than the correlation between business education and entrepreneurial intentions (r = 0.51). The correletation cofficient between entrepreneurship education and entrepreneurial intentions is not significant after controlling for preeducation intentions, which signals for the presence of a selection effect. Individual student differences and attributes of entrepreneurship education (duration of entrepreneurship education and specificity of entrepreneurship education) have no significant impact on the relationship between entrepreneurship education and entrepreneurial intentions. Dickson et al. (2008) analyse peer-reviewed research published between 1995 and 2006 in scientific journals and proceedings in order to explore the relationship between general education and specific forms of entrepreneurship education and various entrepreneurial activities. The empirical findings of this research demonstrate a positive correlation between entrepreneurship education and entrepreneurial intentions. Drawing upon human capital theory, Martin et al. (2013) conduct a quantitative review of the literature on entrepreneurship education and training and human capital assets and entrepreneurship outomes based on 42 independent samples (N=16657).

They find a statistically significant correlation between entrepreneurship education and entrepreneurial intentions (r = 0.137).

Empirical research also demonstrates that entrepreneurship education is associated with entrepreneurship-related human capital and entrepreneurial behaviour. The quantitative review performed by Martin et significant positive relationship al. (2013) reports а between entrepreneurship education and training and entrepreneurship-related human capital assets such as entrepreneurship-related knowledge and skills and positive perceptions of entrepreneurship. Their meta-analysis also demonstrates that entrepreneurship education and training is possitively associated with entrepreneurship outcomes in general; start-up and entrepreneurial performance. Rideout and Gray (2013) review the empirical research on the outcomes of university-based entrepreneurship education taking explicitly into account the methodological rigour of the included empirical studies by applying the Storey's (2000) six steps to endrepreneurship education evaluation validity. Several rigurous empirical studies confirm the link between entrepreneurship education and entrepreneurial behaviour (Kolvereid and Moen, 1997; Charney et al., 2000; Menzies and Paradi, 2002), entrepreneurial capabilities (Thursby et al., 2009), entrepreneurial competencies (Sanchez, 2011), and opportunity identification (DeTienne and Chandler, 2004).

Through entrepreneurship education students may acquire entrepreneurial entrepreneurship-related knowledge and skills. competencies and capabilities, abilities for opportunity identification and abilities to plan and perform entrepreneurial activities. Souitaris et al. (2007) argues that specific knowledge about entrepreneurship learned from entrepreneurship education may enhance opportunity-identification abilities of students. Shane (2000) suggests that all people are not equally likely to recognize the same entrepreneurial opportunities resulting from technological depends change and this on their knowledge. Entrepreneurship-related human capital such as knowledge and skills may be especially valuable for entrepreneurs in technology sectors where technology challenges in the environment are often on the edge of scientific possibility and business survival and growth depends on implementing a reliable innovation strategy (*Park*, 2005).

Another line of research reveals that university environment may be conductive for entrepreneurship among students. Entrepreneurship support programs can increase students' awareness about self-employment as a career option and can encourage students to become entrepreneurs (Walter et al., 2011). Such programs can provide access to critical start-up resources, extra-curricular training, counseling, financial support, necessary contacts to facilitate opportunity exploration, and access to experts (Walter et al., 2011). Positive university environment and support will provide both tangible (finance, know-how, etc.) and intangible resources (motivation, self-confidence, awareness) needed for entrepreneurial career (Trivedi, 2016). Kraaijenbrink, Groen, and Bos (2010) differentiate among various types of university support. Concept development support by universities refers to increasing students' awareness and motivation and providing students with ideas and knowledge needed to start a new business. Several studies identify positive effects of various aspects of university environment and support including concept development support on entrepreneurial intentions and behaviour among students (Kraaijenbrink et al., 2010; Saeed et al., 2015; Trivedi, 2016; Mustafa et al., 2016; Lüthje and Franke, 2003). Mustafa et al. (2016) suggest that concept development support may enhance students' motivation to realize their ideas and to choose entrepreneurial career. They also argue that this type of university support is conductive for entrepreneurial awareness and motivation especially during early stages of the entrepreneurial process in which opportunity recognition and development occurs. Lüthje and Franke (2003) report that contextual support factors play significant role for entrepreneurial intentions of technical students. Saeed et al. (2015) report that various forms of university support such as educational support, concept development

support, and business development support influence significantly entrepreneurial self-efficacy thereby affecting their entrepreneurial intentions. They conclude that although students are satisfied with the entrepreneurship knowledge and skills provided by the university, they need more targeted support related specifically to concept development and business development. Minola et al. (2016) report that university entrepreneurial support has a significant positive influence on students' progressive engagement in entrepreneurship. Trivedi (2017) find that university environment and support has significant indirect impact on students' entrepreneurial intentions. Shirokova et al. (2016) demonstrates that university entrepreneurial environment reinforces the relationship between entrepreneurial intentions and the scope of start-up activities the student entrepreneurs are engaged in. Students with entrepreneurial intentions in universities providing concept development support may be more likely to gain confidence (Kraaijenbrink et al., 2010) and to overcome problems associated with getting started and problems associated with planning about when, where and how the venture will be started even if they have not used any specific entrepreneurship support services or not participated in entrepreneurship support activities.

2. RESEARCH METHODOLOGY

This study utilizes a database about technology entrepreneurship among Bulgarian science and engineering students. The database was collected using a cross-sectional survey among science and engineering students in Bulgarian universities to investigate the influence of entrepreneurship education on technopreneurial intentions and their antecedents. Science and engineering students are selected for the empirical analysis because they exhibit the potential to start technology ventures (*Souitaris et al.*, 2007). The survey was administrated to students in science or engineering majors in 15 Bulgarian universities in 2015 and 2016. The selected universities are located in Sofia and several other major Bulgarian cities. Rectors, deans and department heads in Bulgarian universities providing accredited by the National Evaluation and Accreditation Agency bachelor and master programs in science and engineering study fields were contacted and invited to participate in the survey. Only 14 public universities and one private university expressed consent to participate in the survey. A quota sampling technique was adopted for data collection. The database includes 1061 students and has the same proportions of science and engineering students from the different universities as the entire population of science and engineering students enrolled in the selected 15 universities in the respective year, in which the survey is conducted. Information about the percentage of science and engineering students in each university was obtained from the Bulgarian University Ranking System Web Portal¹. The students in the database are enrolled in various study fields such as communication and computer equipment, informatics and computer electrical sciences. biotechnologies, engineering, electronics and automation, power engineering, transport, navigation and aviation, general engineering, biological sciences, chemical sciences, chemical technologies, architecture, construction and geodesy, earth sciences, minerals prospecting, extraction and processing, mechanics, energetics, food technologies. Students enrolled in the study fields of social sciences, humanities, medicine, national security and military science were excluded from the survey. The questionnaire used in the study includes questions, which requested a broad array of information related to demographic characteristics of respondents, entrepreneurial intentions, attitudes and behavior, entrepreneurship education and perceptions of university entrepreneurship support. A pilot study was conducted among 15 students

¹ The Bulgarian University Ranking System Web Portal was implemented in 2010 by the Higher Education Directorate at the Ministry of Education and Science (MES) with the financial support of the Human Resource Development Operational Program 2007-2013, co-financed by the European Social Fund of the European Union.

(8 males and 7 females) in order to pre-test the initial version of the questionnaire. Due to comments from some students, minor changes were introduced in some questions. With the approval and cooperation of rectors, deans, department heads and lecturers in 15 Bulgarian universities, a questionnaire was distributed during class sessions. Students were informed that the participation in the survey was voluntary and questionnaires were only for research purposes. In the instructions to respondents with regard to filling procedure they were advised that the instrument should be completed anonymously and that it was important to answer all questions. In order to secure a high response rate, to monitor respondents while they were answering the questionnaire, and to be able to answer further questions from respondents, the author was present during the data collection in most occasions. If missing information was identified when the respondents were submitting the filled questionnaires, the respondents were politely asked to complete it. Questionnaires with missing answers were removed from the database and data collection from each university continued until the required quota fixed by the researcher was fulfilled.

Perceived educational support is measured with a six-item scale proposed by Kraaijenbink et al. (2010) rating students' perception of the entrepreneurship teaching role of the universities. Perceived concept development support is measured with a four-item scale proposed by Kraaijenbink et al. (2010) rating students' perception of the support that the university provides beyond teaching at the early stages of the entrepreneurial process. Perceived business development support is measured with a four-item scale proposed by Kraaijenbink et al. (2010) rating students' perception of the support that the university provides to the start-up firm.

Table 1 presents the characteristics of the respondents included in the sample. More than 75% of the respondents are undergraduate students. Female students represent less than 36% of the sample. The great majority

of the respondents are full-time students. Only 24.8% of the sample consists of part-time students. Less than 29% of the respondents report that they have been/are enrolled in an entrepreneurship course within their university. Only 7.4% of the respondents participate(ed) in entrepreneurship course outside their current academic program, but within the university, while 29.6% of the respondents participate(ed) in entrepreneurship course within their bachelor or master program. About 12.3% of the respondents participate(ed) in entrepreneurship curse within their bachelor or master program.

1	
Characteristics	%
Bachelor	75.6
Master	24.4
Female	35.3
Male	67.7
Full-time	75.1
Part-time	24.8
Participants in entrepreneurship course within their current academic program	29.6
Participants in entrepreneurship course outside their current academic program but within the	7.4
university	
Participants in entrepreneurship education or training outside the university	12.3

Table 1. Characteristics of th	e sample
--------------------------------	----------

3. EMPIRICAL FINDINGS

Table 2 presents the empirical findings about the perceptions of educational support among science and engineering students in our sample. Only

approximately 20% of the students agree that their university offers elective courses on entrepreneurship. Less than 24% of respondents report that their university offers project work focused on entrepreneurship. Similarly, less than 24% of respondents report that their university offers internship focused on entrepreneurship. The percentage of respondent who believe that their university offers a bachelor or master study on entrepreneurship is 28%. Only less than 25% of sampled students agree that that university arranges conferences /workshops on entrepreneurship, while less than 28% of respondent believe that their university brings entrepreneurial students in contact with each other.

Perceived Educational Support	Totally/quite/rather
	agree
	%
My university offers elective courses on entrepreneurship.	20.3
My university offers project work focused on entrepreneurship.	23.8
My university offers internship focused on entrepreneurship.	23.7
My university offers a bachelor or master study on entrepreneurship.	28.0
My university arranges conferences /workshops on entrepreneurship	24.9
My university brings entrepreneurial students in contact with each other.	27.4

 Table 2. Perceptions of educational support among science and engineering students

Table 3 presents the empirical findings about the perceptions of concept development support among science and engineering students in our sample. Less than 27% of the respondents feel that their university creates awareness of entrepreneurship as a possible career choice. Approximately 28% of the respondents agree that their university motivates students to start a new business, while 28.5% of the respondents think that their university provides students with ideas to start a new business from. Almost one third of the respondents are convinced that their university provides students with the knowledge needed to start a new business.

Perceived Concept Development Support	Totally/quite/rather
	agree
	%
My university creates awareness of entrepreneurship as a possible career choice.	26.6
My university motivates students to start a new business.	27.5
My university provides students with ideas to start a new business from.	28.5
My university provides students with the knowledge needed to start a new business.	30.0

T 11 3	D	C / 1	1 /		•	1	• •	. 1 .
I able 3	Percentions c	of concent dev	relonment	sunnorf	among scienc	e and	engineering	y students
I abic o.	i ereceptions e	n concept de	eropinent	support	uniong serene	e una	engineering	Students

Table 4 presents the empirical findings about the perceptions of business development support among science and engineering students in our sample. Less than 14% of the respondents report that their university provides students with the financial means to start a new business. Approximately 22% of the respondents think that their university uses its reputation to support students that start a new business. Only 14.8% of the respondents agree that their university serves as a lead customer of students that start a new business.

Perceived Business Development Support	Totally/quite/rather	
	agree	
	%	
My university provides students with the financial means to start a new business.	13.8	
My university uses its reputation to support students that start a new business.	21.9	
My university serves as a lead customer of students that start a new business.	14.8	

Table 4. Perceptions of business development support among science and engineering students

4. DISCUSSION AND CONCLUSIONS

Universities are undergoing a "second academic revolution", which added a third mission related to economic and social development to the old missions of teaching and research (*Etzkowitz*, 2003:110). The entrepreneurial transformation of increasing number of universities worldwide is stimulated by a wide number of factors such as the massification of higher education, the need for development of entrepreneurial skills for all, globalization, university funding, regional and local engagement of universities, the global knowledge configuration, etc. (Gibb et al., 2012). The transformation of Bulgarian universities into entrepreneurial universities is a slow process. Bulgarian universities not only exhibit narrow understanding of the concept of innovative and entrepreneurial university, but also do not recognize entrepreneurship promotion as a strategic goal (OECD, 2014). The research objective of the present study is to explore the current efforts of Bulgarian universities to support student entrepreneurship by examining the perceptions of university entrepreneurship support among Bulgarian science and engineering students. The study presents a literature review on different aspects of entrepreneurship support that universities can provide to their students. The available literature demonstrates that in addition to entrepreneurship education universities may create a positive university environment and specific support programs aimed at delivering both tangible (finance, knowhow, etc.) and intangible resources (motivation, self-confidence, awareness) needed for entrepreneurial career. The sample used in this study includes 1061 science and engineering students from 15 Bulgarian universities. Students' perceptions of three different types of entrepreneurship support that Bulgarian universities can provide to their students are investigated: educational concept development support, support and business development support.

Our empirical findings reveal that the studied Bulgarian universities provide little educational support, concept development support and business development support to their students. Only less than one third of the sampled students indicate that their university provides any support related to entrepreneurship education, concept development or business development. Bulgarian universities tend to provide greater educational support and concept development support than business development support. The percentage of students who agree that their university provides students with the financial means to start a new business or serves as a lead customer of students that start a new business is very low (less than 15%). In relation to concept development support provided by their university, the highest percentage of respondents agree that their university provides students with ideas to start a new business from (28.5%) or with the knowledge needed to start a new business (30%). In relation to educational support provided by their university, the highest percentage of respondents agree of respondents entry provides of respondents entry that their university offers a bachelor or master study on entrepreneurship (28%) or brings entrepreneurial students in contact with each other (27.4%).

The main limitation of the study is related to the sample selection. It was hampered because universities do not reveal information about their students. Therefore, the sample is not random and was structured taking into account only the distribution of science and engineering students in the entire population of science and engineering students in the selected 15 universities. The study investigates the perceptions of science and engineering students, while students enrolled in the study fields of social sciences, humanities, medicine, national security and military science were excluded from the survey. Future research should examine the perceptions of entrepreneurship support among university students from all study fields. Future research should also examine the effects of educational support, concept development support and business development support provided by the university on entrepreneurial attitudes, intentions and behaviour of students. The evaluation of discrepancies between perceived and desired educational support, concept development support and business development support by students may help universities to improve their entrepreneurship support policies and measures.

Our study has several practical implications for universities. The scales used in the present study to measure perceived educational support, concept development support and business development support include diverse support activities that universities can provide to their entrepreneurial students (*Kraaijenbink et al.*, 2010). They can be utilized by Bulgarian universities as instruments to monitor and benchmark their entrepreneurship support policies and practices (Kraaijenbink et al., 2010). They can be used to evaluate discrepancies between perceived and desired educational support, concept development support and business development support by students. These instruments can also help universities to implement specific policies and practices targeting special group of students such as students with entrepreneurial intentions, nascent entrepreneurs among students or students' start-ups.

Acknowledgements

The author received financial support for this research from the Research Fund of Sofia University "St. Kliment Ohridski" (contract N 74/03.04.2015).

References

- Audretsch, D. B. (2009). The entrepreneurial society. The Journal of Technology Transfer, 34(3), 245 254.
- Bae, T. J., S. Qian, C. Miao & J. O. Fiet (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. - *Entrepreneurship theory and practice*, 38(2), 217 - 254.
- Blenker, P., S. Korsgaard, H. Neergaard & C. Thrane (2011). The questions we care about: paradigms and progression in entrepreneurship education. - *Industry and Higher Education*, 25(6), 417 - 427.
- Charney, A., G. D. Libecap, and K. E. Center (2000). The Impact of Entrepreneurship Education: An Evaluation of the Berger Entrepreneurship Program at the University of Arizona 1985–1999.

Report prepared for the Kauffman Center for Entrepreneurial Leadership. Kansas City, MO: The Ewing Marion Kauffman Foundation.

- Davey, T. (2016). Entrepreneurship education and the role of universities in entrepreneurship: introduction to the special issue. *Industry and Higher Education*, Vol 30, No 3, 171 182.
- DeTienne, D. R., and G. N. Chandler (2004). Opportunity Identification and Its Role in the Entrepreneurial Classroom: A Pedagogical Approach and Empirical Test. *Academy of Management Learning and Education* 3(3), 242 257.
- Dickson, P. H., G. T. Solomon & K. M. Weaver (2008). Entrepreneurial selection and success: does education matter? *Journal of small business and enterprise development*, 15(2), 239 258.
- Drucker, P.F. (1985). Innovation and entrepreneurship. New York: Harper & Row.
- Etzkowitz, H. (2003). Research groups as 'quasi-firms': the invention of the entrepreneurial university. -*Research policy*, 32(1), 109 - 121.
- Gartner, W. B. 1989. Who is an Entrepreneur?" Is the Wrong Question." *Entrepreneurship Theory and Practice*, 13(4), 47 - 68.
- Gibb, A., G. Haskins, & I. Robertson (2012). Leading the entrepreneurial university: Meeting the entrepreneurial development needs of higher education institutions. – In: Universities in change (9 - 45). Springer, New York, NY.
- Gorman, G., D. Hanlon & W. King (1997). Some research perspectives on entrepreneurship education, enterprise education, and education for small business management: A ten-year literature review. *International Small Business Journal*, 15, 56 77.
- Hannon, P. D. (2006). Teaching pigeons to dance: sense and meaning in entrepreneurship education. -*Education+ Training*, 48(5), 296 - 308.
- Katz, J.A. (2003). The chronology and intellectual trajectory of American entrepreneurship education. -Journal of Business Venturing, 18(2), 283 – 300.
- Kirby, D. A. 3. Entrepreneurship education: can business schools meet the challenge? International Entrepreneurship Education. – In: Fayolle, A., & H. Klandt (Eds.). (2006). International entrepreneurship education: Issues and newness. (p. 35). Edward Elgar Publishing.
- Klandt, H. (2004) Entrepreneurship education and research in German-speaking Europe. Academy of Management Learning and Education, 2004, Vol. 3, No. 3, 293 – 301.

- Kolvereid. L. and O. Moen (1997). Entrepreneurship among business graduates: does a major in entrepreneurship make a difference? - *Journal of European Industrial Training*, Vol. 21 No. 4, pp. 154-160.
- Kraaijenbrink, J., G. Bos & A. Groen (2010). What do students think of the entrepreneurial support given by their universities? - *International Journal of Entrepreneurship and Small Business*, 9(1), 110 -125.
- Kuratko, D. F. (2005). The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship theory and practice*, 29(5), 577 598.
- Lüthje, C., & N. Franke (2003). The 'making' of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&d Management*, *33*(2), 135 147.
- Martin, B. C., J. J. McNally & M. J. Kay (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. - *Journal of Business Venturing*, 28(2), 211 - 224.
- Matlay, H. (2001). Entrepreneurial and vocational education and training in central and Eastern Europe. -Education+ Training, 43(8/9), 395 - 404.
- Menzies, T. V. & J. C. Paradi (2002). Encouraging technology-based ventures: Entrepreneurship education and engineering graduates. *New England Journal of Entrepreneurship*, 5(2), 57.
- Minola, T., D. Donina & M. Meoli (2016). Students climbing the entrepreneurial ladder: Does university internationalization pay off? - *Small Business Economics*, 47(3), 565 - 587.
- Mosey, S. (2016). Teaching and research opportunities in technology entrepreneurship. *Technovation*, 57, 43-44.
- Mosey, S., M. Guerrero & A. Greenman (2017). Technology entrepreneurship research opportunities: insights from across Europe. *The Journal of Technology Transfer*, 42(1), 1 9.
- Mustafa, M. J., E. Hernandez, C. Mahon, L. K. Chee (2016). Entrepreneurial intentions of university students in an emerging economy: The influence of university support and proactive personality on students' entrepreneurial intention. - *Journal of Entrepreneurship in Emerging Economies*, 8(2), 162 - 179.
- OECD (2014). "HEInnovate Reviews: Universities, Entrepreneurship and Local Development. Promoting Innovation and Entrepreneurial Mind-Sets Through Higher Education", Country-Levl Review Bulgaria, www. heinnovate.eu.

- Park, J. S. (2005). Opportunity recognition and product innovation in entrepreneurial hi-tech start-ups: a new perspective and supporting case study. - *Technovation*, 25(7), 739 - 752.
- Rideout, E. C. & D. O. Gray (2013). Does entrepreneurship education really work? A review and methodological critique of the empirical literature on the effects of university-based entrepreneurship education. - *Journal of Small Business Management*, 51(3), 329 - 351.
- Saeed, S., S. Y. Yousafzai, M. Yani De Soriano & M. Muffatto (2015). The role of perceived university support in the formation of students' entrepreneurial intention. - *Journal of Small Business Management*, 53(4), 1127 - 1145.
- Sanchez, J. C. (2011). University Training for Entrepreneurial Competencies: Its Impact on Intention of Venture Creation. - International Entrepreneurship Management Journal, 7, 239 – 254.
- Shane, S., & S. Venkataraman (2003). Guest editors' introduction to the special issue on technology entrepreneurship. - *Research policy*, 32(2), 181 - 184.
- Shirokova, G., O. Osiyevskyy & K.Bogatyreva (2016). Exploring the intention-behavior link in student entrepreneurship: Moderating effects of individual and environmental characteristics. - *European Management Journal*, 34(4), 386 - 399.
- Solomon, G.T. & L.W., Jr. Fernald (1991). Trends in small business management and entrepreneurship education in the United States. *Entrepreneurship Theory and Practice*, 15, 25 39.
- Souitaris, V., S. Zerbinati and A. Al-Laham (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. -*Journal of Business Venturing*, Vol. 22 No. 4, 566 - 591.
- Storey, D. J. (2000). Six Steps to Heaven: Evaluating the Impact of Public Policies to Support Small Business in Developed Economies. – In: *The Blackwell Handbook of Entrepreneurship*. Eds. D. Sexton and H. Landstrom. Oxford: Blackwell, 176 – 193.
- Thursby, M. C., A. W. Fuller & J. Thursby (2009). An integrated approach to educating professionals for careers in innovation. - Academy of Management Learning & Education, 8(3), 389 - 405.
- Trivedi, R. (2016). Does university play significant role in shaping entrepreneurial intention? A crosscountry comparative analysis. - Journal of Small Business and Enterprise Development, 23(3), 790 - 811.
- Trivedi, R. H. (2017). Entrepreneurial-intention constraint model: A comparative analysis among postgraduate management students in India, Singapore and Malaysia. - International Entrepreneurship and Management Journal, 1 - 23.

- Veciana, J. 1999. Creacion de Empresas como Programa de Investigacion Científica. Revista Europea de Direccion y Economia de la Empresa, 8(3): 11 36.
- Veciana, J. M., M. Aponte and D. Urbano (2005). University students' attitudes towards entrepreneurship: a two countries comparison. - *International Entrepreneurship and Management Journal*, Vol. 1 No. 2, 165 - 182.
- Walter, S. G., K. P. Parboteeah & A. Walter (2013). University departments and self-employment intentions of business students: a crosslevel analysis. - *Entrepreneurship Theory and Practice*, 37(2), 175 - 200.

Received 15.03.2019