Impact of Education on Entrepreneurial Intentions among Students in Republic of North Macedonia

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Abstract
Entrepreneurship contributes to the development of small businesses which play a crucial role in the economic growth, productivity gains and job creation. Many authors argue that education is one of the main factors which may stimulate entrepreneurial intentions. Therefore, in this paper we explore the educational impact on entrepreneurial intentions among students in Republic of North Macedonia. We build the research on the basis of the Ajzen’s Theory of planned behavior (TPB) that explains intentions by means of attitudes, perceived behavioral control and subjective norms.

The research instrument and the sample were adopted from Global University Entrepreneurial Spirit Students’ Survey from 2016th and the sample envisaged 124 students from 3 universities on the territory of Republic of North Macedonia.

The results identified that Perceived behavioral control differs between the students being exposed to entrepreneurial education and those who were not. Also, we identified that the university atmosphere is connected to the entrepreneurial intentions and students with entrepreneurial skills and knowledge possess higher entrepreneurial intentions. Attitude toward behavior has positive correlation with university atmosphere so exposing students to entrepreneurship training is expected to mobilize their attitudes and to have a positive effect on intentions to start a new business (Armitage & Conner, 2001)
Keywords: GUESSS; Entrepreneurial education; University atmosphere; Theory of planned behavior; RNM.

Introduction

Entrepreneurship has become ‘flavor of the month’ both in practice and in the development of policy in political, industrial, educational and other domains (Ball, 2005). As one of the leading promoters of economic development it influences on creating new markets, companies, jobs and on generating new opportunities (Ćoćkalo, Đorđević, Bogetić, Sajfert & Minovski 2013; Singh & Singh, 2014). Furthermore, entrepreneurship represents a way of thinking and acting in a global environment, which boosts production, enhances social capital, and fosters technological progress as well as innovation (Dabic & Pietrzykowski, 2011).

Some authors define the entrepreneur as a dynamic force which unsettles the economic equilibrium through innovation by initiating an entrepreneurial process (Singh & Singh, 2014). Further on, entrepreneurs acquire knowledge by engaging in formal education and by taking part in courses related to different fields of interest, which are important for managing and growing the business (Antonicic, Scarlet & Erzetic, 2004). It’s essential to equip the young people with skills and educate them to be active in a business as well as to contribute to its growth with informed and clear decisions to maintain the wealth and the well-being of a society on the long run (Dabic & Pietrzykowski, 2011). Entrepreneurship education and training has become the key tool for achieving higher and, above all, quality entrepreneurial activity (Rebernik & Shirec, 2011). However, understanding how and why some entrepreneurs succeed remains a major challenge for the entrepreneurship research community (Aldrich & Martinez, 2001).

Given the business environment and the issues that the business community is facing, the research objective of this paper is to identify the relationship between entrepreneurial education and the entrepreneurial intentions.

Entrepreneurial Intentions

An individual’s intention is stronger when attitude and subjective norm are more favorable and higher perceived behavioral control level is demonstrated (Ajzen, 1991). Thus, Entrepreneurial intention is a necessary prerequisite both to becoming an entrepreneur and for carrying out specific behaviors after the start-up phase (Linan & Chen, 2009). An individual intention to perform a specific behavior represents a central factor in the Theory of planned behavior (Ajzen, 1991). Crant (1996) found out that
entrepreneurial intentions are closely related with the proactive personality of an individual, such as age, gender, education and role models. All of them influence towards entrepreneurial intentions (EI) and decision of becoming future entrepreneur.

Krueger & Brazeal (1994) argue that entrepreneurial potential is a prerequisite for entrepreneurship, as seen from Figure 1, while Rebrenik & Shirec (2011) stated that EI are prerequisites for entrepreneurial activity and of great importance for understanding the entrepreneurial process. The entrepreneurial potential is the first factor that appears and leads to entrepreneurial intention, where both open opportunity for developing entrepreneurial behavior. According to Krueger and Brazeal, the Model of entrepreneurial potential suggested in 1994, based on Shapero’s Model for entrepreneurial event (1982), starts with perceived desirability including social norms, attitude and perceived feasibility including self-efficacy, forming credibility with influence of propensity to act, leading to the potential where the precipitating event or displacement shapes the intentions. The basis of that framework suggests that it is the state of mind that directs and guides the actions of an entrepreneur towards the development and implementation of the business concept or EI. Noel (2012) in his research found out that education has big influence towards entrepreneurial intentions and students enrolled in entrepreneurial business programs have stronger intentions to open a business than both non-entrepreneurship business majors and non-business majors at two- and five-year-time horizons. It was Gallant, Majumdar & Varadarajan (2010) that affirmed that entrepreneurial education and entrepreneurial knowledge increases entrepreneurial capabilities of students for opening new venture, thus education and knowledge related with entrepreneurship increases the entrepreneurial intention.

**University entrepreneurship education**

Education is the clearest path to individual opportunity and societal growth, and entrepreneurship education is especially vital to fueling a more robust global economy (Sowmya & Majumdar, 2010). The competitiveness of an economy depends on its ability to produce future leaders with entrepreneurial skills (Dimovski & Znidarshic, 2011), which contribute to fostering competition, innovation, economic growth, job creation and the wellbeing of the citizens (Raposo & Paco, 2011). Entrepreneurship and management education are important in developing knowledge and skills of entrepreneurs (Antoncic et al., 2004), in educational meaning, they both represent a source of new skills, knowledge, experiences and possibilities (Ćočkalo et al., 2013). The extent to which entrepreneurial education could have an indirect effect on students’ intentions to start a new business is a topic of great relevance among scholars (Izquierdo & Buelens, 2008). Entrepreneurial education and training have become the key tool for achieving higher and, above all, quality entrepreneurial activity (Rebernik & Shirec, 2011). Davey, Hannon & Penaluna (2016) have concluded that entrepreneurship education can influence the thinking and acting of an academic or a student. Entrepreneurial programs and modules offer students the tools to think creatively,
effectively solve problems, analyze a business idea objectively, as well as to communicate, network, lead, and evaluate any given project (European Commission, 2008). Entrepreneurs acquire knowledge by engaging in formal education and by attending courses related to different fields of interest, which are important for managing a business (Antoncic et al., 2004). Academically educated entrepreneurs play key role in the development of the regional economies (Sowmya & Majumdar, 2010) because they are more self-confident and are not afraid of failure compared to the entrepreneurs with a less formal education (Dimovski & Znidarshic, 2011). Universities contribute to the entrepreneurial mind setting in four primary ways: through entrepreneurship education, development of entrepreneurial thinking and acting, supporting entrepreneurial activity and stimulating entrepreneurial leadership (Davey et al., 2016).

According to the mentioned authors, for the students, education may lead to new venture creation during their studies, immediately after graduating or at some point in the future. Exposing students to entrepreneurship training is expected to mobilize their attitudes which, in turn, can have a positive effect on intentions to start a new business (Izquierdo & Buelens, 2008). Through analyzing the two models, authors concluded that students who possess higher entrepreneurial self-efficacy beliefs and enroll in entrepreneurial education, following the process, they gain increased attitudes toward entrepreneurial acts which may lead to higher intentions for opening new venture. Therefore, self-efficacy and attitudes are important predictors of intentions (Boyd & Vozicky, 1994; Izquierdo & Buelens, 2008).

Country perception

Republic of North Macedonia is a transitional economy moving towards free market economy (Kostovski & Hristova, 2016). Small and medium sized enterprises are key factor for economic growth, industries and employment (Tomovska Misoska, Dimitrova & Mrsik, 2016; Xhemaili & Shabani, 2016). Further on, Kostovski and Hristova (2016) identified that graduates from higher educational institutions lack entrepreneurial mind-set and are not psychologically prepared for starting new ventures. The authors also found that schools offer basic entrepreneurial training, or teach entrepreneurship rather as theory and not as practice. To add, Debarliev and Janeska-Iliev (2015) stated that entrepreneurial intentions are most important predictors for entrepreneurial activity given their research on antecedents of entrepreneurial intentions in Republic of North Macedonia. Using the TPB by Ajzen as research methodology, the authors found out that only gender has significant influence on EI. On the opposite, Tomovska Misoska et al. (2016) found that entrepreneurial knowledge has significant influence toward the variables of Ajzen’s TPB. Moreover, students with entrepreneurial knowledge demonstrate higher entrepreneurial intentions. However, Xhemaili & Shabani (2016) concluded that the entrepreneurship in North Macedonia is as slow pace and it would require greater support to improve its progress.
**Theory Planned Behavior**

Ajzen's Theory of planned behavior (TPB) is well grounded theory as intention-centered theory, that strongly predicts a wide variety of planned behaviors (Krueger & Carsrud, 1993). It represents an extension of the TBP (Ajzen & Fishbein, 1980; Ajzen 1990; Fishbein & Ajzen, 2005) and it explains intentions by means of attitudes, perceived behavior control, and subjective norms (Van Gelderen, Kautonen, Wincent & Biniari, 2008). As in originates from the Theory of reasoned action, a central factor in the TBP is the individual’s intention to perform a given behavior (Ajzen, 1991). The TBP and the Theory of reasoned action are both considered intentionally processing models that imply people’s attitudes formed after careful consideration of the available information (Conner & Sparks, 2005).

The central idea of TPB is to determine behavior from behavioral intentions, which are functions of independent TPB constructs, in particular attitude toward behavior, subjective norm, and perceived behavioral control (Barua, 2013). According to the theory, intentions play central role because they directly influence an individual’s behavior. Intentions on the other side are a consequence of individual motivational factors that influence behavior. The link between intention and behavior reflects the fact that people tend to engage in behaviors they intend to perform (Corner & Sparks, 2005).

Perceived behavioral control plays the most important role in the TPB and is referred to as an individual self-confidence of performing the behavior. Perceived behavioral control (PBC) depends on the control beliefs or beliefs about the presence of factors that may facilitate performance of the behavior and perceived power of those factors (Ajzen, 1991). PBC is included as an exogenous variable that has both a direct effect on behavior and indirect effect on behavior through intentions (Madden, Ellen & Ajzen 1992). Additionally, in the theory, there are two more determinants that influence toward intention and achievement of the behavior. The first one, attitude toward behavior (ATB), is explained as favorable or not favorable appraisal toward achievement of the main behavior. ATB depends from the behavioral beliefs or in other words beliefs about the likely outcomes of the behavior and the evaluations of these outcomes (Ajzen, 1991). The second factor is the subjective norm (SN) or social factors that influence toward the achievement of the main behavior. SN depends from normative beliefs, normative expectations of others and motivation to comply with those expectations (Ajzen, 1991).

**Research instrument and sample**

The research instrument used in the research is questionnaire drawn from the Global University Entrepreneurial Spirit Students’ Survey (GUESSS). The population targets university students in the Republic of North Macedonia. It was distributed in the period June-July 2016, and we obtained a sample of 124 university students, a combination of graduate, undergraduate and PhD students, from 3 Universities in Republic of North Macedonia. GUESSS research is about student entrepreneurship, entrepreneurial intentions and entrepreneurial activities worldwide. The theoretical framework of the
research is based on the TPB and remains unchanged for the survey done in 2016\textsuperscript{th} (Sieger, Fueglistaller & Zellweger, 2014), shown in Figure 2. The model shows that University context, Family context, Personal motives and Social/cultural context are four factors that influence the ATB, SN and PBC, later leading to Career choice intentions (Sieger et al., 2014). In relation to the entrepreneurial competencies of students, the project aims to increase the quality of universities that participate in the research and to influence towards students’ entrepreneurial intentions. Further statistical analysis based on three already validated constructs ATB, SN and PBC would be considered (Maresch, Harms, Kailer & Wimmer-Wurm, 2016). Additionally, fourth construct was added i.e. University atmosphere.

**Research Questions and Hypothesis**

The main research question is whether students, who are enrolled or who completed an entrepreneurship education program, demonstrate higher entrepreneurial intentions than those who did not. In the further analysis students who are enrolled or who finished an entrepreneurship program are classified as Participants and those who are not enrolled in entrepreneurship program are classified as Non participants. Based on the TPB the two hypotheses were defined:

H1: University atmosphere results in positive relationship with ATB
H0: There is no relationship between ATB and the entrepreneurial atmosphere at the university.

H2: University atmosphere results in positive relationship with PBC
H0: There is no relationship between PBC and the entrepreneurial atmosphere at the university.

Initially, we have tested for Cronbach Alpha to explore the internal reliability of the constructs, developed by Lee Cronbach in 1951. High degree of internal consistency is demonstrated when the coefficient of $\alpha$ value is closer to 1 (Tavakol & Dennick, 2011). If the coefficient is $\alpha < 0.5$, it is defined as poor or unacceptable. Cronbach Alpha for the first construct ATB, consisted of 8 statements, and was found to be 0.854 which indicated good internal consistency as in Table 2. The second construct SN, consisted of 3 statements, Cronbach Alpha was found to be 0.547. In order to improve the internal consistency of the second construct, the statements which were below $\alpha < 0.5$ were excluded from the dataset i.e. one statement was excluded to increase the Cronbach Alpha increased to 0.703 (see Table 3 and 4). To continue, the Cronbach’s Alpha test of the third construct PBC shown in Table 5 was found to be 0.939 which indicate high internal consistency. The value of the internal consistency for the fourth construct University Atmosphere consisted of 8 items was found to be 0.958 (Table 6) indicating excellent internal consistency. We have then compared the results as well as the means of the individual statements given the constructs comparing the participant and non-participant populations.

The results for ATB, show that this construct it is not influenced by the entrepreneurial education of the students to a high degree. There are differences but both groups are demonstrating entrepreneurial spirit. Majority of both groups of students or participants and non-participants are able to protect their personal
interests, can pretty much determine what will happen in their life and consider that career as entrepreneur is attractive; meaning that if they had the opportunity and resources they would become entrepreneurs because being an entrepreneur would entail great satisfaction for them (Graph 1). Results from SN indicated that both groups of students have the quite similar attitude about the reaction of their living environment, indicating if they pursue career as entrepreneurs in the future the reaction of their close family, friends and fellow students will be positive (see Graph 2). The analysis of PBC showed differences in the answers between participants and non-participants. The differences indicated that students with entrepreneurial education are ready to do anything to become entrepreneurs because their professional goal was to become entrepreneurs. Both groups felt positive about starting and running business someday but the intention among the students who have received entrepreneurial education is somewhat stronger, see Graph 3. University atmosphere data analysis indicated that participants studying at the universities where entrepreneurial favorable climate exists advanced their practical management skills for starting a business. However, there is more to be done. To add, non-participants consider some elements of the university atmosphere was even more favorable for starting their own business as well as for developing networks and opportunities. Concluding that university atmosphere as a construct influences toward entrepreneurial intentions of students’ behavior regardless that they did not received targeted entrepreneurial courses, see Graph 4.

Further on, we used Spearman correlation as statistical test in order to identify existence of correlation between University Atmosphere and ATB and PBC. In Table 7, we depict the correlation matrix which indicates that relationship between ATB and University Atmosphere. There is a moderately positive (r=0.427) relationship between the two constructs at significance level of 0.01. These statistical tests support the hypothesis that there is positive relationship between ATB and entrepreneurial atmosphere at the university. Further on, we have tested the relationship between PBC and University atmosphere and it was found to have moderately positive correlation (r=0.301) at a significance level of 0.01. This result supports the second hypothesis indicating that there is a positive relationship between PBC and the entrepreneurial atmosphere at the university. Overall, we could conclude that there is a positive relationship between University atmosphere and the constructs ATB and PBC as determinants of entrepreneurial intentions.

**Conclusion**
ATB depends on individual’s behavioral beliefs or beliefs about the likely outcomes of the behavior (Ajzen, 1991) but does not depend from entrepreneurial education of respondents. The correlation analysis showed that there is a positive relationship between ATB and university atmosphere concluding
that exposing students to entrepreneurship training is expected to mobilize their attitudes and to have a positive effect on intentions to start a new business (Izquierdo & Buelens, 2008) as well as increasing the self-confidence and decreasing the fear of failure (Dimovski & Znidarshic, 2011).

SN do not depend on entrepreneurial education of an individual. Both groups of students have positive normative expectations of others. This claim is supported by the correlation analysis that showed weak to moderate positive relationship between SN and University atmosphere concluding that SN construct is generally found to be a weak predictor of intentions (Armitage & Conner, 2001).

Regarding the third construct or PBC it was found that participants have greater control beliefs such as self-confidence in comparison to non-participants (Ajzen, 1991), concluding that entrepreneurial education has influence toward control beliefs of students.

The university atmosphere construct showed that there is a difference between participants and non-participants attitude towards the understanding of the entrepreneurial actions. University atmosphere has greater influence toward participants’ entrepreneurial intentions, concluding that entrepreneurship education can influence the thinking and acting of the students (Davey et al., 2016). Through the applied research model in the paper, we can conclude that students who possess higher PBC and enroll in entrepreneurial education gain increased intentions for opening new venture. Therefore, PBC and university atmosphere are important predictors of intentions.

Moreover, these results are in line with the previous research of Noel (2012) who found that students with entrepreneurial educational background have stronger entrepreneurial intentions. Entrepreneurial education and knowledge have influences toward entrepreneurial capabilities of students (Gallant et al., 2010) thus students with entrepreneurial knowledge demonstrate higher entrepreneurial intentions (Tomovska Misoska et al., 2016).

Overall, as more favorable the university atmosphere is and the greater the PBC where the intentions are stronger.

Our findings are in line with previous research stating that education and development of entrepreneurial thinking (Sowmya & Majumdar, 2010) increase the economic growth, job creation and the wellbeing of the citizens (Raposo & Paco, 2011; Dabic & Pietrzykowski, 2011; Kourilsky, 1995). Entrepreneurs acquire knowledge by engaging in formal education (Antoncic et al., 2004) thus entrepreneurial education and training has become the key tool for achieving higher and, above all, quality entrepreneurial activity (Rebernik & Shirec, 2011) and can have considerable influence on entrepreneurial orientation (Frank, Woroch & Curran, 2005) as well on intentions of becoming self-employed (Babatunde & Durowaiye, 2014).

The research findings suggest future investment into building an entrepreneurial mindset in the country. Hence, Universities to offer more programs and courses in entrepreneurship while government to support,
develop and implement successful national entrepreneurial strategies. Implemented recommendations will further contribute to economic development of the country and society on long run which explains the great importance of this paper.

In respect to the limitations of the study, we could point out that the sample was limited in responses and represented only few different schools. One of the reasons for this limitation could be that the research was conducted for the first time in Republic of North Macedonia and another that the survey is lengthy and many did not have the patience to finish it. The future research should include participation of more universities in the country and students with different educational background to be able to take into consideration the wider picture for the Republic of North Macedonia.

References


Reports and Strategic Documents