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Drivers of entrepreneurial intentions among business students in Macedonia

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ABSTRACT

Studies find that entrepreneurial intentions determine the likelihood of starting a business whereas the Theory of Planned Behaviour suggests that intentions capture the motivational aspect of behaviour and are dependent on behavioural, normative and control beliefs. This research endeavours to identify factors that drive entrepreneurial intentions among Macedonian business students. The Partial least square approach to the Structural equation modelling was applied. Findings highlight the impact of entrepreneurship education, support systems and a favourable business climate on entrepreneurial intentions, which correspond to the majority of the European countries as well as global tendencies.

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1. Introduction

Before the Republic of Macedonia gained its independence in 1991, the business environment suppressed entrepreneurial intentions as part of the communist legacy, but today it's fighting to bring to attention the importance of small businesses for the overall economic growth of the country. The unemployment rate in the first quarter of 2015 among people between the ages of 15 and 24 was 47.5%, while among the ages of 25–49 it was 26% (State Statistical Office, 2015). A closer look at the education level of the total unemployed people in Macedonia in the same period shows that 19% have a higher level of education and 21% hold a university degree. The European Union average unemployment rate in April 2015 was 9.7%; however, the youth unemployment rate (population aged 15–24) was 20.7% (Eurostat, 2015). Despite the decades of measures introduced to boost entrepreneurial spirit, the economic activity among the younger population is still low, especially in Italy, averaging 40.9%. The Republic of Macedonia, a country in prolonged economic transition, is facing a tremendous challenge in inspiring and enabling younger generations to commit to self-employment or the establishment of entrepreneurial businesses. Moreover, choosing a career option in SME or self-employment also supports the general attitude towards an entrepreneurial career as a majority of the companies in Macedonia are SMEs (97.9%), of

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which 85.2% represent companies of up to ten employees. Even though academia differentiates between the self-employment measures and entrepreneurial behaviour, the Government of the Republic of Macedonia considers both as entrepreneurial activities and promotes them as such. Following the trends in modern economies and their educational systems, entrepreneurship education has been introduced at both high school and higher education levels in the new millennium in support of economic activities. The business schools were the first adopters of the entrepreneurship curricula but it gradually spread to other disciplines, integrated accordingly with aspects of innovations. The key role in the current and future development of job creation in Macedonia belongs to the entrepreneur, whereas entrepreneurial education has been argued about among the researchers and practitioners as an effective way to promote and create entrepreneurial orientation among university students (Yoon, Kin, & Liang, 2011). The institutional context influences the performance of economies, with an emphasis on the impact on the entrepreneur's behaviour, and therefore it should be further researched (Veciana, Marinés, & Urbano, 2005). There is hardly any study that investigates the entrepreneurial intention of existing entrepreneurs; dedicated empirical studies on entrepreneurial intentions amongst university students are almost non-existent, with the exception of the Global Entrepreneurship Monitor (GEM) research that the Republic of Macedonia took part in, in 2008, 2009, 2012 and 2013. GEM's total early entrepreneurial activities were at 6.6%, putting Macedonia in line with other GEM countries. According to GEM, the average Macedonian entrepreneur is male between the age of 25–34 with a higher education degree and a relatively high income. GEM reiterates that despite the increase in entrepreneurial opportunities, the number of start-ups remained the same. This may be influenced by the dominant mindset preference for public sector jobs or job placements in big companies (Global Entrepreneurship Monitor, 2015).

2. Theoretical background

Researchers argue that the reason behind the growing interest in entrepreneurship education is its impact on job creation and economic growth and, in fact, research proves that there is a strong link between entrepreneurial activity and economic performance (Lado & Vozikis, 1996; Kuratko, 2005). Moreover, Lado and Vozikis (1996) stress the need to stimulate the entrepreneurial culture on a global level. One of the ways to achieve greater interest in entrepreneurial activities is through entrepreneurship education at the levels of university, public servants and teaching staff. In the wider societal context, there are certain systematic and cultural dimensions that craft entrepreneurial activities, i.e., the intentions of the young population. In the search for these dimensions we construct the main research question as such: which factors drive entrepreneurial intentions among business students in Macedonia?

A specific line of research explored the cognitive aspects of entrepreneurship and various factors connected to starting a business among university students. A number of authors emphasised that becoming an entrepreneur is an intentional and planned behaviour and, as such, intentions are best predictors of behaviour, not attitudes, beliefs, personality or demographics (Audet, 2004; Krueger, Reilly, & Carsrud, 2000; Kolvereid, 1996; Mboko, 2011; Tkachev & Kolvereid, 1999). In addition, researchers have attempted to find the relationship between the students' values, attitudes and behaviours and their entrepreneurial potential, if it could help them start up a company, to self-employ or, in the last instance, have the intention to do so. Krueger et al. (2000) defined intentions as planned target behaviour

to start a business, but the point of venture realisation in the future is not determined. It might happen that they never actually start a business because other factors might intervene. Intentions are also known to predict behaviour in long-run tendencies thus cancelling variation in actual behaviour over time; Audet (2004) researched how entrepreneurial perceptions and intentions evolve over time. However, people with higher entrepreneurial intentions have a higher likelihood of actually starting a business than those with lower intentions (Thompson, 2009). There are also other dimensions that determine the likelihood of becoming an entrepreneur, such as previous experience in family business or motivation by a sibling to become involved in entrepreneurial activity (Van Auken, 2006). One study on entrepreneurial intentions among business school students conducted in Macedonia and Slovenia suggested that the majority of those students who had experience in a family business plan to establish a business in the near future or already run one (Dimitrova, Vadnjak, Petrovska, & Bojadziev, 2014). Moreover, a large study of over 1 million students all over the world showed that students prefer organisational employment directly after studies, although the preference weakens after 5 years of university education (Sieger, Fueglistaller, & Zellweger, 2011). Therefore, intentions are considered a good predictor of behaviour, especially at times where there is a time lag between the stated preference to become an entrepreneur and the actual behaviour. Moreover, intentions offer a unique opportunity to explain and predict entrepreneurial activity but they have explanatory and predictive power, as shown in a number of studies (Guerrero, Rialp, & Urbano, 2006; Kolvereid, 1996; Linan, Urbano, & Guerrero, 2011; Tkachev & Kolvereid, 1999; Veciana et al., 2005). The intentions are especially useful when it comes to predicting the career choices of students (Kolvereid, 1996; Veciana et al., 2005).

In order to enhance the understanding of entrepreneurial intentions, many authors use two models: Shapero's Model of Entrepreneurial Event (Shapero & Sokol, 1982) and Theory of Planned Behaviour (TPB) (Ajzen, 1991). Shapero's (1982) model is specific to the field of entrepreneurship and is based on the premise that the intention to become an entrepreneur is derived from perceptions of desirability as well as feasibility and propensity to act upon opportunities. On the other hand TPB was founded on the theoretical developments in psychology and is applied in a number of other fields, which makes the theory more robust (Krueger, 2000). A number of studies used TPB to study entrepreneurial intentions in various countries and settings (Guerrero et al., 2006; Kolvereid, 1996; Linan et al., 2011; Mboko, 2011; Tkachev & Kolvereid, 1999). According to the TPB as presented in Figure 1, intentions capture the motivational aspect of behaviour and are dependent on three different beliefs: beliefs about the likely consequences of the behaviour – *behavioural beliefs*; beliefs about the normative expectations of other people – *normative beliefs*; and beliefs about the presence of factors that might hinder behaviour – *control beliefs* (Ajzen, 1991, 2002, 2012). Behavioural beliefs result in perceived behavioural control, which represents the extent to which people think that they will be successful in performing certain behaviour if they want to do so and this is closely related to self-efficacy and also the perceived controllability of behaviour (Ajzen, 1991). The normative beliefs result in a subjective norm, which means the perceived social pressure to perform with a particular behaviour while the control beliefs result in an attitude towards certain behaviour (Ajzen, 1991). This means that the entrepreneurial intentions are based on the positive or negative personal appraisal about being an entrepreneur – *attitude towards behaviour*; perceived difficulty in becoming an entrepreneur – *perceived behavioural control*; and perceived approval or disapproval of family, friends and

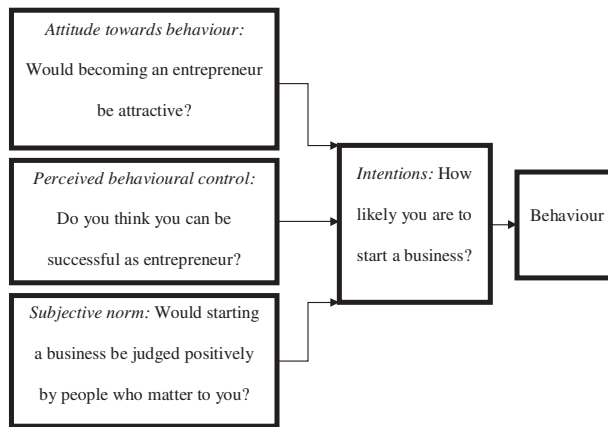


Figure 1. Ajzen's Theory of Planned Behaviour.

significant others of the decision to become an entrepreneur – *subjective norm*. Therefore, Ajzen (1991) reiterates that the control beliefs result in attitude towards behaviour, which means the attractiveness of the outcomes of certain behaviour.

Moreover, the theory suggests that the appraisal of the business climate, education experience and support knowledge are keys to understanding the entrepreneurial intentions of students. These points might have direct influence on the intentions or indirect influence through influencing the behavioural control, attitude towards behaviour or social norm. Basu and Virick (2008) suggest that educational support may positively reflect on the entrepreneurial attitudes among students. Other studies reinforce the importance of knowing about various support systems, as well as student's knowledge of various support mechanisms and their appraisal of business climates. Therefore, entrepreneurial activity depends largely on how people perceive the feasibility of the undertaking based on the desirability of the activity in the social context (Kolvereid, 1996) and perceived support (Mboko, 2011). Studies have pointed out that students are more willing to consider becoming entrepreneurs if they have knowledge about the various support mechanisms as financial risks were one of the important barriers in starting a company (Sieger et al., 2011). Research also identifies that increased structural support was more conducive to entrepreneurial intentions (Turker & Selcuk, 2009). In addition, a number of studies have shown that entrepreneurial spirit and intentions can be stimulated in properly planned educational interventions (Basu & Virick, 2008; Jakubczak & Rawowska, 2013). Thus, the study of Turker and Selcuk (2009) found that if a university provides adequate knowledge and inspiration for entrepreneurship, the possibility of choosing an entrepreneurial career might increase among young people. To gain a deeper understanding of the entrepreneurial intentions, we conducted an empirical study on business students' entrepreneurial intentions in Macedonia. The main interest was to understand the influence of students' appraisal as a result of their education experience, the business climate and knowledge of support mechanisms, as these are factors that are indicated as being important in the entrepreneurial intentions of the students. The study involved not only seeing whether these factors stimulate entrepreneurial intentions but also showing how they do this, through utilising the Theory of Planned Behaviour.

3. Methodology

The empirical analysis was carried on a sample of university students in the spring semester of the academic year 2012/13. The instrument used in the study was based on an instrument developed by Linan and Chen (2009) and Linan et al. (2011). The instrument was developed with TPB in mind and cross-checked with other measures of entrepreneurial intentions as well as a cross-cultural check. Besides using the original items of the instrument, some other sections were added to the instrument to enable gathering data that will portray the situation in Macedonia and enable gathering data about the perceptions of students regarding different aspects connected to entrepreneurial intentions and entrepreneurship. The added sections served to understand the student's views and experiences that can be connected to their entrepreneurial intentions. The questions linked to the model of entrepreneurial intentions were measured on a seven-point Likert-type scale. All of the questions were positively worded, but in order to avoid acquiescence to the questions some items measure in one direction whereas others measure in the opposite direction (Thompson, 2009). The questions used in the study for model testing are given in Appendix 1.

The sample of the study consisted of students at Business Schools from two different universities in the Republic of Macedonia. The study was carried out using convenient sampling of first-year undergraduate students, final-year undergraduate students and students in the final year of their graduate studies. This method of sampling enabled us to portray the views of the students at different stages of their schooling. The students have different experiences regarding subjects connected to entrepreneurship as well as differences in their thinking about their future careers and career options. The sample consisted of 213 students in total, 84.1% were undergraduate students and 15.9% were graduates. Most of the students in the sample were females 60.9% and the rest were males (39.1%). The average age of the students was 20.5 years.

This study used the Partial Least Square (PLS) approach to Structural Equation Modelling. Structural Equation Modelling is a technique that is especially useful in research that uses a number of indicators (observed variables) to measure latent variables – constructs (Chin, 1998) and test relationships between latent variables on a theoretical level (Hair, Sarstedt, Ringle, & Mena, 2012). The relationship testing between the latent variables (inner model) is based on the assessment of the latent variables at observational level (outer or measurement model) according to Hair et al. (2012). There are two different approaches to SEM: covariance-based SEM (CB-SEM) (Joreskog, 1978) and variance-based SEM (PLS-SEM) (Wold, 1985). Having in mind that the study had a complicated theoretical model with a number of indicators and latent variables as well as a relatively new model to test, it used the PLS-SEM approach as it is a recommended approach in such situations (Chin, 1998). More specifically the study utilised the programme SmartPLS (Ringle, Wende, & Will, 2005). To test the outer model – assessment of the latent variables – the following indicators were used: outer loadings to check for indicator reliability; internal consistency reliability; convergent validity; discriminant validity; and cross-loadings. According to Wong (2013), the inner model was accessed using the coefficient of determination (R^2) which shows how much of the variance of the endogenous variable is explained by other variables of the model and the bootstrapping procedure was used to test for statistical significance (statistically significant path coefficients are the ones with T values larger than 1.96 for a two-tailed test at a 95% significance level).

Table 1. Confirmatory analysis of the outer model.

Latent variable	Indicator	Loading	Indicator reliability (squared loading)	Composite reliability	AVE			
Attitude towards behaviour	A15	0.8833	0.78021889	0.8424	0.728			
	A18	0.8223	0.67617729					
Perceived behavioural control	A01	0.6501	0.42263	0.817	0.6013			
	A07	0.8261	0.682441					
	A14	0.8369	0.700402					
Subjective norm	A03	0.8002	0.64032	0.8513	0.6562			
	A08	0.8315	0.691392					
	A11	0.7977	0.636325					
Entrepreneurial intentions	A04	0.7817	0.611055	0.8615	0.6088			
	A06	0.7885	0.621732					
	A13	0.8052	0.648347					
	A17	0.7444	0.554131					
Business climate	B1	0.6792	0.461313	0.8496	0.5321			
	B2	0.7537	0.568064					
	B3	0.8097	0.655614					
	B4	0.7495	0.56175					
	B5	0.6432	0.413706					
Education experience	E1	0.7297	0.532462	0.9053	0.5454			
	E2	0.7452	0.555323					
	E3	0.688	0.473344					
	E6	0.6389	0.408193					
	E7	0.7534	0.567612					
	E8	0.787	0.619369					
	E9	0.794	0.630436					
	E10	0.7593	0.576536					
	Support knowledge	S1	0.6596			0.435072	0.8919	0.5422
		S2	0.7852			0.616539		
S3		0.7301	0.533046					
S6		0.8059	0.649475					
S7		0.6935	0.480942					
S8		0.6873	0.472381					
S9		0.7794	0.607464					

Source: Research results.

4. Results

In the initial stage, we have tested the outer model to check which indicators (questions) satisfy the required criteria. The results of this confirmatory factor analysis are shown in Tables 1 and 2. The model was accepted when the indicators satisfied the requirements mentioned in the literature. Namely the indicators that were deemed to have satisfactory reliability had square loadings higher than 0.4 (Hulland, 1999). The internal consistency reliability was deemed satisfactory when the model reached a composite reliability of over 0.6 (Bagozzi & Yi, 1988). For the convergent validity, an AVE number of over 0.5 was deemed an appropriate finding according to the above-mentioned authors. The discriminant validity was accessed using the Fornell and Larcker (1981) criterion by which the square root of the AVE should be higher than the correlations among the latent variables.

4.1. Inner model testing

As a result of the confirmatory factor analysis, only the questions (indicators) with satisfactory statistical outcomes were used in further analysis and the inner model testing. This means that the attitude towards behaviour was tested with two questions, Perceived

Table 2. Fornell–Larcker criterion for discriminant validity.

	Attitude towards behaviour	Business climate	Education experience	Entrepreneurship intentions	Perceived behavioural control	Subjective norm	Support knowledge
Attitude towards behaviour	0.8533	0	0	0	0	0	0
Business climate	0.1551	0.7294	0	0	0	0	0
Education experience	0.2067	0.1276	0.7385	0	0	0	0
Entrepreneurial intentions	0.6352	0.1167	0.2481	0.7802	0	0	0
Perceived behavioural control	0.3893	0.1317	0.1547	0.5476	0.81	0	0
Subjective norm	0.3752	0.0192	0.1787	0.3824	0.3561	0.7363	0
Support knowledge	0.0643	0.2226	0.1552	0.1987	0.1585	0.0474	1

Source: Research results.

Table 3. Attractiveness of career options for students.

	Not attractive	Undecided	Attractive
Public administration	44.8	16	29.2
Big company	10.7	16.4	72.8
SME	29.4	24.5	46.1
Entrepreneur	22.9	14.8	62.3
Family business	11.3	10	78.6
Self-employed	43.7	14.6	41.8

Source: Research results.

behavioural control was tested with three questions, Subjective norm with three questions, Entrepreneurial intentions with four questions, Business climate with five questions, Education experience with eight questions and Support knowledge with seven questions. To obtain a better insight into the students' thinking about entrepreneurship, the study also asked the students to provide answers on the attractiveness of certain career options. Table 3 outlines the answers of the students. As can be seen, becoming an entrepreneur is one of the more attractive options for the students, with 62.3% of the students choosing it as attractive employment option. However, working in their own family business, an option compatible with entrepreneurship, was chosen as attractive by a majority of the students as well (78.6%).

Having in mind the structure of the students, their opinions about entrepreneurship as an attractive career option, as well the results of the confirmatory factor analysis, the study proceeded with testing the model of entrepreneurial intentions of the students. This testing enabled us to get a better insight into the variables that influence the entrepreneurial intentions of the students. The results of the testing are shown in Figure 2 and Table 4. Figure 2 shows only the statistically significant path coefficients, while Table 4 shows all the coefficients, with the statistically significant ones in bold.

As can be seen from Figure 2 and Table 4, the model explains 53.5% of the variance in Entrepreneurial intentions. This means that there are other factors that also contribute to

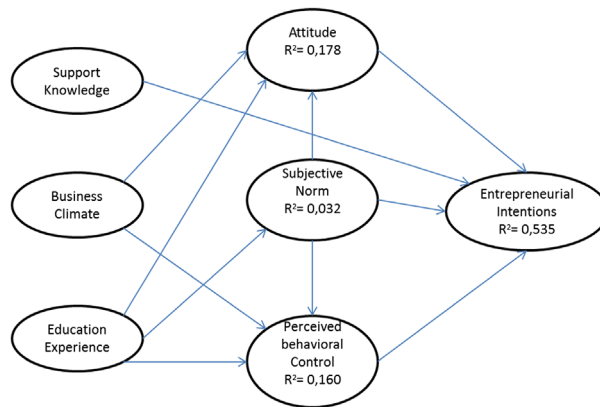


Figure 2. Model of entrepreneurial intention with business climate, education experience, entrepreneurial skills and support knowledge.

Table 4. Path coefficients of the tested model of entrepreneurial intentions.

	Path coefficient
Attitude → Entrepreneurial Intentions	0.4662
Business climate → Attitude	0.1325
Business climate → Entrepreneurial Intentions	-0.0328
Business climate → Perceived behaviour control	0.0919
Business climate → Subjective norm	-0.0081
Education experience → Attitude	0.1275
Education experience → Entrepreneurial Intentions	0.0763
Education experience → Perceived behaviour control	0.0653
Education experience → Subjective norm	0.1764
Perceived behaviour control → Entrepreneurial Intentions	0.3134
Subjective norm → Attitude	0.3499
Subjective norm → Entrepreneurial Intentions	0.0777
Subjective norm → Perceived behaviour control	0.3374
Support knowledge → Attitude	-0.0016
Support knowledge → Entrepreneurial Intentions	0.1108
Support knowledge → Perceived behaviour control	0.1119
Support knowledge → Subjective norm	0.0218

Source: Research results.

Entrepreneurial intentions but the model has a good predictive value. The model reiterates once again the TPB (Ajzen, 1991) by uncovering statistically significant paths from perceived behavioural control, subjective norm and attitude towards behaviour to entrepreneurial intentions. Subjective norm influences the perceived behavioural control and attitude which is in line with the Linan and Chen (2009) research conducted on business students in Spain and Taiwan that suggests promotion of entrepreneurial culture to support the entrepreneurial intentions of students.

In addition, the model shows how the broader drivers impact students' entrepreneurial intentions. The model indicates that the educational experiences that develop knowledge about entrepreneurship have a statistically significant influence on subjective norms, attitudes towards behaviour and perceived behavioural control. This means students that appraise a higher level of preparedness for entrepreneurship through educational experiences, demonstrate a more positive attitude towards entrepreneurship, perceive that

entrepreneurship is valued higher by their significant others and perceive that they can be more successful as entrepreneurs. These elements mediate the relationship between their educational experience and their entrepreneurial intentions. The findings about the ability of education to stimulate entrepreneurial intentions and entrepreneurship are in line with other studies (Basu & Virick, 2008). For example, GUESSS global research concludes that from students' point of view there is strong demand for workshops, participation in entrepreneurship networks, lectures in innovation and contact persons for problems related to entrepreneurship (Sieger et al., 2011). Interestingly, the model shows a direct link between knowledge of support systems and entrepreneurial intentions (Mboko, 2011; Sieger et al., 2011). This means that, regardless of the other factors, being more aware about support systems will lead to a higher level of entrepreneurial intention among business students from Macedonia. A recent empirical study was carried out by the Network of Business Start Up Centres on the territory of the Western Balkans where 72% of the respondents said that knowledge of the support systems has a great impact on their entrepreneurial activities (Hajdukov, 2011). The model shows a statistically significant influence on perception of the business climate and entrepreneurship towards attitude and perceived behavioural control. This means that students that express a more positive perception about the business climate also express a more positive attitude towards entrepreneurship and think that they can be more successful as entrepreneurs.

5. Conclusion

This study is a first of its kind in Macedonia. Although it is limited in scope and uses only students from business schools it highlights important findings about the drivers of entrepreneurial intentions among students. This study again emphasises that the educational system should serve as the main source of support for students regarding their knowledge base about entrepreneurship. This is important since such education can result in more positive attitudes towards entrepreneurship, feeling of better control and higher social approval of entrepreneurship. Those factors then lead to higher levels of entrepreneurial intentions (Sieger et al., 2011). The findings go along with the GEM finding for entrepreneurial intention in Macedonia, suggesting further work is required on educational system modernisation both in the formal and the informal sector. Our endeavour shapes the attitude of the universities, governments, and start-up centres, as well as families, towards activities to increase entrepreneurial intention among business students. Basu and Virick (2008) also conclude that there is a strong emphasis on entrepreneurial intentions through the education and practical exposure to entrepreneurship processes. This means that the educational system should contain information as well as practical experiences for students that will build their knowledge and skills for entrepreneurial ventures. OECD studies also suggest a similar approach to entrepreneurial education, putting a focus on the university and higher education institutions and implementation of interactive teaching methods as well as business counselling and targeted SME support systems to increase entrepreneurial intentions (Martinez-Fernandez & Weyman, 2010). In addition, students should get more information about the various support systems available for starting new ventures as this type of knowledge directly influences entrepreneurial intentions. A recent study on the EU 27 countries also identifies that limited experience in business networks and social capital may influence the setting up and running businesses, and access to finance (Halabisky, 2012).

Fostering a good business climate will stimulate more positive attitudes and the feeling of being more in control, which will lead to higher entrepreneurial intentions. Future research in this field should target students enrolled in programmes other than business to serve as a solid basis for future policy interventions and increased self-employment in Macedonia.

Disclosure statement

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References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.
- Ajzen, I. (2002). Perceived behavioural control, self-efficacy, locus of control, and the theory of planned behaviour. *Journal of Applied Social Psychology*, 32, 665–683.
- Ajzen, I. (2012). Theory of planned behaviour. In P. A. M. Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 439–459). London: Sage.
- Audet, J. (2004). A longitudinal study of the entrepreneurial intentions of university students. *Academy of Entrepreneurship Journal*, 10, 23–16.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16, 74–94. Springer.
- Basu, A., & Virick, M. (2008). Assessing entrepreneurial intentions amongst students: A comparative study. 12th Annual Meeting of the National Collegiate of Inventors and Innovators Alliance, Dallas, USA, 79–86.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Dimitrova, M., Vadjal, J., Petrovska, I., & Bojadziev, M. (2014). Should I become an entrepreneur or an employee: Dilemmas of students in Macedonia and Slovenia?. *Acta Oeconomica Universitatis*, 3, 35–44. Komarno: Selye.
- Eurostat. (2015, June 7). Retrieved from <http://ec.europa.eu/eurostat>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39–50. doi:10.2307/3151312.
- Global Entrepreneurship Monitor. (2015, June 8). *Macedonia Country Profile*. Retrieved from <http://gemconsortium.org/country-profile/84>.
- Guerrero, M., Rialp, J., & Urbano, D. (2006). The impact of desirability and feasibility on entrepreneurial intentions: A structural equation model. *International Entrepreneurship and Management Journal*, 4, 35–50.
- Hair, J. F., Sarstedt, M., Ringle, C., & Mena, J. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of Academic Marketing Science*, 40, 414–433. Springer Science & Business Media B.V. doi: 10.1007/s11747-011-0261-6.
- Hajdukov, S. (2011). Impact on entrepreneurial education at university centres on development of passive component of entrepreneurship. *Poslovni consultant*, 2-6, 17–23.
- Halabisky, D. (2012). *Policy brief of youth entrepreneurship, entrepreneurial activities in Europe*. Luxembourg: OECD/European Union.

- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20, 195–204. Wiley.
- Jakubczak, J., & Rawowska, A. (2013). The role of education and culture in the development of youth entrepreneurship in European Union. *Management, Knowledge and Learning International Conference*, 997–1003.
- Joreskog, K. G. (1978). Structural analysis of covariance and correlation matrices. *Psychometrika*, 43, 443–477. Springer.
- Kolvereid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship Theory and Practice*, 21, 47–57.
- Krueger, N. F., Reilly, M. D., & Carsrud, A. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15, 411–432.
- Kuratko, D. F. (2005). The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship: Theory & Practice*, 29, 577–597.
- Lado, A. A., & Vozikis, G. S. (1996). Transfer of technology to promote entrepreneurship in developing countries: An integration and proposed framework. *Entrepreneurship Theory and Practice*, 21, 55.
- Linan, F., & Chen, Yi-W (2009). Development of cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33, 593–617. Wiley-Blackwell.
- Linan, F., Urbano, D., & Guerrero, M. (2011). Regional variations in entrepreneurial cognitions: Start-up intentions of university students in Spain. *Entrepreneurship and Regional Development*, 23, 187–215. Routledge
- Martinez-Fernandez, C., & Weyman, T. (2010). *Skill development and training in SMEs: Local economic and employment development*. Chapter 4, 71–95. OECD Publishing, Paris.
- Mboko, S. (2011). Towards and explanation of the growth in young entrepreneurship activities: A cross country survey of work values of college students. *Journal of Marketing Development and Competitiveness*, 5, 108–118.
- Ringle, C. M., Wende, S., & Will, A. (2005). SmartPLS 2.0. (beta). Retrieved from <http://www.smartpls.de>. Hamburg.
- Shapero, A., & Sokol, L. (1982). Social dimensions of entrepreneurship. In C. A. Kent, D. L. Sexton, & K. H. Vesper (Eds.), *Encyclopedia of Entrepreneurship*, 7240 (pp. 72–90). Englewood Cliffs: Prentice Hall.
- Sieger, P., Fueglistaller, U. and Zellweger, T. (2011). Entrepreneurial intentions and activities of students across the world: International report of the Global University Entrepreneurial Spirit Students. *Survey project University of St Gallen*.
- State Statistical Office. Republic of Macedonia. (2015, June 8). Researchers' derived data. Retrieved from <http://www.stat.gov.mk/PrikaziSoopstenie.aspx?rbtxt=98>.
- Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, 33, 669–694. Wiley-Blackwell.
- Tkachev, A., & Kolvereid, L. (1999). Self-employment intentions among Russian students. *Entrepreneurship and Regional Development*, 11, 269–280.
- Turker, D., & Selcuk, S. S. (2009). Which factors affect entrepreneurial intention of university students? *Journal of European Industrial Training*, 33, 142–159.
- Van Auken, P. (2006). Role model influences on entrepreneurial intentions: A comparison between USA and Mexico. *The International Entrepreneurship and Management Journal*, 2, 325–336.
- Veciana, J. M., Marinés, A., & Urbano, D. (2005). University students' attitudes towards entrepreneurship: A two countries comparison. *The International Entrepreneurship and Management Journal*, 11, 165–182. Springer.
- Wold, H. (1985). Partial least squares. In S. Kotz & N. L. Johnson (Eds.), *Encyclopedia of statistical sciences* (pp. 581–591). New York, NY: Wiley.
- Wong, K. K. (2013). Partial Least Squares Structural Equation Modeling (PLS-SEM) Techniques Using SmartPLS. *Marketing Bulletin*, 24. *Technical Note*, 1, 1–32.
- Yoon, D., Kin, T., & Liang, C. L. (2011). Factors influencing entrepreneurial intention among university students. *International Journal of Social Sciences and Humanity Studies*, 3, 487–496.

Appendix 1. Survey questions

Entrepreneurial intentions, attitude towards behaviour, perceived behavioural control and subjective norm

- A01. Starting a firm and keeping it viable would be easy for me
- A02. A career as an entrepreneur is totally unattractive to me
- A03. My friends would approve of my decision to start a business
- A04. I am ready to do anything to be an entrepreneur
- A05. I believe I would be completely unable to start a business
- A06. I will make every effort to start and run my own business
- A07. I am able to control the creation process of a new business
- A08. My immediate family would approve of my decision to start a business
- A09. I have serious doubts about ever starting my own business
- A10. If I had the opportunity and resources, I would love to start a business
- A11. My colleagues would approve of my decision to start a business
- A12. Amongst various options, I would rather be anything but an entrepreneur
- A13. I am determined to create a business venture in the future
- A14. If I tried to start a business, I would have a high chance of being successful
- A15. Being an entrepreneur would give me great satisfaction
- A16. It would be very difficult for me to develop a business idea
- A17. My professional goal is to be an entrepreneur
- A18. Being an entrepreneur implies more advantages than disadvantages to me
- A19. I have a very low intention of ever starting a business
- A20. I know all about the practical details needed to start a business

Business climate

- B1. In my country there are enough financial resources for starting a business
- B2. In my country the procedure for starting a new business is straightforward
- B3. The legal system in my country is conducive for doing business
- B4. The tax system in my country is conducive for doing business
- B5. The government of the country directly supports the creation of new businesses (financial incentives, advising)
- B6. The government in my country supports women entrepreneurs
- B7. The infrastructure in my country is conducive for doing business (roads, power, water, transport links, telecommunications, industrial land, estates and incubators)

Education experience – How much has the educational system helped you to develop the following aspects

- E1. Knowledge about the entrepreneurial environment
- E2. Generation of idea for business and recognising opportunities
- E3. Development of Business Plan for Start-up Business
- E4. Setting up a new venture team
- E5. Avoiding legal issues at start-up
- E6. Growing a business
- E7. Greater recognition of the entrepreneur's figure
- E8. The preference to be an entrepreneur
- E9. The necessary abilities to be an entrepreneur
- E10. The intention to be an entrepreneur
- E11. Skill for succession of family business, if any

Support knowledge – Assess your level of knowledge about the following

- S1. Private associations (e.g., Economic Chamber, Yes Incubator, etc.)
- S2. Public support bodies (e.g., Agency for promotion of entrepreneurship of the Republic of Macedonia, etc.)

S3. Specific training for young entrepreneurs

S4. Loans at specially favourable terms

S5. Technical aid for business start-ups

S6. Business start-up centres

S7. Business Angel Networks

S8. Venture Capital Funds

S9. Regional or local Business Plan Competitions on regular basis