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The impact of gender and social capital on entrepreneurial intentions in university students: Evidence from Turkey

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Abstract. Understanding the antecedents of the intention to become an entrepreneur is crucial in the development of effective entrepreneurship education and training programs. Despite the growing number of conceptual and empirical studies, the insights on the psychological factors that drive or discourage the engagement into entrepreneurial acts among university students are still limited. The current study aims to address this gap in the literature, by exploring the direct relationships between the impact of personal attitude (PA), perceived behavioral control (PBC) and subjective norms (SN) constructs of the theory of planned behavior (TPB) on entrepreneurial intention (EI). The study further investigates the existence of a potential difference with respect to gender and social capital on EI. For data collection, the entrepreneurial intention scale of Linan & Chen (2009) was used and questionnaires collected from a sample of 113 university students were analyzed through multiple regression analyses. Findings indicate that the impact of SN on EIare negative whereas PA and PBC have strong and positive associations with the intention to become an entrepreneur. Furthermore, the results of the independent t-tests show do not indicate a meaningful difference with respect to gender and social capital and entrepreneurial intention, whereas differences between departments and taking or not taking an entrepreneurship course are found to be significantly associated with EI. For theory, these findings imply that both the scale of Linan & Chen (2009) and the model of TPB are useful in predicting entrepreneurial intention for this sample. For practice, the results highlight the important role of education in choosing entrepreneurship as a career at undergraduate level whereas gender difference or having an entrepreneur in the family or close third parties is not reported to affect this decision.
Keywords. Entrepreneurial intention, Theory of Planned Behavior (TPB), Gender, Social capital, Entrepreneurship Education.
JEL. L26, M13, I23, I25.

1. Introduction

Entrepreneurship is a process of discovering, evaluating or creating opportunities to innovate or integrate new values, products or services (Shane & Vankataraman, 2000). As entrepreneurship is a major driver of economic growth (Acz, 2006), every economy prioritizes the development of entrepreneurship education and training programs for creating more and highly productive entrepreneurial ventures. Scholars who have advocated that entrepreneurs are "made, not born" suggest that a major goal of entrepreneurship education is to encourage students to regard entrepreneurship as a future career alternative (Van Auken, 2013). In this respect, investigating the antecedents of the formation of entrepreneurial intention (EI) among university students have been the foci of various research studies (Chen, *et. al.,* 2015; Bae, *et. al.,* 2014; Autio, *et. al.,* 1997). Particularly, the rising popularity of Ajzen's (2001, 1991) Theory of Planned Behavior (TPB) gave way to the formation of different models developed

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to understand the interrelationships between the three constructs of entrepreneurial intention, namely personal attitude (PA), subjective norm (SN) and perceived behavioral control (PBC) with respect to analyzing the significance of different influencers on the intention to become an entrepreneur. Despite that, empirical studies conducted to test the prescribed influence of different demographic factors such as gender (Diaz-Garcia & Moreno, 2010), education (Kristiansen & Indarti, 2004) and social capital (Grichnik, *et. al.,* 2014; De Carolis, *et. al.,* 2009) on EI through the elements of TPB in different contexts produced mixed results. As findings of previous studies indicate a clear need for the provision of additional empirical evidence to the applicability of TPB to EI studies in student samples, the first objective of the current study is to investigate whether the model of Theory of Planned Behavior (TPB) can be used effectively to predict the intention to become an entrepreneur in a sample of university students in the Turkish context. The second research objective is to understand whether this intention is different with respect to gender, social capital, departmental differences and taking an entrepreneurship class, among this sample.

2.Theoretical background and hypotheses development

2.1. Theory of Planned Behavior (TPB)

Intentions indicate how hard people are willing to try and put an effort into performing a certain behavior (Ajzen, 1991). Researchers identified intentions as the best predictors of behavior (Krueger *et al,* 2000; Davidson & Jaccard, 1979), especially when the specific behavior is "rare, hard to observe and involves unpredictable time lags" (Souitaris, *et. al,* 2007, p. 568). One of the two most widely used theories for predicting behavior is Ajzen's (2001, 1991) Theory of Planned Behavior (TPB),where the formation of any intention is explained through three main elements. In the TPB model, construct one is the individual's personal attitude toward the behavior (PA), whereas construct 2, the subjective norm (SN) refers to the perception of other people's opinions of the proposed behavior. The third factor of the model, personal behavioral control (PBC) can be defined as the perception of the ease or difficulty of performing a specific behavior. After the introduction of the TPB model, several empirical studies and meta-analyses supported the efficacy of TPB in the prediction of intention and behavior (Schlaegel & Koenig, 2014; Armitage & Connor, 2001; Hausenblas *et al.,* 1997).

2.2. Entrepreneurial intention

One common definition of entrepreneurial intention is "a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future" (Thompson, 2009). The conduct of the behavior of establishing a new venture is considered as intentional (Bird, 1988; Krueger & Carsrud, 1993) as well as planned (Autio, Keeley, Klofsten & Ulfstedt, 1997).

After its introduction, where several researchers used and reported the applicability of Ajzen's (2001, 1991) to empirical entrepreneurial intention studies (Fietze & Boyd, 2017; Kautonen, *et. al.,* 2013; Krueger & Carsrud, 1993). As a result, TPB quickly became the most widely used model in entrepreneurial intention research (Ajzen, 2011; Krueger, *et. al.,* 2009; Kolvereid, 1996).

Studies investigating various dimensions of entrepreneurial intentions through the elements of TPB exist in the literature. For instance, Zhang, *et. al.,* (2015) reported that social norm, controlled behavior, and short-term risk-taking preference influenced entrepreneurial intention, whereas attitude was not significantly associated with entrepreneurial intention across university students in the US. In another study, Jang (2013) found that the factors of gender and the entrepreneurial experience of the parents play a significant role on entrepreneurial attitude, subjective norms, perceived behavioral control, and entrepreneurial intention among Chinese undergraduates. However, the findings of the study

conducted by Diaz-Garcia & Moreno (2010) indicated the contrary, showing that gender did not have a significant effect on EI among university students in Spain. Similarly, Kristiansen & Indarti (2004) reported an insignificant impact of age, gender and education on entrepreneurial intention among Indonesian and Norwegian students. To have a role model was another factor investigated in EI studies, whereno conclusive evidence could beidentified. While some studies reported a positive impact (Veciana *et. al.,* 2005; Lafuente, *et. al.,* 2007) of a role model on EI, others indicated a negative association (Van Auken, *et al.,* 2006). Gurbuz & Aykol (2008) studied the entrepreneurial intention determinants of university students in Turkey and found out that having an entrepreneur in the family, academic support and favorable environmental conditions significantly affected intention. Sesen (2013) reported that entrepreneurial self-efficacy is the most important factor on the entrepreneurial intention where social network was the second major influencer. These studies imply that the relational aspect of social capital, described as "the types of personal relationships that people have developed with each other as manifested in arm's-length versus embedded ties" (Johnsson & Lindbergh, 2011) may have a significant association on the intention to become an entrepreneur. As findings of previous empirical studies were inconclusive, three hypotheses are proposed to be empirically tested in the current study:

Hypothesis 1: The theory of planned behavior significantly predicts entrepreneurial intention amongst university students in Turkey.

Hypothesis 2: Gender difference significantly affects the level of entrepreneurial *intention.*

Hypothesis 3: Difference in social capital significantly affects the level of entrepreneurial intention.

3. Methodology

3.1. Data

This study used data from a student sample, consisting of 113 university business students in Turkey. Because university students are about to make a professional career choice and are the ones with empirically highest entrepreneurial inclination in the population (Liñán *et. al.,* 2011), they are supposed to be suitable for the study of entrepreneurial intention (De Clercq, *et. al.,* 2013). 166 surveys were distributed to students of different departments. In the end, a total of 113 questionnaires were usable, resulting in a response rate of 68%.

3.2. Measures

To measure the impact of TPB constructs on EI, Entrepreneurial Intention Questionnaire (EIQ) which was developed by Liñán & Chen (2009) was used. The EIQ has been translated into numerous languages including the native language (e.g. Yurtkoru, Kuşcu, & Doğanay, 2014) and used extensively for research studies on entrepreneurial intention. It has been shown to have good psychometric properties (e.g. Santos, *et, al.,* 2016; Tsai, *et. al.,* 2016). The EIQ consists of subscales to capture the core elements of TBP construct to entrepreneurship: personal attitude, subjective norms, perceived behavioral control, and entrepreneurial intention. All items in the subscales were measured on a 7-point scale anchored by 1 to 7.For social capital, the previous measure developed by Linan, *et. al.,* (2015) was used to investigate the personal acquaintance of the students with an entrepreneur.

3.3.Data analysis

For hypotheses testing, collected data were processed in the Statistical Package for the Social Sciences (SPSS) 19 program. After conducting the principal component analysis using the SPSS exploratory factor analysis, multiple regression

analysis, t-tests, and one-way ANOVA tests were used for testing the hypotheses and conducting additional tests.

4. Findings

4.1. Demographics

In the student sample, 52% were female and 48% were male. 66% of the sample was from business administration and economics departments, and the rest belonged to various other departments, such as engineering, education and political science. Majority of the students were first and second year and the percentage of the students who took an entrepreneurship course was 61%, as shown in Table 1.

Table 1. *Description of the sample*

Gender			
	Female	59	52.2
	Male	54	47.8
Department			
	Business adm.	52	46.0
	Economics	24	21.2
	Education	14	12.4
	Engineering	12	10.6
	Other	11	9.8
Grade			
	First	42	37.1
	Second	45	39.8
	Third	22	19.5
	fourth	4	3.6
Entrepreneurship course			
	Yes	69	61.0
	No	44	39.0
Total		113	100

4.2. Factora nalysis

An exploratory factor analysis allowed identifying the groups related with personal attitude (PA), subjective norm (SN), perceived behavioral control and EI factors. The Keiser-Meyer-Olkin measure of sampling adequacy measure was found as 0.892 and Bartlett test of sphericity 0.0000, implying that a factor analysis is meaningful. The results indicated that the four factors captured % 68.1 of the total variance after varimax rotation.

The Cronbach $\alpha = 0.897$ for PA, showed that the factor had very high internal reliability and the results of the principal component analysis showed that all the 5 items (n=5) were contributing to the factor of PA, therefore all the items were retained in the analysis. The Cronbach α of factor 2, SN was 0.713 and the results of the principal component analysis illustrated that 3 out of 3 items (n=3) were contributing to the factor of SN. The Cronbach α of factor 3, PBC was 0.882 and the results of the principal component analysis illustrated that 6 out of 6 items (n=6) were contributing to the factor of SN. Four items were used in the study to measure the dependent variable of EI. The Cronbach α score = 0.942 illustrated that the factor had very high internal reliability and the results of the principal component analysis indicated that 6 out of 6 items (n=6) were contributing to the factor of entrepreneurial intention.

4.3. Hypotheses tests

For testing hypothesis 1, multiple regression analysis with a dependent variable of entrepreneurial intention and three independent variables of personal attitude (PA), subjective norms (SN) and perceived behavioral control (PBC) were conducted. These variables statistically significantly predicted EI_TOTAL, $p < 0.05$, R= 871, R2 = 0.758. All three variables added statistically significantly to the prediction, $p < 0.05$.Thus, Hypothesis 1 is supported.

Dependent variable:

- Entrepreneurial intention (EI_TOTAL)

Independent variables:

- Personal attitude (PA_TOTAL)
- Social norms (SN_TOTAL)
- Perceived behavioral control (PBC_TOTAL)

Table 2 shows the multiple linear regression model summary and overall fit statistics. 75.8% of the variation in entrepreneurial intention is explained by the variation in personal attitude, subjective norm and perceived behavioral control (Multiple Coefficient of Determination (R^2) of the model is 0.758). The standard deviation of the regression model is 0.82820. According to the Durbin-Watsonvalue (1.653), it is assumed that there is autocorrelation in multiple linear regression data.

Table 2. *Result of multiple regression analysis*

Dependent Variable	Entrepreneurial Intention		
Independent Variables	Beta	t-value	p-value
TPB Factors (PBC, SN, PA)	0.871	3,125	0.000
R Square = 0,758			
Adjusted R Square= 0.752			

Out of three antecedents of TPB, personal attitude had the strongest and positive influence on entrepreneurial intention, whereas subjective norm was found to have a negative impact. These findings indicate that the third component of the TPB model continues to be the most controversial construct for predicting entrepreneurial behavior.

The test statistic for each variable (p values for the independent variables; PBC TOTAL: 0.002, SN TOTAL: 0.000, PA TOTAL: 0.04) falls in the rejection region (p-values < .05). H_0 is rejected for each variable. There is evidence that personal attitude (PA_TOTAL), social norms (SN_TOTAL) and perceived behavioral control (PBC_TOTAL) affect entrepreneurial intention (EI TOTAL) at 0.05. The equation for the regression line is:

EI_TOTAL = -1.350 + 0.909* PA_TOTAL – 0.138* SN_TOTAL + 0.386*PBC_TOTAL

Based on the collinearity statistics, multicollinearity in the multiple linear regression model was checked. The values are acceptable (Tolerance > 0.1 (or VIF < 10) for all variables), so high correlation does not exist between three independent variables.

For testing hypothesis 2, Levene test was conducted. As shown in Table 2, H0 is accepted (p= 0.059 which is greater than 0.05); thus it is assumed that the variances for entrepreneurial intention in gender (female and male) are equal. Thus, Hypothesis 2 is not supported and it is concluded that gender difference does not affect entrepreneurial intention.

Table 3. *Independent samples T-test results for gender and entrepreneurial intention*

	Gender	N	Mean	Std. Dev.
Entrepreneurial Intention	Male	54	3.9689	1.77371
	Female	59	4.6481	1.46613
Levene's Test results				
p-vaue	0,059			
F-value	3.630			

The same test was applied to investigate the impact of social capital on entrepreneurial intention. As shown in Table 4, H0 is accepted (p= 0.999 0.05); as the variances for entrepreneurial intention in high and low levels of social capital are equal. Thus, Hypotheses 3 is not supported.

Table 3. *Independent samples T-test results for social capital and entrepreneurial intention*

	Social Capital	N	Mean	Std.Dev.
Entrepreneurial Intention	High	43	4.6667	1.65512
	Low	70	4.0643	1. 19554
Levene's Test results				
p-vaue	0.999			
F-value	0.000			

4.4. Additional tests

Entrepreneurship education is another factor which has long been discussed in the entrepreneurship field and empirically investigated in several EI research studies. While some researchers argue that entrepreneurship courses are required to prepare students for their future careers (Chen & Sung, 2011), others have advocated the negative impact of traditional entrepreneurship education on the intention and motivation of university students (Gurel, *et. al.,* 2010).

Table 4. *Results of one-way Anova test for departmental differences and entrepreneurial intention*

	Department	N	Mean	Std. Dev.	F-value	p-value
Entrepreneurial Intention	Bus. Adm.	52	4.4423	1.47967	2.231	0.046
	Economics	24	4.8750	1.71047		
	Education	14	3.0357	2.06640		
	Engineering	12	4.4306	1.76735		
	Political Science	4	3.7083	1.02175		
	Psychology	4	3.8750	.80938		
	Other	3	3.7222	.63099		

Findings of empirical studies produced significant (Kolvereid & Moen, 1997), weak (Bae, *et. al.,* 2014) or even negative (Chen, *et. al.,* 2015) associations between entrepreneurship courses and entrepreneurship related programs at university level and the intention to become an entrepreneur, whereas findings of the study conducted by Souitaris, *et. al.,* (2007) showed that entrepreneurship education increased the impact of subjective norm through inspiration and overall entrepreneurial intention in university students in London and Grenoble. Based on the results of one-way ANOVA, differences across departments were found to affect EI significantly (Table 4), as p=0.046 and F=2.231. Economics and business administration students are found to have the highest levels of entrepreneurial intention, whereas education students have the lowest.

Table 5. *Independent samples T-test results for entrepreneurship course and entrepreneurial intention*

	Entrepreneurship Course	N	Mean	Std. Dev.
Entrepreneurial Intention	yes	69	4.3309	1.77434
	no	44	4.2348	1.48694
Levene's Test results				
p-vaue	0.035			
F-value	4.566			

Based on the results of independent t-tests, taking an entrepreneurship class was also found to affect EI significantly (p=0.035). As shown in Table 5,EI of students who took entrepreneurship class is significantly higher than the students who did not enroll in an entrepreneurship course (the mean value of students taking an entrepreneurship course is 4.3309 whereas the mean value of students not taking an entrepreneurship course is 4.2348).

5. Discussion

Understanding the antecedents of the intention to become an entrepreneur is crucial in the development of effective entrepreneurship education and training programs. Despite the growing number of conceptual and empirical studies, the

insights on the psychological factors that drive or discourage the engagement into entrepreneurial acts among university students are still limited. The current study addressed this gap in the literature, by exploring the direct relationships between the impact of personal attitude (PA), perceived behavioral control (PBC) and subjective norms (SN) constructs of the theory of planned behavior (TPB) on entrepreneurial intention (EI). The study further investigates the existence of a potential difference with respect to gender and social capital on EI. For data collection, the entrepreneurial intention scale of Linan & Chen (2009) was used and questionnaires collected from a sample of 113 undergraduate students were analyzed through multiple regression analysis and t-tests.

Findings of the analyses indicate that the impact of SN on EI is negative whereas PA and PBC have strong and positive associations with the intention to become an entrepreneur. Furthermore, the results of the independent t-tests showed that no meaningful difference between male and female students as well as different levels of social capital. These findings support the findings of Diaz-Garcia & Moreno (2010), as well as Kristiansen & Indarti (2004). Although not hypothesized, taking an entrepreneurship class was found to be significantly associated with the intention to become an entrepreneur, supporting the findings of the previous study conducted by Souitaris *et. al.,* (2007).

6. Theoretical and practical implications

For theory, these findings imply that both the scale of Linan & Chen (2009) and the model of TPB are useful in predicting entrepreneurial intention in this sample. In a number of conceptual and empirical studies, the role of gender, human and social capital are addressed as important influencers of entrepreneurial intention. Findings of the current study show that, among Turkish students, gender and the role of social capital does not have a significant role on the intention to become an entrepreneur, whereas the difference across departments as well as taking an entrepreneurship course, were found to be highly associated with the motivation towards choosing entrepreneurship as a career.

Findings of the study point out important considerations for the formulation and application of entrepreneurship programs which are designed to increase the impact of entrepreneurship in the community. First and foremost, gender is found to be an insignificant determinant of entrepreneurial intention, as female students are found to have the same degree of EI as male students. Findings also indicate that having an entrepreneur in the family or close circle is not a major influencer of EI. However, business administration and economics students are found to be more interested in becoming entrepreneurs, which might be associated with their ESE or the design of these curriculums which support entrepreneurship. Last but not least, taking an entrepreneurship class is found to significantly affect the intention to become an entrepreneur. These findings should be carefully considered by policymakers, as well as educators of entrepreneurship programs that are designed to help future entrepreneurs in creating high-impact entrepreneurial ventures.

Notes

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References

Acs, Z. (2006). How is entrepreneurship good for economic growth? *Innovations: Technology, Governance, Globalization*, 1(1), 97-107. doi. 10.1162/itgg.2006.1.1.97

Ajzen, I (2011). The theory of planned behavior: Reactions and reflections, *Psychology & Health,* 26(9), 1113-1127. doi. 10.1080/08870446.2011.613995

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. doi. 10.1016/0749-5978(91)90020-T

Armitage, C.J., & Conner, M. (2001). Efficacy of the theory of planned behavior: A meta-analytic review. *British journal of social psychology*, 40(4), 471-499. doi. 10.1348/014466601164939

Autio, E., Keeley, R.H., Klofsten, M., & Ulfstedt, T. (1997). Entrepreneurial intent among students: testing an intent model in Asia, Scandinavia and USA. *In:* Paul D. Reynolds (Ed), *Frontiers of Entrepreneurship Research, Proceedings of the seventeenth annual Entrepreneurship Research Conference,* (pp.133-147), Wellesley, Mass.: Babson College.

Bae, T.J., Qian, S., Miao, C., & Fiet, J.O. (2014). The Relationship between Entrepreneurship Education and Entrepreneurial Intentions: A Meta-Analytic Review. *Entrepreneurship Theory and Practice*, 38(2), 217-254. doi. 10.1111/etap.12095

Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention, *Academy of Management Review*, 13(3), 442-453. doi. 10.5465/amr.1988.4306970

Chen, S.C., Hsiao, H.C., Chang, J.C., Chou, C.M., Chen, C.P., & Shen, C.H. (2015). Can the entrepreneurship course improve the entrepreneurial intentions of students?, *International Entrepreneurship and Management Journal*, 11(3), 557-569. doi. 10.1007/s11365-013-0293-0

Chen, S.C., & Sung, M.H. (2011). The entrepreneurial intention for university students. *Leisure Industry Research*, 9(1), 47-60.

De Carolis, D.M., Litzky, B.E., & Eddleston, K.A. (2009). Why networks enhance the progress of new venture creation: The influence of social capital and cognition. *Entrepreneurship Theory and Practice*, 33(2), 527-545. doi. 10.1111/j.1540-6520.2009.00302.x

De Clercq, D., Honig, B., & Martin, B. (2013). The roles of learning orientation and passion for work in the formation of entrepreneurial intention, *International Small Business Journal,* 31(6), 652-676. doi. 10.1177/0266242611432360

Díaz-García, M.C., & Jiménez-Moreno, J. (2010). Entrepreneurial intention: The role of gender. *International Entrepreneurship and Management Journal*, 6(3), 261-283. doi. 10.1007/s11365-008-0103-2

Fietze, S., & Boyd, B. (2017). Entrepreneurial intention of Danish students: a correspondence analysis, *International Journal of Entrepreneurial Behavior & Research*, 23(4), 656-672. doi. 10.1108/IJEBR-08-2016-0241

Grichnik, D., Brinckmann, J., Singh, L., & Manigart, S. (2014). Beyond environmental scarcity: Human and social capital as driving forces of bootstrapping activities. *Journal of Business Venturing*, 29(2), 310-326. doi. 10.1016/j.jbusvent.2013.02.006

Gurbuz, G., & Aykol, S. (2008). Entrepreneurial intentions of young educated public in Turkey. *Journal of Global Strategic Management*, 4(1), 47-56.

Gurel, E., Altinay, L., & Daniele, R. (2010). Tourism students' entrepreneurial intentions. *Annals of Tourism Research*, 37(3), 646-669. doi. 10.1016/j.annals.2009.12.003

Jang, Y. (2013). Modeling student entrepreneurship: A longitudinal study. *Journal of Entrepreneurship Education*, 16, 93-99.

Hausenblas, H.A., Carron, A.V., & Mack, D.E. (1997). Application of the theories of reasoned action and planned behavior to exercise behavior: A meta-analysis. *Journal of Sport and Exercise Psychology*, 19(1), 36-51. doi. 10.1123/jsep.19.1.36

Kautonen, T., Van Gelderen, M. & Tornikoski, E.T. (2013). Predicting entrepreneurial behaviour: a test of the theory of planned behavior, *Applied Economics*, 45(6), 697-707. doi. 10.1080/00036846.2011.610750

Kristiansen, S., & Indarti, N. (2004). Entrepreneurial intention among Indonesian and Norwegian students, *Journal of Entrerprising Culture,* 12(1), 55-78. doi. 10.1142/S021849580400004X

Krueger, N.F., & Carsrud, A.L. (1993). Entrepreneurial intentions: Applying the theory of planned behavior. *Entrepreneurship & Regional Development*, 5(4), 315-330. doi. 10.1080/08985629300000020

Krueger, Jr,N.F., Reilly, M.D., & Carsrud, A.L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5-6), 411-432. doi. 10.1016/S0883-9026(98)00033-0

Kolvereid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship Theory and practice*, 21(1), 47-58. doi. 10.1177/104225879602100104

Kolvereid, L., & Moen, Ø. (1997). Entrepreneurship among business graduates: Does a major in entrepreneurship make a difference?, *Journal of European Industrial Training*, 21(4), 154-160. doi. 10.1108/03090599710171404

Lafuente, E., Vaillant, Y., & Rialp, J. (2007). Regional differences in the influence of role models: Comparing the entrepreneurial process of rural Catalonia. *Regional Studies*, 41(6), 779-796. doi. 10.1080/00343400601120247

Liñán, F. & Chen, Y.-W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions, *Entrepreneurship Theory and Practice*, 33(3), 593-617. doi. 10.1111/j.1540-6520.2009.00318.x

Liñán, F., Rodríguez-Cohard, J.C., & Rueda-Cantuche, J.M. (2011). Factors affecting entrepreneurial intention levels: a role for education. *International Entrepreneurship and Management Journal*, 7(2), 195-218. doi. 10.1007/s11365-010-0154-z

Liñán, F., & Rodríguez-Cohard, J.C. (2015). Assessing the stability of graduates' entrepreneurial intention and exploring its predictive capacity. *Academia Revista Latinoamericana de Administración*, 28(1), 77-98. doi. 10.1108/ARLA-06-2013-0071

Schlaegel, C., & Koenig, M. (2014). Determinants of entrepreneurial intent: A meta–analytic test and integration of competing models. *Entrepreneurship Theory and Practice*, 38(2), 291-332. doi. 10.1111/etap.12087

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226. doi. 10.1007/978-3-540-48543-8_8

Santos, F.J., Roomi, M.A., & Liñán, F. (2016). About gender differences and the social environment in the development of entrepreneurial intentions. *Journal of Small Business Management*, 54(1), 49-66. doi. 10.1111/jsbm.12129

Sesen, H. (2013). Personality or environment? A comprehensive study on the entrepreneurial intentions of university students. *Education+ Training*, 55(7), 624-640. doi. 10.1108/ET-05-2012-0059

Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programs raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration, and resources. *Journal of Business Venturing*, 22(4), 566–591. doi. 10.1016/j.jbusvent.2006.05.002

Tsai, K.H., Chang, H.C., & Peng, C.Y. (2016). Extending the link between entrepreneurial self-efficacy and intention: A moderated mediation model. *International Entrepreneurship and Management Journal*, 12(2), 445-463. doi. 10.1007/s11365-014-0351-2

Thompson, E.R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric, *Entrepreneurship Theory and Practice,* 33(3), 669-694. doi. 10.1111/j.1540-6520.2009.00321.x

Van Auken, H. (2013). Influence of a culture-based entrepreneurship program on student interest in business ownership. *International Entrepreneurship and Management Journal*, 9(2), 261-272. doi. 10.1007/s11365-013-0254-7

Van Auken, H., Fry, F.L., & Stephens, P. (2006). The influence of role models on entrepreneurial intentions. *Journal of Developmental Entrepreneurship*, 11(2), 157-167. doi. 10.1142/S1084946706000349

Veciana, J.M., Aponte, M., & Urbano, D. (2005). University students'attitudes towards entrepreneurship: A two countries comparison. *The International Entrepreneurship and Management Journal*, 1(2), 165-182. doi. 10.1007/s11365-005-1127-5

Yurtkoru, S., Kuşcu, Z. & Doğanay, A. (2014). Exploring the antecedents of entrepreneurial intention on Turkish university students, *10th International Strategic Management Conference Procedia - Social and Behavioral Sciences*, 150, 841-850. doi. 10.1016/j.sbspro.2014.09.093

Zhang, P., Wang, D.D., & Owen, C.L. (2015). A study of entrepreneurial intention of university students. *Entrepreneurship Research Journal*, 5(1), 61-82. doi. 10.1515/erj-2014-0004