Paradigms: A Research Journal of Commerce, Economics, and Social Sciences Print ISSN 1996-2800, Online ISSN 2410-0854 2016, Vol. 10, No. 2, pp. 49-59. DOI: 10.24312/paradigms100205

# GENDER ENTREPRENEURIAL INTENTIONS: A DEVELOPING COUNTRIES PERSPECTIVE

## ALTAF HUSSAIN

Assistant Professor, Sukkur IBA

#### NORASHIDAH HASHIM

Deputy Director CEDI University Utara Malaysia

#### ABSTRACT

The presence of a gap between genders in has been attracting entrepreneurship increasing academic attention. This gap is wider from developing countries like Pakistan in which women entrepreneurs represent only one percent of this gender's population. This increasing gender gap in entrepreneurial activity from developing countries perspective suggest that more research is needed to explain individual intent. Based on the theory of planned behavior this study assesses gender difference in the entrepreneurial intentions from developing countries context, like Pakistan. Data is collected using crosssectional survey from the 499 final year students of nine universities from Sindh, Pakistan. The results of this study revealed a positive and significant impact of SN, attitude and PBC for male students' entrepreneurial intentions, while attitude and PBC were the significant predictors of female students' entrepreneurial intentions. This suggested that it is unlikely to find impact of social norms on gender for predicting the entrepreneurial intentions in Pakistan. The findings confirm the theory of planned behavior and contribute the impact of attitude and PBC entrepreneurial intention from developing countries context but remained inconclusive for subjective norms from gender perspective. The

findings of this paper also have implication for policy makers, academicians, and professionals.

**Keywords:** Entrepreneurship, Entrepreneurial Intention, TPB, Gender, Subjective Norms

## **INTRODUCTION**

The significant impact of entrepreneurship socio-economic on activities during the last few decades for job creation has been widely recognized in the literature (Kuratko, 2005). However, the presence of a gap between genders in entrepreneurship has also attracted academic attention (Hughes et al., 2012). Focus of entrepreneurial activities towards gender difference remains limited (Grilo & Irigoyen, 2006). According to Global Entrepreneurship Monitor (GEM) report of 2011 by Kelley, Singer and Herrington (2012), there is striking difference in the entrepreneurial activity of males and female. This report also indicated that in large portion of high income developed countries, the ratio among male and female entrepreneurs at initial stage and the established entrepreneurs is 2 to 1. This gender gap from developing countries perspective is huge, which is also visible in Pakistan.

According to the Global Women Entrepreneurship Report (2012), there is only one percent of female entrepreneurs among total entrepreneur population in Pakistan. The GWEM (2012) report on Pakistan also indicated that the female Total early-stage Entrepreneurial Activity (TEA) rate in Pakistan is the lowest of the factor-driven nations. Nevertheless, the policy efforts at various level suggest that, there is need of more efforts and policies for encouraging entrepreneurship in general population and specifically for women entrepreneurs in Pakistan. This increasing gender gap in entrepreneurial activity from developing countries perspective suggest that more research is needed to explain individual intent and preference for becoming entrepreneur (Neergaard, Shaw, and Carter 2005).

Research on entrepreneurship indicate that intentions for becoming entrepreneur is an important indicator of becoming entrepreneur, and females have a lower level of preference as compared to men for becoming entrepreneur (Blanchflower, Oswald, & Stutzer, 2001). Entrepreneurship literature has also factors acknowledged diverse which indicate difference in the gender entrepreneurial intent. Accordingly, some authors identified that females do not prefer to be an entrepreneur as it is not a suitable career option for them considering it as detrimental career option (Carter, Gartner, Shaver, & Gatewood, 2003; Georgellis & Wall, 2005). Authors also found that females do not prefer to be entrepreneurs due to lack of perceived control (Minniti &

2007; Barnir, Watson, Nardone, & Hutchins, 2011). While some scholars suggested that females choose not to become entrepreneurs due to absence of environmental support (Hartman & Hartman, 2008 and Barnir et al., 2011). Considering the significant impact of socio-economic entrepreneurship on activities scholars, academicians, agencies, education and government institutions highly focused on examining different factors that have some impact on entrepreneurial intentions. Due to this many scholar investigated the link between gender and entrepreneurial intentions (Bowen and Hisrich, 1986).

Considering the inconclusive picture regarding to the antecedents of entrepreneurship intentions, lower level of gender entrepreneurship intentions in Pakistan and limited focus of studies for understanding entrepreneurial intention from gender perspective and prediction the entrepreneurship intentions from Pakistani context.

The main objective of this study is to understand the gender effect of Attitude, Subjective Norms (SN) and Perceived Behavioral Control (PBC) on entrepreneurial intentions. Therefore, this study will use Planned Behavior (TPB) framework to identify the gender differences in Attitude, SN and PBC for explaining entrepreneurial intention.

This paper discusses the theoretical framework and hypotheses by explaining the effect of Attitude, SN and PBC on entrepreneurial intentions. The methodology will discuss sample and method used to analyze the data. The result section describes findings and discusses them, and the conclusion section briefly describes the concluding remarks.

# LITERATURE REVIEW AND THEORETICAL FRAMEWORK

The focus of research before intention models was on psychological characteristics, personality traits and general disposition. This was criticized because the problem in conceptualizing, methodology and their limited explanatory capacity (Linán & Santos, 2007). From 1990's social psychological models were used by the researchers involving more proximal variables. The research focused more on predicting the entrepreneurial intentions rather than realization (Gelderen, Brand, Praag, Bodewes, Poutsma, & Gils, 2008). Therefore, many studies used entrepreneurial intentions as a powerful theoretical framework (Linan & Fayolle, 2015). As a result entrepreneurial intentions have been considered as the subject of importance in research on entrepreneurship (Karimi et al., 2014). However, major research has been conducted on entrepreneurial intention of masculine (Bird and Brush 2002, Santos, Rome & Linan, 2014). The research at individual as well at aggregate has indicted that there is significant gap in gender entrepreneurial intentions in developed as well as developing countries(Verheul, van Stel, & Thurik 2006; Minniti & Nardone 2007; McGee et al., 2009). In the same way, there is also gender differences in which intentions about entrepreneurship are developed (Kickul, 2008).

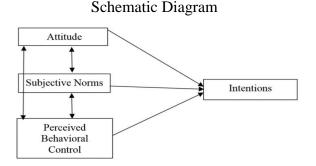
The literature on entrepreneurship intentions describes many models for studying the intentions, but theory of Planned Behavior (TPB) has been widely used for predicting the entrepreneurship intentions. Theory of planned behavior proposed by (Ajzen, 1991), based on the Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975). According to the model of TPB. individual entrepreneurial intentions identify the endeavor that he will make to carry out the entrepreneurial behavior (Ajzen, 1991). The model classifies personal attitude behavioral towards the outcomes. perceived social norms which reveals desirability of performing the behavior and Perceived Behavioral Control (PBC) reflects the personal competence of controlling the behavior (Ajzen, 1991).

Ajzen (1991) in his theory of planned behavior suggested three interdependent antecedents of intentions i.e. attitude towards behavior, subjective norms and perceived behavioral control. He further explained that as a general rule, the more favorable the three antecedents higher should be the individual's intention for performing the particular behavior. Kreuger et al. (2000: p.412) suggested that "Intentions are the single best predictor of any planned behavior, including entrepreneurship" therefore the antecedents of intentions increase our understanding of the planned behavior. Literature on entrepreneurship is evident of strong empirical support of TPB model, particularly suggesting the strong impact Attitude and PBC on entrepreneurial intentions (Armitage and Conner, 2001). However, certain studies identified the direct impact perceived SN on entrepreneurial intentions weak and or insignificant (Krueger, Reilly, & Carsrud 2000; Autio et al., 2001; Carsrud & Brännback, 2011; & Linan & Chen, 2009). Consequently, some authors have excluded

SN for analyzing the entrepreneurial intentions (Fitzsimmons and Douglas 2011). While, others suggested SN to be a way for channeling the influence of society on individual perceptions (Liñán, Urbano, and Guerrero, 2011).

The compatibility of TPB model and its applications in various fields of research, like marketing (Ajzen, 1987), career choice (Kolveried, 1996), safety, health care and other fields has been empirically accepted. The outcome of research in various fields suggested that model proved it's significant in predicting the intentions (Lo, 2011). In entrepreneurship literature it is common for studying entrepreneurial intention to apply TPB, such studies conducting by Fayolle et al. (2006); Autio et al. (2001); Koçoğlu & Hassan (2014); Gelderen et al. (2008); Krueger et al. (2000); Tkachev and Kolveried (1999); Jaen and Linan (2013); and Zhang et al. (2014) are few examples. Therefore, TPB framework is also used as suitable framework for detecting the gender differences in order to explain entrepreneurial intention (Maesa, Leroy & Sels, 2014).

## FIGURE 1



# HYPOTHESES

*H<sub>IA</sub>: Attitude has significant effect on entrepreneurial intentions of the males towards entrepreneurship* 

*H*<sub>1B</sub>: *PBC* has significant effect on entrepreneurial intentions of the males towards entrepreneurship

 $H_{1C}$ : SN significantly effect on entrepreneurial intentions of the males towards entrepreneurship

*H*<sub>2A</sub>: Attitude has significant effect on entrepreneurial intentions of the females towards entrepreneurship

*H*<sub>2B</sub>: *PBC* has significant effect on entrepreneurial intentions of the females towards entrepreneurship

*H*<sub>2C</sub>: SN has significant effect on entrepreneurial intentions of the females towards entrepreneurship

## **RESEARCH METHODOLOGY**

## Sample

Data is collected from primary source and systematic random sampling method is used for cross sectional survey from the students of nine universities of Sindh, Pakistan. 650 questionnaires were distributed 523 questionnaires were received of which 499 were good and from them 159 were females and 340 were males.

## **Measurement of Variables**

This paper use the Questionnaire of Liñán & Chen (2009) on Entrepreneurial Intention for measuring Attitude, SN PBC and entrepreneurship intentions. All the measures of the study uses seven point Likert scale.

## Method

This study uses structural Equation Modeling (SEM) Path Analysis to test the relationship between independent and dependent variables. This study applies two step approach as suggested by (Anderson & Gerbing, 1988):

- The assessment of the measurement model
- The assessment of the structural model

## FINDINGS

As a first step Confirmatory Factor Analysis (CFA) for each variable and combined CFA based on the results of results of exploratory factor analysis was conducted. In the beginning, measurement model of each latent constructs were stipulated where the relationships between observed variables and latent constructs was scrutinized.

The results of goodness of fit for combined CFA measurement model suggests that model is near good fit. However, validity analysis also suggests the validity issues in the constructs. The study took steps to modify the measurement model to make it good fit. These steps include deletion of indiscriminant items, items with higher standardized residual and modification indexes. According to Hooper, Coughlan and Mullen (2008) deletion of indiscriminant items in the model likely to improve it and advantageous, if they don't have any major theoretical repercussions. The goodness of fit test of the modified model was GFI =0.96, Ratio = 2.1, p=.000, SRMR=.033, TLI=0.97, CFI=0.98 and RMSEA=.048. These indicators for goodness of fit indicate the model is good fit.

As a next step it is absolutely necessary to establish convergent and discriminant validity, as well as composite reliability, when doing a CFA.

#### TABLE 1

Convergent and Discriminant Validity

		А	М	AS	PB			
	CR	VE	SV	V	С	Att	SN	EI
Р								
В	0.7	0.5	0.4	0.3	0.7			
С	13	56	48	71	46			
At	0.8	0.5	0.5	0.3	0.5	0.7		
t	28	49	30	84	78	41		
S	0.8	0.5	0.3	0.3	0.5	0.5	0.7	
Ν	05	80	67	29	76	36	62	
	0.8	0.6	0.5	0.4	0.6	0.7	0.6	0.8
EI	83	56	30	48	69	28	06	10

The validity analysis' result as indicated in the table 5.1 show all the variables have composite reliability above the cutoff level of 0.70 (Hair et al., 2010). The indicator composite reliability given in the table 5.1 suggests that the value of average variance extracted is higher than 0.5. These findings fulfil the criteria proposed by (Hair et al., 2010) for convergent validity. The average variance extracted was much higher than average shared variance and could easily satisfy the (Fornell & Larcker, 1981) criterion of robust evidence of discriminant validity. The maximum variance shared was also lower than the average variance extracted which is also evidence of discriminant validity (Hair et al., 2010).

## TABLE 2

Relationship between EI and Antecedents of Entrepreneurial Intentions of Male Students

			Estima	S.	C.R	р
			te	E.		Ρ
Att	$\rightarrow$	Е	.45	.09	5.35	**
		Ι		2	5	*
SN	$\rightarrow$	Е	.21	.05	3.36	**
		Ι		8	8	*
PB C	$\rightarrow$	Е	.30	.08	4.65	**
		Ι		0	3	*

The findings of the study as shown in table 5.3 suggest that the relationship attitude entrepreneur between and intentions of male students having  $\beta = 0.45$ p<.001, subjective norms and and entrepreneur intentions of males having  $\beta$ = 0.21 and p<.001, and PBC and entrepreneur intentions of males having  $\beta = 0.30$  and p<.001.This reveals a significantly positive effect of Attitude, SN and PBC on entrepreneurial intentions of males. The squared multiple correlation was 0.67 which suggest that Attitude, SN and PBC explain 67% variance in the entrepreneurial intentions of the male students.

## TABLE 3

Relationship between EI and antecedents of entrepreneurial intentions of female Students

			Estimate	S.E.	C.R.	Р
Att	$\rightarrow$	EI	.46	.130	3.857	***
SN	$\rightarrow$	EI	.13	.103	.745	.456
PBC	$\rightarrow$	EI	.29	.177	2.725	.006

The findings of the study as shown in table 5.3 the relationship between attitude and entrepreneur intentions of females having  $\beta$ = 0.46 and p<.001, subjective norms and entrepreneur intentions of females having  $\beta$ = 0.21 and p>.05, and PBC and entrepreneurial intentions of females having  $\beta$ = 0.29 and p<.001.This suggest a significantly positive effect of Attitude and PBC on entrepreneurial intentions of females. However, subjective norms have insignificantly positive effect on entrepreneur intentions of female students. The squared multiple correlation was 0.59 which suggest that Attitude and PBC explain 59 % variance in the entrepreneurial intentions of the male students.

#### DISCUSSION

The purpose of this study is to identify the gender differences in Attitude, SN and PBC for explaining entrepreneurial intentions. The study results as shown in table 5.2 suggest that attitudes, SN and PBC significant positive effect in have predicting the entrepreneurial intentions of the male students in Pakistan. Moreover, the results as indicated in Table 5.3 suggests that attitude and PBC have significant positive effect in predicting the entrepreneurial intentions of the female students in Pakistan subjective norms were having insignificant effect in predicting the entrepreneur intentions of female students. These findings are consistent with the findings of Hout and Rosen (2000); Verheul et al. (2009). Generally the social norms impact on entrepreneurial intentions have not received consistent support in the empirical research (Carsrud & Brännback, 2011). According to the findings of this study, it is unlikely to find an impact of social norms on gender. This signifies that females experience less social norms impact as compared to males. This is because males are more likely to be influence to become an entrepreneur and they are more inspired to fulfil such demands (Costa, Terracciano, & McCrae, 2001).

The results of this study further indicate that females can be motivated to become entrepreneur positively. by developing attitude their towards entrepreneurship as well developing their capability of controlling the situation by enhancing their PBC. These finding are consistent with the findings of Liñán and Chen (2009) and Carsrud and Brännback (2011). These studies found that attitude and perceived behavioral control have positive and significant impact towards developing entrepreneurial intentions. The findings of this study further suggest that antecedents of entrepreneurial intentions 69% variance explain in males' entrepreneurial intentions as compared to the 59% in females. This signifies that males are more prone towards entrepreneurship as compared to females, which is consistent with the findings of Maesa, Leroy and Sels (2014).

# THEORETICAL AND PRACTICAL IMPLICATION

This study has several contributions to the existing literature on gender entrepreneurial intentions especially from developing countries contest. This study adds more evidence in the support TPB model for understanding and predicting entrepreneurial intentions from developing counties context such as Pakistan. This study suggests that Attitude and PBC are vital for predicting factors the entrepreneurial intentions of females in Pakistan from developing countries context. Therefore, the focus for enhancing the female entrepreneurship in Pakistan should be on developing attitude and enhancing PBC among them will have positive impact. Moreover, this study is among the limited studies from Pakistani context, which measure the impact of gender entrepreneurial intentions. The practical implication of this study is related policy makers, entrepreneurship to educators, potential entrepreneurs and practitioners. Moreover, the findings of this study also encourage educators to consider these factors during education of females, which has positive impact on attitudes and PBC. This also includes designing such entrepreneurial education programs and making them as core component of tertiary education by policy makers in Pakistan.

# LIMITATIONS AND FUTURE RESEARCH

The current research has certain limitations, which provide opportunities for future research useful in assessing the findings. First, the sample for the study were business school students from different universities in Sindh, Pakistan. Moreover, study focused only final year students. Hence, the results of this study may not be generalized to students of all years and subjects. Second, this study was not a longitudinal study. A longitudinal study could be useful for adding validity for investigating entrepreneurial intentions.

This study proposes future research to extend new studies beyond the sample of business school students by choosing the sample of students studying entrepreneurship in various schools and campuses across the university. Second, as this study is conducted using cross sectional survey at a point of time so future research can be conducted using longitudinal study to add the validity for casual inference. Moreover, future research should emphasize the crucial link of intention– behavior relationship. Future research in this direction will be able to interment the changes in entrepreneurial intention over time and the subsequent formation of entrepreneurial behavior.

#### CONCLUSIONS

The main objective of this study is to study the gender entrepreneurial intentions taking developing countries' context like Pakistan. The study uses TPB model to assess the gender differences in Attitude, SN and PBC for explaining entrepreneurial intention. The findings of the study shows a positive and significant impact of SN, attitude and PBC for male entrepreneurial intentions, while attitude and PBC were the significant predictor of female entrepreneurial intentions. This suggests that it is unlikely to find an impact of social norms on gender for predicting the entrepreneurial intentions in Pakistan. Moreover, the findings confirm the theory of planned behavior and contribute the impact of attitude and PBC entrepreneurial intention from developing countries context but remained inconclusive for subjective norms from gender perspective. Therefore, policy makers, academician and trainers to focus on the policies, academic programs and activities which attitude and PBC of women. This will result in promoting gender entrepreneurial capital in Pakistan.

# REFERENCES

Ajzen, I. (1991). The theory of planned behavior. Organizatioal behavior and human decision processes, 50(2), 179-211.

- Ajzen, I. (2001). Nature and operation of attitudes. *Annual review of psychology*, 52(1), 27-58.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, *103*(3), 411.
- Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, 18(1), 105-123.
- 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.
- Autio, E., H. Keeley, R., Klofsten, M., GC Parker, G., & Hay, M. (2001). Entrepreneurial intent among students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, 2(2), 145-160.
- Barnir, A., Watson, W. E., & Hutchins, H.
  M. (2011). Mediation and moderated mediation in the relationship among role models, self-efficacy, entrepreneurial career intention, and gender. *Journal of Applied Social Psychology*, 41(2), 270-297.
- Bird, B., and C. G. Brush (2002). A gendered perspective on organizational creation. *Entrepreneurship Theory and Practice* 26(3), 41–65.
- Blanchflower, D. G., Oswald, A., & Stutzer, A. (2001). Latent

entrepreneurship across nations. *European Economic Review*, 45(4), 680-691.

- Bowen, D. D., & Hisrich, R. D. (1986). The female entrepreneur: A career development perspective. *Academy of management review*, *11*(2), 393-407.
- Carsrud, A., & Brännback, M. (2011). Entrepreneurial motivations: what do we still need to know? *Journal of Small Business Management*, 49(1), 9-26.
- Carter, N. M., Gartner, W. B., Shaver, K. G., & Gatewood, E. J. (2003). The career reasons of nascent entrepreneurs. *Journal of Business Venturing*, 18(1), 13-39.
- Costa Jr, P., Terracciano, A., & McCrae, R.
  R. (2001). Gender differences in personality traits across cultures:
  Robust and surprising findings. *Journal of personality and social psychology*, 81(2), 322.
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behavior: An introduction to theory and research. Reading, Mass.: Addison-Wesle
- Fitzsimmons, J. R., & Douglas, E. J. (2005). Entrepreneurial attitudes and entrepreneurial intentions: a cross-culturals study of potential entrepreneurs in India, China, Thailand and Australia. Retrieved on November 05, 2013, from http://eprints.qut.edu.au/6486/1/64 86.pdf
- Fitzsimmons, J. R., & Douglas, E. J. (2011). Interaction between feasibility and desirability in the formation of entrepreneurial

intentions. Journal of Business Venturing, 26(4), 431-440.

- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 382-388.
- Gelderen. V, M., Brand, M., van Praag, M., Bodewes, W., Poutsma, E., & Van Gils, A. (2008). Explaining entrepreneurial intentions by means of the theory of planned behavior. *Career Development International*, 13(6), 538-559.
- Georgellis, Y., & Wall, H. J. (2005). Gender differences in selfemployment. *International review of applied economics*, *19*(3), 321-342.
- Global Women Entrepreneurship Report (2012) Retrieved from http://www.babson.edu/Academics /centers/blank-center/global research/gem/Documents/GEM%2 02012%20Womens%20Report.pdf
- Grilo, I., & Irigoyen, J. M. (2006). Entrepreneurship in the EU: To wish and not to be. *Small business* economics, 26(4), 305-318.
- Hair, J.F., Black, W.C., Babin, B.J.,
  Anderson, R.E. and Tatham, R.L. (2006), *Multivariate Data Analysis*,
  6th ed., Pearson Prentice-Hall,
  Upper Saddle River, NJ.
- Hartman, H., & Hartman, M. (2008). How undergraduate engineering students perceive women's (and men's) problems in science, math and engineering. *Sex Roles*, 58(3–4), 251–265.

- Henry, C., Hill, F., & Leitch, C. (2005).
  Entrepreneurship education and training: Can entrepreneurship be taught? Part I. Education+ Training, 47(2), 98-111
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. *Articles*, 2.
- Hout, M., & Rosen, H. (2000). Selfemployment, family background, and race. *Journal of Human Resources*, *35*(4), 670–692
- Hughes, K. D., Jennings, J. E., Brush, C., Carter, S., & Welter, F. (2012). Extending women's entrepreneurship research in new directions. *Entrepreneurship Theory and Practice*, *36*(3), 429-442.
- Iakovleva, T., Kolvereid, L., & Stephan, U.
  (2011). Entrepreneurial intentions in developing and developed countries. *Education+ Training*, 53(5), 353-370.
- Jaén, I., & Liñán, F. (2013). Work values in a changing economic environment: The role of entrepreneurial capital. *International Journal of Manpower*, 34(8), 939-960.
- Karimi, S., Biemans, H. J., Lans, T., Chizari, M., & Mulder, M. (2014). The Impact of entrepreneurship education: A study of Iranian students' entrepreneurial intentions and opportunity identification. Journal of Small Business Management.
- Kelley, D. J., Singer, S., & Herrington, M. (2012). The global entrepreneurship

monitor. 2011 Global Report, GEM 2011,

- Kline, R. B. (2011). *Principles and practice* of structural equation modeling. Guilford press. *New York*, 366
- Kocoglu, M., & Hassan, M. U. (2013). entrepreneurial Assessing intentions of university students: a comparative study of two different cultures: Turkey and Pakistani. European Journal of Business and Management, 5(13), 243-252. Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into selfemployment. Journal of Business Venturing, 21(6), 866-885
- Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Entrepreneurial intentions: a competing models approach. *Journal of Business Venturing*, 15(5-6), 411-432.
- 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.
- Liñán, F., J. C. Rodríguez-Cohard, and J. M. Rueda (2011). Factors affecting entrepreneurial intention levels: A role for education, *International Entrepreneurship and Management Journal* 7(2), 195–218.
- Liñán, F., D. Urbano, and M. Guerrero (2011). Regional variations in entrepreneurial cognitions: start-up intentions of university students in Spain. *Entrepreneurship and*

*Regional Development, 23*(3&4), 187–215.

- Liñán, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: Citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, 1-27.
- Maes, J., Leroy, H., & Sels, L. (2014). Gender differences in entrepreneurial intentions: A TPB multi-group analysis at factor and indicator level. *European Management Journal*, 32(5), 784-794.
- McGee, J. E., M. Peterson, S. L. Mueller, and J. M. Sequeira (2009). Entrepreneurial self-efficacy: Refining the measure. *Entrepreneurship Theory and Practice*, 33(4), 965–988.
- Matthews, C. H., & Moser, S. B. (1996). A longitudinal investigation of the impact of family background and gender on interest in small firm ownership. *Journal of Small Business Management, 34*(2), 29– 43.
- Minniti, M., & Nardone, C. (2007). Being in someone else's shoes: The role of

gender in nascent entrepreneurship. *Small Business Economics*, 28(2-3), 223-238.

- Neergaard, H., Shaw, E., & Carter, S. (2005). The impact of gender, social capital and networks on business ownership: a research agenda. *International Journal of Entrepreneurial Behavior & Research*, 11(5), 338-357.
- Sarfraz, M., & Quresh, S. (2013). The global entrepreneurship monitor Pakistan report. 2011. GEM Pakistan 2011 Report.
- Verheul, I., Thurik, R., Grilo, I., & van der Zwan, P. (2012). Explaining preferences and actual involvement in self-employment: Gender and the entrepreneurial personality. *Journal* of Economic Psychology, 33(2), 325–341
- Zhang, Y., Duysters, G., & Cloodt, M. (2014). The role of entrepreneurship education as a predictor of university students' entrepreneurial intention. *International entrepreneurship and* management journal, 10(3), 623-641.