

## EFFECT OF THE UNIVERSITY IN THE ENTREPRENEURIAL INTENTION OF FEMALE STUDENTS

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### **ABSTRACT**

Many researchers have studied gender differences in the entrepreneurial intention of students by analyzing the influence of several intrinsic and extrinsic factors on the antecedents of entrepreneurial intention. Fewer researchers have analyzed the influence of the university's environment and support system on the precursors of the entrepreneurial intention of students in general and of female students in particular. This study aims to fill that gap by analyzing the influence of the university's environment and support system on the precursors of entrepreneurial intention of female students at a university in Atlantic Canada. Findings of this study confirm that two precursors of entrepreneurial intention—i.e., attitude toward behavior and perceived behavioral control—mediate the effects of the university's environment and support system on the entrepreneurial intention of female students. They also confirm that the university's environment and support system comprises three distinct but interrelated dimensions, namely entrepreneurship training, start-up support, and entrepreneurial milieu. Results of this study also suggest that the university's environment and support system has a positive relation with the perceived behavioral control of female students. However, findings of this study also suggest that the university's environment and support system has a positive but negligible influence on the attitude toward the behavior of the same students. The outcomes of this study will help the university assess the efficacy of its innovation and entrepreneurship initiatives in promoting entrepreneurial activities. By understanding its entrepreneurial efficacy, the institution will be better equipped to raise the perceptions of venture feasibility and desirability, thus increasing students' perceptions of opportunity.

**KEYWORDS:** entrepreneurial intention; university environment and support system; theory of planned behavior; female student entrepreneurs; regional development.

**JEL CLASSIFICATION:** L26, M130, C650.

**Received:** December 13<sup>th</sup>, 2019

**1st Revision:** December 18<sup>th</sup>, 2019

**Accepted:** December 20<sup>th</sup>, 2019

**DOI:** 10.2478/IJEK-2019-0012

**Reference:** Bazan, C., Datta, A., Gaultois, H., Shaikh, A., Gillespie, K. & Jones, J. (2019). Effect of the University in the Entrepreneurial Intention of Female Students. *International Journal of Entrepreneurial Knowledge*, 7(2), 73-97. doi:10.12345-0012

## INTRODUCTION

In this study, the authors aim to understand the influence of the university's *environment and support system* (ESS) on the precursors (antecedents) of the *entrepreneurial intention* (EI) of female students. The notion of entrepreneurship has fundamentally changed over the past few decades. Today, entrepreneurship is no longer regarded as being serendipitous and individual but rather social and organized, to the point that it is now well-established that entrepreneurship is a set of skills that can be taught and learned (Jacob, Lundqvist, & Hellsmark, 2003). Consequently, universities around the world have been incorporating entrepreneurship education (EE) into their curricula to prepare student entrepreneurs for their start-up journey (Kirby, Guerrero, & Urbano, 2011). Researchers have been studying the impact of EE programs on the precursors of the EI of students for several years (Fayolle, Gailly, Lassas-Clerc, & Lassas-Clerc, 2006; Rae & Woodier-Harris, 2013; Rauch & Hulsink, 2015; Sánchez, 2011; Souitaris, Zerbinati, & Al-Laham, 2007). In addition, there is growing evidence in the literature that the university's ESS can motivate students to consider an entrepreneurial career (Bazan et al., 2019; Krueger & Carsrud, 1993; Lee & Wong, 2004; Trivedi, 2016, 2017; Tubbs & Ekeberg, 1991). The university's ESS comprises its entire *entrepreneurial ecosystem*, i.e., support mechanisms such as intellectual property protection, technology transfer, start-up business coaching, and business incubation services, all of which are necessary for entrepreneurial activity (Audretsch, 2014; Etzkowitz, 2003, 2014; Kraaijenbrink, Bos, & Groen, 2010; McGowan, van der Sijde, & Kirby, 2008; Tijssen, 2006; Urbano & Guerrero, 2013). Many universities have been playing an active role in the development of regional entrepreneurial activities via the commercialization of university knowledge through spin-off companies founded by student entrepreneurs (Bray & Lee, 2000; Etzkowitz, 2003; Poole & Robertson, 2003; Steffensen, Rogers, & Speakman, 2000; Wright, Lockett, Clarysse, & Binks, 2006). Many scholars argue that this phenomenon is part of a second "academic revolution" in which universities adopt a third mission of economic development (knowledge capitalization) in addition to research (knowledge extension) and teaching (knowledge preservation) (Etzkowitz, 1998; Gür, Oylumlu, & Kunday, 2017; Kirby, 2006a, 2006b; O'Shea, Allen, Morse, O'Gorman, & Roche, 2007; Zaharia & Gibert, 2005).

As the only university in the province, the institution subject of this study has a special obligation to the people of the province. Since its founding, the university has played an integral role in the cultural, social, health, and economic development of the province. Lately, it has been transforming itself to become an *entrepreneurial university* in order to play an even more prominent role in the socioeconomic development strategies of the province. Among the recent initiatives are efforts to promote innovation and entrepreneurship among female students. Consequently, there is a need for systematic approaches to evaluate the impact of these initiatives at the student level. The authors are interested in understanding the various motivational factors related to the university's entrepreneurial ecosystem that may shape the EI of female students (Tolentino, Sedoglavich, Lu, Garcia, & Restubog, 2014). The authors argue that the university can play a key role in the EI of female students by providing adequate support mechanisms to help them in translating their ideas into viable business models that may further expand into successful ventures (Trivedi, 2016). The outcomes of this study will help the university assess the efficacy of its innovation and entrepreneurship initiatives in promoting entrepreneurial activities on campus (Varamäki et al., 2013). By understanding its entrepreneurial efficacy, the institution will be better equipped to raise the perceptions of venture feasibility and desirability, thus increasing students' perceptions of opportunity (Krueger, Reilly, & Carsrud, 2000).

The authors divided the remainder of the paper into five sections as follows. *Literature Review* describes the state of the knowledge in EI of female university students gathered by rigorous quantitative studies. *Conceptual Model and Proposed Hypotheses* illustrates the theory-based conceptual model and proposed hypotheses tested through structural equation modelling (SEM) using IBM Amos v26. *Data Analysis* describes the curation and analysis of the data and verification of the applicability of the overall study approach. *Results and Discussion* examines the implications of the data analysis for Memorial University and provides recommendations for further consideration. The paper ends with the *Conclusion* and possible future work.

## 1 LITERATURE REVIEW

Many researchers have studied gender differences in EI by analyzing the influence of several intrinsic and extrinsic factors on the antecedents of EI (Arora & Jain, 2019; Arshad, Farooq, Sultana, & Farooq, 2016; Bagheri & Lope Pihie, 2014; Dabic, Daim, Bayraktaroglu, Novak, & Basic, 2012). Fewer researchers have analyzed the influence of the university's ESS on the precursors of the EI of students in general and of female students in particular. The authors attempted to fill that gap by taking advantage of the fact that most researchers who have analyzed gender differences in EI did so by studying the EI of male and female university students as proxies for the general population. Furthermore, the authors were only interested in studies conducted by researchers who formulated research hypotheses tested by rigorous quantitative methods of analysis. The vast majority of these researchers conducted their quantitative studies by framing their EI models based on Ajzen's (1987, 1991) *theory of planned behaviour* (TPB). Studies based on the TPB aimed at understanding the precursors of intention, i.e., *attitude towards behavior* (ATB), *subjective social norm* (SSN), and *perceived behavioral control* (PBC) (Bird, 1988; Katz & Gartner, 1988; Krueger et al., 2000; Macmillan & Katz, 1992). In the Appendix provides a tabulated synthesis of results across studies on gender differences in EI that empirically tested research hypotheses. In what follows, the authors provide a narrative synthesis describing the evolution of the knowledge on gender differences in the EI of university students.

Mueller & Dato-On (2008) investigated gender-role orientation as a possible determinant of the differences in the PBC of students in Midwestern USA. Their results indicate that the relationship between gender-role orientation and PBC is complex and multifaceted, and it seems to depend on the stage of the new venture creation process. Gupta et al. (2008) examined the impact of implicit and explicit activation of gender stereotypes on the EI of students in Midwestern USA. Their results support the hypothesis that gender stereotypes play a role in the EI of male and female students. Wilson et al. (2009) explored the effect of gender, EE, and PBC on EI and entrepreneurial behaviour by studying sample groups in three different stages of education and career development: middle and high school students, MBA students, and early career adults in the USA. Their results show a stronger positive influence of EE in female students than in male students. Yordanova & Tarrazon (2010) explored gender effects on EI and identified the factors that may account for the gender gap in the EI of students in Bulgaria. Their results show that female students have lower EI than male students and that PBC fully mediates EI in both groups, while SSN and ATB partially mediate the EI of female students. Phipps (2012) investigated the relationship between creativity and the EI of female students in Southern USA, and attempted to determine whether political skills moderate the relationship. Their findings reveal that there is a positive relationship between creativity and EI but that it does not moderate the relationship between the creativity and EI of female students. Dabic et al. (2012) conducted a study to understand gender differences in EI as measured by PBC and ATB, and to explore gender differences in perceptions of EE needs of students in 10 different countries. Their results confirm that female students are less willing to start their own businesses compared to male students. They also found significant gender differences in terms of the PBC and ATB of starting a new business but fewer gender differences in terms of EI.

In subsequent studies, Haus et al. (2013) studied the relationship between gender and EI as mediated by the ATB, SSN, and PBC of students and non-students in Europe and the USA. Their results suggest that

gender differences in EI and the motivational constructs are small and cannot sufficiently explain the substantial differences in actually starting a business. Shneor et al. (2013) studied the effect of the interaction between culture and gender on the formation of the EI of students in Norway and Turkey. Their results show that, regardless of national background, male students exhibit higher levels of EI, PBC, and SSN than female students do. Karimi et al. (2013) explored the effects of gender and role models on the EI of students in Iran. Their results show that entrepreneurial role models indirectly influence EI through its antecedents in the TPB. Their study also found no gender differences in the relationship between PBC and EI, but found that gender affects the ATB antecedent. Ashkezari & Ashkezari (2013) identified and studied the barriers to female entrepreneurship from the perspective of female students in Iran. Their results show that there are seven barriers to entrepreneurship in the familial, scientific-academic, educational, personal, financial, cultural-social, and legal dimensions that affect female students and that among these, the cultural-social dimension is the most important.

Afterwards, Maes et al. (2014) studied the diverse factors that predict gender differences in the EI of students in Belgium. Their results indicate that ATB and PBC (but not SSN) mediate the effect of gender on the EI of female students. Zhang et al. (2014) attempted to identify the relationship between EE, prior entrepreneurial exposure, ATB and PBC, and the EI of students in China. Their results show positive interactive effects by gender, university type, and study major on the relationship between EE and EI. Dempsey & Jennings (2014) investigated whether the four major factors known to contribute to self-efficacy (enactive mastery, vicarious experience, physiological arousal, and verbal persuasion) can help account for observed differences in the PBC of students in Canada. Their findings demonstrate that the lower PBC of female students was attributable to their lower level of prior entrepreneurial experience, and their higher likelihood of receiving failure feedback due to their actual performance on an opportunity evaluation task. Amentie & Negash (2015) investigated the ATB of female students in Ethiopia. They found that there are major barriers that negatively affect female students when considering entrepreneurship as a possible career choice. Zeffane (2015) examined the impact of trust, personality, and risk-taking on the EI of students and actual entrepreneurs in the United Arab Emirates. Their results found that female students are less inclined to become entrepreneurs and are less likely to take risk. They also found that female students are less trusting than male students are and that this affects their EI.

Successively, Westhead & Solesvik (2016) explored the links between the participation in EE, alertness and risk-taking skills, and the EI of students in the Ukraine. They also considered the potential moderating effect of gender and participation in EE. Their results show that female students were significantly less likely to report high EI. However, female students citing the alertness skill were more likely to report high EI than non-EE female students. Furthermore, female EE students citing the risk perception skill reported lower EI. Sahban et al. (2016) investigated the influence of social support on the EI of students in Indonesia. They also tested whether gender can moderate the relationship between social support and EI. Their results reveal that there is a positive relationship between the social support system and EI, and that there is a difference between male and female students in terms of EI. Hussain & Hashim (2016) assessed gender differences in the EI of students in Pakistan. Their results reveal that ATB and PBC were the significant predictors of the EI of female students. Shirokova et al. (2016) scrutinized the intention-action gap among student entrepreneurs attributed to contextual factors, i.e., individual (family entrepreneurial background, age, gender) and environmental characteristics (university environment, uncertainty avoidance), affecting the translation of EI into entrepreneurial actions. Their findings demonstrate that the positive association between EI and the scope of start-up activities is reinforced or weakened by factors such as the student's family entrepreneurial background (reinforcing), age (reinforcing), gender (link for males is stronger), university entrepreneurial environment (reinforcing) and general country uncertainty avoidance (weakening). Arshad et al. (2016) examined the differentiated effects of PBC and SSN on the EI of students in South Asia. Their study considered the mediation of ATB by integrating the framework of *gender schema theory* with the TPB. Their results show that PBC has a greater effect on the ATB of male students than female students do, but that SSN has a greater effect on the ATB of female students than male students do. Villasana et al. (2016) explored gender differences in the four attributes associated with entrepreneurship (creativity, problem management, risk

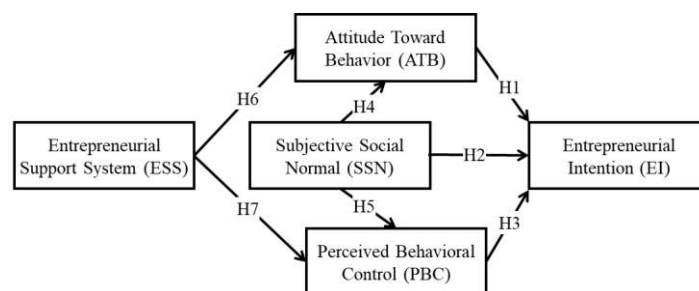
management, and self-confidence) of students in Latin America and Spain. Their results suggest that self-confidence is present at the same level in both groups, while male students seem to score higher in terms of the other three attributes associated with entrepreneurship.

More recently, Perez-Quintana et al. (2017) explored the relationship between biological sex, gender-role orientation (GRO), and the EI of students in Barcelona (Spain). Their findings show that GRO is a better predictor of EI than biological sex. Their results confirm the relationship between masculine and androgynous GRO with EI, whereas there is also evidence of feminine GRO when they considered only female students. Srivastava & Misra (2017) studied the antecedents of the EI of female students in India. Their study confirms the role of social valuation as an important antecedent of EI among female students. They also identified that EE is an important element that affects the EI of female students. Feder & Nițu-Antonie (2017) tried to establish the antecedents of the EI of students benefiting from EE and/or entrepreneurial role models in Romania. Their findings suggest that EE and behavioural characteristics are direct predictors of EI. Their results also show that gender identity is a moderator, differentiating the direct effects of EE and behavioural characteristics on EI. Ferri et al. (2018) investigated the EI of female students in Italy. Their findings suggest that SSN and PBC affect the EI of female students. Their work provides a new model that helps to understand the EI of students based on gender role. Ojewumi et al. (2018) examined the influence of gender and PBC on the EI of students in Nigeria. Their results show no significant differences in the EI of male and female students. Arora & Jain (2019) compared the EI of male and female students of public and private management institutes in India. Their results indicate that there are differences in the level of EI between male and female students.

## 2 CONCEPTUAL MODEL AND PROPOSED HYPOTHESES

Based on works by Liñán & Chen (2009) and Trivedi (2016, 2017), Bazan et al. (2019) designed a study to understand the influence of the university’s ESS on the precursors of the EI of students. It has been argued in the literature that entrepreneurial behaviour, e.g., starting a new business, is intentional and thus best predicted by the intention towards the behaviour, not by attitudes, beliefs, personality, or demographics (Ajzen, 1991, 2001; Delmar & Davidsson, 2000; Fayolle et al., 2006; Kolvereid, 1996b; Krueger & Carsrud, 1993; Krueger et al., 2000). The study by Bazan et al. (2019) followed a cognitive approach (Baron, 1998, 2004; Shaver & Scott, 1991) by applying a customized EI model based on the TPB (Ajzen, 1991). The TPB predicts that the more favourable the ATB and SSN, and the greater the PBC, the stronger the person’s intention to perform the behaviour (Kolvereid, 1996b). The TPB has become one of the most widely used psychological theories for explaining and predicting human behaviour in general (Kolvereid, 1996b; Tkachev & Kolvereid, 1999; Varamäki et al., 2013). The models based on this theory have been successfully used in the entrepreneurial context to predict the specific behaviour of starting a new business (Kautonen, van Gelderen, & Fink, 2015; Kautonen, van Gelderen, & Tornikoski, 2013; Kolvereid, 1996b, 1996a; Krueger & Carsrud, 1993). The authors adopted and adapted the model of EI by Bazan et al. (2019) depicted in Figure 1. This model specifies and describes the governing rules and measurement properties of the observed variables.

Figure 1 Conceptual model of entrepreneurial intention



(Source: own)

Additional evidence in the literature suggests that contextual and situational factors affect EI by influencing the precursors of intention such as ATB and PBC as well as the general motivation to behave (Ajzen, 1987; Boyd & Vozikis, 1994; Krueger & Carsrud, 1993; Krueger et al., 2000; Lee & Wong, 2004; Tubbs & Ekeberg, 1991). There is growing evidence that the university context has some influence on the EI of students (Bae, Qian, Miao, & Fiet, 2014; Kraaijenbrink et al., 2010; Kraaijenbrink & Wijnhoven, 2008; Liñán, Urbano, & Guerrero, 2011; Sesen, 2013; Shirokova et al., 2016; Trivedi, 2016; Turker & Selcuk, 2009; Zhang et al., 2014). It is clear that the university's ESS can help in developing entrepreneurial competencies of students and motivating them to consider an entrepreneurial career (Franke & Lüthje, 2004; Henderson & Robertson, 1999; Kraaijenbrink et al., 2010; Peterman & Kennedy, 2003). Trivedi (2016) has identified three motivational factors of the university's ESS that might influence the precursors of EI. He suggests that targeted cognitive and non-cognitive supports—and to a lesser extent the general educational support—seemed to have a positive correlation with the precursors of EI. The authors posit that the influence of the university's ESS is comprised of three different, interrelated dimensions: *entrepreneurship training* (ET), e.g., courses, workshops; *start-up support* (SS), e.g., mentorship, seed funding; and *entrepreneurial milieu* (EM), e.g., entrepreneurial environment. Among the three precursors of intention, ATB and PBC seem to be the ones that could be most affected by the university's ESS (Shirokova et al., 2016). Please see Bazan et al., (2019) and the references therein for a more detailed discussion of the extant literature on the influence of the university's ESS on the precursors of EI.

Table 1 shows the eight hypotheses formulated in this study. First, hypothesis 0 corresponds to the assumption that the university's ESS has three different dimensions that influence the EI of students through the mediation of the most proximal precursors of intention. Second, hypotheses 1 to 3 correspond to the traditional intention model based on the TPB. Third, hypotheses 4 and 5 would explain the internal configuration of the precursors of intention. Lastly, hypotheses 6 and 7 posit that the university's ESS would influence the ATB and the PBC of students.

**Table 1 Hypotheses of the study**

Hypothesis
H0: ESS comprises three different dimensions: ET, SS, and EM
H1: ATB positively influences EI and it is lower for female students as compared to male students
H2: SSN positively influences EI and it is lower for female students as compared to male students
H3: PBC positively influences EI and it is lower for female students as compared to male students
H4: SSN positively influences ATB and it is lower for female students as compared to male students
H5: SSN positively influences PBC and it is lower for female students as compared to male students
H6: ESS positively influences ATB and it is lower for female students as compared to male students
H7: ESS positively influences PBC and it is lower for female students as compared to male students

(Source: own)

### 3 DATA ANALYSIS

#### 3.1 Data Screening

This study uses secondary data collected during a previous study by Bazan et al. (2019) on the influence of the university's ESS on the EI of students. The original dataset contained 479 responses with an average completion rate of 95%. The authors first analysed missing data on rows (individual responses) and detected 57 rows with missing values. From these, 38 rows were missing more than one value (> 5 percent) while 19 rows were missing one value (< 5 percent). Therefore, the authors deleted the rows with more than one missing value and kept the rows with only one missing value for possible imputation. The authors then proceeded to look for “unengaged” respondents. These respondents completed the

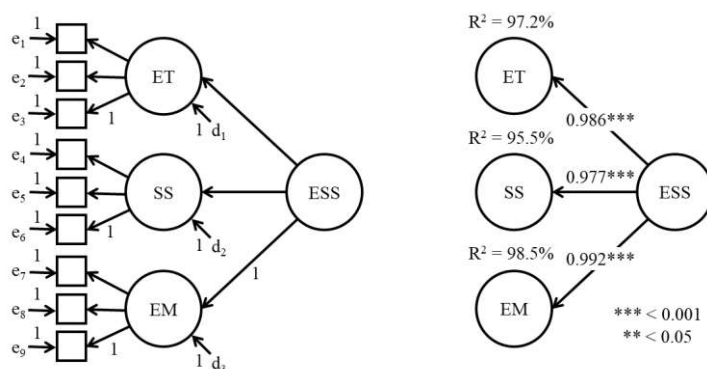
survey but were not paying attention or were not interested in giving a candid response. Based on the standard deviation of responses and the time it took them to complete the survey (much less than the average time), eight rows by unengaged respondents were detected and deleted from the table. The authors then extracted the rows corresponding to respondents who self-identified as “male” or “female” and disregarded the rows corresponding to respondents who “preferred not to answer.”

The authors used Little’s Missing Completely at Random (MCAR) to assess whether the aforementioned missing values were missing at random. Little’s MCAR test returned: Chi-Square = 487.613, DF = 525, Sig. = 0.877, i.e., the test failed to reject the null hypothesis that the values were missing completely at random. Thus, the authors imputed the missing values using the expectation maximization (EM) algorithm for each category of measurement variables, separately. Following, the authors proceeded to test the data for normality and outliers by calculating skewness and kurtosis. The largest skewness and kurtosis were  $-1.270$  and  $1.277$ , respectively. Thus, all the values for skewness and kurtosis fell between the  $\pm 2$  threshold and the distributions are considered ‘fairly normal’ (Cohen, Cohen, West, & Aiken, 2003; George & Mallery, 2010). The authors used the Mahalanobis distance to identify influential multivariate outliers. There were a few rows with larger than average Mahalanobis distances that appeared to be outliers. To discern whether these entries were outliers, the authors compared their Mahalanobis distance with a chi-square distribution with the same degrees of freedom represented by the number of independent measurement variables. There were 26 rows with probability  $p < 0.001$  that were deleted from the dataset (Aguinis, Gottfredson, & Joo, 2013). The final dataset is composed of 396 rows corresponding to 211 male students and 185 female students.

### 3.2 Second-Order Model

The second-order model in Figure 2 (left) represents the assumption that the common underlying, higher order construct ESS can account for the seemingly distinct but related constructs: ET, SS, and EM. The authors used second-order confirmatory factor analysis (CFA) to discern whether the university’s ESS has indeed three different dimensions (sub-constructs). The overall fit of the CFA model is very good by the following fit parameters (FP): chi-square,  $p$ -value; RMSEA (root mean square error of approximation); GFI (goodness of fit index); AGFI (adjusted goodness of fit index); CFI (comparative fit index); TLI (Tucker-Lewis index); IFI (incremental fit index); chi-square/ $df$ ; and PNFI (parsimonious normed fit index). Table 2 shows the model fit summary for the second-order model along with the recommended thresholds. Furthermore, the unstandardized regression weights are all significant by the critical ratio test ( $> \pm 1.96$ ,  $p < 0.001$ ) and the standardized regression weights are high. These results confirm that the ESS construct loads well on its three sub-constructs, and that the contributions of ESS on its three dimensions are good. Thus, the results support the assumptions that ESS consists of three sub-constructs: ET, SS, and EM.

**Figure 2 Left: ESS is second-order construct while ET, SS and EM are first-order constructs. Right: Results of second-order factor analysis**



(Source: own)

**Table 2 Model fit summary for the second-order model**

Measure	Thresholds	ESS
Absolute fit:		
Chi-square, <i>p</i> -value	low but sensitive to DOF, > 0.05	188.358, < 0.05
RMSEA (LO 90, HI 90)	< 0.05 good, 0.05-0.10 moderate, > 0.10 bad	0.071 (0.059, 0.083)
GFI	> 0.95 great, > 0.90 good	0.938
Incremental fit:		
AGFI	> 0.90 great, > 0.80 good	0.883
CFI	> 0.95 great, > 0.90 traditional, 0.80 permissible	0.980
TLI	> 0.90	0.967
IFI	> 0.90	0.980
Parsimonious fit:		
Chi-square/ <i>df</i>	< 3 good, < 5 permissible	2.990
PNFI	> 0.50	0.582

(Source: own)

### 3.3 Mediating Variables

This study assumes that the university’s ESS does not influence EI directly but rather indirectly through the more proximal antecedents ATB and PBC. To assess whether ATB and PBC mediate the effect of ESS on EI, the authors first assessed whether ESS and the mediators have (individually) a direct and significant effect on EI. The reason for testing direct effects separately is twofold (Judd & Kenny, 2015). First, for mediation to occur, all direct effects that constitute an indirect effect have to be substantial. Second, mediation can be inconsistent, i.e., there could be suppression of effects (Maassen & Bakker, 2001; MacKinnon, Krull, & Lockwood, 2000). Furthermore, the knowledge of the relative importance of a specific mediator can further refine the understanding of the pathways through which an initial variable exerts an effect on an outcome (Ledermann & Macho, 2015). The individual models for the isolated effect of ESS, ATB, and PBC (individually) on EI fit the data very well by the FP. Table 3 shows that the standardized regression weight between each antecedent and EI is significant at the  $p < 0.001$  level.

**Table 3 Isolated effects on EI by individual factors**

Lone effect	ESS	ATB	PBC
EI ←	0.349***	0.895***	0.784***

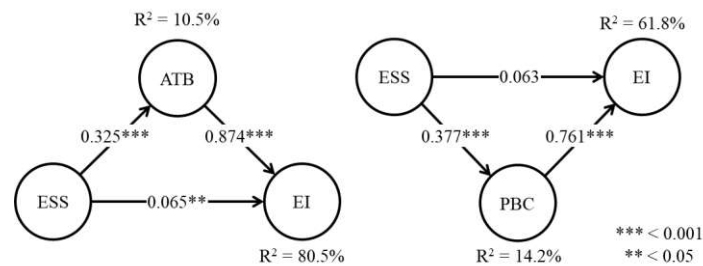
(Source: own)

Afterwards, the authors introduced the mediators individually in the basic ESS-EI model to assess whether their individual influence has a significant effect on EI and whether it reduces the effect of ESS on EI. If the lone effect of ESS on EI reduces but is still significant, the mediator exerts *partial mediation*. However, if the direct effect reduces and is no longer significant, the mediator exercises *complete mediation*. The mediation models for the direct effect of ESS on EI coupled with the indirect effect through the mediators fit the data very well by the FP. When the mediator ATB is introduced, this mediator substantially reduced the effect of ESS on EI but remained significant at the  $p < 0.05$  level. Thus, ATB exerts only partial mediation of ESS on EI. However, when the authors introduced the mediator PBC, the mediator greatly reduced the effects of ESS on EI and was no longer significant at any level. Thus, PBC exerts complete mediation of ESS on EI. Figure 3 depicts the effects of the mediators ATB and PBC once they were included in the model. Table 4 shows the indirect effects of ESS on EI that flow through the mediators. The indirect effects of ESS on EI are statistically significant at the  $p < 0.05$  level,



confirming that the combined effect of ATB and PBC completely and significantly mediate the effect of ESS on EI. Note: this study used bootstrapping with 1000 samples and 95% bias-corrected confidence level to calculate standard errors (Bollen & Stine, 2006; Preacher & Hayes, 2008) for cases in which the maximum likelihood (ML) standard errors were not available.

**Figure 3 Standardized regression weights after introducing the mediators ATB and PBC in the ESS-EI model**



(Source: own)

**Table 4 Standardized indirect effects of ESS on EI**

Path	Effect	Lower	Upper	SE	P
ESS → ATB → EI	0.284	0.196	0.385	0.049	0.001
ESS → PBC → EI	0.287	0.186	0.372	0.047	0.003

(Source: own)

### 3.4 Measurement Model

The model in this study assumes that relations exist between the EI of students and each of the proximal precursors of intention: ATB, SSN, and PBC. In addition, the model suggests that relations exist between SSN and both ATB and PBC, and between both ATB and PBC and the university's ESS. This study expressed these relations in the model in terms of hypotheses H1-H7. The discussion on mediation above suggests that indirect relations also exist between ESS and EI. Before testing the hypotheses with second-order SEM, the authors defined a measurement model to verify that the 36 measurement variables reflect the five unobserved constructs reliably. The authors used second-order CFA employing ML fitting functions (and bootstrapping) to determine the overall fit of the measurement model. The parameter summary and notes for the model show that the input covariance matrix generated from the 36 measurement variables in the model contains 666 distinct sample moments and 111 distinct parameters to estimate resulting in a model with 555 degrees of freedom (666 – 111).

Validity and reliability were tested by using the results obtained in the second-order CFA analysis and compared to the recommended values (Byrne, 2001; Hair, Black, Babin, & Anderson, 2010). For convergence validity, the authors compared the average variance extracted (AVE) for each factor with the recommended threshold > 0.50. All of the AVE values were higher than the threshold except for one related to SSN that was a fraction lower. For construct validity, the study compared the fitness indices for the model to their acceptable thresholds:  $\chi^2 = 1425.639$  with 555 degrees of freedom, CMIN/DF = 2.569,  $p < 0.05$ , CFI = 0.938, GFI = 0.831, AGFI = 0.798, TLI = 0.930, IFI = 0.938, PNFI = 0.795, and RMSEA (LO, HI) = 0.063 (0.059, 0.067). Thus, the overall fit of the measurement model was good. For discriminant validity, this study compared the correlations between exogenous constructs with the recommended threshold < 0.85. All of the correlations between exogenous constructs were lower than the threshold except for the one between ATB and EI that was a fraction higher. In addition, the authors checked that the square root of the AVE values were greater than the inter-construct correlations and that the AVE values were higher than the maximum shared variance (MSV) and the average shared

variance (ASV). For internal reliability, the authors compared the Cronbach alpha for each factor with the recommended threshold  $> 0.70$ . All of the Cronbach alpha values were higher than the threshold. For composite reliability, this study compared the composite reliability (CR) for each factor with the recommended threshold  $> 0.60$ . All of the CR values were higher than the threshold. In summary, given the discussion above and the fact that the unstandardized regression weights were all significant by the critical ratio test ( $> \pm 1.96, p < 0.05$ ), the model seems to fit the data well.

### 3.5 Group Invariance

One of the questions that this study wants to examine is whether the pattern of structural relations hypothesized in the path model follows the same dynamics for male and female students (as well as for the entire sample of the population). In investigating gender differences in the path model, it is necessary to first test whether the factor structure represented by the posited measurement model is the same for both groups (Ho, 2014), i.e., through common factor analysis. The authors checked for cross-group validity of the measurement model by performing a series of tests where the demands for the equivalence of the measuring model increased gradually to check for invariance. This study followed the recommendations by Blunch (2013) and used RMSEA as the main fit measure. Table 5 shows that, after fitting the model simultaneously to the different datasets, the RMSEA is small across all the increasingly more constrained models.

**Table 5 Fitness of the different models by the RMSEA measure**

Model	RMSEA	LO 90	HI 90	PCLOSE
0) Unconstrained	0.037	0.035	0.038	1.000
1) Measurement weights	0.037	0.035	0.038	1.000
2) Structural weights	0.037	0.035	0.038	1.000
3) Structural covariances	0.036	0.035	0.038	1.000
4) Structural residuals	0.036	0.035	0.038	1.000
5) Measurement residuals	0.036	0.034	0.037	1.000
Independence model	0.137	0.136	0.139	0.000

(Source: own)

To further verify the fit of the various models, this study also looked at the incremental fit measures given in Table 6, constructed from several tables of marginal chi-square test for hierarchical models. The chi-square-difference test shows that all the models are not significant at any level. Furthermore, by adding increasing restrictions, the differences for indicators NFI, IFI, RFI, and TLI changed very little for all models.

**Table 6 Incremental fit measures. Assuming model 0 (unconstrained) to be correct**

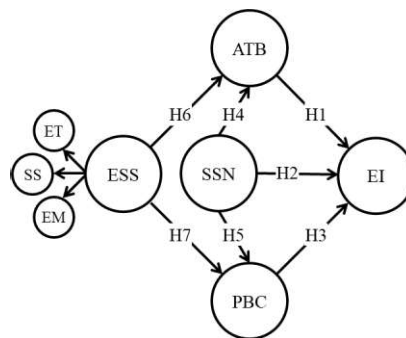
Model	DF	CMIN	P	NFI	IFI	RFI	TLI
1) Measurement weights	29	40.117	0.082	0.001	0.001	-0.001	-0.001
2) Structural weights	31	40.277	0.123	0.001	0.001	-0.001	-0.001
3) Structural covariances	46	49.255	0.344	0.002	0.002	-0.002	-0.002
4) Structural residuals	49	54.378	0.277	0.002	0.002	-0.002	-0.002
5) Measurement residuals	111	130.578	0.099	0.004	0.005	-0.003	-0.004

(Source: own)

### 3.5 Structural Model

The group invariance test of the measurement model above confirmed that the structural model is appropriate to evaluate and compare the two groups of students. For this, this study used the factor structure assessed in the measurement model, i.e., three factors with five measurement indicators each, one factor with six measurement indicators, one factor with three sub-factors with five measurement indicators each, and multi-group analysis applied simultaneously to the different samples as depicted in Figure 4. To test the assumption that the path model holds for both male and female students, the authors followed the recommendations by Ho (2014) and required that the pattern of relationships (i.e., the path coefficients) be the same for both groups. However, they did not require the unique variances and covariances for male and female students to be group-invariant. The rationale behind this assumption of group-invariant path coefficients is that, although it is probably reasonable to assume that the observed and unobserved variables have different variances, covariances, and regression weights among male and female students, the process by which the two groups arrived at their decision about EI may be similar. If the path coefficients are the same for male and female students, then the same path coefficients can be used for both groups, which simplifies the prediction of the endogenous variables from the model's exogenous variables (Ho, 2014).

**Figure 4 Second-order path model with seven hypotheses to test**



(Source: own)

## 4 RESULTS AND INTERPRETATION

The covariance matrices generated from the datasets contain 1998 sample moments. For the unconstrained model, there were 324 distinct parameters to estimate and 1674 degrees of freedom (1998 – 324). For the constrained model, there were 306 distinct parameters to estimate and 1692 degrees of freedom (1998 – 306). Table 7 presents a model fit summary for the unconstrained and constrained path models. Both models fit the data quite well.

**Table 7 Model fit summary for unconstrained and constrained model**

Measure	Unconstrained	Constrained
Absolute fit:		
Chi-square, <i>p</i> -value	3813.979, < 0.05	3830.856, < 0.05
RMSEA (LO 90, HI 90)	0.040 (0.039, 0.042)	0.040 (0.038, 0.042)
GFI	0.799	0.798
Incremental fit:		
AGFI	0.760	0.762
CFI	0.924	0.924
TLI	0.914	0.915
IFI	0.925	0.925
Parsimonious fit:		
Chi-square/ <i>df</i>	2.278	2.264

PNFI	0.773	0.781
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(Source: own)

Table 8 shows the nested model comparison statistics for the two models assuming that the unconstrained model is correct. The comparison indicates that the chi-square difference value for the two models is 11.842 (3830.856 – 3813.979), which with 18 degrees of freedom (1692 – 1674), is not significant at any level. Therefore, the two models do not differ significantly in their goodness-of-fit.

**Table 8 Nested model comparisons. Assuming the unconstrained model to be correct**

Model	DF	CMIN	P	NFI	IFI	RFI	TLI
Constrained	18	16.877	0.532	0.001	0.001	-0.001	-0.001

(Source: own)

From an information theoretic standpoint, the Akaike information criterion (AIC) in Table 9 shows that the constrained model would be the best model (Akaike, 1998; deLeeuw, 2011). In evaluating the hypothesized models, the AIC measure takes into account both model parsimony and model fit. Simple models that fit well receive lower scores, whereas poorly fitting models get higher scores (Ho, 2014). Based on the model comparison’s findings, and assuming that the constrained model is correct, the constrained model’s estimates are preferable over the unconstrained model’s estimates (Ho, 2014).

**Table 9 Akaike information criterion for the two competing models**

Model	AIC	BCC	BIC	CAIC
Unconstrained	4461.979	4585.256		
Constrained	4442.856	4559.284		

(Source: own)

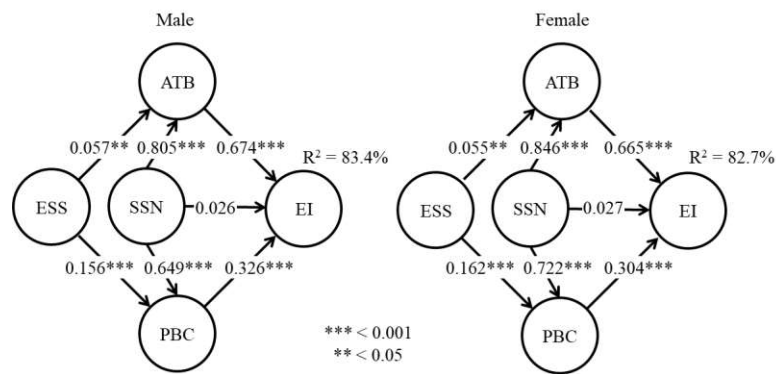
Table 10 presents the unstandardized regression weights (RW) and standardized regression weights (SRW) for male and female students for the constrained model. Of the seven coefficients associated with the paths linking each gender-based model’s exogenous and endogenous variables, six are significant by the critical ratio test ( $> \pm 1.96, p < 0.05$ ) while one is not significant. Figure 5 depicts the path coefficients for male and female students. The relations hypothesized by H1, H3, H4, H5, H6 and H7 are significant at the  $p < 0.05$  or  $p < 0.001$  levels. The relations hypothesized by H2 is not significant.

**Table 10 Regression weights and standardized regression weights**

Path	RW	SE	CR	P	SRW Male	SRW Female	Label
EI ← ATB	0.660	0.050	13.257	***	0.674	0.665	H1
EI ← SSN	0.057	0.128	0.448	0.654	0.026	0.027	H2
EI ← PBC	0.358	0.036	9.901	***	0.326	0.304	H3
ATB ← SSN	1.836	0.145	12.629	***	0.805	0.846	H4
PBC ← SSN	1.321	0.114	11.586	***	0.649	0.722	H5
ATB ← ESS	0.060	0.030	2.023	0.043	0.057	0.055	H6
PBC ← ESS	0.147	0.029	5.079	***	0.156	0.162	H7

(Source: own)

Figure 5 Structural path models for male and female students with standardized path coefficients



(Source: own)

Table 11 presents the squared multiple correlations showing the amount of variance in the endogenous variables accounted for by the exogenous variables. For male students, the university’s ESS and SSN account for 65.1% and 44.6% of the variances of ATB and PBC, respectively. For female students, the joint influence of the university’s ESS and SSN account for 71.9% and 54.7% of the variances of ATB and PBC, respectively. Together, ATB, SSN, PBC and ESS account for 83.4% and 82.7% of the variances of the EI of male and female students, respectively.

Table 11 Squared multiple correlations

Group	ATB	PBC	EI
Male Students	0.651	0.446	0.834
Female Students	0.719	0.547	0.827

(Source: own)

Of the three paths influencing the EI of students, two are statistically significant, i.e., ATB (male:  $\beta = 0.674^{***}$ , female:  $\beta = 0.665^{**}$ ) and PBC (male:  $\beta = 0.326^{***}$ , female:  $\beta = 0.304^{***}$ ), where ATB seems the most influential. The university’s ESS seems to have a significant positive effect on the precursors ATB (male:  $\beta = 0.057^{**}$ , female:  $\beta = 0.055^{**}$ ) and PBC (male:  $\beta = 0.156^{***}$ , female:  $\beta = 0.162^{***}$ ), where the influence on PBC seems to be the strongest. This could mean that students perceive that the university is contributing to their PBC, although relatively small, by providing them with the resources necessary to start a new business. Furthermore, the indirect effects of ESS on EI that flow through ATB and PBC are positive and significant for male ( $0.089^{**}$ ) and female ( $0.086^{**}$ ) students. Table 12 shows the standardized indirect effects of ESS and SSN that flow through the different paths in the model. All of the indirect effects from ESS and SSN are positive and significant at the  $p < 0.05$  level.

Table 12 Standardized indirect effects (male, female)

Path	Effect	Lower	Upper	SE	P
ESS → ATB + PBC → EI	0.089, 0.086	0.020, 0.020	0.169, 0.158	0.038, 0.036	0.009, 0.009
SSN → ATB + PBC → EI	0.754, 0.782	0.640, 0.684	0.896, 0.913	0.064, 0.059	0.001, 0.001

(Source: own)

Finally, this study estimated the factor means using a common factor analysis model of the data from both populations. Since it is not possible to estimate the means of every factor for both populations, the authors followed the approach by Sörbom (1974) to estimate the differences in factor means across

populations. That method also provided a test of significance for differences in the factor means. To test the null hypothesis that the factor means are the same for male and female students, the regression weights and intercepts were set as equal and the factor means for male students set to zero. The common factor analysis model fits the data well by the FP and the unstandardized regression weights are all significant by the critical ratio test ( $> \pm 1.96, p < 0.05$ ). Since the authors fixed the factor means for male students to zero, Table 13 shows the factor means for the difference between both populations. The university's ESS seems to affect male students more than it does female students although the difference is not significant. The EI of female students seems to be lower than that of the male students,  $-0.563^{**}$ . This difference could be very material, judging by their standard deviations (male students,  $1.472^{***}$  and female students,  $1.511^{***}$ ).

**Table 13 Difference in factor means for female students**

Factor	Estimate	Lower	Upper	P
ESS	-0.200	-0.466	0.120	0.167
ATB	-0.585	-0.905	-0.301	0.002
PBC	-0.411	-0.689	-0.132	0.003
EI	-0.563	-0.884	-0.270	0.002
SSN	-0.200	-0.420	-0.038	0.020

(Source: own)

## CONCLUSIONS

This study enabled the authors to develop a better understanding of the influence of the university's ESS on the antecedents of the EI of female students. The literature review found that there are numerous studies previously done to measure gender differences in the EI of university students. Furthermore, very few researchers conducted specific studies to understand the relationship between the university's ESS and the EI of female students. Based on previous research by others, the authors were able to develop a methodology to assess the influence of the university's ESS on the antecedents of the EI of female students. Analysis of the data suggests that the methodology is appropriate to measure the relation between the four precursors (ATB, SSN, PBC, ESS) of EI and the EI of male and female students and their differences. Analysis of the data also corroborated that the university's ESS comprises three distinct but related constructs: ET, SS, and EM, and that these could indirectly shape the attitudes of female students and have an impact on their general motivation to behave. The results show that the university's ESS has a significant but low influence on the PBC of female students, while its influence on the ATB of female students is only significant at the  $<0.05$  level. However, ATB has a much larger influence than PBC on the EI of female students due to the impact of SSN. The authors posit that since SSN has such a large influence on both the ATB and PBC of female students, finding ways to design some elements of the university's ESS such that they would positively influence SSN might prove to be beneficial to the university's efforts to support female student entrepreneurs.

Furthermore, since the overall results of this study are consistent with similar research done by others, further analysis of the data can inform the university in order to improve the current university's ESS for female student entrepreneurs. In addition, results from this study will serve as a baseline for future research and longitudinal studies. The authors will use a refined version of this study to re-assess the influence of the university's ESS on a regular basis (bi-yearly or every four years). With the evolving information, the university will be able to assess the efficacy of its innovation and entrepreneurship initiatives in promoting entrepreneurial activities on campus. By understanding its entrepreneurial efficacy, the university will be better equipped to raise the perceptions of venture feasibility and desirability, thus increasing students' perceptions of opportunity. The authors hope that other aspiring

entrepreneurial universities will conduct similar studies in order for them to gauge their respective entrepreneurial initiatives, and to grow the literature with specific cases that researchers and practitioners can use to build a deeper understanding of the EI of female university students.

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## APPENDIX

**Table 14 Synthesis of results across studies**

Article	Hypothesis or research question	Supported?
(Mueller & Dato-On, 2008)	“Males express higher levels of entrepreneurial self-efficacy than females.”	No
	“Among both males and females, a stereotypical masculine orientation is associated with higher levels of entrepreneurial self-efficacy than a stereotypical feminine orientation.”	Partially
	“Among both males and females, an androgynous orientation is associated with higher levels of entrepreneurial self-efficacy than a stereotypical feminine orientation.”	Partially
	“Among both males and females, higher levels of self-efficacy for the searching-phase entrepreneurial tasks are associated with an androgynous orientation compared to a stereotypical masculine orientation.”	Partially
(Gupta et al., 2008)	“When men and women are not provided with any gender stereotypical information about entrepreneurs, men will report stronger entrepreneurial intentions than women.”	Yes
	“Respondent gender and stereotype activation will interact such that men will report stronger entrepreneurial intentions when presented with an implicit versus an explicit masculine stereotype whereas women will report stronger entrepreneurial intentions when presented with an explicit versus an implicit masculine stereotype.”	Yes
	Respondent gender and stereotype activation will interact such that women will report stronger entrepreneurial intentions when presented with an implicit versus an explicit feminine stereotype, whereas men will report stronger entrepreneurial intentions when presented with an explicit versus an implicit feminine stereotype.”	No

	“Respondent gender and stereotype activation will interact such that men will report significantly stronger intentions than women in the no stereotypical information condition, but men and women will report similar entrepreneurial intentions in the stereotype nullified condition.”	Partially
(Wilson et al., 2009)	“Entrepreneurial self-efficacy and entrepreneurial intentions are lower in female students than male students at both middle/high school and MBA stages.”	Yes
	“The effects of gender on entrepreneurial intentions of students are mediated by entrepreneurial self-efficacy.”	Partially
(Yordanova & Tarrazon, 2010)	“Women exhibit less favorable attitudes toward entrepreneurial behavior than men.”	Yes
	“Women perceive less supportive subjective norms about entrepreneurial behavior than men.”	Yes
	“Women have lower perceived behavioral control for entrepreneurship than men.”	Yes
	“Women exhibit lower entrepreneurial intentions than men.”	Yes
	“The gender effect on entrepreneurial intentions is mediated by attitudes toward entrepreneurship.”	Yes
	“The gender effect on entrepreneurial intentions is mediated by perceived subjective norms.”	Yes
	“The gender effect on entrepreneurial intentions is mediated by perceived behavioral control.”	Yes
(Phipps, 2012)	“A positive relationship exists between creativity and entrepreneurial intentions among women.”	Yes
	“A positive relationship exists between political skill and entrepreneurial intentions among women.”	Yes
	“Political skill will moderate the relationship between creativity and entrepreneurial intentions among women, such that the relationship will be stronger when women are more politically skilled than when they are less politically skilled.”	No
(Dabic et al., 2012)	“There is a significant gender difference in students’ willingness to start their own business.”	Yes
	“There is a significant gender difference in students’ intentions towards entrepreneurship as measured by desirability and feasibility.”	Yes
	“Among students willing and not willing to start their own business, there is a significant gender difference in students’ intentions towards entrepreneurship as measured by desirability and feasibility.”	No
	“There is a significant gender difference in students’ perceptions towards the academic programmes / activities / projects required to prompt success in an entrepreneurial career.”	Yes
(Haus et al., 2013)	“Women exhibit a lower average attitude toward starting a business compared to men.”	Yes
	“Women exhibit a lower average subjective norm to start a business than men.”	Yes
	“Women show a lower average PBC toward starting a business than men.”	Yes
(Shneor et al., 2013)	“Males will exhibit higher levels of entrepreneurial intentions, self-efficacy and perceived social norms, as well as lower levels of risk perceptions than females.”	Yes

(Karimi et al., 2013)	“Gender moderates the relationship between attitude and EI such that this relationship is stronger for male students than for female students.”	Yes
	“Gender moderates effect of subjective norms on EI such that this relationship is stronger for female students than for male students.”	Yes
	“Gender moderates the relationship between PBC and EI such that this relationship is stronger for female students than for male students.”	Yes
(Ashkezari & Ashkezari, 2013)	“Family barriers affect women’s entrepreneurship.”	Yes
	“Scientific-educational barriers affect women’s entrepreneurship.”	Yes
	“Cultural-social barriers affect women’s entrepreneurship.”	Yes
	“Educational and training barriers affect women’s entrepreneurship.”	Yes
	“Individuals character barriers affect women’s entrepreneurial.”	Yes
	“Financial barriers affect women’s entrepreneurship.”	Yes
(Maes et al., 2014)	“Legal barriers affect women’s entrepreneurship.”	Yes
	“Personal attitude serves as a direct mediator in explaining the weaker entrepreneurial intentions of women compared to men.”	Yes
	“Perceived behavioral control serves as a direct mediator in explaining the weaker entrepreneurial intentions of women compared to men.”	Yes
	“Social norms do not serve as a direct mediator in explaining the weaker entrepreneurial intentions of women compared to men. Instead, the influence of social norms runs indirect through personal attitude and perceived behavioral control.”	No
	“Women value balance in entrepreneurship more than their male counterparts.”	Yes
	“Women value achievement in entrepreneurship less than their male counterparts.”	Yes
	“Internal control attributes are more important for women than for men.”	Yes
	“External control attributes are more important for women than for men.”	Yes
	“Men will show comparatively stronger normative beliefs regarding entrepreneurship than women.”	No
	“Women will be comparatively more motivated to comply with social demands than men.”	Yes
(Zhang et al., 2014)	“Females have lower EI than males do.”	Yes
	“Gender has a positive interactive impact on the relationship between entrepreneurship education and EI.”	Yes
(Dempsey & Jennings, 2014)	“Young women will possess less enactive mastery related to entrepreneurship than young men, which will partially account for their lower ESE [entrepreneurial self-efficacy].”	Yes
	“Young women will possess less vicarious experience related to entrepreneurship than young men, which will partially account for their lower ESE.”	No
	“Young women will exhibit more negative (and less positive) physiological arousal related to entrepreneurship than young men, which will partially account for their lower ESE.”	Yes

	“Young women will receive less positive (and more negative) verbal persuasion related to their suitability for an entrepreneurial career than young men, which will partially account for their lower ESE.”	Partially
(Amentie & Negash, 2015)	“Parents background and discourage female students to start small business are not independent.”	Yes
(Zeffane, 2015)	“Males are more likely to display intentions to become entrepreneurs than their female counterparts.”	Partially
	“Females propensity to trust is lower than that of males.”	Partially
	“Females are less risk taking (or more risk averse) than their male counterparts.”	Yes
	“Trust and risk taking have a stronger impact on EI.”	Partially
(Westhead & Solesvik, 2016)	“The relationship between participation in EE (entrepreneurship education) and intensity of entrepreneurial intention is moderated by gender such that there is a negative relationship for female students and a positive relationship for male students.”	Yes
	“Gender will moderate the relationship between EE and (a) scan alertness, (b) connection alertness and (c) evaluation alertness skills and intensity of entrepreneurial intention, such that the relationships will be weaker for female than for male students participating in EE.”	No
	“Gender and participation in EE will moderate the relationship between accumulation of the risk-taking skill and intensity of entrepreneurial intention in so far that for female EE students, a weaker relationship will emerge between (a) RC and (b) RP skills and intensity of entrepreneurial intention.”	Partially
(Sahban et al., 2016)	“There is a difference between male and female business students in dealing with entrepreneurship.”	Yes
(Hussain & Hashim, 2016)	“Attitude has significant effect on entrepreneurial intentions of the females towards entrepreneurship.”	Yes
	“PBC has significant effect on entrepreneurial intentions of the females towards entrepreneurship.”	No
	“SN has significant effect on entrepreneurial intentions of the females towards entrepreneurship.”	Yes
(Shirokova et al., 2016)	“The positive relationship between entrepreneurial intentions and scope of start-up activities will be stronger for male student entrepreneurs than for female student entrepreneurs.”	Yes
	“The relationship between entrepreneurial intentions and the scope of start-up activities will be positively moderated by the favorable university entrepreneurial environment.”	Yes
(Arshad et al., 2016)	“Gender moderates the effect of social norms on attitude toward entrepreneurship, such that the positive effect of social norms on attitude toward entrepreneurship is higher among females.”	Yes
	“Gender moderates the effect of self-efficacy on attitude toward entrepreneurship such that the positive effect of self-efficacy on attitude toward entrepreneurship is higher in males.”	Yes

(Villasana et al., 2016)	“The mean scores for the four dimensions of the entrepreneurial profile are different for female and male undergraduate students.”	Partially
(Perez-Quintana et al., 2017)	“The higher the masculine GRO [gender-role orientation] of participants, the higher the entrepreneurial intention.”	Yes
	“The higher the female GRO of participants, the lower the entrepreneurial intention.”	No
	“The higher the androgynous GRO of participants, the higher the entrepreneurial intention.”	Yes
(Srivastava & Misra, 2017)	“More favorable the social norms, the more positive will be the personal attitude.”	Yes
	“More favorable the social norms, the stronger will be the perceived behavioral control.”	Yes
	“More positive the personal attitude, the stronger will be the entrepreneurial intentions.”	Yes
	“Stronger the perceived behavioral control, the stronger will be the entrepreneurial intentions.”	Yes
(Feder & Nițu-Antonie, 2017)	“Gender (G) moderates the influence of personal attitude (PA) on entrepreneurial intentions (EI).”	No
	“Gender (G) moderates the influence of perceived behavioral control (PBC) on entrepreneurial intentions (EI).”	Partially
	“Gender (G) moderates the influence of subjective norm (SN) on entrepreneurial intentions (EI).”	Partially
(Ferri et al., 2018)	“Attitude toward entrepreneurship has a positive effect on entrepreneurial intention of Italian female students.”	Yes
	“Subjective norm, regarding entrepreneurship, has a positive effect on the entrepreneurial intention of Italian female students.”	Yes
	“Perceived behavioral control has a positive effect on the entrepreneurial intention of Italian female students.”	Yes
(Ojewumi et al., 2018)	“...entrepreneurial intention will be significantly lesser among women than among the men counterparts.”	No
(Arora & Jain, 2019)	“There is no significant difference among male students of government management institutes, male students of private management institutes, female students of government management institutes and female students of private management institutes with respect to entrepreneurial intentions.”	Rejected
	“There is no significant difference between male students of government management institutes and female students of government management institutes with respect to entrepreneurial intentions.”	Not Rejected
	“There is no significant difference between male students of government management institutes and female students of private management institutes with respect to entrepreneurial intentions.”	Not Rejected
	“There is no significant difference between male students of private management institutes and female students of government management institutes with respect to entrepreneurial intentions.”	Rejected
	“There is no significant difference between male students of private management institutes and female students of private management institutes with respect to entrepreneurial intentions.”	Rejected



management institutes with respect to entrepreneurial intentions.”

“There is no significant difference between female students of government management institutes and female students of private management institutes with respect to entrepreneurial intentions.”

Not  
Rejected

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(Source: own)