**FACTORS THAT AFFECT MALE AND FEMALE STUDENTS’ ENTREPRENEURIAL INTENTION IN THE ITALIAN UNIVERSITY CONTEXT**

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**Abstract**

Entrepreneurship is increasingly recognized as an important driver of economic and social development. This is one of the main reason that prompts scholars to investigate the potential factors that may influence the entrepreneurial intentions (EIs), reserving particular attention to the individuals still within the education system.

The research recognize in the theory of planned behavior (TPB)a validated tool to predict entrepreneurial intentions students but it is not enough to explain all different behavior. So, this research extend the theory adding the gender variable to the model, recognized gender as a crucial factor able to influence the entrepreneurial intention.

Our study explores the interplay between gender differences and the formation of student’s entrepreneurial intention in the Italian context. It investigates the main factors determining entrepreneurial intention of 4176 Italian’s master students through an empirical questionnaire collected by Global University Entrepreneurial Spirit Student’s Survey (GUESSS).

Consistent with the TPB, our results show that gender differences in the relationship between perceived behavior control and EIs were found. Attitude towards entrepreneurship and subjective norms represent a stronger predictor of EIs for female students for their male counterparts. Social norms and relational motivations are more relevant for women than man. Furthermore, our findings show that different results are obtained related to the area (North or South Italy) in which students live or grew. This underline as the social context have a strong impact on the entrepreneurial intention. Future research will deepen the social context variables.

**Introduction**

Entrepreneurship is increasingly recognized as an important driver of economic and social development (Shane, 2004; Lunati et al., 2010; Keilbach and Sanders, 2008). This is one of the main reason that prompts scholars to investigate the potential factors that may influence the entrepreneurial intentions (EIs), reserving particular attention to the individuals still within the education system. The literature devoted particular attention to female entrepreneurship as, also in advanced market economies, women own 25% of all businesses (Wilson et al. 2007) and female entrepreneurship is still lower than male entrepreneurship (GEM, 2010), although the relevant role of women in the economic growth for developing countries. The lower presence of women in entrepreneurial activities (Bosma and Levie, 2010; Kelley et al., 2012) prompts scholars to investigate the factors that hamper or enhance female entrepreneurs (Sullivan and Meek, 2012; Eddleston and Powell, 2012), investigating the differences between male and female entrepreneurship (Davis and Shaver, 2012; Wu and Chua, 2012). Gender affects the entrepreneurial process as it highlights by Sullivan and Meek (2012) ‘s review on factors related to each stage of such process (motivation, opportunity recognition, acquiring resources, entrepreneurial success/performance) that affect the women in her entrepreneurial process,recognizing that these factors can vary with respect to gender. Also, the intention of individuals to begin an entrepreneur is affected by gender even if the findings on the enabling factors are still mixed. With respect to entrepreneurial intention, a stream of literature intends to understand how young people perceive or think about entrepreneurship with a particular attention to students (Luthje and Franke, 2003; Guerrero et al. 2008; Diaz-Garia and Moreno, 2010; De la Cruz-Sanchez et al, 2011). The literature recognizes the value of young people in improving the economic grow and the characteristics to be more willing to be self-employed (Blanchﬂower et al., 2000; Grilo and Irigoyen, 2006). In particular, in the studies on the entrepreneurial intention, students represent a relevant category as they are young, unemployed and, therefore, potential entrepreneurship. In addition, the gendered nature of entrepreneurship (Ahl, 2006; Bruni et al., 2004a,2004b, 2005; Ogbor, 2000; Henry *et al.*, 2016) urge the need to create an environment able to consider both genders in order to stimulate the birth of the entrepreneurial activities. In the creation of a favorable environment for overcome the perceived difficulties and to improve the participation of women to entrepreneurial activities, investigating the factors that affects female and male students to become entrepreneurshas notable implications for educators and policy-makers(Turker and Selcuk, 2008; Dabic et al., 2012).One difference among gender is the need of self-employment that affects men rather than women which have less interest in entrepreneurship (Grilo and Irigoyen, 2005; Minniti et al.; 2005; Wilson et al., 2004, 2007; Kirkwood, 2009; Kourilsky and Walstad, 1998; Marlino and Wilson, 2003; Minniti and Nardone, 2007; Fernandez et al., 2009).

Another relevant factor is the self-efficacy related to individuals’ perceptions of their skills and abilities in order to carry out a task. Women exhibit a lower self-efficacy behavior with respect to men (Marlino and Wilson, 2003; Dabic et al., 2012; Kickul et al., 2008; Bandura et al., 2001). But “if women thought they had the skills and abilities needed to achieve success, they would be more willing to start their own business” (Dabic et al., 2012,). Kolvereid (1996) put in evidence as the gender inﬂuences self-employment intentions indirectly through their effect on attitude, subjective norm and perceived behavioural control.

A further factor is the role of society and social norms as a favorable environment makes the individuals more incline towards entrepreneurship (Linan, 2008). Social and relational motivations are more relevant for women (Ferri et al 2018; Veciana et al. 2008). Bogatyreva et al., (2019) reveal that national culture influences the association between entrepreneurial intention and subsequent action considering 9 countries. Lechuga-Sancho et al. (2018) find that attitudes play as moderator of business intentions among Spanish students since the direct effect of perceived control behaviour on intentions increases as attitudes increase. Garcia-Rodriguez et al. (2017) analyses the entrepreneurial process in a European peripheral region, the Canary Islands in Spain, highlighting that motivation influences entrepreneurship intentions directly and indirectly through an individual’s attitude towards entrepreneurial behaviour.

Although a rich literature on entrepreneurial intention, the factors and decision-making process prompting individuals to begin an entrepreneurial activity is not well investigated yet (Markman et al. 2002; Diaz-Garcia and Moreno, 2009; Shinner et al, 2018).

In this paper, we aim at investigating the factors affecting the entrepreneurial intention in Italy.But being entrepreneurship is an embedded phenomenon (Jack and Anderson, 2002), we analyze the students’ entrepreneurial intention keeping in account also the territorial area of belonging.

In this perspective, this study intends to shed a light on relationship between students’ entrepreneur intention and gender analyzing how the factors related to entrepreneurial intention vary with respect to gender factors and socio-cultural dimension.

**2. Literature Review and Hypotheses**

*2.1. Studies on Ajzen’s TPB*

Entrepreneurial intention (EI) is deﬁned as “the conscious state of mind that precedes action and directs attention toward entrepreneurial behaviors such as starting a new business and becoming an entrepreneur” (Moriano, Gorgievski, Laguna, Stephan, &Zarafshani, 2012).

Intention models, along with the indirect inﬂuences of individual factors, oﬀer a way to understand the direct precursors to business startups and predict consequences of intentions in that they capture longer term tendencies held by individuals. Of the extant intention models, Ajzen's theory of planned behavior (Ajzen, 1991) has been widely operationalized and examined in the entrepreneurship literature. The Theory Planned Behaviour (TPB) was grounded on the premise that three determinants: (a) attitude toward outcomes of the behavior, (b) social/subjective norms and (c) perceived behavioral control, directly provide the motivational basis for intention to perform the behavior.

Attitude toward outcomes of the behavior refers to the degree to which an individual has a favorable or unfavorable appraisal of the behavior in question.

Social/subjective norms refer to the extent to which an individual perceives his or her behavior is consistent with signiﬁcant others' thoughts. Social norms here reﬂect the inﬂuence of a society's inherent cultural values and expectations to start entrepreneurial activities (Veciana, Aponte, &Urbano, 2005).As social norms vary across cultures and even within cultures, it is plausible to expect that their effeects on the propensity to become an entrepreneur vary according to cultural contexts as well (Shook andBratianu, 2010). As Elfving, Brännback, and Carsrud (2009) put forward, in such cultures as the United States, there is more support from society for starting up one's own business than in European countries. Based on a comparative analysis of a student population within the TPB framework, Shook and Bratianu (2010) articulate that in American and Northern European countries where entrepreneurship has been extensively approved, social support may not be a critical factor of EI compared to Eastern European countries.

The perceived behavioural control represents the propensity to act and the perceived feasibility of exhibiting a particular behavior and it is the extent to which the target behavior is within a decision maker's ability. This determinant largely overlaps with Bendura's perceived self-eﬃcacy concept (Bandura, 1989), deﬁned as one's personal beliefs regarding their abilities to succeed in performing the target behavior. Self-efficacy deﬁned simply as believing in one's own abilities and skills, is the key determinant of perceived feasibility of venture creation as it drives an optimistic self-view in the pursuit of goals (Barbosa, Gerhardt, &Kickul, 2007). A survey of entrepreneurial intentions of academics at technical faculties of University of Cambridge and University of Ljubljana by Prodan and Drnovsek (2010) reveals that self efficacy is the most inﬂuential factor in explaining academics' Entrepreneurial Intentionss, compared to other predictors.

Ajzen clarified that the exact nature of these relationships remains uncertain [Ajzen,1991] and is still an empirical issue, as there is a general adherence to the particular context of reference [Langowitz, 2007]. In this study, we focused on the prediction of entrepreneurial intentions rather than on its realisation because the increasing flexibility of jobs has led to increasing uncertainty of permanent work. Hence, given that the excess of flexibility has brought context to an excess of uncertainty, people prefer the entrepreneurial way to avoid unemployment concerns [Fatoki,2010; Harris and Gibbson, 2008].

*2.2. Studies on Women Entrepreneurial Intentions*

Women would also like to try the way of entrepreneurship. However, many studies have found that males have ahigher preference for entrepreneurship behaviour than females [Blanchflower, 1999, Scherer, R.F et al., ]. This preference is not due to a greater capacity of one compared to the other but rather to the difficulties that women often meet,for example, in obtaining a bank loan because women are perceived as less creditable than men [Delmar, F. et al., 2000].

Different studies, however, analyze the determinants of entrepreneurial intention according to thegender of people interviewed, but final results are still mixed. Kolvereid (1996) found that males have a significantly higher preference for self-employment than females. The author concluded that gender influences self-employment intentions indirectly through their effect on attitude, subjective norm and perceived behavioural control. It might seem obvious that women could have a high entrepreneurial intention because governments often develop policies and special programs addressed to them to encourage innovation and business development; however, despite these facilities, women often find barriers in their entrepreneurial activity. Indeed, Davidsson (2003) investigated the determinants of entrepreneurial intention based on Swedish participants and concluded that gender has little or no direct influence on entrepreneurial intentions.

Evidence suggests that female students, compared with male students, have lower confidence in their business abilities (Scherer, Brodzinski, &Weibe, 1990; Chowdhury & Endres, 2005; Wilson et al., 2007). In addition, because of agentic nature of entrepreneurship women perceive their environment to be more difficult or less rewarding for entrepreneurial activity (Zhao et al.,2005) and they will be likely to have a lower sense of personal control over many activities associated with this type of career than men (BarNir et al., 2011).

This higher level of salience of instrumentality to men is expected to have an effect on PBC as well (Venkatesh et al., 2000). Due to higher instrumentality men are more likely to be willing to put in more effort to overcome constraints in order to achieve their objectives, without necessarily thinking about or emphasizing the magnitude of the effort involved (Venkatesh et al., 2000). In contrast, women tend to focus on the methods used to accomplish a task suggesting a greater process orientation (Hennig & Jardim, 1977; Rotter & Portugal, 1969). Given the process orientation of women and the lower levels of confidence in their business abilities (see Chowdhury & Endres 2005; Wilson et al. 2007), the perceived ease or difficulty of starting up a new business is expected to have an important influence over their entrepreneurial intention. Therefore, one may assume that for females more than males, perceptions of control and self-efficacy is more influential for their intention to start up ne new business.

The differences in entrepreneurial attitudes, intentions and behavior between men and women can be attributed to differences in social orientation and behavioral motivation. Within the framework of the TPB, subjective norms, which reflect perceived social pressure, should be more important in predicting behavioral intentions among women than among men, while personal attitudes, which reflect instrumental outcomes related to be an entrepreneur, should be stronger predictors of behavioral intentions for men than for women.

In this framework, explaining the entrepreneurial intention as career path right after studies; as entrepreneurial propensity (career path 5 years later) and as planning ( students that currently trying to start own business), we investigate the following hypotheses:

**H1. Gender will moderate effects of EI such that the relationship is stronger for male students than for female students.**

**H2. Gender will moderate the effect of Career path such that the relationship is stronger for female students than for male students.**

**H3. Gender will moderate the effect between planning such that the relationship is stronger for female students than for male students.**

# Methodology

## Data collection

We based our investigation on data relied from a survey University Entrepreneurial Spirit Students’ Survey (GUESSS),

GUESSS is an international research project started in 2003 by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen. The GUESSS project investigates and compares entrepreneurial attitudes and activities of students in more than 50 countries in the world.

Since most of the variables considered in this study were personality-related, self-reports questionnaire was an appropriate method to detect them [86]. the survey questionnaire is built of scale questions that were based on the seven-point Likert scale (strongly disagree 1; disagree 2;tend to be different 3; neutral 4; agree 6 and strongly agree 7) nominal and ordered ones. Likert scale type questions were used for entrepreneurial intentions (6 items); attitudes (5 items); subjective norms (3 items) and behavioural control (6 items), whereas nominal scales were used for demographic social and academic variables and ordinal for preferences one. The instrument was reviewed twice to guarantee that the respondents understood all research statements and the measurement scales used in study easily. The Questionnaire structure design was based on the GUESSS in which the Theory of planned behavior (TPB) (Ajzen, 2002; Fishbein &Ajzen, 1975) was the main theoretical construct. Many empirical studies have adopted and tested the appropriateness of TPB in studying entrepreneurial intention (Lüthje and Franke, 2003, Kolvereid and Moens, 1997, Souitaris et al., 2007, Fayolle et al., 2006) The data are collected biannually using online survey. Each country has a coordinator responsible for enlisting universities for this study. Investigations and analysis based on the widest set of students’ opinions are nowadays presented in the most rated journal on entrepreneurship and small business. Researches from different countries (Germany, Russia, Switzerland, Chile, Italy, Slovakia, etc…) used GUESSS database to investigate different topics related to the entrepreneurial mindset of young population: attitudes as moderator of entrepreneurial intention (Sancho et al., 2018), students’ perceptions of the entrepreneurial climate in their university (Bergmann et al., 2018), entrepreneurial self-efficacy explained by entrepreneurs’ social identity (Brandle et a., 2018).

As affirmed in Shneor and Jenssen (2014), when placed in the context of the theory of planned behavior it must be acknowledged that most of these studies examined women and men at stages of active entrepreneurial engagements, and hence at the action stage of behavior.

## Data analysis

## The statistics software IBM SPSS 24 was used to perform descriptive data analysis in each sample. A sample of 4176 Italian’s master students has been analyzed, applying structural equation model (SEM) approach, that is one of the most widely used methods for analysing multivariate data in the social and behavioral sciences.

This methodological instrument was chosen having in mind that, according to Hair et al (2005) the structural equation modeling provides a direct method to simultaneously handle multiple dependency relationships with statistical efficiency. The SEM allows for the operation of relationship between variables in a profound fashion, conducting exploratory and confirmatory analysis. Also, it allows for the representation of unobservable concepts in these relationships.

*Results*

This study was mainly concerned with the relationship between the antecedents of entrepreneurial intention as the independent variables (Attitudes Toward Behaviour, Subjective Norms, and Perceived Behavioural Control) and student entrepreneurial intention as dependent variable. In particular, entrepreneurial intention is split in two different variables: Entrepreneurial intention, as career path right after studies; Entrepreneurial propensity, as career path 5 years later; and planning as students that currently trying to start own business.

The Research Model is presented below (Fig.1).



**Figure 1.** Applied Research model

In Tab.1 Authors show the preliminary results obtained analyzing the relations between Independent Variable e the Entrepreneurial Intention, spitted in three different output considered propensity, as career path 5 years later; and planning as students

Table 1 .*Full Model and gender differences. Stand. β*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Dependent variable: Intention** | | |
|  | **General Model (N=3968)** | **Female**  **(n = 2224)** | **Male**  **(n= 1744)** |
| Self-efficacy | .09\*\* | .11\*\* | .06\* |
| Locus of control | .07\* | .03 ns | .11\*\* |
| Attitude | .76\*\* | .75\*\* | .77\*\* |
| Univ. Atmosphere | .06\*\* | .06\*\* | .06\*\* |
| Norms | -.07\*\* | -.05\* | -.09\*\* |
|  |  |  |  |
|  | **Dependent variable: Propensity (Career path 5 years later)** | | |
|  |  |  |  |
| Intention | .18\*\* | .13\*\* | .26\*\* |
| University Location | .09\* | .03 ns | .10\* |
| Parents self-employed | .05\* | .04ns | .04ns |
|  |  |  |  |
|  | **Dependent variable: Planning (Are you currently trying to start your own business / to become self-employed?)** | | |
|  |  |  |  |
| Intention | .20\*\* | .22\*\* | .21\*\* |
| University Location | .18\*\* | .11\*\* | .19\*\* |
| Parents self-employed | .09\* | .06\* | .13\*\* |

\* p < 0.05; \*\* p < 0.001

In order to address the common method variance and response bias issues we randomly inserted items into the questionnaire and we used a scale to assess social desirability, excluding all cases with low or high scores,according to the measure's cut-off criteria [87]. The method of estimation was Maximum Likelihood (ML). According to the literature [92], the model was assessed by several goodness-of-fit criteria: the χ2 goodness-of-fit statistic; the Root Mean Square Error of Approximation (RMSEA); the Comparative Fit Index (CFI); the Tucker Lewis Index (TLI); the Standardized Root Mean Square Residual (SRMR).

The statistics software IBM SPSS AMOS 24 was used to perform descriptive data analysis

Three different configuration was investigated: in the first, the total sample is considered for our implementation ; in the second (male and female) was investigated separately. In the last one, a multi group was analyzed to take into account that students came from different Italian regions. Structural equation model (SEM) was performed in order to test the hypothesized model. In all configuration, Standardized factor loadings of items of the measure scales were all significant. Results are summarized in the table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | χ2  (p < 0.001) | CFI | TLI | RMSEA | Probability RMSEA | SRMR |
| First Configuration | 7073.954 | 0.92 | 0.91 | 0.06 | 0.00 | 0.09 |
| Second Configuration | χF2 = 3924.740 | 0.93 | 0.91 | 0.06 | 0.00 | 0.08 |
| χM2 =3869.163 | 0.90 | 0.90 | 0.07 | 0.00 | 0.09 |
| Third Configuration | 7901 | 0.92 | 0.91 | 0.06 |  | 0.08 |

The findings showed that gender (control variables) have a positive relationship with all the TPB antecedents. In particular, :

**H1. Gender will moderate effects of EI such that the relationship is stronger for male students than for female students**.

*Dependent Variable: Entrepreneurship.*

-Attitude is the most important variable and it is not influenced by gender.

-Intention and social norms are inversely proportional. Probably, students are negatively affected by too stringent constraints. It is interesting to note that the male feels more pressure than women. This is even more evident for the new generation. Self-efficacy and locus of control see a more pronounced gender influence.

**H2. Gender will moderate the effect of Career path such that the relationship is stronger for female students than for male students**.

*Dependent Variable:Propensity*

- Intention is the particular relevant the gender gap, more for the male than woman.

- Same situation analyzing the role of the university location.

- Parents self employed is not significant for both groups.

**H3. Gender will moderate the effect between planning such that the relationship is stronger for female students than for male students.**

*Dependent Variable : Planning.*

-Intention appear more relevant variable, both analyzing all sample and splitting the sample in male and female groups. Variable assume the same relevance both male and female.

- University location is more relevant for male than female.

- Parents self efficacy, although not too much significant, assumes relevance for the male group.

# Conclusion, limitations and perspectives

The findings support the idea that the control variables influence the TPB antecedents to the explanation of entrepreneurial intentions.

The limitations of this study are threefold. This research is limited to student in particular geographic area and discipline. Second, this paper has a methodological limitation. It consisted of studying student entrepreneurial intention in static perspective, at a determined moment (level one and first term in a university teaching process).

However, our findings show that different results are obtained related to the area (North or South Italy) in which students live or grew. This underline as the social context have a strong impact on the entrepreneurial intention. Future research will deepen the social context variables.

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