Gender and Entrepreneurial Intentions

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The paper identifies commonalities and differences between women and men in terms of eleven key factors' impact on the formation of entrepreneurial intentions (EIs) among Norwegian students. The analysis is based on a sample of 1,782 Norwegian students from a variety of faculties and degree programs. A path analysis methodological approach is used, while being based on multiple regressions so as to gradually refine model complexities. Findings show that common to both sexes are the effects of entrepreneurial experience, social norms, self-efficacy, and age. The direct effects of role models and taking an economics major are only evident among males. The direct effect of entrepreneurship education and risk perceptions are only evident among females. Moreover, the study identifies the criticality of role models and an economics major in the overall network of effects in the case of male students, as well as the critical role of entrepreneurial education in the overall network of effects in the case of female students.

Keywords:
Entrepreneurial Intentions, Entrepreneurship, Sex, Gender, Students.

Entrepreneurial intentions and the factors influencing them: A focus on similarities and differences between women and men

Introduction

While women entrepreneurship is growing in importance and numbers, academic research of it remains relatively limited (Baker, Aldrich and Liou 1997, Brush 1992, 2006). One of the main reasons for this situation is an assumption that there are no differences between men and women entrepreneurs (Brush 2006). Indeed, the growing interest in women entrepreneurship in recent decades has produced interesting studies, mainly highlighting women's greater tendency to concentrate in service and retail sectors (Hisrich and Brush 1983, Neider 1987), to experience challenges in access to finance (Carter and Rosa 1998, Coleman 2000), and to achieve more moderate results in terms of business growth and long term performance (Boden and Nucci 2000, Cliff 1998, Rosa, et al. 1994).

However, when placed in the context of the theory of planned behavior (Ajzen 1991), 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. As a result, insights into similarities and differences between them at the intention formation stage remain scarce. In this context, it is worth noting that earlier studies showed that the theory of planned behavior (TPB) was particularly valuable for understanding and predicting new venture formations thanks to the criticality of forming intentions prior to actually starting a business (Iakovleva and Kolvereid 2009, Krueger and Carsrud 1993, Krueger, Reilly and Carsrud 2000, Liñán and Chen 2009).

According to Hindle et al. (2009), since women entrepreneurs systematically represent lower proportions of the population, and since they are relatively disadvantaged in terms of human capital in most countries, a woman may require more human and social capital than a man does, in order to form the same level of entrepreneurial intentions. Therefore, there is a need to draw clear distinctions between women and men with respect to the process of entrepreneurial intentions' formation. In turn, understanding gender differences in entrepreneurial intentions may lead to better understanding of lower entrepreneurial activity among women in comparison to men (Yordanova and Tarrazon 2010).

Therefore, the current chapter will focus on the intention formation stage of the TPB, attempting to identify commonalities and differences between men and women with respect to various factors assumed to influence their intentions to establish an entrepreneurial venture and/or being self-employed. First, we present a literature review of entrepreneurial intentions' models, concluding with a special focus on gender in studies of entrepreneurial intentions. Second, we present a new study that seeks to reveal some of the differences in the structure of relationships between different variables influencing entrepreneurial intentions' formation. Third, a discussion confronting our findings with those of earlier studies is presented, while identifying potential contributions, as well as limitations. Finally, the paper concludes with a summary of main findings and suggesting some venues for future research.

Literature Review

Being one of the pioneers to stress the centrality of intentions to entrepreneurial behavior, Bird (1988) broadly defined intentionality as "a state of mind directing a person's attention (and therefore experience and action) toward a specific object (goal) or a path in order to achieve something (means)" (p. 442), and more specifically, entrepreneurial intentions as "aimed at either creating a new venture or creating new value in existing ventures" (p. 443).

Models of entrepreneurial intentions

Scholars concerned with the decision leading up to new venture creation, quickly picked up on this notion and began developing entrepreneurial intentions' models, mostly based on Shapiro and Sokol's (1982) theory of the entrepreneurial event, and Ajzen's (1991) theory of planned behavior. While the former focused on entrepreneurial intentions in particular, the latter aimed at explaining planned behavior in general. The entrepreneurial event approach argues that an individual's perceptions of desirability, feasibility, and propensity to act influence his or her entrepreneurial intentions. And the theory of planned behavior argues that individual's attitudes, subjective norms, and perceived feasibility influence his or her intentions in general, while entrepreneurial intentions can be one type of such intentions. Having said that, the two models are conceptually similar (Krueger 2009). Shapero equated intent with the identification of a credible and viable opportunity, which is achieved by the extent to which an individual perceives an opportunity as desirable (paralleling attitudes and social norms in the TPB) and feasible (paralleling self-efficacy in the TPB).

In any case, both models received empirical support in a series of studies (Krueger and Carsrud 1993, Krueger, Reilly and Carsrud 2000, Shook, Priem and McGee 2003), and some have even suggested integrative models building on components from both models (Iakovleva and Kolvereid 2009, Krueger, Reilly and Carsrud 2000).

According to Hindle et al. (2009), although the different models of entrepreneurial intentions come in many variations, they have more similarities than differences, as they essentially represent states of mind while underestimating the social contextualization of these states of mind. In particular, these authors suggest an informed intent model in which existing models are strengthened by incorporating human and social capital variables. Both, human and social capital, are here viewed as critical sources of information individuals use when forming

entrepreneurial intentions. Two main facets of human capital are education and experience, as both strengthen the cognitive capabilities of individuals to recognize opportunities by combining pieces of information effectively; and as such informs judgments concerning new venture creation. Social capital resources such as professional networks, family members and friends in business, as well as personally known entrepreneurs, are all sources of information, advice, support, and legitimacy when considering new venture creation. In addition, Hindle et al. (2009) also argue that gender in particular plays a critical role in moderating the effects of human and social capital, suggesting that females require higher education, greater start up experience and greater social capital than men in order to exhibit the same levels of entrepreneurial intentions.

Gender and entrepreneurial intentions

In order to identify the role of gender in the formation of entrepreneurial intentions, we have conducted a systematic search for empirical studies examining entrepreneurial intentions and including gender or sex, as control or independent variable, as well as a basis for splitting samples and comparisons. All in all, fifty-one articles covering analyses of sixty independent samples were deemed relevant for review. Interestingly enough, while academic interest in entrepreneurial intentions in general has increased during the last fifteen years, the inclusion of a gender dimension to related analyses has only emerged in the last five years.

Overall, our review found that twenty-eight studies used it as an independent variable, seventeen as a control variable, and six as a basis for splitting samples for comparative analyses. Hence, the majority of studies were not concerned by gender differences per se, but rather with the existence or absence of a gender effect on entrepreneurial intentions. In any case, findings are non-consistent to say the least. Direct effect of gender on entrepreneurial intentions was identified in twenty-one samples across studies, while an absence of such

effect was identified in thirty-five of the samples. The remaining samples were split by gender and traced gender differences. Possible explanations for such inconsistencies may be in an identified moderator role of gender, which was suggested in some studies (BarNir, Watson and Hutchins 2011, Díaz-García and Jiménez-Moreno 2010), or by its indirect effect via other mediating variables as suggested in others (Iakovleva, Kolvereid and Stephan 2011, Liñán, Urbano and Guerrero 2011, Shook and Bratianu 2010, Wilson, et al. 2009, Yordanova and Tarrazon 2010).

Inspired by Hindle et al.'s (2009) informed intent approach to entrepreneurial intentions, the inconsistencies in findings surrounding the effect of gender, and acknowledging the potential complexity of relationships among the variables in entrepreneurial intention models, in the remaining of this chapter, we present a new independent study that attempts to address these issues. Later, findings from this study will be confronted by re-visiting the theory, as well as earlier studies at the intersection of entrepreneurial intentions and gender/sex.

Methodology

Research Context

The study of entrepreneurial intentions requires an examination of entrepreneurial phenomena before they occur, while also including non-entrepreneurial intending subjects. Therefore, samples of students have been popular, as they reveal vocational preferences of individuals at a time when they face important career decisions (Krueger, Reilly and Carsrud 2000). Indeed, students represent publics that can be characterized by the 'between things' type of displacement, often associated with higher likelihood of starting a new venture (Shapero and Sokol 1982). Accordingly, such samples explicitly include subjects with a rather broad

spectrum of intentions and attitudes toward entrepreneurship (Krueger, Reilly and Carsrud 2000); and although details of a business may not have yet fully matured in subjects minds, global career intentions should have (Scherer, et al. 1989).

Moreover, Norway has been consistently recognized in Global Entrepreneurship Monitor (GEM) reports as an innovation-driven economy. In 2010, Norway had the second highest levels of latent entrepreneurship within innovation-driven economies (only surpassed by Iceland); as well as having the third highest level of early-stage entrepreneurial activity after Iceland and Australia (Kelley, Bosma and Amorós 2010). Such conditions, indicate a favorable environment for entrepreneurial development out of need for improvement rather than out of necessity, and may serve as fertile ground for those contemplating entrepreneurial careers and self-employment.

Therefore, and in accordance with the above, we focus our analysis on university students from Norway.

Data collection and sample

The data for our research is the result of a survey conducted among students from the University of Agder (UiA) in Norway, encompassing all departments and degree programs. Data was collected from students only and did not include members of faculty and/or staff. The survey was conducted from September to October 2009. The questionnaire was firstly pre-tested with 20 students, all of whom exhibited adequate understanding of all items. The final version of the questionnaire was then distributed as a web-based form by e-mail to 7,942 students on the UiA mailing list. Following Dillman's (2006) recommendations for four follow-ups, reminders were sent weekly to those who didn't complete the survey within a time frame of one month. At the end of the process, we have received 1,728 valid questionnaires, representing a response rate of 22 percent.

Our final dataset included 42 percent male and 58 percent female respondents. In terms of age distribution, 82 percent were thirty-five or younger, while 18 percent were thirty-six or older. In terms of degree type, 59 percent were bachelor students, 25 percent master students, and 16 percent engaged in other degree programs. Finally, in terms of faculty affiliations, 33 percent of respondents were in the faculty of economics and social sciences, 22 percent from the faculty of humanities and education, 22 percent from the faculty of science and engineering, 19 percent from the faculty of health and sports, and 4 percent from the faculty of arts.

Measures

Measures employed in the current study have been adopted from earlier studies, with occasional adaptations as specified below. Multiple item constructs were assessed based on a factor analysis. Since normality of item distribution was not supported in a Kolmogorov-Smirnov test, the extraction method selected was principal axis factorization. A four-factor solution emerged, with each item only loading on one factor. The rotated solution suggested three factors with eigenvalues greater than 1 (including - entrepreneurial intentions – 4.019, self-efficacy – 3.011, and social norms – 2.513), whereas the fourth eigenvalue was .987 (capturing risk perceptions). Since our dataset was large enough, the scree plot was considered, and suggested a four-factor solution. Cumulative variance explained by the extraction was 70.2%. Later, the reliability of each factor was further assessed using Cronbach's alphas. Finally, for allowing correlations between our constructs, their scores were saved as averages of all their related items.

Dependent variable

Entrepreneurial intentions have been captured in various ways in the literature, using both single (Fernandez, Linan and Santos 2009, Lee and Wong 2004) and multiple items (i.e.

Kolvereid 1996, Liñán and Chen 2009), mostly stressing both aspects of startup/firm establishment and self-employment. In our study, a construct capturing entrepreneurial intentions has been measured through a 7 point Likert-type scale with five items (Cronbach's alpha = .949), where 1 stands for "strongly disagree" and 7 for "strongly agree". Three items were adopted from Liñán & Chen's (2009) instrument: "My professional goal is to become an entrepreneur", "I am determined to create a firm in the future", and "I have the firm intention to start a firm someday". One item resembles an item used by Kuckertz et al. (2010), and formulated as: "I intend to start a firm within five years after graduation". The last item was inspired by Grilo & Thurik (2005), and was formulated as: "I prefer to be self-employed".

Independent variables

Drawing on findings from earlier studies, we have adopted a number of variables that were frequently used, deemed relevant for student entrepreneurial intentions, and exhibited relative inconsistencies in terms of their impact on entrepreneurial intentions in the different studies. In this section, each variable is presented, defined, and related to findings in earlier research while highlighting inconsistent and contradictory findings. Finally, table 1 summarizes the actual measurements used for each variable, and the sources it was either taken from, inspired by, or resembles to when self- created.

< Table 1 here >

Overall, our study includes twelve independent variables. The three core variables of the theory of planned behavior - self-efficacy, social norms, and risk perceptions (as proxy of attitudes); six variables capturing human capital, including - indications of entrepreneurial education, taking an economics major, years of education, having entrepreneurial experience,

current entrepreneurial status, and age; as well as three variables capturing social capital, including - indications of exposure to entrepreneurial role models, parental entrepreneurial experience, and motivation to comply with social demands. Sex was used to split samples between male and female students, allowing us to compare the two.

Self-efficacy (SE) – is a cognitive estimate, which captures a person's belief in their own abilities to perform on the various skill requirements necessary for pursuing a new venture opportunity (Chen, Greene and Crick 1998, DeNoble, Jung and Ehrlich 1999). Earlier studies have showed a consistent positive direct effect of self-efficacy on entrepreneurial intentions (i.e. BarNir, Watson and Hutchins 2011, Carr and Sequeira 2007, Fernandez, Linan and Santos 2009, Leffel and Darling 2009, Pejvak, et al. 2009).

Various authors have used different operationalizations for capturing self-efficacy, both single (i.e. Fernandez, Linan and Santos 2009) and multiple items (i.e. Lans, Gulikers and Batterink 2010, Sequeira, Mueller and McGee 2007, Zhao, Hills and Seibert 2005).

In the current study, we used five items, which focus on the extent to which respondents believe in their ability to cope with uncertainty, change, and risk (Cronbach's alpha = .877); all reflecting important aspects of entrepreneurial management. All items were re-formulated based on the earlier published items loading on the "risk-taking" dimension in Chen et al. (1998) and Kolvereid and Isaksen (2006), and DeNoble et al.'s (1999) "coping with unexpected challenges" dimension. Respondents indicated the extent to which they agreed with each statement on a 7-point Likert scale, where 1 stands for "strongly disagree" and 7 for "strongly agree".

Social norms (SN) – is an estimate, which captures normative beliefs about what important people think about an individual's choice to pursue an entrepreneurial career and/or self-

employment (Yordanova and Tarrazon 2010), and the social pressures that are associated with them (Carey, Flanagan and Palmer 2010). An overwhelming majority of studies indicate a direct positive effect of social norms on entrepreneurial intentions (i.e. Iakovleva and Kolvereid 2009, Kautonen, Luoto and Tornikoski 2010, Kolvereid and Isaksen 2006, Leffel and Darling 2009, Liñán and Chen 2009, Pejvak, et al. 2009). A single study identified negative effects (Shook and Bratianu 2010), which were explained by post-communist realities and heritage in the specific transition-economy context of Romania.

In line with earlier studies, we have adopted Kolvereid's (1996) three items for capturing social norms, while relating to whether close family, friends, and people important to the individual encourage him or her to establish his or her own business (Cronbach's alpha = .951). Here as well respondents were required to indicate the extent to which they agree with each statement on a 7-point Likert scale, as used earlier.

Motivation to comply (MTC) – an estimate that captures the extent to which individuals care about the opinion of others. While earlier studies computed values of this dimension into an overall estimation of social norms (Iakovleva and Kolvereid 2009, Kolvereid 1996), we have chosen to treat it separately for two reasons. First, we did so in an attempt to identify whether the positive effect on entrepreneurial intentions is originating from motivation-to-comply, social norms, or both. Second, we wished to remain open to possibilities that motivation-to-comply may interact with other variables in influencing entrepreneurial intentions, as part of the effort to uncover a more complex nature of relations between variables.

Therefore, we have created a single item – "I care about what my closest family and friends think about self-employment". Respondents were required to indicate the extent to which they agree with this statement on a 7-point Likert scale, as used earlier.

Risk perception (RP) – an estimate, which captures the extent to which individuals associate entrepreneurship and self-employment with risk, and their attitudes towards it. Here, in order to reduce the potential complexity of capturing entrepreneurial attitudes in general we have decided to focus on perception of risk, as a narrower proxy for entrepreneurial attitudes. Such approach is in tune with McMullen and Shepherd's (2006) claim that entrepreneurial action is an outcome of more willingness to bear uncertainty, and that attitude to risk is a sufficient proxy for perceived desirability (Fitzsimmons and Douglas 2011).

Various scholars have addressed the role of risk in studies of entrepreneurial intentions. Some showed that risk propensity is positively associated with entrepreneurial intentions (i.e. Grilo and Thurik 2005, Gurel, Altinay and Daniele 2010), while others showed that risk aversion is negatively associated with entrepreneurial intentions (i.e. Fernandez, Linan and Santos 2009, Yordanova 2011), and so is the concern with job security (Haase, Lautenschlager and Rena 2011). An exception here is a study by Hamidi et al. (2008), who found no effect, which can be explained by the specific item that was used, only addressing perceptions of financial risk. Therefore, we created a risk perceptions construct based on two items (see table 2 and 3), capturing the extent to which respondents associate entrepreneurship with risk (Cronbach's alpha 0.656). Here, again, respondents were requested to indicate the extent to which they agree with each statement on a 7-point Likert scale, as used earlier.

Exposure to role models (ERM) – is an estimate which captures the extent to which respondents have been exposed to entrepreneurs, who can serve as role models for them. While addressed in many studies, the operationalization of this variable remains problematic for two main reasons. First, it is often only relating to exposure to entrepreneurs, without necessarily associating this exposure with positive impression, success, or role model associations (i.e. Carey, Flanagan and Palmer 2010, Franco, Haase and Lautenschläger 2010,

Liñán, Santos and Fernández 2011). Three notable exceptions here are Walter et al. (2011), who looked at performance of entrepreneurial role models, Mueller (2011) who looked at students' evaluation of the entrepreneurs they met during an entrepreneurship course, as well as Zellweger et al. (2011), who looked into the extent to which respondents associate their parents' entrepreneurial experiences with positive feelings. Second, in some cases parents' entrepreneurial experiences were used as a proxy for exposure-to-role-models (i.e. Kickul, et al. 2008). However, role models may not necessarily be parents, and may be members of an extended network of relatives and friends, as well as media-profiled entrepreneurs. Earlier studies, considering family background and parental experiences show mixed results. Some find direct positive effect (i.e. Carr and Sequeira 2007, Crant 1996, Gupta, et al. 2009, Gurel, Altinay and Daniele 2010), while others find no effect on entrepreneurial intentions (i.e. Ahmed, et al. 2010, Kolvereid and Isaksen 2006, Singh and DeNoble 2003, Tornikoski and Kautonen 2009). Moreover, there are studies that find both results in different samples of the same study (i.e. Kuckertz and Wagner 2010, Plant and Ren 2010, Veciana, Aponte and Urbano 2005).

Similarly, inconsistencies are also evident with respect to the influence of knowing entrepreneurs in more extended social networks, while some studies find direct positive effects (i.e. BarNir, Watson and Hutchins 2011, Liñán, Urbano and Guerrero 2011, Mueller 2011), others do not (i.e. Carey, Flanagan and Palmer 2010, Franco, Haase and Lautenschläger 2010, Hamidi, Wennberg and Berglund 2008). In addition, there are studies showing both results in different samples of the same study (Liñán and Chen 2009, Liñán, Urbano and Guerrero 2011). These different findings may be explained both by different measurements, different samples collected in different contexts, as well as limited acknowledgement of complex relations with other variables in the different models studied.

Based on the above we have used two separate variables. For capturing exposure-to-role-models, respondents were asked to indicate the extent to which they agree with the statement: "I know successful business operators I can follow as role models" on a 7-point Likert scale, as used earlier. And for capturing *Parent Entrepreneurial Experience (PEE)*, we have used a value neutral dichotomous variable (as used in: Carey, Flanagan and Palmer 2010, Kolvereid 1996, Kolvereid and Isaksen 2006, Kuckertz and Wagner 2010, Lans, Gulikers and Batterink 2010, Tornikoski and Kautonen 2009), where respondents were required to indicate whether one of their parents has ever been self-employed or not.

Entrepreneurial experience (EEX) – is an indication of whether a respondent has prior experience in being self-employed. Entrepreneurial experience has mostly been measured via dichotomous items tapping into whether one has previously been self-employed or not (i.e. Kolvereid 1996), whether one has previously owned a business or not (i.e. Gupta, et al. 2009), and whether one is novice entrepreneur versus a serial one (i.e. Kolvereid and Isaksen 2006). In the current study, we use the same dichotomous indicator mentioned first.
Here, an overwhelming majority of studies find a positive direct effect of entrepreneurial experience on entrepreneurial intentions (i.e. Ahmed, et al. 2010, Fitzsimmons and Douglas 2011, Kolvereid and Moen 1997, Zhao, Hills and Seibert 2005), while a minority finds no effect (i.e. Kautonen, Luoto and Tornikoski 2010, Liñán, Urbano and Guerrero 2011).

Entrepreneurial status (EST) – is an indication of whether the respondent is self-employed at the time when taking the survey. We have identified a single study that controlled for actual entrepreneurial status when taking the survey, naturally finding significant positive effects on entrepreneurial intentions (Haase, Lautenschlager and Rena 2011). We have adopted the same

dichotomous variable, so as to differentiate between the effects of entrepreneurial experience in general, and those of active entrepreneurial engagements at the time data was collected.

Year of study (YOS) – an indication in which year of higher education is the respondent enrolled. Year-of-study has been captured in entrepreneurial intentions research either by number of years (i.e. Zellweger, Sieger and Halter 2011) or in a categorical classification of seniority (i.e. Turker and Selcuk 2009). Here, while most studies identify no direct effect on entrepreneurial intentions (i.e. Gurel, Altinay and Daniele 2010, Shook and Bratianu 2010, Turker and Selcuk 2009), some did identify a positive effect (i.e. Ahmed, et al. 2010, Brice Jr and Nelson 2008). Since our concern is with entrepreneurial intentions among students, we opted for including year-of-study in our survey, which was measured by years of enrollment in higher education.

Entrepreneurial education (EED) – is an indication of whether a respondent has ever attended an entrepreneurship course or training. Entrepreneurship education has been captured in entrepreneurial intentions research either as a dichotomous indicator of participation in an entrepreneurship course or training (i.e. Johansen and Clausen 2011, Tornikoski and Kautonen 2009), an indicator of whether respondents graduated with an entrepreneurship major (i.e. Kolvereid and Moen 1997), or by evaluating specific components and modules of an entrepreneurship education program (i.e. Franco, Haase and Lautenschläger 2010). In the current study, we use the same dichotomous indicator mentioned first.

Earlier research shows mixed results also with respect to the impact of entrepreneurship education on entrepreneurial intentions. While some find a positive effect of entrepreneurial education on entrepreneurial intentions (i.e. Hamidi, Wennberg and Berglund 2008, Johansen

and Clausen 2011, Jones, et al. 2008, Kolvereid and Moen 1997), others find no effect (i.e. Ahmed, et al. 2010, Tornikoski and Kautonen 2009).

Economics major (EM) – an indication of whether a respondent is a student in the faculty of economics or other faculties. Earlier studies that wished to compare business and economics students versus students in other fields come up with mixed results. Some studies show a higher entrepreneurial intentions among business/economics students (i.e. Schwarz, et al. 2009), others show lower levels of entrepreneurial intentions among them (i.e. Kristiansen and Indarti 2004), while others show no relation between economics major and entrepreneurial intentions (i.e. Zellweger, Sieger and Halter 2011). These inconsistencies, again, may be explained by different contexts of study, potential complex relations with the different variables of the models, and the existence of possible parallel conflicting effects of business/economics education.

Age (AGE) – an indication of how old a respondent was at the time taking the survey in years. Age has been captured in entrepreneurial intentions research mostly by the number of years (i.e. Sequeira, Mueller and McGee 2007, Tornikoski and Kautonen 2009), but also through categories of age ranges (i.e. Kautonen, Luoto and Tornikoski 2010, Lee and Wong 2004). Other researchers have opted for more than one indicator of age using both years and years squared (i.e. Grilo and Thurik 2005, Lee, et al. 2011, Raijman 2001). In our study, we have used a single indicator of age by number of years.

Earlier studies show inconsistent results with respect to the effect of age on entrepreneurial intentions. Some show a positive direct effect (i.e. Sequeira, Mueller and McGee 2007), others show a negative direct effect (i.e. Vinogradov and Gabelko 2010, Yordanova 2011), while others show no effect (i.e. Iakovleva, Kolvereid and Stephan 2011, Lee and Wong

2004). This inconsistency may be explained by claims of a curvilinear relationship of age and entrepreneurial behavior, based on the positive effects of experience, wealth and credibility, as well as the negative effect of growing opportunity costs and resistance to change (Schwarz, et al. 2009, Vinogradov and Gabelko 2010).

Method – Path analysis

Our study has an exploratory nature in the way that it wishes to re-evaluate existing knowledge by revealing the complex relations among multiple variables, and hence explain inconsistencies in the literature about the effects of each. In order to do so, one must first acknowledge the need to identify correlations that may be spuriously present. Path analysis is suitable for this purpose, as it allows identifying parsimonious models where one has at least an implicit causal ordering and most variables are correlated (Asher 1983). Indeed, in our case, we have both a causal ordering in mind and variables that are significantly correlated (see table 2).

< Table 2 here >

Since a majority of our variables are operationalized by single items, structural equation modeling was deemed less relevant, and instead we opted for using multiple regressions, gradually refining the model, while pruning out all non-significant paths, as suggested by Asher (1983), and already applied earlier in an EIs research by Kreuger (1993). Such analysis entails regressing each model variable on all prior variables to control for spurious correlations. An exception here are the Age and Parent Entrepreneurial Experience variables, for which there is no theoretical or logical ground to assume that they are influenced by any

of the remaining variables in the model. Moreover, to reduce model complexity we only include direct effects on EIs, and direct effects on factors affecting EIs directly.

The standardized regression beta coefficients comprise the path weights (Krueger 1993), rendering them comparable across samples. Accordingly, for sex-based comparison purposes, our sample was split to two, one including males only and the other females only. Figures 1 and 2 present all significant paths, as emerged from our multiple regressions for males and females, respectively (Tables 3.1-3.2). Each regression was run a number of times, while gradually removing variables with non-significant F-values in the linear case, and non-significant Wald-values in the logistic case (e.g. regressions where Entrepreneurial Experience, Entrepreneurial Status, Entrepreneurial Education, and an Economics Major served as dependent variables). Final regression for each variable only includes those variables, which had significant univariate F-values in the linear case, or Wald-values in the logistic case.

< Table 3.1 here >

< Table 3.2 here >

Furthermore, in order to ensure that those indirect paths included are those where mediation effects are evident, we tested for mediation effects, as reported in tables 4.1-4.2. We followed Baron & Kenny's (1986) procedures in the cases where regressions involved continuous variables as both dependent and mediator, and adjusted procedures in line with MacKinnon & Dwyre (1993), when the mediator was a dichotomous variable. In step 1, we regress the dependent variable on the independent variable, showing that there is an effect that may be mediated. In step 2, we regress the mediator on the independent variable, showing that the two are correlated. In step 3, we regress the dependent variable on the mediator while

controlling for the effects of the independent variable. The results of the last stage help us establish whether a mediation effect is in place, and whether it is partial or full mediation. In addition, Sobel Test values were calculated and are also reported in tables 4.1-4.2. Figures 1 and 2 include only indirect paths where mediation effect was confirmed.

< Table 4.1 here >

< Table 4.2 here >

< Figure 1 here >

< Figure 2 here >

Findings and discussion

Our findings support the view that when studying entrepreneurial intentions one must acknowledge a complex network of relations between the various variables of intentionality models, while acknowledging the social and human contextualization of such mind set formation processes. This presents a shift from the common practice of mostly using hierarchical regressions in similar analyses. More concretely, our study shows strong support for the moderating role of gender in the formation of entrepreneurial intentions, and presents its role in moderating both direct and indirect effects on entrepreneurial intentions.

In the current section, results of the study are presented by factor, while being enfolded in previous relevant literature.

Effect of Self-Efficacy

A direct positive effect of self-efficacy is evident in both males and females. In this sense, our study supports similar findings in studies that used mixed-gender samples (BarNir, Watson

and Hutchins 2011, Carr and Sequeira 2007, Fernandez, Linan and Santos 2009, Zellweger, Sieger and Halter 2011). However, our study extends our understanding by highlighting that the magnitude of this effect is greater in females than in males. These findings support similar findings in a study of Bulgarian students (Yordanova and Tarrazon 2010), as well as among middle and high school pupils in the USA (Kickul, et al. 2008). However, it only partially supports a study of Swedish students (Pejvak, et al. 2009), where such effects were evident in males but not in females. Since relative cultural and institutional differences between Sweden and Norway are low, possible reasons for this discrepancy may be associated with the different measurements that were used in both studies, as well as the relatively low Cronbach alpha of 0.672 achieved for the measurement in the Swedish study.

In addition, our study shows that the effect of self-efficacy on entrepreneurial intentions is mediated by a number of other factors. First, its effect is partially mediated by social norms in both males and females. And, second, its effect is also partially mediated by exposure-to-role-models in males, but not in females.

Effect of Social norms

A direct positive effect of social norms is evident in both males and females. In this sense, our study supports similar findings in studies that used mixed-gender samples (Iakovleva and Kolvereid 2009, Kautonen, Luoto and Tornikoski 2010, Kolvereid and Isaksen 2006, Liñán and Chen 2009). However, our study extends our understanding by showing that the magnitude of this effect is greater in females than in males. These findings support similar findings in Pejvak et al.'s (2009) study of Swedish university students. However, it only partially supports an earlier study of Bulgarian students (Yordanova and Tarrazon 2010), where such effects were evident among females but not in males. Since measurements are similar in these studies, possible reasons for such discrepancy may be associated with

cultural differences between the more feminine Nordic societies and the more masculine Bulgarian one, if to use Hofstede's (2001) cultural dimensions' frameworks. Here, harmony-inclined and inclusive feminine societies will be more concerned with social norms across sexes, while this will be more prominent among females rather than males in societies that are overall masculine, and hence more power and achievement-inclined.

In addition, our study also shows that the effect of social norms on entrepreneurial intentions is mediated by a number of other factors. First, its effect is partially mediated by self-efficacy in both males and females. Second, its effect is partially mediated by entrepreneurial education in females, but not in males. And, third, its effect is partially mediated by entrepreneurial status and exposure-to-role-models in males, but not in females.

Effect of Motivation to Comply

Our results indicate no direct effect of motivation-to-comply on entrepreneurial intentions in either males or females. However, our mediation analyses show that while such effect exists, it is fully mediated by social norms in both males and females, as well as fully mediated by the exposure-to-role-models in males only, and partially mediated by risk perceptions in females only. Hence, its use as an item of an overall social-norms' measurement appears not to be as problematic is originally assumed.

Effect of Risk Perceptions

A direct negative effect of risk perceptions is evident in females, but not in males. This finding fits an earlier finding in a study among German university students (Walter, Parboteeah and Walter 2011), exhibiting a significant effect of risk-taking propensity on self-employment intentions among males but not significant for females. In this sense, the studies complement each other, where women risk perceptions serves an obstacle to risk taking

behavior, its undermining by males encourages them to take risks when pursuing entrepreneurial careers. However, our mediation analyses also show that while this effect also exists in males, it is fully mediated by exposure-to-role-models.

Still, risk-perceptions in the current study were used as proxy for attitudes. Earlier studies examining the wider concept of attitudes provide contradictory findings from no direct effect in both males and females in the Bulgarian study (Yordanova and Tarrazon 2010), to positive direct effect in both males and females in the Swedish study (Pejvak, et al. 2009) . Differences between these two, as well as with our own findings, can all be explained by the different measurements used in each of these studies.

Effect of Exposure to Role Models

A direct positive effect of exposure to role models is evident in males, but not in females. These findings partially support findings from an earlier study among German students (Walter, Parboteeah and Walter 2011), where a positive direct effect of role-model-performance on entrepreneurial intentions was evident in both males and females. These differences may be explained both by differences in measurement and culture. In terms of measurement, the focus in the German study was on performance, and in our study it was on familiarity. Moreover, in terms of culture, differences between the feminine society of Norway and the masculine society of Germany, if to use Hofstede's (2001) framework, may also serve as potential explanation. Here, power and achievement-focused masculine cultures will be more concerned with successful role models across sexes, while this will be more prominent among males rather than females in societies that are overall feminine.

In addition, our study also shows that the effect of exposure-to-role-models on entrepreneurial intentions is mediated by a number of other factors. First, its effect is partially mediated by both self-efficacy and social norms in both males and females. Second, its effect is partially

mediated by entrepreneurial education in females, but not in males. And, third, its effect is partially mediated by taking an economics major in males, but not in females.

Effect of Parental Entrepreneurial Experience

Our results indicate no direct effect of parental-entrepreneurial-experience on entrepreneurial intentions in either males or females when all variables are included in the analysis. In this sense, it supports a variety of earlier studies that found no effect while using gender mixed samples (Carey, Flanagan and Palmer 2010, Franco, Haase and Lautenschläger 2010, Iakovleva, Kolvereid and Stephan 2011, Kolvereid and Isaksen 2006, Tornikoski and Kautonen 2009). However, our mediation analyses show that while such effect exists, it is fully mediated by exposure-to-role-models in males only, as well as partially mediated by entrepreneurial experience in females only.

This finding is partially supported in an earlier study among middle and high school students in the USA (Kickul, et al. 2008), which also showed no direct effect in males, but identified a direct effect among females. A possible explanation for this discrepancy may be provided by differences in sample characteristics in terms of age. Here, the US study relied on young teenagers who may be still more attached and dependent on their parents, while our sample consisted of more mature and independent university students.

Effect of Entrepreneurial Experience

A direct positive effect of entrepreneurial experience is evident in both males and females. In this sense, this finding supports earlier findings in other mixed gender samples (as shown in: Ahmed, et al. 2010, Fitzsimmons and Douglas 2011, Kolvereid 1996, Kolvereid and Isaksen 2006, Kolvereid and Moen 1997, Zhao, Hills and Seibert 2005). However, our study extends this insight by showing that the magnitude of this effect is slightly greater among men.

Moreover, our study also shows that the effect of entrepreneurial experience on entrepreneurial intentions is mediated by a number of other factors. First, its effect is partially mediated by entrepreneurial status in both males and females. And, second, its effect is also partially mediated by the effect of entrepreneurial education in females, but not in males.

Effect of Entrepreneurial Status

A direct positive effect of entrepreneurial status is evident in both males and females. Here, again, this finding supports earlier findings in other mixed gender samples (Haase, Lautenschlager and Rena 2011). However, our study extends this insight by showing that the magnitude of this effect is slightly greater among men.

Moreover, our study also shows that the effect of entrepreneurial status on entrepreneurial intentions is mediated by a number of other factors. First, its effect is partially mediated by entrepreneurial experience in both males and females. And, second, its effect is partially mediated by the effect of social norms in males, but not in females.

Effect of Year of Study

Our results indicate no direct effect of years-of-study on entrepreneurial intentions in either males or females when all variables are included in the analysis. Hence, it supports a variety of earlier studies that found no effect while using gender mixed samples (Raijman 2001, Shook and Bratianu 2010, Turker and Selcuk 2009, Zellweger, Sieger and Halter 2011). An exception here is a study done among Russians in Russia and Russian immigrants in Norway (Vinogradov and Gabelko 2010), which showed that a vaguely defined higher education indicator had a significant effect on entrepreneurial intentions among males, but not females. A possible explanation for this discrepancy may be found in the different measurements used in the two studies, as well as in different sample characteristics. Here, while the Norwegian

sample only included respondents with some level of higher education, the Russian sample included both those with and without higher education. Hence, an effect may be evident when considering differences between high and low education levels, but disappears when comparing different levels of higher education.

Moreover, our mediation analyses show that such effect exists only in males, but it is fully mediated by social norms, as well as partially mediated by self-efficacy and taking an economics major.

Effect of Entrepreneurial Education

A direct positive effect of entrepreneurial education is evident in females, but not in males. However, our study also shows that when mediation analyses are consulted such effect exists in both sexes, but is mediated differently. Its effect is partially mediated by entrepreneurial experience in both males and females. Second, its effect is also partially mediated by the effect of both exposure-to-role-models and taking an economics major in males, but not in females. And, third, its effect is partially mediated by the effects of social norms in females, but not in males.

In any case, the basic finding here contradicts that from an earlier study among German students (Walter, Parboteeah and Walter 2011), which showed that participation in entrepreneurship programs had a significant effect in males, but not in females. This discrepancy may be explained by the fact that the German study didn't include the factors of an economics major, which is critical in mediating the effects of entrepreneurial education in males, as well as the entrepreneurial experience factor, which is critical in mediating the effect in both sexes.

Effect of Economics Major

A direct positive effect of taking an economics major is evident in males, but not in females. However, our study also shows that when mediation analyses are consulted such effect exists in both sexes, but is mediated differently. First, its effect is partially mediated by entrepreneurial education in females, but not in males. And, second, its effect is partially mediated by the effect of exposure-to-role-models in males, but not in females.

In this sense, our findings here may suggest gender-based explanations for the inconsistent findings in mixed-gender samples, showing that taking an economics major can be associated with higher levels of entrepreneurial intentions (i.e. Schwarz, et al. 2009) in a male majority sample of business students, or no effect on entrepreneurial intentions (i.e. Zellweger, Sieger and Halter 2011), in a female majority sample of economics students.

Effect of Age

Our results indicate direct negative effect of age on entrepreneurial intentions in females but no effect in males. In this sense, it supports a number of earlier studies that found a similar effect while using gender mixed samples (Grilo and Thurik 2005, Kautonen, Luoto and Tornikoski 2010, Yordanova 2011). However, our study also shows that when mediation analyses are consulted such effect exists in females only, and is partially mediated by self-efficacy, risk perceptions, and entrepreneurial experience.

Nevertheless, our findings do stand at odds with those in a study with gender-split samples of Russians in Russia and Russian immigrants in Norway (Vinogradov and Gabelko 2010), where age had a significant negative effect on entrepreneurial intentions among both males and females. A possible explanation for this discrepancy is the fact that the earlier study did not examine the effect of entrepreneurial experience in addition to age, and hence age may actually be representing experience rather than actual number of years alive.

Loop Effects

Interestingly, our findings suggest the existence of some loop effects among certain factors, reflecting both the complex nature of relations among the various factors, as well as the dynamic nature of the entrepreneurial intentions' formation process.

Common to both males and females are the loop effects between self-efficacy and social norms, as well as the one between entrepreneurial experience and entrepreneurial status. The first loop effect may suggest that encouraging social environments may enhance one's beliefs in one's abilities, and at the same time, those regarding themselves as competent enough to engage in entrepreneurship may seek social environments which are supportive of such activities. Moreover, the second loop effect may suggest that those currently engaged in entrepreneurship are gaining entrepreneurial experience through their activities, and at the same time previous entrepreneurial experience, as well as the lessons learned from it, increases that likelihood of people remaining engaged in entrepreneurship.

In addition, unique to males are the loop effects of exposure to role models and economics major, self-efficacy, and social norms; as well as a loop effect between social norms and entrepreneurial status. In this sense, it is logical that exposure to entrepreneurial role models may influence field of study, as well as that the choice of economics may enhance students' exposure to such role models as part of their study program. Similarly, an exposure to charismatic role models may enhance individuals' self-efficacy, while at the same time exhibiting high self-efficacy will trigger a greater interest in exposure to exemplary role models. Furthermore, entrepreneurship encouraging social environments will enhance exposure to entrepreneurial role models, while at the same time exposure to entrepreneurial role models may lead to self-selection of social environments appreciative of entrepreneurial behavior. Finally, an active engagement in entrepreneurship may influence the selection of

social environments for support and network building, as well as engagement in supportive social environments may encourage members to actively pursue entrepreneurship. Other loop effects unique to females are those between entrepreneurship education and entrepreneurial experience, as well as between entrepreneurship education and social norms. Here, entrepreneurial education enhances opportunities to gain entrepreneurial experiences, while direct engagement in entrepreneurial experiences may enhance appreciation of associated complexity and lead to actively seeking guidance via related educational programs. Similarly, a supportive social environment may encourage its members to take up entrepreneurial education, while at the same time taking entrepreneurial education exposes students to environments that are more interested in entrepreneurial activities.

Identifying Centers of Gravity

When incorporating insights about direct, indirect, and loop effects in which the various factors are involved one can highlight a number of factors that appear more central to the model in the overall network of effects. Here, for both males and females, social norms and entrepreneurial experience seem to be key variables both directly effecting entrepreneurial intentions, as well as mediating multiple effects of other factors. Moreover, economics education in males, and more specifically entrepreneurship education in females seem to do the same, and, hence, highlighting the criticality of education in encouraging the formation of entrepreneurial intentions among students. Finally, unique to the case of males is the centrality of exposure to role models, which seems to be tightly linked to effects of education, experience, and social norms, all of which providing opportunities of exposure to role models.

Acknowledging limitations

Although presenting interesting findings, our study has limitations that should be acknowledged. First, while presenting a rich model incorporating multiple variables, our study does not account for all possible variables examined in earlier studies. For example, earlier studies showed significant effects of personality dimensions (Singh and DeNoble 2003), career anchors (Lee and Wong 2004), innovativeness (Lee, et al. 2011), general work experience (Carr and Sequeira 2007), and other influential factors ; the incorporation of which in future studies, may shed further light onto the complex network of relations between variables influencing EIs.

Second, our findings' generalizability is contextually constrained to students in Norway in 2009. Here, while students may represent an interesting public experiencing displacement and pressure to make critical employment decisions, they are also, at the same time, less experienced in judging the levels of commitment and risk that are associated with entrepreneurial activity, as well as the likelihood of its success. Moreover, Norway, representing an advanced innovation-driven economy with a generous welfare system and high levels of gender equality, may limit the generalizability of our findings to similar national contexts. Future studies in developing countries, more conservative cultures, and less generous national social systems may uncover different patterns. Finally, the timing of our study in late 2009, may represent responses that were influenced by the general notion of a global economic slowdown and recession. Study replications in times of more market optimism may further test the stability of our results.

Conclusions

The current study contributes to our understanding of entrepreneurial intentions in the context of a complex network of relationships between variables, identifies the important moderating role of gender on these relationships, as well as highlights critical variables, which play

influential roles in the network of relations between variables in each group. In this sense, we support the earlier findings that different factors' influence entrepreneurial intentions in different ways across sexes (Kickul, et al. 2008, Pejvak, et al. 2009, Vinogradov and Gabelko 2010, Walter, Parboteeah and Walter 2011, Yordanova and Tarrazon 2010). At the same time, our study extends these insights by highlighting effects of additional variables, and the complex network of relations among them via mediation and loop effects. Such analyses allow us to both pacify and challenge previous contradictory findings.

More specifically, our findings show that all factors included effect entrepreneurial intentions differently in terms of prevalence, directionality and magnitude between the sexes. Some of the main findings include the common influences, though to different magnitudes, of social norms, self-efficacy, entrepreneurial experience, entrepreneurial status; the prevalence of direct effects of exposure to role models and an economics major in males only, as well as the prevalence of direct effects of entrepreneurship education, risk perceptions, and age in females only. Moreover, the study also identified the criticality of the variables, which are uniquely influential in each sex group, based on their centrality in the overall networks of effects. These include exposure to role models and economics education in males only, and entrepreneurship education in particular in females only.

In terms of policy implications, our findings exhibit the value of economics and entrepreneurial education in encouraging the formation of entrepreneurial intentions among students. Accordingly, supporting such lines of study is one way policymakers can encourage entrepreneurial intentions among young adults in their domains of influence. Furthermore, the identification of the critical effects of role models, entrepreneurial experience, and social norms, all provide us with valuable insights when forming entrepreneurial education programs. Hence, by encouraging educators to incorporate modules exposing students to role

models, real-time experiences and simulations, as well as profiling public and social support for entrepreneurial venturing.

Finally, in terms of implications for research, future studies may further test the validity and generalizability of our findings across different contexts, such as similar and different publics from developing nations, conservative cultures, less generous national social systems, as well as in periods characterized by greater market optimism. Furthermore, our models may be further expanded so as to incorporate other variables excluded from our analysis but identified in earlier research as influential on EIs formation such as personality dimensions, career anchors, innovativeness, work experience, immigration status, and others.

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Table 1 – Independent variables measurements and sources

Variable	Measurement	Source(s)
Self-efficacy (SE)	5 items: "I am able to deal effectively with unexpected events" "I can solve problems with my own efforts" "I have ability to solve and remain calm when facing difficulties" "I am resourceful and can handle unexpected challenges" "I can think of solutions if faced by several problems". 1- Strongly disagree, 7- Strongly agree.	Own instrument Inspired by items under the "coping with unexpected challenges" factor in DeNoble et al. (1999), and the "risk taking" factor in Chen et al. (1998) and Kolvereid & Isaksen (2006)
Social norms (SN)	3 items: "My closest family members think I should start my own business" "My friends and classmates think I should start my own business" "people who are important to me think I should start my own business" 1- Strongly disagree, 7- Strongly agree.	As used in Kolvereid (1996), Iakovleva & Kolvereid (2009), Liñán & Chen (2009)
Entrepreneurial attitudes/ Risk perception (RP)	2 items: "Starting a new business is very risky" "The possibility of a new business doing poorly is very high" 1- Strongly disagree, 7- Strongly agree.	Own instrument Inspired by Fitzsimmons & Douglas (2011), Fernandez et al. (2009) and Liñán et al. (2001)
Exposure to role models (ERM)	"I know successful business operators I can follow as role models" 1- Strongly disagree, 7- Strongly agree.	Extended version of: Liñán & Chen (2009)
Parental entrepreneurial experience (PEE)	"Have any of your parents ever been self-employed?" 0 – No, 1 - Yes	As used in Carey et al. (2010), Kolvereid (1996), Iakovleva & Kolvereid (2009), Lans et al. (2010)
Motivation to comply (MTC)	"I care about what my closest family and friends think about self-employment." 1- Strongly disagree, 7- Strongly agree.	Reduced version of Iakovleva & Kolvereid (2009), Mueller (2011)
Entrepreneurial experience (EEX)	"Have you ever been self-employed?" 0 – No, 1 - Yes	As used in Carey et al. (2010), Hamidi et al. (2008), Kolvereid (1996), Lans et al. (2010), Liñán & Chen (2009)
Entrepreneurial status (EST)	"Are you currently self-employed?" 0 – No, 1 - Yes	As used in Haase et al. (2011)
Entrepreneurial education (EED)	"Have you ever had entrepreneurship education/training?" 0 – No, 1 - Yes	As used in Franco et al. (2010), Hamidi et al. (2008), Tornikoski & Kautonen (2009)
Economics/business major (EM)	"In which faculty are you studying?" 0 – Other, 1 – Faculty of economics and social sciences	As used in Franco et al. (2010), Haase et al. (2011), Kristiansen & Indarti (2004). Lans et al. (2010)
Year of study (YOS)	"In which year are you studying?" Number of years	As used in Zellweger et al. (2011)
Age (AGE)	"What is your age?" Number of years	Iakovleva & Kolvereid (2009), Liñán & Chen (2009), Liñán et al. (2001), and others.

Table 2 – Correlation Matrix

	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Entrepreneurial Intentions	2.87	1.61	-											
(2) Self Efficacy	5.23	0.92	0.220***	-										
(3) Social Norms	3.16	1.47	0.591***	0.211***	-									
(4) Risk Perceptions	4.57	1.20	-0.070**	-0.048*	-0.40*	-								
(5) Motivation to Comply	3.80	1.73	0.090***	0.000	0.149***	0.109***	-							
(6) Age	27.36	8.94	-0.098***	0.124***	-0.030	-0.173***	-0.045*	-						
(7) Economics Major	0.33	0.47	0.123***	0.065**	0.087***	0.059**	-0.040*	-0.071**	-					
(8) Year of Study	2.48	1.532	-0.046*	0.129***	-0.050*	-0.019	-0.034	0.202***	0.058**	-				
(9) Entrepreneurial Education	0.20	0.40	0.209***	0.098***	0.162***	0.001	-0.004	0.031	0.145***	0.082***	-			
(10) Parental Entrep. Experience	0.43	0.50	0.068**	0.036	0.070**	-0.048*	0.039	-0.015	-0.009	-0.030	0.036	-		
(11) Entrepreneurial Experience	0.13	0.34	0.253***	0.113***	0.179***	-0.126***	-0.022	0.230***	-0.013	0.049*	0.212***	0.078***	-	
(12) Entrepreneurial Status	0.06	0.24	0.232***	0.055*	0.165***	-0.113***	-0.001	0.104***	-0.038	0.057**	0.146***	0.023	0.609***	-
(13) Exposure to Role Models	4.05	1.90	0.343***	0.262***	0.430***	-.097***	0.104***	0.050*	0.132***	0.036	0.210***	0.128***	0.127***	0.055*

N= 1,728;   * $p < .05$,   ** $p < .01$,   *** $p < .001$.

Table 3.1 - Regression Results in Path Analysis - Males

Dependent Variable	Independent Variables (F values, significance) / (Wald values, significance)	Regression Statistics	
		Overall F/ χ^2	R-Squared
Entrepreneurial Intentions	Self-Efficacy (6.0, p < 0.05) Social Norms (189.5, p <0.001) Risk Perceptions (0.2, n.s.) Motivation to Comply (0.0, n.s.) Age (3.8, n.s.) Economics Major (9.6, p < 0.01) Year of Study (1.1, n.s.) Entrep. Education (0.3, n.s.) Parent Entrep. Experience (1.2, n.s.) Entrep. Experience (8.8, p < 0.01) Entrep. Status (4.1, p < 0.05) Exposure to Role Models (8.4, p < 0.001)	F = 39.62 (sig at .001)	$R^2 = 0.401$ Adjusted R^2 $= 0.391$
Entrepreneurial Intentions	Self-Efficacy (4.9, p < 0.05) Social Norms (209.0, p <0.001) Economics Major (9.4, p < 0.01) Entrep. Experience (8.4, p < 0.01) Entrep. Status (6.7, p < 0.05) Exposure to Role Models (9.8, p < 0.001)	F = 77.80 (sig at .001)	$R^2 = 0.395$ Adjusted R^2 $= 0.390$
Self-Efficacy	Social Norms (10.0, p <0. 01) Risk Perceptions (0.3, n.s.) Motivation to Comply (2.8, n.s.) Age (1.3, n.s.) Economics Major (0.0, n.s.) Year of Study (8.0, p < 0.01) Entrep. Education (0.0, n.s.) Parent Entrep. Experience (0.1, n.s.) Entrep. Experience (0.5, n.s.) Entrep. Status (0.5, n.s.) Exposure to Role Models (39.0, p < 0.001)	F = 8.70 (sig at .001)	$R^2 = 0.119$ Adjusted R^2 $= 0.105$
Self-Efficacy	Social Norms (8.9, p <0. 01) Year of Study (9.8, p < 0.01) Exposure to Role Models (41.8, p < 0.001)	F = 30.22 (sig at .001)	$R^2 = 0.112$ Adjusted R^2 $= 0.108$
Social Norms	Self-Efficacy (10.0, p <0. 01) Risk Perceptions (0.1, n.s.) Motivation to Comply (14.0, p < 0.001.) Age (2.2, n.s.) Economics Major (0.2, n.s.) Year of Study (18.8, p < 0.001) Entrep. Education (1.8, n.s.) Parent Entrep. Experience (0.9, n.s.) Entrep. Experience (2.0, n.s.) Entrep. Status (15.2, p < 0.001) Exposure to Role Models (94.9, p < 0.001)	F = 23.35 (sig at .001)	$R^2 = 0.265$ Adjusted R^2 $= 0.254$
Social Norms	Self-Efficacy (10.1, p <0. 01) Motivation to Comply (13.6, p < 0.001.) Year of Study (20.3, p < 0.001) Entrep. Status (38.7, p < 0.001) Exposure to Role Models (112.5, p < 0.001)	F = 49.90 (sig at .001)	$R^2 = 0.258$ Adjusted R^2 $= 0.253$

Exposure to Role Models	Self-Efficacy (40.0, p <0. 001) Social Norms (94.9, p <0. 001) Risk Perceptions (4.4, p < 0.05) Motivation to Comply (6.7, p < 0.01) Age (0.2, n.s.) Economics Major (16.0, p < 0.001) Year of Study (0.1, n.s.) Entrep. Education (10.4, p < 0.001) Parent Entrep. Experience (12.7, p < 0.001) Entrep. Experience (1.1, n.s.) Entrep. Status (3.2, n.s.)	F = 23.31 (sig at .001)	$R^2 = 0.289$ Adjusted R^2 $= 0.278$
Exposure to Role Models	Self-Efficacy (41.5, p <0. 001) Social Norms (97.0, p <0. 001) Risk Perceptions (4.4, p < 0.05) Motivation to Comply (6.6, p < 0.01) Economics Major (17.2, p < 0.001) Entrep. Education (12.1, p < 0.001) Parent Entrep. Experience (13.4, p < 0.001)	F = 40.84 (sig at .001)	$R^2 = 0.286$ Adjusted R^2 $= 0.279$
Economics Major	Self-Efficacy (0.0, n.s.) Social Norms (0.2, n.s.) Risk Perceptions (0.4, n.s.) Motivation to Comply (3.7, n.s.) Age (1.6, n.s.) Year of Study (13.8, p < 0.001) Entrep. Education (18.3, p < 0.001) Parent Entrep. Experience (5.0, p < 0.05) Entrep. Experience (0.0, n.s.) Entrep. Status (1.2, n.s.) Exposure to Role Models (15.8, p < 0.001)	$\chi^2 = 74.44$ (sig at .001)	Cox & Snell $R^2 = 0.098$ Negelkerke $R^2 = 0.136$
Economics Major	Year of Study (12.6, p < 0.001) Entrep. Education (17.4, p < 0.001) Parent Entrep. Experience (5.4, p < 0.05) Exposure to Role Models (18.2, p < 0.001)	$\chi^2 = 65.59$ (sig at .001)	Cox & Snell $R^2 = 0.087$ Negelkerke $R^2 = 0.120$
Entrep. Experience	Self-Efficacy (0.6, n.s.) Social Norms (1.9, n.s.) Risk Perceptions (3.0, n.s.) Motivation to Comply (0.9, n.s.) Age (29.4, p < 0.001) Economics Major (0.0, n.s.) Year of Study (1.6, n.s.) Entrep. Education (17.8, p < 0.001) Parent Entrep. Experience (3.7, n.s.) Entrep. Status (68.5, p < 0.001) Exposure to Role Models (1.3, n.s.)	$\chi^2 = 299.10$ (sig at .001)	Cox & Snell $R^2 = 0.339$ Negelkerke $R^2 = 0.551$
Entrep. Experience	Age (32.2, p < 0.001) Entrep. Education (23.2, p < 0.001) Entrep. Status (75.4, p < 0.001)	$\chi^2 = 277.97$ (sig at .001)	Cox & Snell $R^2 = 0.319$ Negelkerke $R^2 = 0.519$

Entrep. Status	Self-Efficacy (1.3, n.s.) Social Norms (13.4, p <0.001) Risk Perceptions (4.3, p < 0.05) Motivation to Comply (0.2, n.s.) Age (0.3, n.s.) Economics Major (1.9, n.s.) Year of Study (5.6, p < 0.05) Entrep. Education (0.1, n.s.) Parent Entrep. Experience (0.4, n.s.) Entrep. Experience (65.4, p < 0.001) Exposure to Role Models (3.4, n.s.)	$\chi^2 = 247.42$ (sig at .001)	Cox & Snell $R^2 = 0.290$ Negelkerke $R^2 = 0.634$
Entrep. Status	Social Norms (10.5, p <0.001) Risk Perceptions (3.8, n.s.) Year of Study (3.0, n.s.) Entrep. Experience (63.3, p < 0.001)	$\chi^2 = 235.89$ (sig at .001)	Cox & Snell $R^2 = 0.278$ Negelkerke $R^2 = 0.609$
(14') Entrep. Status	Social Norms (8.1, p <0.01) Entrep. Experience (67.5, p < 0.001)	$\chi^2 = 229.11$ (sig at .001)	Cox & Snell $R^2 = 0.272$ Negelkerke $R^2 = 0.594$

Table 3.2 - Regression Results in Path Analysis – Females

Dependent Variable	Independent Variables (F values, significance) / (Wald values, significance)	Regression Statistics	
		Overall F/ χ^2	R-Squared
Entrepreneurial Intentions	Self-Efficacy (11.1, p < 0.001) Social Norms (320.2, p <0.001) Risk Perceptions (5.9, p < 0.05) Motivation to Comply (1,8, n.s.) Age (30.3, p < 0.001) Economics Major (1.9, n.s.) Year of Study (1.5, n.s.) Entrep. Education (17.1, p < 0.001) Parent Entrep. Experience (0.0, n.s.) Entrep. Experience (6.8, p < 0.01) Entrep. Status (4.6, p < 0.05) Exposure to Role Models (2.8, n.s.)	F = 54.76 (sig at .001)	$R^2 = 0.398$ Adjusted R^2 $= 0.391$
Entrepreneurial Intentions	Self-Efficacy (12.5, p < 0.001) Social Norms (424.6, p <0.001) Risk Perceptions (5.5, p < 0.05) Age (35.7, p < 0.001) Entrep. Education (19.6, p < 0.001) Entrep. Experience (6.9, p < 0.01) Entrep. Status (3.8, n.s.)	F = 92.39 (sig at .001)	$R^2 = 0.393$ Adjusted R^2 $= 0.389$
(2') Entrepreneurial Intentions	Self-Efficacy (12.2, p < 0.001) Social Norms (425.0, p <0.001) Risk Perceptions (5.7, p < 0.05) Age (36.2, p < 0.001) Entrep. Education (21.0, p < 0.001) Entrep. Experience (19.2, p < 0.001)	F = 92.39 (sig at .001)	$R^2 = 0.393$ Adjusted R^2 $= 0.389$
Self-Efficacy	Social Norms (13.3, p <0.001) Risk Perceptions (0.3, n.s.) Motivation to Comply (0.0, n.s.) Age (16.4, p < 0.001) Economics Major (2.0, n.s.) Year of Study (12.6, p < 0.001) Entrep. Education (1.4, n.s.) Parent Entrep. Experience (0.3, n.s.) Entrep. Experience (2.3, n.s.) Entrep. Status (0.3, n.s.) Exposure to Role Models (16.5, p < 0.001)	F = 10.92 (sig at .001)	$R^2 = 0.108$ Adjusted R^2 $= 0.098$
Self-Efficacy	Social Norms (16.3, p <0.001) Age (21.0, p < 0.001) Year of Study (12.9, p < 0.001) Exposure to Role Models (21.1, p < 0.001)	F = 28.19 (sig at .001)	$R^2 = 0.101$ Adjusted R^2 $= 0.098$
Social Norms	Self-Efficacy (13.3, p < 0.001) Risk Perceptions (0.0, n.s.) Motivation to Comply (13.5, p < 0.001) Age (3.6, n.s.) Economics Major (3.7, n.s.) Year of Study (1.1, n.s.) Entrep. Education (3.9, p < 0.05) Parent Entrep. Experience (1.1, n.s.) Entrep. Experience (2.7, n.s.) Entrep. Status (1.8, n.s.) Exposure to Role Models (155.0, p < 0.001)	F = 25.95 (sig at .001)	$R^2 = 0.223$ Adjusted R^2 $= 0.215$

Social Norms	Self-Efficacy (12.6, $p < 0.001$) Motivation to Comply (26.0, $p < 0.001$) Entrep. Education (7.6, $p < 0.01$) Exposure to Role Models (164.0, $p < 0.001$)	$F = 65.76$ (sig at .001)	$R^2 = 0.208$ Adjusted R^2 $= 0.205$
Risk Perceptions	Self-Efficacy (0.5, n.s.) Social Norms (0.0, n.s.) Motivation to Comply (17.8, $p < 0.001$) Age (27.7, $p < 0.001$) Economics Major (5.6, $p < 0.05$) Year of Study (0.0, n.s.) Entrep. Education (1.5, n.s.) Parent Entrep. Experience (0.3, n.s.) Entrep. Experience (0.6, n.s.) Entrep. Status (1.0, n.s.) Exposure to Role Models (8.7, $p < 0.01$)	$F = 6.75$ (sig at .001)	$R^2 = 0.070$ Adjusted R^2 $= 0.059$
Risk Perceptions	Motivation to Comply (17.6, $p < 0.001$) Age (32.1, $p < 0.001$) Economics Major (6.2, $p < 0.05$) Exposure to Role Models (10.3, $p < 0.001$)	$F = 17.89$ (sig at .001)	$R^2 = 0.067$ Adjusted R^2 $= 0.063$
Entrepreneurship Education	Self-Efficacy (0.8, n.s.) Social Norms (3.9, $p < 0.05$) Risk Perceptions (1.5, n.s.) Motivation to Comply (2.5, n.s.) Age (2.5, n.s.) Economics Major (4.8, $p < 0.05$) Year of Study (0.5, n.s.) Parent Entrep. Experience (0.1, n.s.) Entrep. Experience (7.2, $p < 0.01$) Entrep. Status (4.7, $p < 0.05$) Exposure to Role Models (20.0, $p < 0.001$)	$\chi^2 = 84.91$ (sig at .001)	Cox & Snell $R^2 = 0.081$ Negelkerke $R^2 = 0.136$
Entrepreneurship Education	Social Norms (4.2, $p < 0.05$) Economics Major (7.0, $p < 0.01$) Entrep. Experience (6.4, $p < 0.05$) Entrep. Status (5.0, $p < 0.05$) Exposure to Role Models (19.6, $p < 0.001$)	$\chi^2 = 77.23$ (sig at .001)	Cox & Snell $R^2 = 0.074$ Negelkerke $R^2 = 0.124$
Entrepreneurial Experience	Self-Efficacy (2.3, n.s.) Social Norms (2.0, n.s.) Risk Perceptions (0.6, n.s.) Motivation to Comply (0.6, n.s.) Age (40.9, $p < 0.001$) Economics Major (0.1, n.s.) Year of Study (0.0, n.s.) Entrep. Education (8.4, $p < 0.01$) Parent Entrep. Experience (5.8, $p < 0.05$) Entrep. Status (62.9, $p < 0.001$) Exposure to Role Models (1.3, n.s.)	$\chi^2 = 232.95$ (sig at .001)	Cox & Snell $R^2 = 0.207$ Negelkerke $R^2 = 0.449$
Entrepreneurial Experience	Age (48.1, $p < 0.001$) Entrep. Education (13.2, $p < 0.001$) Parent Entrep. Experience (7.6, $p < 0.01$) Entrep. Status (66.7, $p < 0.001$)	$\chi^2 = 222.88$ (sig at .001)	Cox & Snell $R^2 = 0.199$ Negelkerke $R^2 = 0.432$

Entrepreneurial Status	Self-Efficacy (0.0, n.s.) Social Norms (1.5, n.s.) Risk Perceptions (1.1, n.s.) Motivation to Comply (0.0, n.s.) Age (1.4, n.s.) Economics Major (1.9, n.s.) Year of Study (0.6, n.s.) Entrep. Education (4.7, $p < 0.05$) Parent Entrep. Experience (0.1, n.s.) Entrep. Experience (63.0, $p < 0.001$) Exposure to Role Models (2.8, n.s.)	$\chi^2 = 172.06$ (sig at .001)	Cox & Snell $R^2 = 0.157$ Negelkerke $R^2 = 0.572$
Entrepreneurial Status	Entrep. Education (3.4, n.s.) Entrep. Experience (66.4, $p < 0.001$)	$\chi^2 = 163.41$ (sig at .001)	Cox & Snell $R^2 = 0.150$ Negelkerke $R^2 = 0.545$
(16') Entrepreneurial Status	Entrep. Experience (71.4, $p < 0.001$)	$\chi^2 = 159.99$ (sig at .001)	Cox & Snell $R^2 = 0.147$ Negelkerke $R^2 = 0.535$

Table 4.1 – Testing mediation effects on EIs - Males

Variable	Step 1 Coeff. (SE)	Step 2 Coeff. (SE)	Step 3 Coeff. (SE)	Sobel Test Z-Value	Conclusion
IV: Social Norms M: Self-Efficacy Model fit	0.703*** (0.037) Adjusted R^2 = 0.338	0.143*** (0.025) Adjusted R^2 = 0.044	0.678*** (0.037) 0.180*** (0.054) Adjusted R^2 = 0.347	2.880***	SE partially mediates the effect of SN on EIs
IV: Exposure to Role Models M: Self-Efficacy Model fit	0.328*** (0.031) Adjusted R^2 = 0.132	0.154*** (0.018) Adjusted R^2 = 0.090	0.295*** (0.033) 0.212*** (0.064) Adjusted R^2 = 0.143	3.089***	SE partially mediates the effect of ERM on EIs
IV: Year of Study M: Self-Efficacy Model fit	-0.069† (0.040) Adjusted R^2 = 0.003	0.062** (0.023) Adjusted R^2 = 0.009	-0.094* (0.039) 0.403*** (0.064) Adjusted R^2 = 0.053	2.478**	SE partially mediates the effect of YOS on EIs
IV: Self-Efficacy M: Social Norms Model fit	0.387*** (0.064) Adjusted R^2 = 0.047	0.307*** (0.053) Adjusted R^2 = 0.043	0.180*** (0.054) 0.678*** (0.037) Adjusted R^2 = 0.347	5.523***	SN partially mediates the effect of SE on EIs
IV: Motivation to Comply M: Social Norms Model fit	0.090* (0.037) Adjusted R^2 = 0.007	0.143*** (0.030) Adjusted R^2 = 0.029	-0.011 (0.030) 0.706*** (0.037) Adjusted R^2 = 0.337	4.625***	SN fully mediates the effect of MTC on EIs
IV: Exposure to Role Models M: Social Norms Model fit	0.328*** (0.031) Adjusted R^2 = 0.132	0.314*** (0.025) Adjusted R^2 = 0.176	0.130*** (0.030) 0.630*** (0.040) Adjusted R^2 = 0.355	9.820***	SN partially mediates the effect of ERM on EIs
IV: Year of Study M: Social Norms Model fit	-0.069† (0.040) Adjusted R^2 = 0.003	-0.106*** (0.033) Adjusted R^2 = 0.013	0.005 (0.033) 0.704*** (0.037) Adjusted R^2 = 0.337	-3.167***	SN fully mediates the effect of YOS on EIs
IV: Entrepreneurial Status M: Social Norms Model fit	1.495*** (0.208) Adjusted R^2 = 0.066	1.067*** (0.174) Adjusted R^2 = 0.048	0.784*** (0.177) 0.667*** (0.037) Adjusted R^2 = 0.355	5.806***	SN partially mediates the effect of EST on EIs
IV: Self-Efficacy M: Exposure to Role Models Model fit	0.387*** (0.064) Adjusted R^2 = 0.047	0.594*** (0.070) Adjusted R^2 = 0.090	0.212*** (0.064) 0.295*** (0.033) Adjusted R^2 = 0.143	6.154***	ERM partially mediates the effect of SE on EIs

IV: Social Norms M: Exposure to Role Models Model fit	0.703*** (0.037) Adjusted R^2 = 0.338	0.565*** (0.045) Adjusted R^2 = 0.176	0.630*** (0.040) 0.130*** (0.030) Adjusted R^2 = 0.355	4.096***	ERM partially mediates the effect of SN on EIs
IV: Risk Perceptions M: Exposure to Role Models Model fit	-0.120* (0.052) Adjusted R^2 = 0.006	-0.153** (0.058) Adjusted R^2 = 0.008	-0.071 (0.049) 0.323*** (0.031) Adjusted R^2 = 0.133	-2.557**	ERM fully mediates the effect of RP on EIs
IV: Motivation to Comply M: Exposure to Role Models Model fit	0.090* (0.037) Adjusted R^2 = 0.007	0.145*** (0.040) Adjusted R^2 = 0.016	0.043 (0.035) 0.323*** (0.031) Adjusted R^2 = 0.132	3.424***	ERM fully mediates the effect of MTC on EIs
IV: Economics Major M: Exposure to Role Models Model fit	0.527*** (0.130) Adjusted R^2 = 0.021	0.732*** (0.143) Adjusted R^2 = 0.034	0.297* (0.124) 0.314*** (0.032) Adjusted R^2 = 0.137	4.539***	ERM partially mediates the effect of EM on EIs
IV: Entrepreneurship Education M: Exposure to Role Models Model fit	0.630*** (0.145) Adjusted R^2 = 0.024	0.957*** (0.159) Adjusted R^2 = 0.046	0.332* (0.140) 0.311*** (0.032) Adjusted R^2 = 0.137	5.117***	ERM partially mediates the effect of EED on EIs
IV: Parental Entrep. Experience M: Exposure to Role Models Model fit	0.257* (0.126) Adjusted R^2 = 0.004	0.535*** (0.138) Adjusted R^2 = 0.019	0.084 (0.118) 0.325*** (0.032) Adjusted R^2 = 0.131	3.622***	ERM fully mediates the effect of PEE on EIs
IV: Year of Study M: Economics Major Model fit	-0.069† (0.040) Adjusted R^2 = 0.003	0.213*** (0.051) Negelkerke R^2 = 0.034	-0.097* (0.040) 0.577*** (0.131) Adjusted R^2 = 0.027	3.031***	EM partially mediates the effect of YOS on EIs
IV: Entrepreneurship Education M: Economics Major Model fit	0.630*** (0.145) Adjusted R^2 = 0.024	1.010*** (0.181) Negelkerke R^2 = 0.058	0.529*** (0.148) 0.427*** (0.132) Adjusted R^2 = 0.037	2.799**	EM partially mediates the effect of EED on EIs
IV: Parental Entrep. Experience M: Economics Major Model fit	0.257* (0.126) Adjusted R^2 = 0.004	-0.242 (0.162) Negelkerke R^2 = 0.004			No mediation effect. Did not pass step 2. (REMOVED)
IV: Exposure to Role Models M: Economics Major Model fit	0.328*** (0.031) Adjusted R^2 = 0.132	0.226*** (0.046) Negelkerke R^2 = 0.049	0.314*** (0.032) 0.297* (0.124) Adjusted R^2 = 0.137	2.153*	EM partially mediates the effect of ERM on EIs
IV: Age M: Entrepreneurial Experience Model fit	-0.003 (0.008) Adjusted R^2 = -0.001				No mediation effect. Did not pass step 1. (REMOVED)

IV: Entrepreneurial Education M: Entrepreneurial Experience Model fit	0.630*** (0.145) Adjusted R^2 = 0.024	1.221*** (0.205) Negelkerke R^2 = 0.076	0.394** (0.144) 1.110*** (0.157) Adjusted R^2 = 0.137	4.555***	EEX partially mediates the effect of EED on EIs
IV: Entrepreneurial Status M: Entrepreneurial Experience Model fit	1.495*** (0.208) Adjusted R^2 = 0.066	5.171*** (0.604) Negelkerke R^2 = 0.427	0.780** (0.265) 0.843*** (0.197) Adjusted R^2 = 0.089	3.828***	EEX partially mediates the effect of EST on EIs
IV: Social Norms M: Entrepreneurial Status Model fit	0.703*** (0.037) Adjusted R^2 = 0.338	0.694*** (0.120) Negelkerke R^2 = 0.120	0.667*** (0.037) 0.784*** (0.177) Adjusted R^2 = 0.355	3.517***	EST partially mediates the effect of SN on EIs
IV: Entrepreneurial Experience M: Entrepreneurial Status Model fit	1.209*** (0.153) Adjusted R^2 = 0.078	5.171*** (0.604) Negelkerke R^2 = 0.574	0.843*** (0.197) 0.780*** (0.265) Adjusted R^2 = 0.088	2.783**	EST partially mediates the effect of EEX on EIs

Notes:

1) † significant at 0.1 level; * significant at 0.05 level; ** significant at 0.01 level; *** significant at 0.001 level.

2) Step 1: effect of independent variable on the dependent variable; Step 2: effect of independent variable on mediator; Step 3: effect of mediator on the dependent variable controlling for the independent variable.

Table 4.2 – Testing mediation effects on EIs - Females

Variable	Step 1 Coeff. (SE)	Step 2 Coeff. (SE)	Step 3 Coeff. (SE)	Sobel Test Z-Value	Conclusion
IV: Social Norms M: Self-Efficacy Model fit	0.567*** (0.025) Adjusted R^2 = 0.337	0.116*** (0.018) Adjusted R^2 = 0.037	0.551*** (0.025) 0.138*** (0.043) Adjusted R^2 = 0.343	2.873**	SE partially mediates the effect of SN on EIs
IV: Age M: Self-Efficacy Model fit	-0.017*** (0.005) Adjusted R^2 = 0.011	0.016*** (0.003) Adjusted R^2 = 0.029	-0.023*** (0.005) 0.362*** (0.051) Adjusted R^2 = 0.058	4.242***	SE partially mediates the effect of Age on EIs
IV: Exposure to Role Models M: Self-Efficacy Model fit	0.238*** (0.023) Adjusted R^2 = 0.095	0.105*** (0.014) Adjusted R^2 = 0.049	0.216*** (0.023) 0.216*** (0.050) Adjusted R^2 = 0.111	3.743***	SE partially mediates the effect of ERM on EIs
IV: Year of Study M: Self-Efficacy Model fit	-0.038 (0.031) Adjusted R^2 = 0.001				No mediation effect. Did not pass step 1. (REMOVED)
IV: Self-Efficacy M: Social Norms Model fit	0.319*** (0.051) Adjusted R^2 = 0.037	0.329*** (0.052) Adjusted R^2 = 0.037	0.138*** (0.043) 0.551*** (0.025) Adjusted R^2 = 0.343	6.081***	SN partially mediates the effect of SE on EIs
IV: Motivation to Comply M: Social Norms Model fit	0.086*** (0.026) Adjusted R^2 = 0.009	0.119*** (0.027) Adjusted R^2 = 0.018	0.018 (0.022) 0.564*** (0.025) Adjusted R^2 = 0.337	4.326***	SN fully mediates the effect of MTC on EIs
IV: Entrepreneurial Education M: Social Norms Model fit	0.904*** (0.121) Adjusted R^2 = 0.052	0.644*** (0.126) Adjusted R^2 = 0.025	0.552*** (0.101) 0.545*** (0.025) Adjusted R^2 = 0.356	4.976***	SN partially mediates the effect of EED on EIs
IV: Exposure to Role Models M: Social Norms Model fit	0.238*** (0.023) Adjusted R^2 = 0.095	0.335*** (0.022) Adjusted R^2 = 0.180	0.059** (0.022) 0.535*** (0.028) Adjusted R^2 = 0.341	11.908***	SN partially mediates the effect of ERM on EIs
IV: Motivation to Comply M: Risk Perceptions Model fit	0.086*** (0.026) Adjusted R^2 = 0.009	0.088*** (0.021) Adjusted R^2 = 0.016	0.092*** (0.026) -0.072† (0.039) Adjusted R^2 = 0.012	1.689*	RP partially mediates the effect of MTC on EIs

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IV: Age M: Risk Perceptions Model fit	-0.017*** (0.005) Adjusted R^2 = 0.011	-0.025*** (0.004) Adjusted R^2 = 0.038	-0.019*** (0.005) -0.085* (0.039) Adjusted R^2 = 0.015	2.058*	RP partially mediates the effect of Age on EIs
IV: Economics Major M: Risk Perceptions Model fit	0.334*** (0.099) Adjusted R^2 = 0.010	0.210** (0.080) Adjusted R^2 = 0.006	0.348*** (0.099) -0.066† (0.039) Adjusted R^2 = 0.012	-1.422	No mediation effect. Non sig. Sobel Stat. (REMOVED)
IV: Exposure to Role Models M: Risk Perceptions Model fit	0.238*** (0.023) Adjusted R^2 = 0.095	-0.057** (0.020) Adjusted R^2 = 0.007	0.237*** (0.023) -0.020 (0.037) Adjusted R^2 = 0.095		No mediation effect. Did not pass step 3. (REMOVED)
IV: Social Norms M: Entrepreneurial Education Model fit	0.567*** (0.025) Adjusted R^2 = 0.337	0.294*** (0.059) Negelkerke R^2 = 0.043	0.545*** (0.025) 0.552*** (0.101) Adjusted R^2 = 0.356	3.682***	EED partially mediates the effect of SN on EIs
IV: Economics Major M: Entrepreneurial Education Model fit	0.334*** (0.099) Adjusted R^2 = 0.010	0.497** (0.172) Negelkerke R^2 = 0.014	0.271** (0.097) 0.873*** (0.121) Adjusted R^2 = 0.058	2.682**	EED partially mediates the effect of EM on EIs
IV: Entrepreneurial Experience M: Entrepreneurial Education Model fit	0.885*** (0.158) Adjusted R^2 = 0.029	1.245*** (0.233) Negelkerke R^2 = 0.042	0.701*** (0.158) 0.808*** (0.122) Adjusted R^2 = 0.069	4.159***	EED partially mediates the effect of EEX on EIs
IV: Entrepreneurial Status M: Entrepreneurial Education Model fit	1.231*** (0.241) Adjusted R^2 = 0.024	1.574*** (0.337) Negelkerke R^2 = 0.033	0.971*** (0.239) 0.824*** (0.122) Adjusted R^2 = 0.066	3.842***	EED partially mediates the effect of EST on EIs
IV: Exposure to Role Models M: Entrepreneurial Education Model fit	0.238*** (0.023) Adjusted R^2 = 0.095	0.290*** (0.048) Negelkerke R^2 = 0.065	0.212*** (0.023) 0.691*** (0.119) Adjusted R^2 = 0.124	4.187***	EED partially mediates the effect of ERM on EIs
IV: Age M: Entrepreneurial Experience Model fit	-0.017*** (0.005) Adjusted R^2 = 0.011	0.073*** (0.010) Negelkerke R^2 = 0.113	-0.026*** (0.005) 1.099*** (0.162) Adjusted R^2 = 0.054	4.969***	EEX partially mediates the effect of Age on EIs
IV: Entrepreneurship Education M: Entrepreneurial Experience Model fit	0.904*** (0.121) Adjusted R^2 = 0.052	1.245*** (0.233) Negelkerke R^2 = 0.055	0.808*** (0.122) 0.701*** (0.158) Adjusted R^2 = 0.069	3.413***	EEX partially mediates the effect of EED on EIs
IV: Parental Entrep. Experience M: Entrepreneurial Experience Model fit	0.885*** (0.158) Adjusted R^2 = 0.029	0.543* (0.219) Negelkerke R^2 = 0.013	0.192* (0.093) 0.859*** (0.159) Adjusted R^2 = 0.032	2.253*	EEX partially mediates the effect of PEE on EIs

IV: Entrepreneurial Status M: Entrepreneurial Experience Model fit	1.231*** (0.241) Adjusted $R^2 = 0.024$	5.209*** (0.617) Negelkerke $R^2 = 0.320$	0.691* (0.291) 0.627*** (0.192) Adjusted $R^2 = 0.034$	3.046**	EEX partially mediates the effect of EST on EIs
IV: Entrepreneurial Experience M: Entrepreneurial Status Model fit	0.885*** (0.158) Adjusted $R^2 = 0.029$	5.209*** (0.617) Negelkerke $R^2 = 0.535$	0.627*** (0.192) 0.691* (0.291) Adjusted $R^2 = 0.034$	2.286*	EST partially mediates the effect of EEX on EIs

Notes:

1) † significant at 0.1 level; * significant at 0.05 level; ** significant at 0.01 level; *** significant at 0.001 level.

2) Step 1: effect of independent variable on the dependent variable; Step 2: effect of independent variable on mediator; Step 3: effect of mediator on the dependent variable controlling for the independent variable.

Figure 1 – Path Model Males
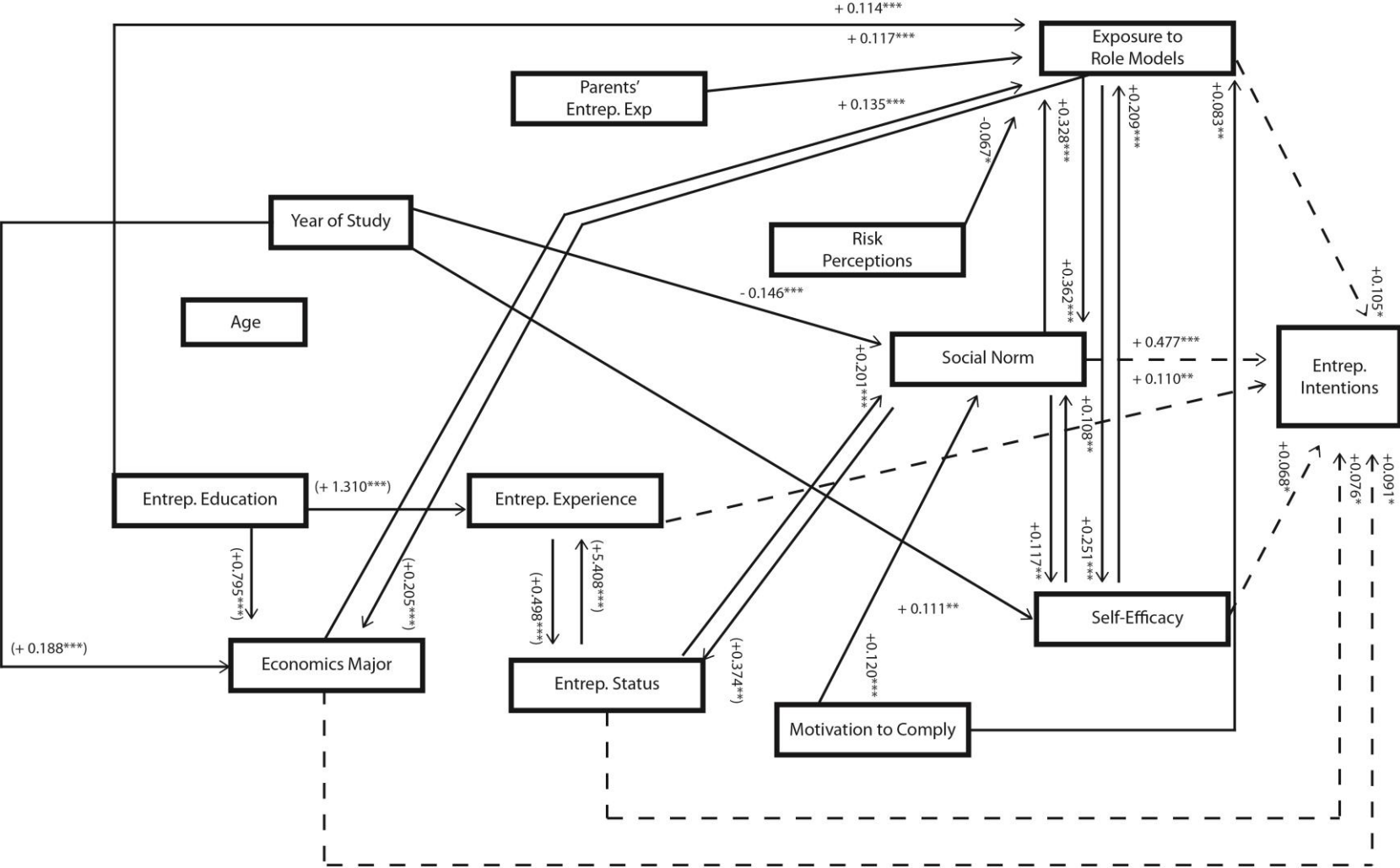
Note: * sig. at 0.05   ** sig. at 0.01   *** sig. at 0.001
Values in brackets indicate betas from logistic regression, values without brackets indicate standardized betas from linear regression.

Figure 2 – Path Model -Females
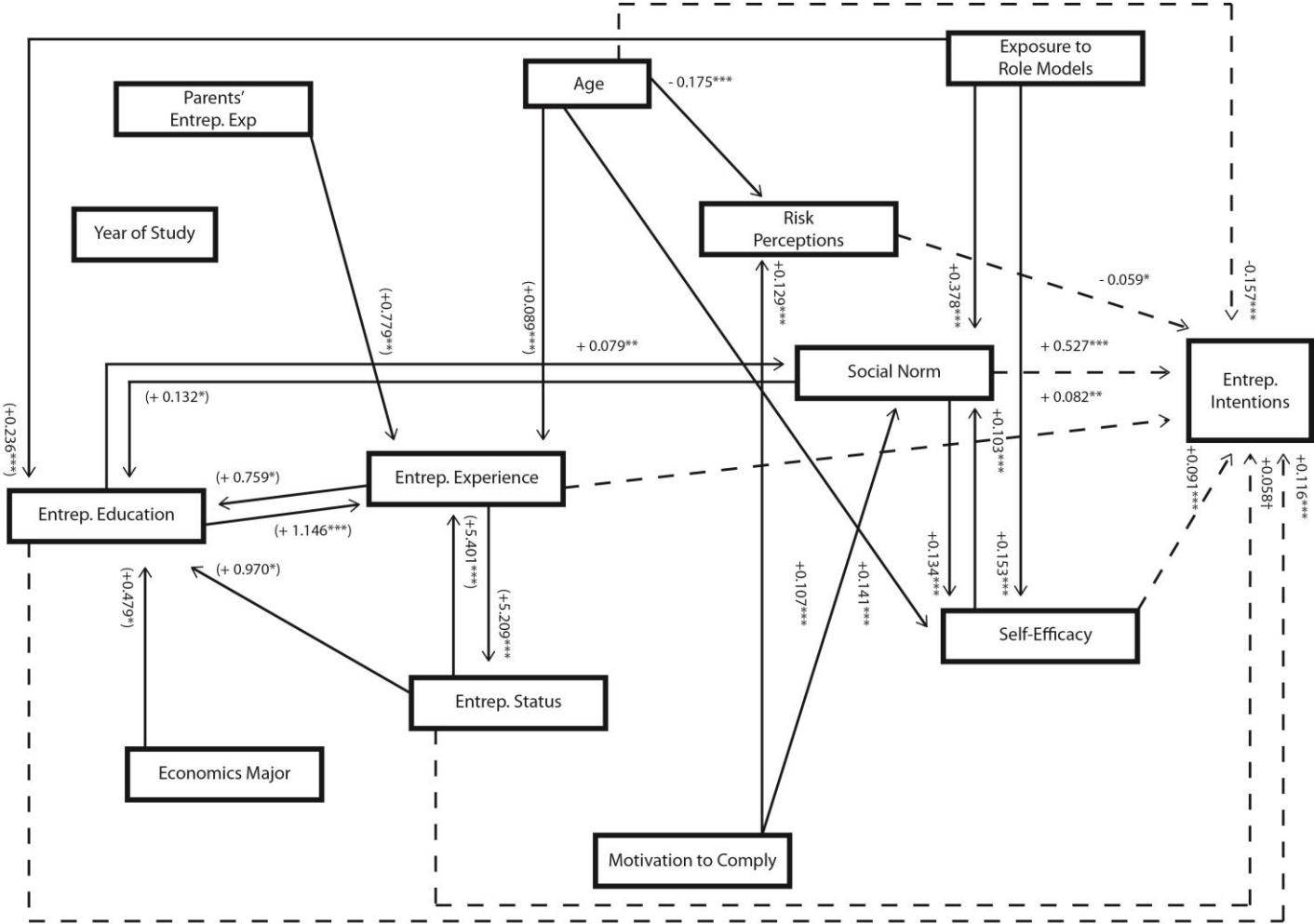
Note: † sig. at 0.1   * sig. at 0.05   ** sig. at 0.01   *** sig. at 0.001
Values in brackets indicate betas from logistic regression, values without brackets indicate standardized betas from linear regression.