The Influence of Culture on Women's Entrepreneurial Intentions

Louisa Sophie Aldag

Dissertation written under the supervision of Cláudia Costa

Dissertation submitted in partial fulfilment of requirements for the MSc in Management, at the Universidade Católica Portuguesa, 05.01.2021.

Abstract

English:

This study investigates how culture influences the drivers of entrepreneurial intention among women. Global Entrepreneurship Monitor (GEM) data of four different European countries from 2014 to 2016 was used as well as Hofstede's cultural dimensions. We analysed gender differences across cultures in shaping perceptions of the drivers to foster entrepreneurial activity. In line with the Theory of Planned Behaviour, we found that women have weaker personal attraction, perceived behavioural control and partly weaker subjective norms towards entrepreneurship than men. Our findings show that when women overcome such barriers, women's entrepreneurial intention across cultures increases significantly. Perceived behavioural control for women is moderated by culture, with perceived own skills having stronger effects in low masculinity cultures, and networks being more valuable in high masculinity and high power distance cultures. These findings suggest that policymakers need to adapt programs and initiatives to the cultural context to effectively increase entrepreneurial activity among women.

Portuguese:

Este estudo investiga a forma como a cultura influencia os indutores da intenção empreendedora entre as mulheres. Foram utilizados dados do Global Entrepreneurship Monitor (GEM) de quatro países europeus diferentes entre 2014 e 2016, bem como as dimensões culturais de Hofstede. Analisámos as diferenças de género entre culturas na formação das perceções dos fatores impulsionadores do empreendedorismo para fomentar a atividade empresarial. De acordo com a Teoria do Comportamento Planeado, descobrimos que as mulheres têm uma atração pessoal mais fraca, um controlo de comportamento percetível e normas subjetivas parcialmente mais fracas em relação ao empreendedorismo que os homens. As nossas conclusões mostram que quando as mulheres ultrapassam tais barreiras, a sua intenção empreendedora através das culturas aumenta significativamente. O controlo comportamental percebido para as mulheres é moderado pela cultura, com a perceção de que as próprias competências têm efeitos mais fortes para as culturas de baixa masculinidade e que as redes de contacto são mais valiosas nas culturas de alta masculinidade e poder à distância. Estas conclusões sugerem que os decisores políticos precisam de adaptar programas e iniciativas ao contexto cultural para aumentar efetivamente a atividade empreendedora entre as mulheres.

Keywords: female entrepreneurship, entrepreneurial intention, gender inequalities, theory of planned behaviour

Title: The Influence of Culture on Women's Entrepreneurial Intentions

Author: Louisa Sophie Aldag

Acknowledgements

While completing my Master's degree my interest for entrepreneurship grew strongly. I started to get involved in the German entrepreneurship scene and got to know many different success stories of female entrepreneurs. I noticed how this inspired me to also start my own business in the nearer future. After having completed the Lean Entrepreneurship course in the second semester, it was clear that I wanted to write my thesis in this field as well. I came across an article suggesting that even female investors are less likely to invest in female start-up founders. This fact was so interesting and at the same time unbelievable to me that I started to dig deeper, trying to understand the difference between male and female entrepreneurs. Fast forward now I understand the challenges that women face and what the main drivers are that push entrepreneurial intentions among women. I am proud to have contributed to this topic of research that really provides a chance for gender equality and society as a whole.

Without my supervisor Cláudia Costa I would not have arrived at this result, which is why I would like to thank her for her support and encouragement during the process of conducting this research.

Additionally, I would like to thank my closest friends and classmates Anabel Olivieri, Anna Castenholz, Maja Eifert and Yannick Lorentz, without whom the past 1.5 years would not have been as memorable as they are. Thanks to my family, especially to my younger brother and my mother, for supporting me on every step through my academic life. Last but not least, I would like to thank Lennart Bockholdt for always believing in me, supporting me and empowering me to strive.

Contents

List of Tables

List of Figures

List of Abbreviations

EA	Entrepreneurial activity/activities
EI	Entrepreneurial Intention
FIN	Finland
GEM	Global Entrepreneurship Monitor
GER	Germany
MAS	Masculinity
MCAR	Missing Completely at Random
NET	Netherlands
PD	Power Distance
POR	Portugal
TPB	Theory of Planned Behaviour
TEA	Total early-stage entrepreneurial activity
TEAOPP	Opportunity-driven early-stage entrepreneurial activity

1. Introduction

According to the Global Entrepreneurship Monitor (GEM), in 2019, the percentage of women involved in early entrepreneurial activities was below 50% in every European country (Bosma, Hill, Ionescu-Somers, Kelley, Levie & Tarnawa, 2020). Additionally, women-owned businesses receive less early-stage capital, but end up performing better and being more successful than start-ups founded by men (about 10% more revenue over five years), which leads to female-start-ups returning twice as much for every dollar invested (Abouzahr, Taplett, Krentz & Harthorne, 2018). According to a recently published analysis, conducted by the Boston Consulting Group, increasing the level of female entrepreneurs up to the level of male ones, would therefore add around $5 trillion dollars to the global economy (Unnikrishnan & Blair, 2019).

The challenges that women face when entering entrepreneurial activities are well known and confirmed by many researchers (Ahl, 2006; Carranza, Dhakal & Love, 2018; Harrison & Mason, 2007; Thébaud, 2015a). Structural, as well as individual obstacles like access to funding and relevant networks, managerial experience, and social/familial responsibilities are among the most prominent ones (European Commission & OECD, 2017). The European Commission and EU Governments implemented several policies to tackle these structural and individual challenges that women face to finally decrease the gap between male and female entrepreneurs (European Commission & OECD, 2017).

Unfortunately, progress remains slow after the implementation of policies and programs (European Commission, 2020; Hirschfeld, Gilde, Support, Müller, Design & Wagasowa , 2020), which questions the effectiveness of initiatives implemented and whether the EU Commission as well as the single countries actually targeted the factors that would influence and increase entrepreneurial action among women. In order to identify relevant drivers, many scholars drew on the Theory of Planned Behaviour (Ajzen, 1991), which uses behavioural intention and its antecedents as indicators for behavioural action. Hence, when trying to understand action, one has to look into intentions and how they are influenced, first.

Culture is one influencing factor for entrepreneurial intentions (EI), entrepreneurial attitude and the career choices that men and women make (Thornton, Ribeiro-Soriano, Urbano, 2011; Wilson, Marlino, Kickul, 2004). Therefore, researchers have shown interest in a further

examination of entrepreneurial intentions and gender factors in the context of different cultures (de Bruin, Brush & Welter, 2007; Krueger, 2007; Liñán & Chen, 2009; Pruett, Shinnar, Toney, Llopis & Fox, 2009; Shinnar, Giacomin & Janssen, 2012; Wilson, Kickul, Marlino, Barbosa & Griffiths, 2009). If culture significantly influences EI and career choices, understanding its effect could give an insight on why certain policies did not achieve the desired effect. Especially within Europe, which consists of many different cultures (Hofstede, 2020), where the EU introduces initiatives like and programs that find application across countries (European Commission, 2020).

Therefore, in order to identify why past policies did not achieve the desired outcome in terms of promoting female entrepreneurship (Hirschfeld et al., 2020), the main objective of this research is to understand a) which factors actually influence EI among women in European countries and b) whether culture can serve as a moderator to explain these drivers of EI.

The findings will indicate and underline which factors and drivers influence the likelihood of women engaging in entrepreneurial activities, so that policymakers know where to allocate resources. Additionally, it will give an insight into how culture can additionally influence what motivates women to choose entrepreneurship as a career path.

Aiming to do so, in chapter two, the theoretical framework around female entrepreneurship, the influence of cultural dimensions according to Hofstede (1980) as well as EI and its components (Ajzen, 1991) will be provided, leading towards the hypotheses for this research. In chapter three, the methodology used to perform the analyses on the datasets from GEM of the years 2014-2016 will be depicted. In chapter four, the data will be analysed to evaluate the hypotheses and results will be presented. Chapter five presents and discusses the main findings, deriving theoretical and managerial implications. Lastly, limitations and recommendations for future research will be mentioned.

2. Theoretical Framework

The following chapter provides a framework around the current research in the field of female entrepreneurship, combined with relevant findings on entrepreneurial intentions and culture. In the context of the Theory of Planned Behaviour the hypotheses for this research will summarize the framework for the quantitative analyses that follow.

2.1. Entrepreneurship and female entrepreneurs

Entrepreneurship is defined as how and with what effects a person (the entrepreneur) detects, assesses ,and exploits opportunities to create new goods and services (Venkataraman, 1997).

The existence of entrepreneurial opportunities, as in bringing a good or service to market below its production cost, is an objective phenomenon that is available to- and known by all individuals, male and female. Only the detection and in the next step, the decision of exploitation is subjective and goes back to the individual's information level and cognitive abilities. (Shane & Venkataraman, 2000).

Even though these entrepreneurial opportunities are available to all individuals, entrepreneurship has been male dominant (Ahl, 2006) and a recent statistic from the GEM confirms that (Bosma et al., 2020). Conversely, female-founded businesses reach higher revenues and thus provide higher returns for investors (Unnikrishnan & Blair, 2019). Thus, supporting the need to foster more female entrepreneurship through policy implementation is a possible tool to increase the overall economic output (Castaño, Méndez & Galindo, 2016) (especially after the global pandemic). The increase in economic activity will lead to more gender balance within entrepreneurship and the overall economy (European Commission, 2020).

In the case of female entrepreneurship, policymakers implemented different types of programs and measures that were to foster female entrepreneurship. The types of policies implemented, differed across the countries, where some tried to improve female entrepreneurship networks and others focused on e.g., access to funding and relevant networks. Yet, the overall increase in the number of female entrepreneurs within European countries remained lower than expected

(European Commission & OECD, 2017), which raises the question of why the policies did not achieve the desired effect.

In order to investigate this, it is crucial to understand women's information levels and cognitive abilities mentioned by Shane and Venkataraman (2000). It is known that women show different skills, abilities ,and preferences than men and they also compete in different ways (Harrison & Mason, 2007). These dissimilarities also become evident when looking at further characteristics that are deemed important for entrepreneurial activities.

Women have different *preferences* than men, which go back to risk inclinations as well as values and personality traits, which are usually associated with preferences for waged work (Carranza et al., 2018). This also leads to the fact that women define success to be the right combination of economic and non-economic outcomes, which also affects their sectoral choices when founding a company (Hirschfeld et al., 2020). Hence, women are often more active in e.g. social entrepreneurship and similar sectors that often come with differently driven goals and slower growth aspirations than strictly profit-driven sectors (Hirschfeld et al., 2020). Further scholars confirm these findings by showing that women rather look for a reward in the work itself than for monetary or societal recognition (Harrison & Mason, 2007). This is supported by Solesvik, Iakovleva & Trifilova (2019), who found that social factors are the main motive for women in developed economies to found businesses.

Additionally, women face different *external factors* and constraints than men (Carranza et al., 2018). Often times, society allocates them to different social roles and family backgrounds, which gender stereotypes jobs to be rather of masculine or feminine nature (Hofstede, 1998). On top of that, both men and women wish to hold positions that are considered to be appropriate for their gender and likewise avoid those that are not (Heilman, 1983). Research also indicates that typical male values and traits such as challenges, earnings, and improvements are considered to be important in entrepreneurship (Gupta, Turban, Wasti & Sikdar, 2009; Heilman, 2001). As such, entrepreneurship tends to be a gendered job choice (Shinnar et al., 2012). Consequently, in societies where these values play a dominant role, women tend to lack support from the close social environment (e.g. friends and family) regarding entrepreneurial activities (Entrialgo & Iglesias, 2016). These missing support systems around women can additionally be marked by financial- and labour market discrimination, which prevents women from accessing loans, gaining relevant management experience, and access to networks relevant to entrepreneurship (Carranza et al., 2018).

Lastly, *internal* factors are also relevant for entrepreneurial activity (Teixeira, Casteleiro, Rodrigues & Guerra, 2018). Women have different endowments than men (Carranza et al., 2018). Females tend to have fewer resources (financial and human resources) due to less experience in high-level management positions as well as in previous entrepreneurial roles, which leads to less access to relevant networks (Harrison & Mason, 2007). Furthermore, one can find differences between men's and women's performance in groups. Women perform worse than men in mixed-gender groups, but increase their performance in all-female groups (Harrison & Mason, 2007). This plays a role in entrepreneurial education and in accelerator programs where male and female founders participate, so that male founders might show greater progress and success than their female colleagues (Hallen, Bingham & Cohen, 2014).

Internal and external factors are rooted in societal *modus operandis* over the years. The reflection is that women have to overcome different and additional barriers compared to men when becoming an entrepreneur (Marlow & Patton, 2005) as they continue perceiving their environment as unsuitable for entrepreneurial activities of their own (Zhao, Hills & Seibert, 2005). Many researchers describe this phenomenon as an unconscious bias that is linked to cultural norms and values (Chochoiek, 2019), especially in countries with traditional social and familial roles for women (Hofstede, Hofstede & Minkov, 2010). These circumstances strongly influence the development of entrepreneurial intentions (EI) among women, which are seen as the first step towards an entrepreneurial activity (Lee & Wong, 2004). Research by Liñan, Roomi and Santos (2010) confirmed that EI among women was more affected by such cultural contexts and influences than EI among men.

2.2. Culture and female entrepreneurship

Entrepreneurship is considered to match male rather than female characteristics and social roles (Ahl, 2006). However, this assertion is very broad and not specified to the many differences in cultures globally, but also within Europe and the EU. Every culture is based on underlying values and morals that consequently motivate and influence individuals to behave the way they do (Hofstede, 1980). Therefore, it can be assumed that some cultures rather than others attenuate or exacerbate gender roles. Hofstede (1998) characterizes cultures based on six different dimensions out of which four are relevant to entrepreneurship: Individualism, Uncertainty Avoidance, Power Distance (PD) and Masculinity (MAS). In their cross-cultural

study, Busenitz & Lau (1996) imply that cultures with high levels of MAS and PD, but low levels of Uncertainty Avoidancr are creating settings and environments that foster entrepreneurial activity in general. However, a research by Liñan, Roomi and Santos (2010) confirmed that EI among women was more affected by such cultural contexts and influences than EI among men, which makes it necessary to understand cultural dimensions regarding entrepreneurship more closely.

In cultures that rank high on Individualism, people consider themselves to be very autonomous, and therefore independent, different from others, and social groups (Hofstede, 1980). One can also find a preference for wealth and status symbols in these cultures, which fosters entrepreneurship (Gupta, Guo, Canever, Yim, Sraw & Liu, 2014). Consequently, cultures with high levels of Individualism lower entrepreneurship challenges for women, as it supports career decisions, which are independent of societal standards.

Uncertainty Avoidance cultures display low tolerance towards ambiguity and uncertainty (Hofstede, 1980). To avoid situations that make these individuals feel unsafe and unstructured, a high number of rules and laws come into play, to increase a feeling of security (Shinnar et al., 2012). Risk-taking preferences are associated with entrepreneurship (Pruett et al., 2009). It is also clear that individuals who are risk-averse avoid self-employment. Kreiser Marino, Dickson & Weaver, (2010) confirmed a negative influence of Uncertainty Avoidance on organizational risk-taking. Hence, cultures that rank high on Uncertainty Avoidance are less likely to favour entrepreneurial careers, which consequently means that women will perceive entrepreneurial barriers to be more significant.

The level of PD in a culture describes the distribution of power levels and hierarchy among citizens. It also gives information on whether these distances in the social order are to be maintained and whether those not in power accept these circumstances (Hofstede, 1980). For example, cultures with high PD often have strong control mechanisms in place and individuals live under less freedom and autonomy, which also hinders them to make risky decisions. The opposite applies to cultures with low PD, where individuals are more likely to engage in actions that improve their standing. Research on the relationship between power distance and risk-taking has shown that high levels of PD have a negative influence on organizational risk raking. (Kreiser et al., 2010)

Interestingly, Busenitz & Lau (1996) found that cultures with high levels of PD and MAS create an environment that fosters entrepreneurship. Additional research discovered that this effect is

highly moderated by gender and that high levels of PD lead to gender inequalities (Glick, 2005). Therefore, high levels of PD translate into entrepreneurship barriers for women.
A high level of MAS within a culture means that values such as monetary earnings, challenge, and improvement play an important role. These cultures are typically very success and performance-driven. Therefore, masculine cultures are focused on material success and status, while female cultures emphasise on the quality of life and modesty (Hofstede, 1998). In addition to that Gupta et al. (2009) and Heilman (2001) found that these typically masculine values and traits are considered to be important in entrepreneurship as well, which means that high levels of masculinity foster entrepreneurship. However, masculine cultures also include stronger gender roles, with men being concerned about career and success and women being concerned about the quality of life (Hofstede & McCrae, 2004). This shows that on the one hand, in cultures with high levels of MAS entrepreneurship is favoured and on the other hand it seems more unlikely and less acceptable for women to pursue an entrepreneurial career, which increases their perception of barriers to entrepreneurship (Shinnar et al., 2012).

Further research by Hofstede, Hofstede & Minkov (2010) and Hofstede (2001) on these four dimensions suggests that within the same culture/country, there are no differences between genders in the dimensions of Individualism and Uncertainty Avoidance. Based on these findings, the levels of MAS and PD in the given countries play the most important role in influencing gender-specific barriers.

If the cultural dimensions MAS and PD affect entrepreneurial intentions it becomes important to understand EI drivers, particularly in the context of female entrepreneurship. Such understanding will shed light on how much entrepreneurial activity (EA) we can expect from women in different countries and cultures.

2.3. Entrepreneurial intention: the case of female Entrepreneurs

Entrepreneurial Intention (EI) has been shown to be the cognitive approach or state of mind that best predicts and directs individuals towards entrepreneurial action (EA) (Liñán, Rodríguez-Cohard & Rueda-Cantuche, 2011; Moriano, Gorgievski, Laguna, Stephan & Zarafshani, 2012). The presence of entrepreneurial intention is therefore seen as the first step of firm formation (Lee & Wong, 2004). This also suggests that stimulating EI, will lead to

higher EA among individuals. Therefore, research has paid a lot of attention to understanding the drivers of entrepreneurial intention (Kibler, 2013).

When attempting to understand the formation of behavioural intentions, entrepreneurship scholars often used Ajzen's theory of planned behaviour (Díaz-García & Jiménez-Moreno, 2010; Liñán & Chen, 2009; Moriano, Gorgievski, Laguna, Stephan & Zarafshani, 2012; Teixeira et al., 2018). Ajzen (1991) suggests that intention is the most accurate prediction of final behaviour and that personal attraction, subjective norms and perceived behavioural control are three antecedents that sculpt behavioural intentions such as EI.

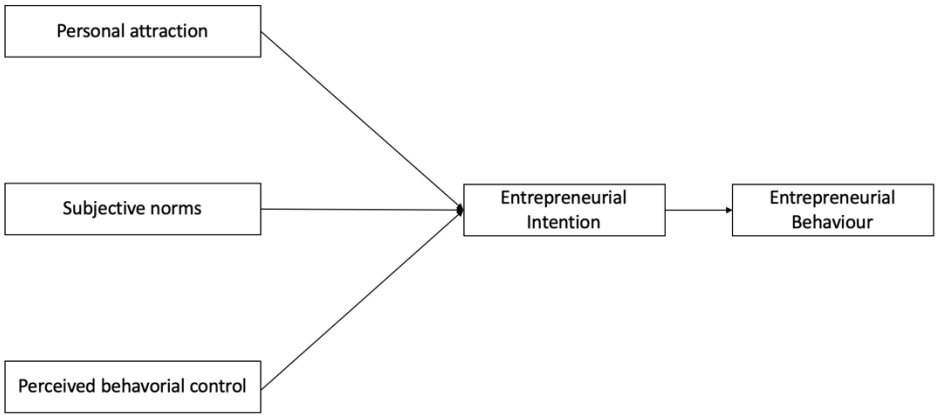

Figure 1: Theory of Planned Behaviour (Ajzen, 1991), adapted

Therefore, it is to be assessed in what form these three antecedents of behavioural intention are to be interpreted in the context of female entrepreneurship and entrepreneurial intention, in order to identify, which factors policymakers can target to actually increase EA among women, also under the influence of culture.

Commonly shared perceptions, anchored in cultural values, influence intentions and opportunities that guide individuals when choosing their profession (Heilman, 1983). The additional challenges (internal, external and preferences) that women face in an entrepreneurial context, raise perceptions that women's personal environment includes barriers that make founding a business for women unsuitable (Zhao et al., 2005).

Past studies found evidence on similar barriers pertaining to female entrepreneurship. The most established ones are fear of failure, lack of competency and lack of support (Heilman & Chen, 2003; Langowitz & Minniti, 2007; Thébaud, 2015b). Furthermore, several scholars also

identified a direct relationship between these barriers and the concept of entrepreneurial intention (Liñán et al., 2011; Wagner, 2007). In order to build upon this, Shinnar et al. (2012) found that the effect of these perceived barriers on EI is moderated by gender and culture, which makes it reasonable to use this concept for this research on female entrepreneurs in the EU. By doing so, this study can investigate if the drivers of EI for women in high MAS and PD cultures differ from the drivers of EI for women in low MAS and PD cultures, which would give important insights for policymakers within the EU on how to adapt programs and initiatives for potential female entrepreneurs in individual cultures.

2.3.1. Personal attraction toward the behaviour, female preferences and the fear of failure barrier

Ajzen (1991) describes the attitude or personal attraction towards a behaviour as "the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question", (p. 188). It was established that women are more risk-averse than men, prefer wage work, have smaller goals and growth aspirations and different motives to enter self-employment. Additional research of a sample of German individuals also found that women's risk aversion in particular impacts their fear of failure and negatively influences their decision to become an entrepreneur in more than 50% of the cases (Wagner, 2007). This risk aversion is likewise one of the reasons why fewer women apply for -and expect debt financing (Harrison & Mason, 2007). Similarly, Langowitz & Minniti (2007) found that fear of failure decreases female's EI, but not male's.

The tendency of these challenges and the fact that entrepreneurship is a gendered job (Heilman, 1983) explains the importance of fear of failure is a potential barrier female entrepreneurs in past studies. Shinnar et al. (2012) confirmed that fear of failure has a more negative effect on women (in the countries Belgium and USA) than on men.

Combining this with Ajenz's definition for the attitude towards the behaviour, one can assume that, on the one hand, driven by their risk preferences and fear of failure, women's attitude towards entrepreneurial behaviour is negative. This leads to the following hypothesis:

H1a: Women perceive weaker personal attraction toward entrepreneurship than men.

2.3.2. Subjective norms, external factors and the support barrier

Ajzen (1991) describes the antecedent subjective norms as "the perceived social pressure to perform or not to perform the behaviour", (p.188).
This described social pressure that an individual perceives from its family, friends and other individuals with a big influence on a specific behaviour. If social pressure is positive towards a behaviour, researchers speak about support systems around individuals. (Entrialgo & Iglesias, 2016)
The *presence* of support systems in the mentioned form has a positive effect on EI of individuals (Lüthje & Franke, 2003), as it depicts external approval of the behaviour. Contrarily, if a person is lacking a support system and perceives negative, external attitudes toward a behaviour, subjective norms can have a negative influence on EI of individuals. Accordingly, the research of Shinnar et al. (2012) found that women often do not assume an external support system for EA in the first place.

Aligning this with Ajzen's definition, subjective norms can lead women to the perception of a social pressure *not* to perform an entrepreneurial behaviour, which generally translates into a low support system and thus a negative influence of the *lack* of support barrier on women's EI. Resulting in the following hypothesis:

H1b: Women perceive weaker subjective norms toward entrepreneurship than men

2.3.3. Perceived behavioural control, internal factors and the competency barrier

Ajzen (1991) describes this antecedent as "the perceived ease or difficulty of performing the behaviour and it is assumed to reflect past experience as well as anticipated impediments and obstacles.", (p.188). Related to entrepreneurial intention, this translates into whether women individually perceive they can perform an entrepreneurial activity, based on their experiences and expected challenges. If they are convinced to have the capabilities to start a business, this can already predict an EI for an individual (Segal Borgia & Schoenfeld, 2005). In addition to that, the ability to see respective business opportunities is mentioned by (Shane, Locke & Collins, 2003) as another main driver for the formation of an entrepreneurial intention.

However, when looking at gender specifics, women perceive stronger internal constraints for entrepreneurial activities, especially when it comes to business and financial experience, management skills and the access to relevant networks, which leads to low self-confidence and a negative perception of the opportunities and environment around them (Carranza et al., 2018). Previous scholars summed these obstacles up by introducing the lack of competency barrier that women consequently perceive and face. Uslay, Teach & Schwartz (2002) found that the lack of competency barrier is an obstacle to entrepreneurship for their respondents in the US. In research on GEM data in the US in 2010, Thébaud found that even though the individuals in her sample had roughly the same resources (human, financial and social), women were half as likely as men to perceive having the ability to become an entrepreneur. In another research Thébaud (2015a) also found that men are in general more likely to believe to be qualified to become an entrepreneur. Shinnar et al. 2012 took this cognition one step further and found that specifically, the perceived lack of competency has a stronger negative influence on EI for women in the US than for men.

Aligning these findings with Ajzen's definition of perceived behavioural control, it is to be assumed that women are less convinced than men to possess the skills and abilities to start an entrepreneurial activity. This leads to the following hypothesis:

H1c: Women have weaker perceived behavioural control toward entrepreneurship than men.

2.4. Culture and EI antecedents

As (Hofstede et al., 2010) stated, for the cultural dimensions Uncertainty Avoidance and Individualism, there are no differences in the perception of these dimensions among different genders within the same culture. Therefore, it can be assumed that these two cultural dimensions do not increase barriers to entrepreneurship for women in particular. The dimensions rather describe general circumstances for entrepreneurial activities within these cultures and countries. Hence, for further hypotheses of this research about culture and EI of women, only MAS and PD will be considered.

Paradoxically, high levels of power distance are favourable to entrepreneurship, but also increase barriers for women in this field. Firstly, high levels of PD mean more hierarchy. Women are more likely to occupy positions at the lower stages of hierarchies and with this

more gender inequalities arise (Parboteea, Hoegl & Cullen, 2008). Occupying these positions, women are less likely to engage in risky decisions, which increases their fear of failure towards stepping out of the line (Wagner, 2007), as they are mostly used to taking orders from above. Secondly, stronger gender roles, are likely to be linked to fewer support systems from friends and family around women that encourage them to step out of the norm and into entrepreneurship, as this is considered to be an untypical job choice for women in these cultures, where women are usually on low hierarchy levels (Heilman, Martell & Simon, 1988). Thirdly, when occupying positions in lower hierarchical levels, it is harder for women to gain experience in managerial positions, as well as getting access to networks relevant for entrepreneurial activities (Goffee & Scase, 1983), a determining factor for engaging in entrepreneurial activities.

A similar dynamic applies to cultures with high levels of MAS. While high levels of masculinity are favourable for entrepreneurship in general, it also increases barriers for women (Shinnar et al., 2012). In high MAS countries, gender roles are more relevant, which increases overall gender stereotyping for job choices. Again, this increases women's fear of failure and negatively influences the subjective norms around them, as the norm runs against becoming an entrepreneur (Hofstede, Hofstede & Minkov, 2010). Additionally, with gendered job roles, it is also likely for women to underestimate their competency and skills in respective fields, which would decrease their perceived behavioural control (Heilman, 1983).

This leads to the following hypotheses:

H2a: In countries with i) high MAS and ii) high PD women perceive weaker personal attraction towards entrepreneurship than women in countries with low MAS and PD.

H2b: In countries with i) high MAS and ii) high PD women perceive weaker subjective norms towards entrepreneurship than women in countries with low MAS and PD.

H2c: In countries with i) high MAS and ii) high PD women have weaker perceived behavioural control towards entrepreneurship than women in countries with low MAS and PD.

3. Methodology and Data

To test the hypotheses, an analysis on datasets from the Global Entrepreneurship Monitor (GEM) will be conducted. GEM collects data on entrepreneurship behaviour and attitudes in a worldwide initiative since 1999 and its yearly published datasets are widely used by many researchers and international organisations like the United Nations, the Organisation for Economic Co-operation and Development (OECD) and the World Bank.

The specific dataset used for this research is based on a survey, interviewing adult participants from the age of 18 on, investigating "Entrepreneurial behaviour and attitudes", by looking at "the characteristics, motivations and ambitions of individuals starting businesses, as well as social attitudes towards entrepreneurship", (GEM, 2020).

In order to test the hypotheses on a high number of observations, datasets from the years 2014-2016 were combined. This time frame was chosen as to include the first effects of policies and programs that were implemented within several countries in the EU from 2014 on (European Commission & OECD, 2017). Methodology of policy research also suggests taking several years into account, when trying to observe policy effects (Jacob, King & Mangalagiu, 2019). Additionally, the newest data set available is from 2016, as GEM always publishes its data with a three-year lag, which limits access to more recent data (GEM, 2020).

3.1. Sample

In order to compare high and low MAS and PD countries to one another, the following set up was chosen:

Table 1: Distribution of cultural dimensions

Country	Masculinity	Power Distance
Germany	66	35
Netherlands	14	38
Portugal	31	63
Finland	26	33

According to Hofstede (2020), with min 0 and max 100

These countries were chosen as they match the criteria in the two Hofstede dimensions that are relevant to this research. GER with a high level of MAS will be compared to NET, with a low level of MAS. Both have low levels of PD. POR with a high level of PD will be compared to FIN, with a low level of PD. Both have low levels of MAS. These countries represent the best selection in terms of cultural dimensions (high and low), where a sufficient number of observations in the years 2014-2016 is available in the GEM datasets. With this selection, the effects that are to be discovered can be channelled towards one of the dimensions, which allows us to analyse the effects of the dimensions MAS and PD individually.
After having combined the datasets form the 3 years, the observations for the four countries of interest were extracted, namely Finland (FIN), Germany (GER), Netherlands (NET) and Portugal (POR).

With this, the datasets at hand become an independently pooled cross-section. This kind of dataset allows researchers to obtain larger datasets, which in turn leads to more precise outcomes and estimates. It also limits the probability of correlations among the single observation/ units in the dataset. The samples collected for each year stem from the same population of interest, where statistical units are independent of one another over the years. Consequently, the samples from the respective years are independent of one another, but not identically distributed. However, by adding year dummies within the samples for the respective years of data collection, this can be controlled for. (Wooldridge, 2013)

3.2. Variables

This research aims to investigate the effect of the EI antecedents on EI for women and whether culture can function as a moderator on this effect. In order to assess this, the GEM dataset provides several variables that could function as a dependent variable to test the hypotheses. The variable Total early-stage entrepreneurial activity (TEA) is oftentimes used in many researchers on GEM data (Castaño et.al, 2016, Galloway et al. 2002, Skonieczna & Castellano, 2020, Wagner, 2007), both when assessing EI an EA, as it focuses per definition on early-stage activity. Another reason in favour of using TEA to measure EI is that the theory argues that a behavioural intention always leads to behavioural action (Ajzen, 1991). Consequently, there should not be a difference in effects when using EI or EA.

“TEA”, which is coded as a dummy (1 = yes), becomes the dependent variable in the first regression model (model 1). However, in order to verify that the theory mentioned above (EI = EA) also holds for this sample, the variable “Start_three”, which describes whether an individual expects to start-up in the next three years (coded as a dummy with 1=yes), becomes another dependent variable for a second regression model (model 2). This should test and confirm that the effects of the antecedents to EI on EI are similar with both variables, and as such can be used interchangeably. However, in all datasets “Start_three has a lower number of observations than “TEA”.

Additionally, when studying the entrepreneurial activity more closely, it was observed that Portugal holds a statistically significant higher rate of necessity-driven entrepreneurs than the remaining countries, which could bias the results for TEA. Therefore, TEAOPP (coded as a dummy, 1= yes) will be used as a third dependent variable in a third regression model, in order to test whether the effects hold for opportunity-driven entrepreneurs, who can actively choose entrepreneurship as a career path (Amit & Muller, 1995).

The independent variables of this research measure the antecedents of EI. The first antecedent is personal attraction toward the behaviour (of becoming an entrepreneur). As mentioned in chapter 2.2.1, the fear of failure barrier towards entrepreneurship best describes an individual’s attitude toward entrepreneurship. Consequently “fearoffail”, which is assessed by the question “Would fear of failure prevent you from starting a business?”, (GEM, 2020) coded as a dummy (with 1= yes), will represent this first antecedent.

The second antecedent, subjective norms, describes the external support system and social values that individuals perceive around them. As depicted in chapter 2.2.2, this determines whether individuals feel a lack or a presence of support towards entrepreneurship. The subjective norms will consequently be depicted by firstly, the variable “media”, assessed by the question/statement “In my country, you will often see stories in the public media and/or internet about successful new businesses.”, (GEM, 2020) coded as a dummy (with 1= yes). Secondly, by the variable “goodcareer”, assessed by the question/statement “In my country, most people consider starting a new business a desirable career choice.”, (GEM, 2020) coded as a dummy (with 1= yes). Thirdly, by the variable “status”, assessed by the question/statement “In my country, those successful at starting a new business have a high level of status and respect.”, (GEM, 2020) which is coded as a dummy as well (with 1= yes).

Lastly, the third antecedent, perceived behavioural control, explains if an individual perceives him or herself to be capable to start a business. This will be measured by three different

variables. The variable “skill” focuses on the actual competency of the person and it is assessed by the question “Do you have the knowledge, skill and experience required to start a new business?”, (GEM, 2020) coded as a dummy. The variable “knowotherent”, assessed by the question “Do you know someone personally, who started a business in the past 2 years?”, (GEM, 2020) coded as a dummy (with 1= yes). This variable accounts for the network and social capital component that many entrepreneurship researchers put an emphasis on (Carranza et al., 2018). The variable “opportun”, assessed by the question “In the next six months, will there be good opportunities for starting a business in the area where you live?”, (GEM, 2020) depicts an individual’s ability to detect business opportunities in general and is also coded as a dummy (with 1= yes). This component is mentioned by researchers as an internal factor, which leads them to consider entrepreneurship as a career choice in the first place (Langowitz & Minniti, 2007; Poggesi et al., 2016).

The moderating effect of culture will not be measured in form of a variable. The next chapter will further elaborate on that. In the full dataset, a dummy for gender called “FEM” was created and all datasets include dummies for each year of the data collection.

3.3. Data Description

A full dataset with observations of all four countries with male and female respondents was created as well as four separate datasets for each country with all-female respondents. After having combined the datasets from the three years in question for all four countries, descriptive statistical analyses were run. It was also observed that each dataset included missing observations for the variables of interest. GEM states that not all respondents are asked the same questions all the time and adds that there can be misunderstandings while answering the survey. This has some participants skipping questions accidentally (GEM, 2020). This shows that the observations are missing completely at random (MCAR), as there is no mechanism or relation to any variable, why these observations are missing (Salgado, Azevedo, Proença & Vieira, 2016). Therefore, complete-case analyses were conducted and observations with missing values were excluded. This is only possible because the values are MCAR and do not show a relation to the outcome variable, which leaves future results unbiased (Salgado et al., 2016).

The following subchapters include the results of the descriptive statistics analyses.

3.3.1. Full dataset

The full dataset consists of 22,025 observations out of which 19.7% are Dutch participants, 42.5% are German participants, 19.6% are Portuguese participants and 18.2% are Finnish participants. Overall, with 48.2% female participants, the dataset is fairly well balanced. The average age is at 42.7 years and 32.7% are older than 50 years.

In this dataset, 66.1% of the respondents are full- or part-time employed 8.6% are retired or disabled, 3% are homemakers, 7% are not working, 5.6% are students and others and 9.8% are self-employed. Additionally, when reporting their income level, 29% are of the lowest 33%-tile, 32.9% report the middle 33%-tile and 38.1% consider themselves to be part of the upper 33%-tile. Additionally, 25.1% have some secondary, or no degree, 42% report a secondary degree and 32.9% a post-secondary degree.

In the full data set, 7.9% of the respondents are involved in an early-stage entrepreneurial activity (TEA). These can be separated into 6.3% opportunity-driven and 1.5% necessity-driven entrepreneurs. 12.6% expect to start up within the next three years.

3.3.2. Female Datasets

Germany

The female dataset for GER includes 4,516 observations, with 1,592 (35.3%) from 2014, 1,484 (32.8%) from 2015 and 1,440 (31.9%). The average age is at 43,4 years and 34.8% are above 50 years old.

69.3% report to be full-or part-time employed, 6.8% are retired or disabled, 6.7% are homemakers, 4.2% do not work, 5.4% report to be self-employed, 7.6% are students and others. Income is evenly distributed with 33.9% in the lower 33%-tile, 33.2% in the middle 33%-tile and 32.9 in the upper 33%-tile. Furthermore, 12.9% report to have none or some secondary degree, 41% have a secondary degree and 46.1% have a post-secondary degree.

In the German female dataset, 4.6% are involved in TEA, out of which 3.4% are opportunity-driven and 1% are necessity-driven. Additionally, 7.1% expect to start up within the next three years.

Netherlands

The female dataset for NET includes 2,089 observations, with 739 (35.4%) from 2014, 672 (32.2%) from 2015 and 678 (32.4%). The average age is at 46.4 years and 40.1% are above 50 years old.

60.6% report to be full-or part-time employed, 16.9% are retired or disabled, 4.7% are homemakers, 6% do not work 10.2% report to be self-employed, 1.6% are students and others. Income is distributed with 32.8% in the lower 33%-tile, 28.4% in the middle and 38.8% in the upper 33%-tile. Furthermore, 30% report to have none or some secondary degree, 43.7% have a secondary degree and 26% have a post-secondary degree.

In the Dutch female dataset, 7% are involved in TEA, out of which 6% are opportunity-driven and 0.8% are necessity-driven. Additionally, 9.1% expect to start up within the next three years.

Portugal

The female dataset for POR includes 2,120 observations, with 740 (34.9%) from 2014, 686 (32.4%) from 2015 and 694 (32.7%). The average age is at 39.8 years and 22.4% are above 50 years old.

55.8% report to be full-or part-time employed, 4.9% are retired or disabled, 6.1% are homemakers, 15% do not work, 6.5% are students and 11.6% report to be self-employed. Income is distributed with 45.3% in the lower 33%-tile, 32.2% in the middle and 22.5% in the upper 33%-tile. Furthermore, 40.5% report to have none or some secondary degree, 30.5% have a secondary degree and 29% have a post-secondary degree.

In the Portuguese female dataset, 8.2% are involved in TEA, out of which 5.5% are opportunity-driven and 2.6% are necessity-driven. Additionally, 15.1% expect to start up within the next three years.

Finland

The female dataset for FIN includes 1,890 observations, with 669 (35.4%) from 2014, 586 (31%) from 2015 and 647 (34.6%). The average age is at 41.9 years and 33.4% are above 50 years old.

68.5% report to be full-or part-time employed, 8.6% are retired or disabled, 3.8% are homemakers, 8.2% do not work, 4.2% are students and 6.7% report to be self-employed. Income is distributed with 20.6% in the lower 33%-tile, 41.2% in the middle and 38.2% in the upper 33%-tile. Furthermore, 23.7% report to have none or some secondary degree, 52.8% have a secondary degree and 23.5% have a post-secondary degree.
In the Finnish female dataset, 5% are involved in TEA, out of which 4% are opportunity-driven and 0.9% are necessity-driven. Additionally, 9.1% expect to start up within the next three years.

3.4. Methodology

In order to test the first set of hypotheses (H1a-c) that women perceive stronger fear of failure, but weaker subjective norms and weaker perceived behavioural control towards entrepreneurship than men t-tests on the averages of the antecedents of EI for men and women within the full dataset will be run. This will show whether the datasets of this research show significant gender differences. Additionally, a Chi-Square test, as well as a logistic binomial regression on the antecedents as dependent variables with gender as an independent variable will be run, in order to understand whether being a woman relates to the likelihood of perceiving the antecedents to EI. As all dependent variables for this research are dichotomous and the independent variables have a mutually exclusive and exhaustive categorization, this form of regression analysis is necessary to obtain correct results (Wooldridge, 2013). In order to control for further factors that could influence the likelihood of developing an EI, control variables for current occupation and age were added to the model. All of them are coded as dummies as well.

For the second set of hypotheses (H2a-c) the analyses will be performed on the female datasets of the respective countries chosen for this research. In order to test whether women in countries with high MAS and high PD perceive the antecedents differently, the means of the variables will be calculated first. Afterwards, a t-test will determine whether the difference in means between the respective countries is significant. Furthermore, to estimate the moderating effect of MAS and PD on the relation between the antecedents and EI, an explanatory group comparison will be conducted. This group comparison can be performed on the regression coefficients for each country, which will be obtained by performing logistic binomial regressions with the country datasets. For each country, three models will be used with the dependent variables TEA (model 1), Start_three (model 2) and TEAOPP (model 3). Afterwards,

a t-test statistic will assess whether the difference in coefficients of the two groups (in this case countries) is statistically significant (Paternoster, Brame, Mazerolle & Piquero, 1998). As described in 3.1, GER will be compared to NET for the MAS dimension and POR will be compared to FIN to test the PD dimension.

The following formula is used to perform this test:

$$Z = \frac{b_1 - b_2}{\sqrt{SEb_1^2 + SEb_2^2}}.$$

Figure 2: T-Test after Paternoster et al., (1998)

Afterwards, the p-value respective to the found z-score needs to be identified, in order to see whether the difference between the coefficients of high and low MAS as well as high and low PD is significant. This will give indications of whether the antecedents in high MAS and PD countries influence EI differently than in low MAS and PD countries.

4. Analyses and Results

All analyses were run with the software R Studio. The variables were checked for multicollinearity, which led to the exclusion of variables controlling for income and education levels. Additionally, the models suffer from heteroskedasticity, which is normal when working with binary variables (Wooldridge, 2013). To correct for that, robust standard errors were calculated and integrated into the outputs. As all variables within models 1-3 are binary, linearity is given and the coefficients can be interpreted directly.

4.1. Gender and the antecedents of EI

H1a: Women perceive weaker personal attraction toward entrepreneurship than men.

H1b: Women perceive weaker subjective norms toward entrepreneurship than men.

H1c: Women have weaker perceived behavioural control toward entrepreneurship than men.

Personal Attraction

After having conducted the t-tests on all antecedents for the four countries in question, the results in Table 2 show that on average more women than men perceive fear of failure towards entrepreneurship. Women reach higher percentages in fear of failure and the difference to men is significant at a 99% confidence level, indicating a weaker personal attraction toward entrepreneurship. The Chi-Square test reconfirms the relationship between fear of failure and gender with $p< 0.01$. These results offer support for H1a.

Additionally, the regressions of gender on fear of failure show that being female increases the likelihood of perceiving fear of failure towards entrepreneurship by at least 11.8% (ceteris paribus, with $p<0.01$).

Table 2: Results H1a-c

	T-Test			Chi-Square Test	
	Men	Women	p-value	Chi-Square	p-value
fearoffail	37,84%	50,40%	0,000	351,240	0,000
media	59,17%	58,18%	0,138	2,166	0,14
goodcareer	57,38%	55,37%	0,003	8,955	0,00
status	73,62%	75,08%	0,013	6,102	0,01
skill	51,51%	36,83%	0,000	479,320	0,00
opportun	45,93%	39,29%	0,000	98,887	0,00
knowotherent	36,45%	29,00%	0,000	138,100	0,00

Results of t-tests and Chi-Square tests of gender and antecedents.

Table 3: Regression results for H1a-c

	fearoffail	media	goodcareer	status	skill	opportun	knowotherent
Gender	0,118***	-0,010	-0,025***	0,014**	-0,125***	-0,058***	-0,060***

*p < 0.1; **p < 0.05; ***p < 0.01.
Cells report the regression coefficients.

Subjective Norms

The results of the t-tests for H1b show no significant difference in men's and women's perception of media attention for new businesses. The Chi-Square test does not show a significant relationship between gender and media. The regression reconfirms this.

For "goodcareer" the t-test result shows that more men than women perceive that society believes entrepreneurship is a good career choice ($p< 0.01$). The Chi-Square test confirms a relationship between the variables gender and "goodcareer" ($p< 0.01$) and the regression results show that being female decreases the likelihood to perceive that the society believes entrepreneurship is a good career choice by 2.5% ($p< 0.01$). These results offer support for H1b.

However, contrarily to what was expected, *more* women than men believe that successful entrepreneurs receive status and respect ($p< 0.01$), which is supported by the regression, showing that being female increases the likelihood of perceiving an increased status for

successful entrepreneurs by 1.4% on average ($p < 0.01$, ceteris paribus). Again, the Chi-Square test shows a relationship between gender and status.
These results offer partial support for H1b, indicating that only in two out of three cases women perceive weaker subjective norms and support systems towards entrepreneurship than men.

Perceived behavioural control

Lastly, the results of the t-tests on "skill", "opportun" and "knowotherent" show that more men than women believe to be skilled enough to start a business, see opportunities for it in the area where they live and personally know other entrepreneurs ($p < 0.01$). The Chi-Square test and regression results confirm these relationships, offering support for H1c that, on average, women have weaker perceived behavioural control than men (ceteris paribus).

4.2. Culture as a moderator

H2a: In countries with i) high MAS and ii) high PD women perceive weaker personal attraction towards entrepreneurship than in countries with low MAS and PD.

H2b: In countries with i) high MAS and ii) high PD women perceive weaker subjective norms towards entrepreneurship than in countries with low MAS and PD.

H2c: In countries with i) high MAS and ii) high PD women have weaker perceived behavioural control towards entrepreneurship than in countries with low MAS and PD.

GER with a level of 66 is considered a high MAS country, whereas NET, with a level of 14, is considered a low MAS country. To test the PD dimension, POR with a level of 63 in PD is considered a high PD country, whereas FIN with a level of 33 in PD, is considered a low PD country. For all cultural dimensions, the minimum in 0 and the max is at 100. (Hofstede, 2020)

Personal attraction

To test H2a, the means of the countries for the variable "fearoffail" were estimated first.
For the MAS dimension, GER 52.57% within the female dataset reported that fear of failure would prevent them from starting a business. For NET, on average 44.09% reported fear of failure when entering an entrepreneurial career. The difference between the means is significant with $p < 0.01$. The results of the regression analyses also show a negative effect of fear of failure

for GER ß= -0.023 (p <0.01) and for NET with ß= -0.019 (p <0.1) in model 1 ("TEA"). In model 2 and 3, the coefficients for "fearoffail" for GER show similar results, whereas for NET the coefficients are not significant (Table 5), which indicates that in countries with low MAS potential failure does not influence whether a woman decides to choose entrepreneurship as a career path.

The group comparison for the moderating effect of "fearoffail" in high MAS countries shows a significant difference in model 2 (Table 6). However, the coefficient for NET itself was not significant. This result gives a first indication for the personal attraction antecedent towards entrepreneurship. Further research in this field could give more insight on whether fear of failure towards entrepreneurship actually decreases the likelihood to engage in an EA more in high MAS countries.

Table 4: T-test results on the means for H2a-c

	Germany	Netherlands	p-value	Portugal	Finland	p-value
TEA	4.50%	7.00%	0.00	8.20%	5.00%	0.00
fearoffail	52.57%	44.09%	0.00	53.40%	48.79%	0.00
media	51.20%	56.29%	0.00	67.55%	66.40%	0.44
goodcareer	48.34%	80.23%	0.00	65.28%	33.70%	0.00
status	79.98%	67.98%	0.00	62.69%	85.07%	0.00
skill	35.47%	36.76%	0.31	42.59%	33.70%	0.00
opportun	39.02%	47.30%	0.00	24.48%	47.63%	0.00
knowotherent	22.70%	31.74%	0.00	27.03%	43.17%	0.00

T-Test results and respective p-values.

As expected, the comparison of the means showed that POR, with a mean for "fearoffail" of 53.40% has a statistically significant (p<0.01) higher level of fear of failure than FIN with a mean of 48.79%.

The results for the regression analyses for POR and FIN show negative and significant coefficients in all three models, indicating that fear of failure decreases the likelihood of women engaging in entrepreneurial activities in these countries (See Table 5). However, the group comparison of the regression coefficients does not show a significant difference between the "fearoffail" coefficients in POR and FIN and therefore no moderating effect of PD for personal attraction (See Table 6).

These results offer do not offer support for H2a as they do not show a clear moderating effect of culture on the relationship between "fearoffail" and EI. This means that even though more women in high MAS and PD countries perceive fear of failure towards entrepreneurship there is no stronger negative effect of fear of failure on EI for women in countries with high levels of MAS or PD, which is why H2a has to be rejected.

Table 5: Regression results for H2a-c, female country datasets

Model 1	TEA			
	Germany	Netherlands	Portugal	Finland
fearoffail	-0.023 (0.006)***	-0.019 (0.01)*	-0.030 (0.010)***	-0.028 (0.01)***
Media	-0.002 (0.006)	0.004 (0.01)	0.016 (0.011)	0.003 (0.01)
goodcareer	0.004 (0.006)	0.016 (0.012)	0.018 (0.011)*	0.008 (0.01)
Status	-0.001 (0.008)	0.003 (0.011)	0.014 (0.011)	0.008 (0.013)
Skill	0.039 (0.006)***	0.072 (0.011)***	0.051 (0.011)***	0.05 (0.01)***
opportun	0.024 (0.006)***	0.006 (0.01)	0.029 (0.012)**	0.038 (0.009)***
Knowotherent	0.084 (0.007)***	0.048 (0.011)***	0.095 (0.012)***	0.025 (0.009)***

*p < 0.1; **p < 0.05;
***p < 0.01.

Cells report the regression coefficients, standard errors in brackets.

Model 2	Start_three			
	Germany	Netherlands	Portugal	Finland
fearoffail	-0.039 (0.008)***	-0.008 (0.013)	-0.025 (0.015)	-0.031 (0.014)**
Media	0.0003 (0.008)	-0.001 (0.013)	0.018 (0.016)	-0.01 (0.014)
goodcareer	0.007 (0.008)	-0.001 (0.016)	0.057 (0.016)***	0.054 (0.014)***
Status	0.006 (0.009)	0.02 (0.013)	-0.048 (0.016)***	-0.008 (0.019)
Skill	0.07 (0.008)***	0.097 (0.014)***	0.131 (0.016)***	0.104 (0.015)***
opportun	0.034 (0.008)***	0.025 (0.013)*	0.105 (0.018)***	0.03 (0.013)**
Knowotherent	0.089 (0.009)***	0.064 (0.014)***	0.073 (0.018)***	0.044 (0.014)***

*p < 0.1; **p < 0.05;
***p < 0.01.

Cells report the regression coefficients, standard errors in brackets.

Model 3	TEAOPP			
	Germany	Netherlands	Portugal	Finland
fearoffail	-0.02 (0.005)***	-0.015 (0.01)	-0.029 (0.009)***	-0.02 (0.009)**
Media	-0.004 (0.005)	0.005 (0.009)	0.006 (0.01)	0.003 (0.009)
goodcareer	-0.0005 (0.005)	0.012 (0.012)	0.008 (0.01)	0.009 (0.009)
Status	-0.002 (0.007)	-0.0002 (0.01)	0.014 0.01)	-0.008 (0.012)
Skill	0.028 (0.006)***	0.053 (0.01)***	0.044 (0.01)***	0.042 (0.009)***
opportun	0.017 (0.005)***	0.012 (0.01)	0.038 (0.011)***	0.033 (0.008)***
Knowotherent	0.073 (0.006)***	0.043 (0.011)***	0.069 (0.011)***	0.022 (0.009)***

*p < 0.1; **p < 0.05;
***p < 0.01.

Cells report the regression coefficients, standard errors in brackets.

Subjective Norms

To test **H2b**, the means of the three variables independent "media", "goodcareer" and "status" for GER and NET, as well as POR and FIN will be compared, followed by the group comparisons of the regression coefficients.

For the MAS component, as assumed, fewer women in GER (51.2%) than in NET (56.59%) perceive media support for new businesses and fewer women in GER (48.34%) than in NET (80.23%) perceive entrepreneurship to be a good career choice. Both differences are statistically significant ($p< 0.01$). Conversely, *more* women in GER (79.98%) than in NET (67.98%) think that successful entrepreneurs gain status and respect in their country. This difference is also statistically significant ($p< 0.01$) (see Table 4). Interestingly, the regression analyses do not show any significant results for all three variables in both countries (See Table 5) and neither do the group comparisons of the coefficients for the moderating effect of MAS (See Table 6). This indicates that even though fewer women in GER perceive media attention and support for entrepreneurship as a career choice, the perception of subjective norms (in the form of the chosen variables) does not influence women's EI in GER and NET. Consequently, perceived social norms by women are not subject to the influence of MAS culture dimension.

For the PD dimension, the difference in means of the variable "media" for POR (67.55%) and FIN (66.4%) was not significant (See Table 4). The same applies to the coefficients of the regression analyses and consequently the group comparison of those. This indicates that media attention for new businesses is not a driver for EI among women in POR and FIN. Contrarily to what was assumed, more women in POR (66.28%) than in FIN (33.7%) think that society

believes entrepreneurship to be a good career choice (significant at p< 0.01). "goodcareer" also shows significant results in model 1 "TEA" for POR (ß=0.018, p< 0.1) and in model 2 "Start_three" (ß=0.057, p< 0.01) (See Table 5).

Table 6: Country comparisons for the moderating effect

GER - NET	Model 1		Model 2		Model 3	
	z-score	p-value	z-score	p-value	z-score	p-value
fearoffail	-0.34	0.37	-2.03	**0.02**	-0.45	0.32
media	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs
goodcareer	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs
status	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs
skill	-2.53	**0.01**	-1.67	**0.05**	-2.14	**0.02**
opportun	1.54	0.06	0.59	0.28	0.45	0.32
knowotherent	2.76	**0.00**	1.50	**0.06**	2.39	**0.01**

n.s. coeffs, both regression coefficients were not significant.
Results of the group comparison on the regression coefficients for Germany and the Netherlands.

POR-FIN	Model 1		Model 2		Model 3	
	z-score	p-value	z-score	p-value	z-score	p-value
fearoffail	-0.14	0.44	0.47	0.32	-0.64	0.26
media	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs	n.s. coeffs
goodcareer	0.67	0.25	0.14	0.44	n.s. coeffs	n.s. coeffs
status	n.s. coeffs	n.s. coeffs	1.29	**0.10**	n.s. coeffs	n.s. coeffs
skill	0.07	0.48	1.23	0.11	0.13	0.45
opportun	-0.60	0.27	3.64	**0.00**	0.37	0.36
knowotherent	4.67	**0.00**	1.27	**0.10**	3.31	**0.00**

n.s. coeffs, both regression coefficients were not significant.
Results of the group comparison on the regression coefficients for Portugal and Finland.

However, this effect is not visible for opportunity-driven entrepreneurship in model 3 (See Table 5), which indicates that if society believes in entrepreneurship to be a good career choice, it does not increase the EI of women, who have the opportunity to choose any career path, but

not for necessity-driven entrepreneurs. For FIN, “goodcareer” shows a significant effect in model 2 “Start_three” only (ß= 0.054, p< 0.01) (See Table 5). This indicates that believing society perceives entrepreneurship to be a good career choice increases EI of women within the next three years in FIN. However, with model 1 and 3 not being significant, it remains unclear whether this variable actually increases EI in FIN.

The group comparison does not show any significant- and consequently no moderating effect for the power distance culture dimension (See Table 6).

For the independent variable “status”, as expected, more women in FIN (85.07%) than in POR (62.60%) think that successful entrepreneurs gain status and respect. This difference is also statistically significant (p<0.01) (See Table 4). The regression analyses show a significant result for POR in model 2 “Start_three” only (ß= -0.048, p< 0.01) (See Table 5). This indicates that believing successful entrepreneurs gain status and respect decreases EI of women in POR. For FIN “status” did not show any significant result (See Table 5).

The group comparisons of the coefficients for the moderating effect of culture shows a significant difference for the coefficients in model 2 “Start_three” (p< 0.1), indicating a stronger negative influence for “status” in high PD countries. However, the coefficient for FIN itself is not significant, which leaves room for further research in this area, also since the significance is at a 90% confidence level only (See Table 6).

Consequently, the results do not show support for H2b, indicating that women in countries with high levels of MAS and PD do not perceive weaker subjective norms towards entrepreneurship, which is why H2b has to be rejected.

Perceived behavioural control

In order to test H2c, the means of the independent variables “skill”, “opportun” and “knowotherent” for GER and NET, as well as POR and FIN will be compared, followed by the group comparisons of the regression coefficients.

For GER 35.47% of the women perceive to have the skills and experience to become an entrepreneur and for NET the mean is at 36.76%. The difference is not statistically significant (See Table 4).

The regression analyses show positive significant results for “skill” in all three models for both countries (See Table 5).

The difference in the regression coefficients of “skill” is significant in model 1 “TEA” (ß= 0.039 for GER, ß= 0.072 for NET, p < 0.01) and in model 2 (ß=0.07 for GER, ß=0.097 for

NET, $p < 0.05$) and model 3 (ß=0.028 for GER, ß=0.053 for NET, $p < 0.05$) (See Table 6), indicating that women with perceived skills in countries with low MAS have higher EI than women with the same skills perception in high MAS countries, offering support for H2c.

As assumed, more women in NET (47.3%) than in GER (39.02%) see entrepreneurial opportunities in the area where they live within the next 6 months (See Table 4). This difference is significant with $p<0.01$. For GER, the regression analyses show positive significant results for "opport" in all three models with $p< 0.01$, whereas for NET only model 2 "Start_three" shows a significant result with $p< 0.1$ (See Table 5), which excludes seeing opportunities as a main driver to EI for women in low MAS countries.

Interestingly, the group comparison of the coefficients of the three models shows that seeing opportunities has a higher impact on women's EI in GER (ß= 0.024, $p< 0.01$) than in NET (ß= 0.006, n.s.). The difference in model 1 is statistically significant at a 90% confidence interval with $p<0.1$. However, the coefficient of NET in model 1 is not significant (See Table 5). The group comparisons within the other models do not show any significant results, which leaves room for further research in this field.

Lastly, for the variable "knowotherent", as expected, more women in NET (31.74%) than in GER (22.7%) reported to personally know someone, who started a business (See Table 4). The regression analyses show positive, significant results in all three models, for both countries, which confirms that networks increase women's EI (See Table 5).

Interestingly, contrarily to what was expected, the group comparison of the coefficients shows that "knowotherent" has a statistically significant ($p<0.01$) higher influence on women's likelihood to engage in an EA in GER (ß=0.084 for "TEA", $p<0.01$) than for women in NET (ß= 0.048, $p<0.01$). Similar results were found in the other two models (in model 2 "Start_three" ($p <0.1$) and in model 3 "TEAOPP" ($p <0.01$)) (See Table 6). This confirms the moderating effect of MAS, but it indicates that for women in high MAS cultures, knowing another entrepreneur has a higher influence on EI than for women in low MAS cultures. These results offer partial support for H2c.

When looking at the PD dimension, contrarily to what was expected, more women in POR (42.59%) than in FIN (33.7%) perceive to have the necessary skills to start a business ($p< 0.01$) (See Table 4). The regression analyses show positive significant results in all three models for both countries (See Table 5), indicating that perceived skills increase women's EI in POR and FIN. However, the group comparisons of the regression coefficients did not show any

significant moderating effect of PD for the variable “skill”, which indicates no moderating effect of PD on “skills”.

As expected, women in POR (24.48%) see significantly fewer business opportunities than women in FIN (47.63%) (See Table 4). For both countries, the regression analyses show positive significant results for “opportun” in all three models. However, in model 2 “Start_three” only, the group comparison of the coefficients shows a significantly stronger effect for POR ($p<0.01$) (See Table 5). This indicates that contrarily to what was expected, if women in countries with high PD see opportunities, it increases their EI to a higher extent than for women in low PD countries.

Lastly, again as expected, more women in FIN (43.17%) than in POR (27.03%) personally know other entrepreneurs, who recently started a business ($p<0.01$) (See Table 4). The regression analyses show significant, positive coefficients for both countries in all three models (See Table 5).

Interestingly, the group comparison shows a significant difference between the coefficients of “knowotherent”, where the coefficients for women in POR (ß=0.095 in model 1 “TEA” and ß= 0.069 in model 3 “TEAOPP”, both $p< 0.01$) are *higher* than for women in FIN (ß= 0.025 in model 1 “TEA” and ß= 0.022 on in model 3 “TEAOPP”, both $p< 0.01$) (See Table 5 and 6). This indicates that being part of entrepreneurial networks increases women’s EI more in high PD countries, than in low PD countries.

These results offer partial support for H2c, where, as expected, skills show a stronger effect in low MAS countries, but networks (“knowotherent”) show a stronger effect in high MAS and high PD countries as well as the ability to see opportunities show a stronger effect in high PD countries. Therefore, H2c can be partially accepted.

Table 7: Hypotheses Results Summary

	Results Summary	
H1a	*Women perceive weaker personal attraction toward entrepreneurship than men.*	Accepted
H1b	*Women perceive weaker subjective norms toward entrepreneurship than men.*	Partly Accepted*
H1c	*Women have weaker perceived behavioural control toward entrepreneurship than men.*	Accepted
H2a	*In countries with i) high MAS and ii) high PD women perceive weaker personal attraction towards entrepreneurship than in countries with low MAS and PD.*	Rejected**
H2b	*In countries with i) high MAS and ii) high PD women perceive weaker subjective norms towards entrepreneurship than in countries with low MAS and PD.*	Rejected**
H2c	*H2c: In countries with i) high MAS and ii) high PD women have weaker perceived behavioural control towards entrepreneurship than in countries with low MAS and PD.*	Partly Accepted*

*At least one variable within this component shows a significant result
** The country comparison was significant, but 1 out of 2 coefficients within the comparison was not significant

5. Main Findings and Discussion

The goal of this research was to identify the main drivers for EI among women and how they can be influenced by culture. These drivers were aligned with the antecedents to the Theory of Planned Behaviour according to Ajzen (1991) under the context of research on female entrepreneurship (Carranza et al., 2018; Zhao et al., 2005). In order to do so, two sets of hypotheses were developed. The first set was tested on a full dataset with all countries and the second set was tested for each country/culture individually, in order to be able to compare the results. The countries rank differently on for female entrepreneurship relevant cultural dimensions masculinity and power distance by Hofstede. On the one hand, Germany, which ranks high in MAS, was compared to the Netherlands, which ranks low in MAS. Both have the same level of PD. On the other hand, Portugal, ranking high in PD, was compared to Finland, ranking low in PD. Both countries rank low on MAS. For the three antecedents of EI, our research found the following:

For the antecedent **personal attraction**, we found that women perceive weaker personal attraction towards entrepreneurship than men, which is in line with current research (Shinnar et al., 2012) and also explains the overall lower engagement of women in entrepreneurship (GEM, 2020). We also found that women, who perceive fear of failure have lower EI and therefore have a weaker personal attraction towards entrepreneurship. Therefore, by helping women overcome their fear of failure towards entrepreneurship, EI and consequently EA would increase significantly in all tested countries, which makes it an important driver for policymakers. For the moderating effect of culture, we only found a first indication (with one insignificant coefficient) culture (high levels of masculinity) influences personal attraction and leads to lower EI among women. This leaves room for further research and means that policymakers do not need to differentiate initiatives regarding personal attraction towards entrepreneurship between high and low MAS and PD countries.

Research has established a strong role of **subjective norms** to promote EI (Entrialgo & Iglesias, 2016). We could not confirm that women generally have weaker subjective norms than men (See Table 2). This pattern continues with no clear line when testing the effect of subjective norms on EI, as the majority of the regression results are insignificant (with one exception for "goodcareer" in POR and FIN). However, our analyses could not find a clear pattern available in this research for the influence of subjective norms on EI of women.
When analysing differences across cultures, we identified a first indication that in countries with high masculinity levels and hierarchy (power distance) women show weaker subjective norms towards entrepreneurship, but the significance was low ($p< 0.1$) and one of the coefficients in the comparison was insignificant.
These findings imply that even though subjective norms towards entrepreneurship are perceived to be weaker by women in two out of three cases, they are not the main drivers for EI in the tested countries. The results of the means indicate country-specific perceptions of subjective norms, but no influence of those on EI. Therefore, when it comes to subjective norms in the form of the variables chosen in this research, it seems unlikely that policies and initiatives would have an actual impact on EI and EA of women within Europe.

Lastly, **perceived behavioural control** was found to be another strong driver of EI in the context of female entrepreneurship (Harrison & Mason, 2007).
We found that the perception of women about their capabilities and competency regarding entrepreneurial opportunities is weaker than men's, so that women almost always see

themselves as less qualified than men to choose this career path, even in countries with high gender equality like FIN (Galloway Brown & Arenius, 2002; Seenan, 2020).
Furthermore, we also found that all variables chosen to test this antecedent significantly increase the EI and therefore the likelihood of women engaging in an EA.

Our findings on culture and perceived behavioural control then showed that culture influences the effect of skills on EI to a significantly higher extent in countries with low masculinity levels. A possible reasoning is that women in these countries perceive fewer barriers to entrepreneurship in general so that the perception of skills and a tendency towards a profession can have a much stronger impact than for women in countries with other barriers to this profession (Allen, Elam, Langowitz & Dean, 2008). Therefore, skills become an especially interesting driver for policymakers to increase EA among women in low masculinity countries like the Netherlands.
Furthermore, the effect of seeing opportunities increases EI to a significantly higher extent for women in GER, than for women in NET, even though the means have shown that more women in NET than in GER see opportunities. These results indicate that seeing opportunities is not a main driver to EA in low masculinity countries like the Netherlands, as conditions for entrepreneurial activity are above average in many factors (Bosma et. al, 2020). For countries with high levels of masculinity, our finding indicates that helping women to see an entrepreneurial opportunity and overcoming the lack of competency barrier is of high importance and an important driver of EI and consequently EA.

Lastly, we found that the impact of entrepreneurial networks is also influenced by culture. The influence of knowing other entrepreneurs on women's EI in high masculinity cultures is significantly higher, even though the means showed that more women in low MAS countries know other entrepreneurs. A possible explanation can be that even though barriers to enter EA are higher for women in high MAS countries (Allen et al., 2008), once women make connections and see other successful entrepreneurs, it gives them an incentive to choose entrepreneurship as a career path as well. Harrison & Mason (2007) found similar effects on female entrepreneurs when knowing female business angels. This finding underlines the importance of role models and networks with valuable contacts for female entrepreneurship once more, as found by many researchers already (Hirschfeld et al., 2020) and underlines it for countries with high levels of masculinity.

For countries and cultures with high levels of hierarchy (power distance), we found that seeing opportunities has a significantly higher impact on EI in these countries. A possible explanation for this effect is that even though it is more unlikely for Portuguese women to see entrepreneurial activities if they overcame the barriers and perceive opportunities, it has a strong impact on their willingness to become an entrepreneur, whereas women in countries with high gender equality like Finland have very few barriers in general (Seenan, 2020).

Interestingly, we found that high levels of power distance do not influence the perceived skills towards entrepreneurship and EI among women. This means that strong hierarchical structures do not affect women's perception of their competency towards entrepreneurship. Indeed, Bosma et al. 2020 found as well, that entrepreneurial education in Portugal is at the average of all tested countries within their study (GEM).

Lastly, we found that networks also have a stronger effect on women's EI in high PD countries. Therefore, it appears that once women in these cultures break strong hierarchical structures around them by knowing someone else, who chose an independent career path, it motivates them to do so as well. In line with that, Ribeiro, Santos & Martins (2019) found that successful Portuguese female entrepreneurs oftentimes named their fathers as role models to boost their EI. Additionally, (Pereira, 2001) points out that personal achievement and independence as key motivators for Portuguese women to start a business. With this at hand, networks and role models, demonstrating success in this field, become an inspiriting force for female entrepreneurs in high PD countries like POR as well, especially since the average of women, knowing another entrepreneur is only at 27.03%, which leaves a lot of room for improvement when comparing it to FIN with 43.17%.

5.1. Theoretical Implications

This study contributes to the research of female entrepreneurship as a field in several ways. First, we integrate the TPB with entrepreneurship research. Namely, we conciliate the TPB with well-known barriers and challenges that women face in the field of entrepreneurship, in the form of personal attributes and social values from the GEM dataset (GEM, 2020). However, this study identified the effects of the presence of these attributes and values in the form of drivers, as the lack thereof in the form of barriers and its effect on EI, is well researched already

(Carranza et al., 2018; Harrison & Mason, 2007; Liñán et al., 2011; Shinnar et al., 2012; Wagner, 2007). The findings enhance current research on female entrepreneurship, by adding the cultural dimension as a moderator on the effect of drivers to EI. This shows that understanding women's entrepreneurial intentions is contextual, as we add two important cultural dimensions to the framework. We also highlight that culture does not only influence how barriers effect and decrease EI differently (Shinnar et al., 2012) but also how culture influences the effectiveness of drivers that actually lead to entrepreneurial intention and consequently action among women. Additionally, by combining the data from three years, the analyses were performed on big data sets and on three different dependent variables.

To the research on entrepreneurial policies for women, this study adds insights on specific drivers of women's EI in different countries and cultures, building a base for future longitudinal research of European Countries, taking into account how personal attributes and social values develop over time under the influence of culture.

5.2. Managerial Implications

The findings of this research show that culture influences factors and motivators for female entrepreneurship.

First, it was found that women have weaker personal attraction, perceived behavioural control and partly weaker subjective norms towards entrepreneurship than men. These findings underline once more the inequalities that seem to persist in all tested countries, independent from culture. This alone indicates that the policies that were implemented in the past few years (European Commission & OECD, 2017) still did not achieve the aspired effect and that improvements are necessary to finally achieve a higher level of EA among women.

Second, this study confirmed that the biggest drivers of EI for women lay in personal attraction and perceived behavioural control towards entrepreneurship, whereas subjective norms are less important. This alone suggests where policymakers should focus their efforts on, namely by on the one hand decreasing the fear of failure that women perceive towards entrepreneurship, by offering information about governmental support in this area. And on the other hand by pushing entrepreneurial education to increase skills and removing obstacles that women face to better balance social and professional obligations in order to obtain management positions (Olds,

2014). Policies like quotas, which eliminate glass-ceilings for women to achieve high management positions are another important contributor in gaining relevant skills and experience. These initiatives could help women break out of the predefined gender roles, develop an EI and engage in an EA (European Commission & OECD, 2017).

Third, it was identified that skills matter more in countries with low levels of masculinity, whereas networks matter more in countries with high levels of masculinity and power distance.

This gives policymakers more insight on how to design policies for specific countries. It also underlines that EU wide policies like WeGATE (European Commission & OECD, 2017) can increase EI in all countries, but the effect of the increase will be much higher in some than in others. This indicates that adapting policies and initiatives to country-specific components of the antecedent is necessary, meaning primarily networks in countries with high levels of masculinity and power distance, whereas skills training in all-female groups (since women perform worse in mixed-gender groups (Harrison & Mason, 2007)), as well as initiatives that help women gain relevant experience in low masculinity countries. This explains why the "Competitive Start Fund for Female Entrepreneurs" in Ireland (European Commission & OECD, 2017), has not achieved the aspired results, since networks drive EI among women in high masculinity countries like Ireland (Hofstede, 2020) to a stronger extent than external subjective norms like funding would.

Possible policies for improving networks are increasing entrepreneurship topics in schools, where local, successful entrepreneurs meet classes and tell their stories. Another idea is a local female entrepreneurship day, where women (independent from age and current profession) could attend inspiring talks about female entrepreneurs, who tell their business stories and answer questions all around the topic in Q&A sessions afterwards. Unlike what has been done in Germany (European Commission & OECD, 2017), the ticket prices should be very low or even free, in order to eliminate additionally barriers of participation (Klapper & Love, 2012). This way, the potential audience is much bigger, not only targeting the women who already have an entrepreneurial intention.

When it comes to education in schools, small projects of entrepreneurial character could direct students' curiosity towards this type of profession at an early age. Moreover, there is already a lot of research on entrepreneurship education in universities (Shinnar et al., 2014), stating that is has a negative effect on women's EI, which indicates that entrepreneurial education as a key

driver for EI among women in low MAS countries, needs to be rethought. Our study reconfirms these findings.

5.3. Limitations and Future Research

As any piece of research, this study also has some limitations. The GEM data used for this study is self-reported, which can come with biased answers, where the participants did not identify their actual motivations (Amit & Muller, 1995) or interpret the questions of the survey in a wrong way (GEM, 2020). Moreover, it cannot be determined whether the respondents developed their beliefs and attitudes, which are represented by the antecedents, before or after forming an EI and/or engaging in an EA. This limitation does not weaken our findings but could give a more detailed insight. This research also cannot determine whether and in what time frame exactly the EI turned into EA, as a long-term study with panel data would be necessary to manifest this more precisely (Wooldridge, 2013).

Lastly, the countries chosen in this research also come with some limitations. For GER, the number of observations is almost double the size of NET. In addition to that, POR is economically not as strong as FIN, which is visible in the increased number of necessity-driven entrepreneurs in the POR datasets. However, this type of limitation is typical for cross-national studies (Solesvik et al., 2019).

For timely matters, this research was limited to only testing one combination of high and low MAS (with the same level of PD) and one country combination of high and low PD (with the same level of MAS). Future research could add more countries within Europe that match these criteria, in order to verify the effects found.

Additionally, as no pattern for the effect of subjective norms on gender and on EI was identified in this research, future studies could choose additional variables like access to funding to further investigate on subjective norms. On top of that, it would be interesting to include how women perceive the media attention and status within the society of female entrepreneurs specifically and investigate whether perceiving such content has an influence on women's EI and thus EA further along the way. Lastly, this research only used dummy variables for all dependent and independent variables. By using a different scale, future research could gather more insightful and diversified results.

References

Abouzahr, K., Taplett, F. B., Krentz, M., & Harthorne, J. (2018). Why Women-Owned Startups Are a Better Bet. *Boston Consulting Group*, *January*, 1–10. https://www.bcg.com/publications/2018/why-women-owned-startups-are-better-bet

Ahl, H. (2006). Why research on women entrepreneurs needs new directions. *Entrepreneurship: Theory and Practice*.

Ajzen, I. (1991). The theory of planned behavior. In *Handbook of Theories of Social Psychology: Volume 1* (pp. 438–459).

Allen, E., Elam, a B., Langowitz, N., & Dean, M. (2008). Global Entrepreneurship Monitor 2007: report on women and entrepreneurship. In *Babson Park, MA: Babson College*.

Amit, R., & Muller, E. (1995). "PUSH" AND "PULL" ENTREPRENEURSHIP. *Journal of Small Business & Entrepreneurship*, *12*(4), 64–80.

Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Levie, J., & Tarnawa, A. (2020). *Global Entrepreneurship Monitor 2019/2020 Global Report*.

Busenitz, L. W., & Lau, C.-M. (1996). A Cross-Cultural Cognitive Model of New Venture Creation. *Entrepreneurship Theory and Practice*, *20*(4), 25–40.

Carranza, E., Dhakal, C., & Love, I. (2018). *Female entrepreneurs: How and why are they different?* (Issue 20).

Castaño, M. S., Méndez, M. T., & Galindo, M. Á. (2016). The effect of public policies on entrepreneurial activity and economic growth. *Journal of Business Research*, *69*(11), 5280–5285.

Chochoiek, N. (2019). *Exploring Female Entrepreneurship From a Scientific Perspective | German Accelerator*. https://www.germanaccelerator.com/blog/exploring-female-entrepreneurship-from-a-scientific-perspective/

de Bruin, A., Brush, C. G., & Welter, F. (2007). Advancing a framework for coherent research on women's entrepreneurship. In *Entrepreneurship: Theory and Practice* (Vol. 31, Issue 3, pp. 323–339).

Díaz-García, M. C., & Jiménez-Moreno, J. (2010). Entrepreneurial intention: The role of gender. *International Entrepreneurship and Management Journal*, *6*(3), 261–283.

Entrialgo, M., & Iglesias, V. (2016). The moderating role of entrepreneurship education on the antecedents of entrepreneurial intention. *International Entrepreneurship and Management Journal*, *12*(4), 1209–1232.

European Commission. (2020). *TOWARDS A GENDER-EQUAL EUROPE*.

European Commission, & OECD. (2017). *Policy Brief on Women's Entrepreneurship*.

Galloway, L., Brown, W., & Arenius, P. (2002). Gender-Based Differences in Entrepreneurial Behaviour: A Comparative Examination of Scotland and Finland. *The International Journal of Entrepreneurship and Innovation*, *3*(2), 109–119.

GEM. (2020). *GEM: Global Entrepreneurship Monitor*. GEM. https://www.gemconsortium.org/data/sets?id=aps

Glick, P. (2005). Ambivalent sexism, power distance, and gender inequality across cultures. In *Social Comparison and Social Psychology: Understanding Cognition, Intergroup Relations, and Culture* (pp. 283–302).

Goffee, R., & Scase, R. (1983). Business ownership and women's subordination: a preliminary study of female proprietors. *The Sociological Review*.

Gupta, V. K., Guo, C., Canever, M., Yim, H. R., Sraw, G. K., & Liu, M. (2014). Institutional environment for entrepreneurship in rapidly emerging major economies: The case of Brazil, China, India, and Korea. *International Entrepreneurship and Management Journal*, *10*(2), 367–384.

Gupta, V. K., Turban, D. B., Wasti, S. A., & Sikdar, A. (2009). The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur. *Entrepreneurship: Theory and Practice*, *33*(2), 397–417.

Hallen, B. L., Bingham, C. B., & Cohen, S. (2014). Do Accelerators Accelerate? A Study of Venture Accelerators as a Path to Success? Academy of Management Proceedings, 2014(1), 12955–12955.

Harrison, R. T., & Mason, C. M. (2007). Does gender matter? Women business angels and the supply of entrepreneurial finance. *Entrepreneurship: Theory and Practice*, *31*(3), 445–472.

Heilman, M. E. (1983). Sex bias in work settings: The Lack of Fit model. *Research in Organizational Behavior*, *5*, 269–298.

Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, *57*(4), 657–674.

Heilman, M. E., & Chen, J. J. (2003). Entrepreneurship as a solution: The allure of self-employment for women and minorities. *Human Resource Management Review*, *13*(2), 347–364.

Heilman, M. E., Martell, R. F., & Simon, M. C. (1988). The vagaries of sex bias: Conditions regulating the undervaluation, equivaluation, and overvaluation of female job applicants. *Organizational Behavior and Human Decision Processes*, *41*(1), 98–110.

Hirschfeld, A., Gilde, J., Support, N. W., Müller, B., Design, J. B., & Wagasowa, D. (2020). *Female Founders Monitor 2020 Publisher and project management German Startups Association Partner and sponsor Google for Startups*.

Hofstede, G. H., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations : software of the mind.* (3rd ed.). McGraw-Hill,.

Hofstede, G. (1980). *Culture's consequences: International differences in work related values.* SAGE Publications.

Hofstede, G. (1998). *Masculinity and femininity: the taboo dimension of national cultures*. SAGE Publications.

Hofstede, G. (2001). Culture's Consequences: Comparing Values, Behaviors, Institutions and organisations across nations. In *SAGE Publications*.

Hofstede, G. (2020). *Country Comparison - Hofstede Insights*. Hofstede Insights. https://www.hofstede-insights.com/country-comparison/germany,the-netherlands/

Hofstede, G., & McCrae, R. R. (2004). Personality and Culture Revisited: Linking Traits and Dimensions of Culture. *Cross-Cultural Research*, *38*(1), 52–88.

Jacob, K., King, P., & Mangalagiu, D. (2019). Approach to Assessment of Policy Effectiveness. In *Global Environment Outlook – GEO-6: Healthy Planet, Healthy People* (pp. 272–281).

Kibler, E. (2013). Formation of entrepreneurial intentions in a regional context. *Entrepreneurship and Regional Development*, *25*(3–4), 293–323.

Klapper, L. and Love, I. (2012) 'Measuring the Effect on New Firm Creation', Public Policy Journal, no. 333.

Kreiser, P. M., Marino, L. D., Dickson, P., & Weaver, K. M. (2010). Cultural influences on entrepreneurial orientation: The impact of national culture on risk taking and proactiveness in SMEs. *Entrepreneurship: Theory and Practice*, *34*(5), 959–983.

Krueger, N. F. (2007). *What Lies Beneath? The Experiential Essence of Entrepreneurial Thinking*.

Langowitz, N., & Minniti, M. (2007). The entrepreneurial propensity of women. *Entrepreneurship: Theory and Practice*, *31*(3), 341–364.

Lee, S. H., & Wong, P. K. (2004). An exploratory study of technopreneurial intentions: A career anchor perspective. *Journal of Business Venturing*, *19*(1), 7–28.

Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship: Theory and Practice*, *33*(3), 593–617.

Liñán, F., Rodríguez-Cohard, J. C., & Rueda-Cantuche, J. M. (2011). Factors affecting entrepreneurial intention levels: A role for education. *International Entrepreneurship and Management Journal*, *7*(2), 195–218.

Lüthje, C., & Franke, N. (2003). The "making" of an entrepreneur: Testing a model of entrepreneurial intent among engineering students at MIT. *R and D Management*, *33*(2), 135–147.

Marlow, S., & Patton, D. (2005). All credit to men? entrepreneurship, finance, and gender. In *Entrepreneurship: Theory and Practice* (Vol. 29, Issue 6, pp. 717–735).

Moriano, J. A., Gorgievski, M., Laguna, M., Stephan, U., & Zarafshani, K. (2012). A cross cultural approach to understanding entrepreneurial intention. *Journal of Career Development*, *39*(22), 162–185.

Olds, G. (2014). Entrepreneurship and public health insurance. *Harvard Business School Working Paper*, *16–144*, 1–43.

Parboteeah, K. P., Hoegl, M., & Cullen, J. B. (2008). Managers' gender role attitudes: A country institutional profile approach. *Journal of International Business Studies*, *39*(5), 795–813.

Paternoster, R., Brame, R., Mazerolle, P., & Piquero, A. (1998). Using the correct statistical test for the equality of regression coefficients. *Criminology*, *36*(4), 859–866.

Pereira, F. C. (2001). *Representacao Social do Empresario* (Edicoes Si).

Poggesi, S., Mari, M., & De Vita, L. (2016). What's new in female entrepreneurship research? Answers from the literature. *International Entrepreneurship and Management Journal*, *12*(3), 735–764.

Pruett, M., Shinnar, R.S., Toney, B., Llopis, F., & Fox, J. (2009). Explaining entrepreneurial intention of university students: A cross-cultural study. International Journal ofEntrepreneurial Behaviour and Research, 15(6), 571-954.

Ribeiro, M. C., Santos, L., & Martins, D. (2019). *Female Entrepreneurship in Portugal* (pp. 69–91).

Salgado, C. M., Azevedo, C., Proença, H., & Vieira, S. M. (2016). Missing data. In *Secondary Analysis of Electronic Health Records* (pp. 143–162). Springer International Publishing.

Seenan, P. (2020). *3 successful entrepreneurs on being a woman in Finland | Leadfeeder*. Leadfeeder. https://www.leadfeeder.com/blog/3-successful-entrepreneurs-on-being-a-woman-in-finland/#gref

Segal, G., Borgia, D., & Schoenfeld, J. (2005). The motivation to become an entrepreneur. *International Journal of Entrepreneurial Behaviour and Research*, *11*(1), 42–57.

Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human Resource Management Review*.

Shane, S., & Venkataraman, S. (2000). The Promise of Enterpreneurship as a Field of Research. *The Academy of Management Review*, *25*(1), 217.

Shinnar, R. S., Giacomin, O., & Janssen, F. (2012). Entrepreneurial Perceptions and Intentions: The Role of Gender and Culture. *Entrepreneurship: Theory and Practice*, *36*(3), 465–493.

Shinnar, R. S., Hsu, D. K., & Powell, B. C. (2014). Self-efficacy, entrepreneurial intentions, and gender: Assessing the impact of entrepreneurship education longitudinally. *International Journal of Management Education*, *12*(3), 561–570.

Skonieczna, A., Castellano, L. (2020). *Gender Smart Financing Investing In & With Women: Opportunities for Europe.*

Solesvik, M., Iakovleva, T., & Trifilova, A. (2019). Motivation of female entrepreneurs: a cross-national study. *Journal of Small Business and Enterprise Development*, *26*(5), 684–705.

Thébaud, S. (2010). Gender and entrepreneurship as a career choice: Do self-assessments of ability matter? *Social Psychology Quarterly*, *73*(3), 288–304.

Thébaud, S. (2015a). Business as Plan B: Institutional Foundations of Gender Inequality in Entrepreneurship across 24 Industrialized Countries. *Administrative Science Quarterly*, *60*(4), 671–711.

Thébaud, S. (2015b). Status beliefs and the spirit of capitalism: Accounting for gender biases in entrepreneurship and innovation. *Social Forces*, *94*(1), 61–86.

Thornton, P. H., Ribeiro-Soriano, D., & Urbano, D. (2011). Socio-cultural factors and entrepreneurial activity: An overview. *International Small Business Journal*, *29*(2), 105–118.

Teixeira, S., Casteleiro, C., Rodrigues, R. & Guerra, M. C. (2018). Entrepreneurial intentions and entrepreneurship in European countries. international Journal of Innovation Science, *10* (1), 22-42.

Unnikrishnan, S., & Blair, C. (2019). *Want to boost the global economy by $5 trillion? Support women as entrepreneurs.* BCG. https://www.bcg.com/publications/2019/boost-global-economy-5-trillion-dollar-support-women-entrepreneurs

Uslay, C., Teach, R. D., & Schwartz, R. G. (2002). Promoting Entrepreneurship for Economic Development: A Cross-Cultural Analysis of Student Attitudes. *Journal of Research in Marketing and Entrepreneurship*, *4*(2), 101–118.

Venkataraman, S. (1997). The distinctive domain of entrepreneurship research. In *Advances in Entrepreneurship, Firm Emergence and Growth* (Vol. 21, pp. 5–20).

Wagner, J. (2007). What a Difference a Y makes-Female and Male Nascent Entrepreneurs in Germany. *Small Business Economics*, *28*(1), 1–21.

Wilson, F., Kickul, J., Marlino, D., Barbosa, S. D., & Griffiths, M. D. (2009). An analysis of the role of gender and self-efficacy in developing female entrepreneurial interest and behavior. *Journal of Developmental Entrepreneurship*, *14*(2), 105–119.

Wilson, F., Marlino, D., & Kickul, J. (2004). Our entrepreneurial future: Examining the diverse attitudes and motivations of teens across gender and ethnic identity. *Journal of Developmental Entrepreneurship*.

Wooldridge, J. M. (2013). Introductory econometrics : a modern approach / Jeffrey M. Wooldridge. In *Introductory econometrics : a modern approach*.

Zhao, H., Hills, G. E., & Seibert, S. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, *90*(6), 1265–1272.

Appendix

Appendix 1: Regression output Model 1, GER and NET

	Dependent variable:	
	TEA	
	(1)	(2)
fearoffail	-0.023***	-0.019*
	(0.006)	(0.010)
media	-0.002	0.004
	(0.006)	(0.010)
goodcareer	0.004	0.016
	(0.006)	(0.012)
status	-0.001	0.003
	(0.007)	(0.011)
skill	0.039***	0.072***
	(0.006)	(0.011)
opportun	0.024***	0.006
	(0.006)	(0.010)
knowotherent	0.084***	0.048***
	(0.007)	(0.011)
y20141	0.007	0.006
	(0.007)	(0.012)
y20151	-0.004	-0.014
	(0.007)	(0.012)
Full_Part1	-0.187***	-0.338***
	(0.014)	(0.017)
Ret_Dis1	-0.194***	-0.336***
	(0.017)	(0.021)
HomeM1	-0.204***	-0.335***
	(0.017)	(0.028)
Nowork1	-0.128***	-0.340***
	(0.019)	(0.025)
Stud1	-0.205***	-0.352***
	(0.017)	(0.042)
senior1	-0.017***	-0.044***
	(0.006)	(0.012)
Constant	0.198***	0.340***
	(0.016)	(0.024)
Observations	4,516	2,089
R2	0.127	0.258
Adjusted R2	0.124	0.252
Residual Std. Error	0.195 (df = 4500)	0.221 (df = 2073)
F Statistic	43.563*** (df = 15; 4500)	47.979*** (df = 15; 2073)
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix 2: Regression output Model 2, GER and NET

	Dependent variable:	
	Start_three	
	(1)	(2)
fearoffail	-0.039***	-0.008
	(0.008)	(0.013)
media	0.0003	-0.001
	(0.008)	(0.013)
goodcareer	0.007	-0.001
	(0.008)	(0.016)
status	0.006	0.020
	(0.009)	(0.013)
skill	0.070***	0.097***
	(0.008)	(0.014)
opportun	0.034***	0.025*
	(0.008)	(0.013)
knowotherent	0.089***	0.064***
	(0.009)	(0.014)
y20141	0.018**	0.014
	(0.009)	(0.015)
y20151	0.003	0.001
	(0.009)	(0.015)
Full_Part1	0.026	0.012
	(0.017)	(0.022)
Ret_Dis1	0.018	-0.003
	(0.022)	(0.027)
HomeM1	0.022	0.051
	(0.022)	(0.036)
Nowork1	0.081***	0.076**
	(0.025)	(0.033)
Stud1	0.070***	0.147***
	(0.022)	(0.053)
senior1	-0.039***	-0.060***
	(0.008)	(0.015)
Constant	0.002	0.020
	(0.021)	(0.031)
Observations	4,461	2,035
R2	0.075	0.080
Adjusted R2	0.072	0.073
Residual Std. Error	0.247 (df = 4445)	0.277 (df = 2019)
F Statistic	24.172*** (df = 15; 4445)	11.713*** (df = 15; 2019)
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix 3: Regression output Model 3, GER and NET

	Dependent variable:	
	TEAOPP	
	(1)	(2)
fearoffail	-0.020***	-0.015
	(0.005)	(0.010)
media	-0.004	0.005
	(0.005)	(0.009)
goodcareer	-0.0005	0.012
	(0.005)	(0.012)
status	-0.002	-0.0002
	(0.007)	(0.010)
skill	0.028***	0.053***
	(0.006)	(0.010)
opportun	0.017***	0.012
	(0.005)	(0.010)
knowotherent	0.073***	0.043***
	(0.006)	(0.011)
y20141	0.006	0.005
	(0.006)	(0.011)
y20151	0.0004	-0.002
	(0.006)	(0.012)
Full_Part1	-0.131***	-0.297***
	(0.012)	(0.017)
Ret_Dis1	-0.134***	-0.290***
	(0.015)	(0.020)
HomeM1	-0.141***	-0.301***
	(0.015)	(0.027)
Nowork1	-0.098***	-0.293***
	(0.017)	(0.024)
Stud1	-0.148***	-0.338***
	(0.015)	(0.040)
senior1	-0.011*	-0.045***
	(0.006)	(0.011)
Constant	0.141***	0.299***
	(0.014)	(0.023)
Observations	4,516	2,089
R2	0.098	0.223
Adjusted R2	0.095	0.218
Residual Std. Error	0.173 (df = 4500)	0.211 (df = 2073)
F Statistic	32.498*** (df = 15; 4500)	39.728*** (df = 15; 2073)
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix 4: Regression output, Model 1 POR and FIN

	Dependent variable:	
	TEA	
	(1)	(2)
fearoffail	-0.030***	-0.028***
	(0.010)	(0.010)
media	0.016	0.003
	(0.011)	(0.010)
goodcareer	0.018*	0.008
	(0.011)	(0.010)
status	0.014	0.008
	(0.011)	(0.013)
skill	0.051***	0.050***
	(0.011)	(0.010)
opportun	0.029**	0.038***
	(0.012)	(0.009)
knowotherent	0.095***	0.025***
	(0.012)	(0.009)
y20141	0.018	0.006
	(0.012)	(0.011)
y20151	-0.007	-0.013
	(0.013)	(0.011)
Full_Part1	-0.350***	-0.286***
	(0.017)	(0.020)
Ret_Dis1	-0.348***	-0.293***
	(0.029)	(0.025)
HomeM1	-0.354***	-0.280***
	(0.026)	(0.030)
Nowork1	-0.334***	-0.282***
	(0.021)	(0.025)
Stud1	-0.353***	-0.331***
	(0.026)	(0.030)
senior1	-0.045***	-0.036***
	(0.014)	(0.011)
Constant	0.325***	0.290***
	(0.023)	(0.026)
Observations	2,120	1,890
R2	0.284	0.181
Adjusted R2	0.279	0.175
Residual Std. Error	0.233 (df = 2104)	0.199 (df = 1874)
F Statistic	55.674*** (df = 15; 2104)	27.695*** (df = 15; 1874)
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix 5: Regression output Model 2, POR and FIN

	Dependent variable:	
	Start_three	
	(1)	(2)
fearoffail	-0.025	-0.031**
	(0.015)	(0.014)
media	0.018	-0.010
	(0.016)	(0.014)
goodcareer	0.057***	0.054***
	(0.016)	(0.014)
status	-0.048***	-0.008
	(0.016)	(0.019)
skill	0.131***	0.104***
	(0.016)	(0.015)
opportun	0.105***	0.030**
	(0.018)	(0.013)
knowotherent	0.073***	0.044***
	(0.018)	(0.014)
y20141	-0.006	-0.018
	(0.018)	(0.016)
y20151	0.007	-0.009
	(0.019)	(0.016)
Full_Part1	0.032	0.007
	(0.025)	(0.029)
Ret_Dis1	-0.001	-0.023
	(0.044)	(0.036)
HomeM1	0.036	0.081*
	(0.039)	(0.044)
Nowork1	0.161***	0.004
	(0.031)	(0.037)
Stud1	0.171***	0.073*
	(0.038)	(0.043)
senior1	-0.055***	-0.063***
	(0.020)	(0.015)
Constant	0.002	0.056
	(0.034)	(0.037)
Observations	2,041	1,795
R2	0.115	0.081
Adjusted R2	0.109	0.073
Residual Std. Error	0.338 (df = 2025)	0.277 (df = 1779)
F Statistic	17.596*** (df = 15; 2025)	10.403*** (df = 15; 1779)
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix 6: Regression output Model 3, POR and FIN

	Dependent variable:	
	TEAOPP	
	(1)	(2)
fearoffail	-0.029***	-0.020**
	(0.009)	(0.009)
media	0.006	0.003
	(0.010)	(0.009)
goodcareer	0.008	0.009
	(0.010)	(0.009)
status	0.014	-0.008
	(0.010)	(0.012)
skill	0.044***	0.042***
	(0.010)	(0.009)
opportun	0.038***	0.033***
	(0.011)	(0.008)
knowotherent	0.069***	0.022***
	(0.011)	(0.009)
y20141	0.012	-0.004
	(0.011)	(0.010)
y20151	-0.012	-0.014
	(0.011)	(0.010)
Full_Part1	-0.202***	-0.236***
	(0.015)	(0.018)
Ret_Dis1	-0.209***	-0.235***
	(0.026)	(0.022)
HomeM1	-0.210***	-0.239***
	(0.023)	(0.028)
Nowork1	-0.206***	-0.247***
	(0.018)	(0.022)
Stud1	-0.198***	-0.273***
	(0.023)	(0.027)
senior1	-0.027**	-0.036***
	(0.012)	(0.010)
Constant	0.192***	0.252***
	(0.020)	(0.023)
Observations	2,120	1,890
R2	0.182	0.159
Adjusted R2	0.176	0.153
Residual Std. Error	0.207 (df = 2104)	0.180 (df = 1874)
F Statistic	31.151*** (df = 15; 2104)	23.685*** (df = 15; 1874)
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix 7: Correlations, Models 1-3 GER

fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.075582	1.054363	1.054523	1.064009	1.144116	1.096825	1.071606	1.348940	1.351964	1.542040	1.082351	1.066924	1.307011	1.219653	1.072182
fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.057121	1.042570	1.047731	1.044671	1.146948	1.080547	1.081339	1.439331	1.434171	3.266414	1.372339	1.577322	1.706718	2.470468	1.094101
fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.082204	1.053185	1.053857	1.066281	1.149857	1.105350	1.076543	1.375876	1.377957	1.509628	1.106844	1.081738	1.249453	1.165050	1.070926

Appendix 8: Correlations, Models 1-3 NET

fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.108545	1.028213	1.035736	1.074962	1.096656	1.167989	1.094265	1.350562	1.339431	1.218058	1.000000	1.021687	1.057366	1.024636	1.106787
fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.082279	1.015443	1.024461	1.028106	1.133609	1.132334	1.105777	1.407430	1.402658	2.063634	1.291310	1.318530	1.538033	1.263185	1.163521
fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.113457	1.028006	1.035468	1.071660	1.130465	1.155570	1.086100	1.370434	1.358427	1.210834	1.000000	1.000000	1.061188	1.000000	1.095014

Appendix 9: Correlations, Models 1-3 POR

fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.046445	1.027176	1.028024	1.050109	1.101654	1.097370	1.092155	1.567145	1.525976	1.215722	1.000000	1.000000	1.204530	1.096292	1.048241
fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.050092	1.025046	1.031752	1.044572	1.157592	1.097189	1.164006	1.429174	1.409199	2.574146	1.157507	1.344131	2.335326	1.823471	1.136131
fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.044674	1.037517	1.026074	1.044377	1.117669	1.082513	1.099033	1.487899	1.469326	1.173107	1.000000	1.000000	1.131585	1.136368	1.032345

Appendix 10: Correlations, Models 1-3 FIN

fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.100656	1.057197	1.044717	1.068983	1.176894	1.062777	1.066472	1.313771	1.306819	1.507842	1.057527	1.146821	1.166086	1.000000	1.149601
fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.095977	1.078044	1.022475	1.066014	1.150850	1.051350	1.053985	1.249490	1.249229	2.860487	1.335970	1.679869	1.669878	1.791749	1.124900
fearfail	nbmedia	nbgoodc	nbstatus	suskill	opport	knowent	y2014	y2015	Full_Part	Ret_Dis	HomeM	Nowork	Stud	senior
1.102143	1.062191	1.050095	1.067575	1.168392	1.059603	1.069488	1.263568	1.265808	1.409944	1.067973	1.115759	1.051503	1.000000	1.149196