



University of Naples Federico II
*Department of Economics, Management and
Institutions (DEMI)*



University of Naples Parthenope
*Department of Management and Quantitative
Studies (DISAQ)*

Entrepreneurship across Cultures

An Application of Behavioral Reasoning Theory

PhD Program of Management (32nd Cycle)

Candidate: Iman Zohoorian Nadali

Supervisor: Professor Chiara Cannavale

Coordinator: Professor Cristina Mele

Naples, Fall of 2019

Abstract

Despite an abundance of research, still little is known about the underlying cultural mechanisms of entrepreneurial behaviors through the international entrepreneurship research stream. This study wants to contribute to the debate by offering a new perspective of analysis based on Behavioral Reasoning Theory (BRT). Specifically, this research analyzes the impact of cultural values on the entrepreneurial cognitions (including reasons and motives behind entrepreneurial intention and activity). The GLOBE project and the Global Entrepreneurship Monitor (GEM) were the sources of our data and variables for three multiple regression analyses, each of which aimed at understanding of part of BRT in the field of entrepreneurship. Details of the effects of cultural values on cognitions of entrepreneurship are fully discussed in the concluding sections.

Keywords: International entrepreneurship, Entrepreneurial intentions, Culture, Behavioral reasoning theory

Contents

ABSTRACT	II
TABLE OF FIGURES	VI
CHAPTER 1: INTRODUCTION	1
1.1- PROBLEM STATEMENT	2
1.2- RESEARCH CONTRIBUTION	3
1.3- RESEARCH QUESTIONS	5
CHAPTER 2: LITERATURE REVIEW	7
2.1- COGNITIVE THEORIES OF BEHAVIOR	8
2.1.1- THEORY OF REASONED ACTION (TRA)	8
2.1.2- THEORY OF PLANNED BEHAVIOR (TPB)	9
2.1.3- BEHAVIORAL REASONING THEORY	10
2.2- ENTREPRENEURIAL COGNITION RESEARCH STREAM	13
2.3- RESEARCH FRAMEWORK	24
2.3.1- OVERVIEW	24
2.3.2- PARAMETERS OF THE RESEARCH FRAMEWORK	24
2.3.2.1- Cultural Value Dimensions	24
2.3.2.2- Reasons	32
2.3.2.3- Motives	33
2.3.2.4- Intention	34
2.3.2.5- Behavior	35

2.3.3- HYPOTHESES	35
-------------------	----

CHAPTER 3: METHODOLOGY	37
-------------------------------	-----------

3.1- OVERVIEW	38
----------------------	-----------

3.2- MEASURES	39
----------------------	-----------

3.2.1- CULTURAL VALUES	39
------------------------	----

3.2.2- REASONS	40
----------------	----

3.2.3- MOTIVES	42
----------------	----

3.2.4- INTENTION AND BEHAVIOR	43
-------------------------------	----

CHAPTER 4: ANALYSES	44
----------------------------	-----------

4.1- STUDY 1, MOTIVES AND REASONS	45
--	-----------

4.1.1- RESULTS	47
----------------	----

4.2- STUDY 2, NORMS	54
----------------------------	-----------

4.2.1- RESULTS	57
----------------	----

4.3- STUDY 3, GE AND ENTREPRENEURIAL ATTITUDES	58
---	-----------

4.3.1- RESULTS	59
----------------	----

4.3.2.- POST HOC ANALYSIS OF STUDY 3	66
--------------------------------------	----

4.4- STUDY 4, ENACTMENT OF INTENTION AND GE	68
--	-----------

4.4.1- RESULTS	69
----------------	----

CHAPTER 5: DISCUSSION AND CONCLUSION	74
---	-----------

5.1- DISCUSSIONS AND CONCLUSION	75
--	-----------

5.1.1- LESSONS LEARNT FROM STUDY 1	76
------------------------------------	----

5.1.2- LESSONS LEARNT FROM STUDY 2	82
5.1.3- LESSONS LEARNT FROM STUDY 3	83
5.1.4- LESSONS LEARNT FROM STUDY 4	85
5.2- LIMITATIONS	87
REFERENCES	90

Table of Figures

<i>Figure 1 Theory of Planned Behavior (Ajzen, 1991)</i>	9
<i>Figure 2 Behavioral Reasoning Theory (Westaby, 2005)</i>	11
<i>Figure 3 The paradigmic shift of the research in the field of entrepreneurship</i>	14
<i>Figure 4 Methodology approaches to cultural studies (Romani, Primecz, & Roger, 2014)</i>	38
<i>Figure 5 Framework of study 1</i>	46
<i>Figure 6 Framework of Study 3</i>	59
<i>Figure 7 Interaction Plot of Post Hoc Analysis of Study 3</i>	67
<i>Figure 8 Results of Study 3</i>	67
<i>Figure 9 Framework of study 4</i>	69
<i>Figure 10 Scatter Plot GEV and TEA data</i>	72
<i>Figure 11 Interaction Plot of The Moderation of GE in the EI-TEA Relationship</i>	73

Chapter 1

Introduction

1.1- Problem Statement

Max Weber was a pioneer in addressing the influence of beliefs and values on business creation. According to Weber, the Protestant ethic stimulated a collective system of thinking about work among the Anglo-Saxons. This ethic supported business creation and encouraged more efforts with the purpose of better results (Weber, 1930). He observed that formal institutions, such as networks and communities, as well as informal institutions, such as culture and collective values, helped businesses owned by members of the same community to flourish faster. Weber first questioned how beliefs and values affect self-employment and business creation in 1904 through articles which were published at a later time as a book in 1930. The term “entrepreneurship” was then coined by Schumpeter (1934) as the engine of economic development. Years later, the research body of international entrepreneurship still focuses on responding to the aforementioned Weberian question of how culture and values affect entrepreneurship (Stephan & Uhlaner, 2010; Coviello, McDougall, & Oviatt, 2011; Calvelli, Cannavale, Parmentola, & Tutore, 2014; Liñán & Fayolle, 2015; Cannavale & Wallis, 2015).

Most pertinent studies provide theoretical and empirical evidence about the relationship between entrepreneurship and cultural values, a set of values, peculiar to specific groups, which create certain personality traits and motives (Hofstede, 1980; Schwartz, 1994; House, Hanges, Javidan, Dorfman, & Gupta, 2004). However, these studies come to different and sometimes contrasting conclusions (Jones, Coviello, & Tang, 2011; Shneor, Camgöz, & Karapinar, 2013; Paul & Shrivatava, 2016). Engelen, Heinemann, & Brettel (2009) claim that more effort is needed to develop a consistent theory in this field. This desperate need for theoretical development of

international entrepreneurship is later reiterated by Paul & Shrivatava (2016). In the meanwhile throughout the literature, some scholars refer to various knowledge gaps that existed in understanding how culture affects entrepreneurship (Chand & Ghorbani, 2011; Lim, Oh, & Clercq, 2016; Liu & Almor, 2016). In parallel, Jones, Coviello, & Tang (2011), who performed a thematic analysis on international entrepreneurship research, believed that this field is “described as phenomenally based, potentially fragmented and suffering from theoretical paucity” (p. 632). More recently, Laffranchinia, Kim, & Posthuma (2018) point out the need for understanding how national culture influences the relationship between cognition about entrepreneurship and actual entrepreneurship. Specifically, the cognitive mechanisms through which culture influences entrepreneurial behaviors is indeed a significant gap in this area of research according to Pathak & Muralidharan (2018). This thesis will theoretically and empirically focus on the problem stated above about the gap in understanding how national cultural values affect the underlying cognitions that might (or might not) lead to entrepreneurial intention and action.

1.2- Research Contribution

At the core of the stream of entrepreneurial cognition research lies the concept of entrepreneurial intention, which is defined as the decision to launch a new venture or to start own business (Krueger, 2009). This stream of research provides scholars with many theories and methods to better understand the role of deep, basic beliefs and values in individuals’ intentions to act entrepreneurially (Krueger, 2007). The theory of reasoned action (TRA), by Fishbein & Ajzen

(1975), and the theory of planned behavior (TPB), by Ajzen (1991), are the most utilized theories of social psychology in this regard (Liñán & Fayolle, 2015; Lortie & Castogiovanni, 2015). These theories explain deep beliefs and global motives underlying decisions and actions. However, they simply fail to bring up two important concepts: “the reasons for and against entrepreneurial intention” (Cannavale & Nadali, 2018) and also “the contextualization of entrepreneurial intention across cultures” (Shneor, Camgöz, & Karapinar, 2013). While, behavioral reasoning theory (BRT), as a scientific extension to the previous theories of intentionality, conceptualizes the role of reasons in regards to specific intentions and also specifies the role of values in underlying cognitions. According to BRT, reasons are influenced by beliefs and values, and at the same time, they impact global motives and intentions (Westaby, 2005). Subjects use reasoning processes to explain, justify, and defend their behavior. Addressing two types of reasons (for and against specific intentions), BRT offers an insight into complex reasoning processes, and gives the possibility to comprehend complex decision-making processes getting an idea of the factors that might accelerate or limit the action phase because of the way they affect the formation of intentions. BRT is a novel theory to be employed in the field of entrepreneurship (Miralles, Giones, & Gozun, 2017). Moreover, it can be of specific theoretical contributions to the existing literature on the analysis of the effects of cultural values on the *reasoning* as well as *motives* behind entrepreneurial intention and activity across cultures. Thus, BRT could shed new light on the apparent contrasting effects of cultural values and this is the original contribution of this thesis to the existing literature on entrepreneurial intention and behavior.

1.3- Research Questions

BRT, same as the previous theories of behavior, is based on the premise that most human behavior is under volitional control (Ajzen, 1991; Westaby, 2005). Therefore, it proposes that human behavior is mostly determined through intentions and decisions. At deeper cognitions, intentions are influenced by motives, reasons, and values. As mentioned previously, the literature over entrepreneurial intention lacks conceptualization of reasons for and against behavior. Also, the country-level cultural values is missing as an important contextualization of the intentionality models in the field of entrepreneurship, especially when operationalizing the BRT. Thus, this study proposes a research framework through which all the relations of BRT are scrutinized. Also, the effects of cultural values on the enactment phase of BRT is studied. In other words this thesis seeks to answer the following main and sub-main research questions:

RQ_A: How do cultural values affect the motives and the reasoning behind entrepreneurial intention and activity?

***RQ_{A1}:** How do cultural values affect the reasoning behind entrepreneurial intention?*

***RQ_{A2}:** How do cultural values affect the motives behind entrepreneurial intention?*

***RQ_{A3}:** Do the reasons for and against entrepreneurship affect entrepreneurial intention?*

***RQ_{A4}:** Do the motives affect entrepreneurial intention?*

RQ_B: How do cultural values affect the enactment of entrepreneurial intentions?

***RQ_{B1}**: Does entrepreneurial intention bring about actual entrepreneurial activities?*

***RQ_{B2}**: How do cultural values moderate the effects of entrepreneurial intention on actions?*

This novel study aims at investigation of the effects of cultural values on entrepreneurial intention based on a relevant theory from social psychology called. BRT proposes important links among beliefs, values, reasons, motives, intention, and behavior. The overall theory contains some level of complexity. According to this complexity, the structure of the research will be divided into some parts that in total will deeply scrutinize the cause and effect relationships among various variables related to culture and entrepreneurship. In the literature, there is lack of consensus about how culture influences entrepreneurship. Application of BRT in the field of entrepreneurship, however, contributes to the idea that for such a broad question of the effect of entrepreneurship on culture, we should zoom deeper to specific variables related to each concepts. In such way, we would avoid the broad and complex concepts of culture and entrepreneurship, rather we take the proxies of them in our analyses. Thus, this thesis adopts the BRT for the purpose of understanding the effect of cultural values on entrepreneurial reasons, motives, intention, and behavior. Outcomes contain substantial and useful implications for national and international policy-makers of entrepreneurship as well as for the theorists in the field of entrepreneurship. Details are fully discussed in the analyses.

Chapter 2

Literature Review

2.1- Cognitive Theories of Behavior

2.1.1- *Theory of Reasoned Action (TRA)*

Fishbein & Ajzen (1975) point out the main body of literature in the field of psychology traditionally assumed that “a person’s behavior is in large part determined by his attitudes towards that object” (p. 335). In fact, some 40 years ago, this was the taken-for-granted premise of many studies over human behavior. Nevertheless, Fishbein & Ajzen (1975) criticized the literature according to the fact that they could not find enough evidences that endorse such assumption. In-depth investigations of the human behavior by Fishbein & Ajzen (1975) indicated that intentions have vastly been subsumed under the concept of attitudes. Thus, the main contribution of the aforementioned scholars in the cumulative body of human cognition knowledge was the introduction of the distinction between “attitude” and “intention”. They defined attitude as “*a person’s general favorableness or un-favorableness toward stimulus object*” (p. 216). In other words, attitudes provide people with functions of positive or negative evaluations regard to specified objects, actions, or events. They also defined intention as “*a person’s location on subjective probability dimension involving a relation between himself and some action*” (p. 288). A behavioral intention, therefore refers to a person’s subjective probability that he will perform some behavior. Theory of reasoned action conceptualizes that intention mediates the indirect effects of attitude over behavior. Also, this theory states that normative components might affect intentions. In other words, performing an act might please or displease relevant reference individuals called important others for the subjects (Fishbein & Ajzen, 1975).

Thus, this theory generally states that intention causes behavior and it is caused by attitudes and subjective norms.

2.1.2- Theory of Planned Behavior (TPB)

The main limitation of the theory of reasoned action is related to the behaviors people have incomplete volitional control over (Ajzen, 1991). Theory of planned behavior overcomes this limitation by adding the perceived behavioral control as another driver of intention to the model that is structurally depicted in figure 1.

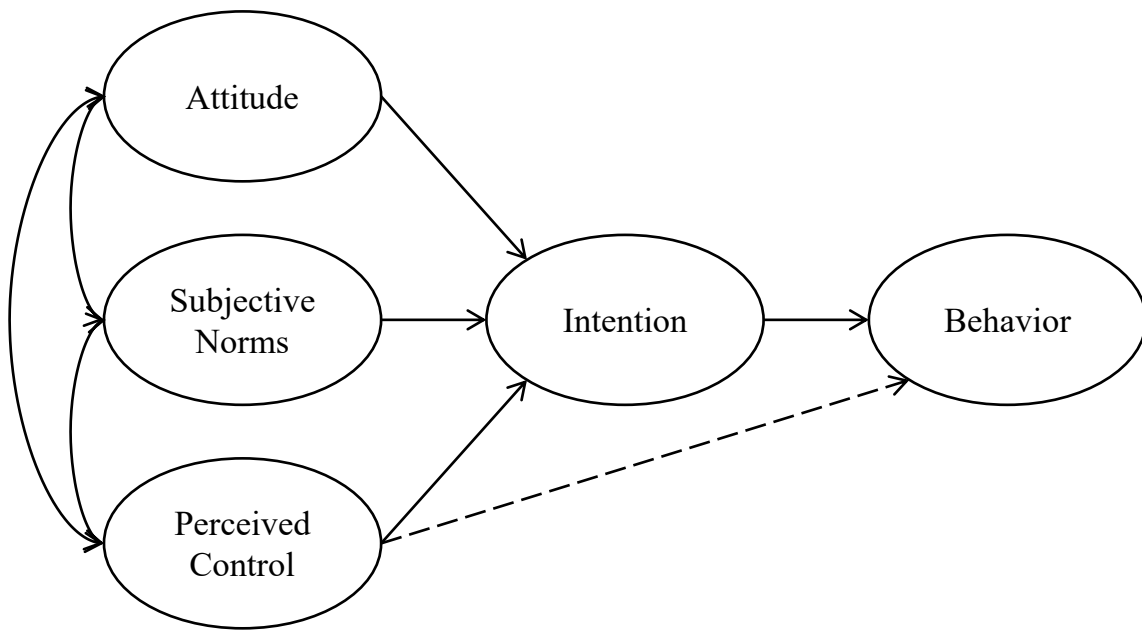


Figure 1 Theory of Planned Behavior (Ajzen, 1991)

In fact, the theory of planned behavior considers jointly the motivational factor (intention) and the ability factor (control) affect the behavior. The ability factor includes the availability of

opportunities and resources (e.g. time, money, skills, and cooperation of others) (Ajzen, 1991, p. 182). Ajzen (1991) concludes that when a person has substantial control over their capabilities and external opportunities needed for a behavior, they will have more chance of intending to perform that behavior. Thus, they add the perceived control to the norms and attitudes as drivers of intention in their model (figure 1). This theory received extremely high attention by researchers in many fields of behavior, including entrepreneurship (Liñán & Fayolle, 2015).

2.1.3- Behavioral Reasoning Theory

Behavioral Reasoning Theory (BRT), rooted in the explanation-based model (Pennington & Hastie, 1988) and the reasons theory (Westaby & Fishbein, 1996), was introduced by Westaby in 2005.

The overarching difference between BRT and previous theories (such as TRA and TPB) is that BRT proposes important links between reasons and beliefs, motives, intentions, and behavior (Westaby, 2005; Westaby, Probst, & Lee, 2010). Westaby (2005) defines reasons as ‘the specific subjective factors people use to explain their anticipated behavior’ (p. 100). Figure 2 indicates important links among parameters of BRT:

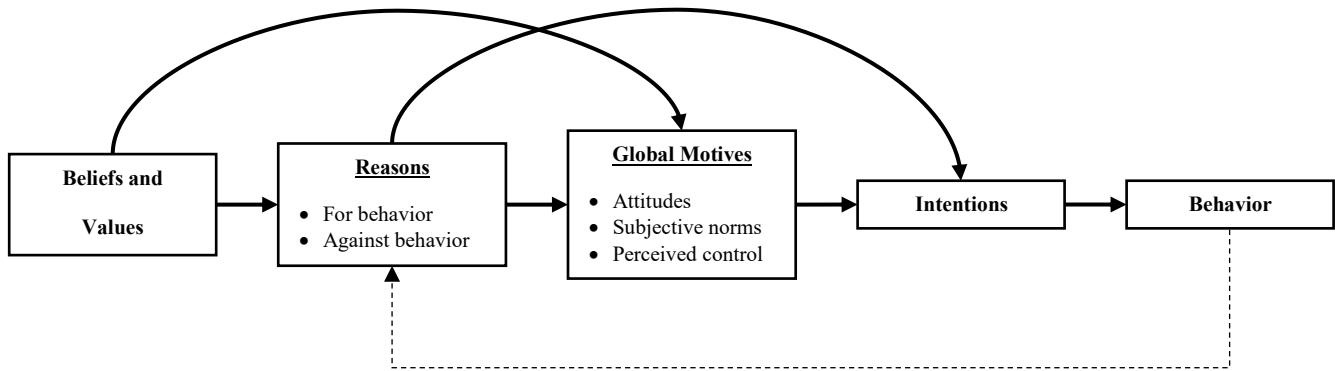


Figure 2 Behavioral Reasoning Theory (Westaby, 2005)

BRT also explains the distinctions between beliefs and reasons. While beliefs "refer to a person's subjective probability judgments concerning some discriminable aspect of his world" (Fishbein & Ajzen, 1975, p. 131), reasons are related to the explanations people provide for their actual behavior (Westaby, 2005). For example, an individual values the choice to become an entrepreneur because he believes that good business opportunities exist and that self-affirmation is important to him. This is a belief. However, he decides not to pursue the opportunities because of some problems related to his family and the necessity to get a regular, although limited, income. This is a reason. In the behavioral reasoning theory, two distinct reasons are conceptualized: reasons for and reasons against performing a behavior.

Chronologically, Westaby (2005) conceptualizes three types of reasons in the BRT including anticipated reasons, concurrent reasons, and post hoc reasons. Anticipated reasons are at play prior to action, concurrent reasons are formed in line with performing the behavior and post hoc

reasons are formed after performing a specific behavior. The dashed feedback line from behavior to reasons in the BRT (figure 2) refers to this effect of behavior on reasons.

Researchers have addressed the topic of entrepreneurial reasoning process from many different angles. Teal & Carroll (1999) explore the moral reasoning process differences between entrepreneurs and non-entrepreneurs, proposing that entrepreneurs exhibit moral reasoning skills slightly more than non-entrepreneurs do. Sarasvathy (2001a) conceptualizes the distinction between effectual and causal reasoning processes in the field of entrepreneurship. Sarasvathy (2001b) performs an empirical study of 27 entrepreneurs and finds out that most entrepreneurs mobilize effectual reasoning in their cognitive processes. Cornelissen & Clarke (2010) further analyze the reasoning by entrepreneurs arguing that new venture creation consists of inductive reasoning. Moreover, inductive reasoning is shaped by prior entrepreneurial experience and by the motivation to resolve uncertainty (Cornelissen & Clarke, 2010). Furthermore, Grégoire, Barr, & Shepherd (2010) analyze the reasoning strategies of entrepreneurs to describe why some individuals/organizations recognize opportunities that simply others fail to see. Whereas various types of reasoning have been studied in regards to entrepreneurship, BRT has not been among these.

Since its development, BRT has received attention by many scholars in different fields of research, such as innovation adoption (Claudy, Garcia, & O'Driscoll, 2015), leadership (Westaby, Probst, & Lee, 2010), and consumer behavior (Paul, Modi, & Patel, 2016; Gupta & Arora, 2017; Ryan & Casidy, 2018). Our systematic review of the literature about BRT lead us to the fact that it is still a totally new perspective of analysis in entrepreneurship research. We

searched for the term “behavioral reasoning theory” in Scopus document search engine that resulted in 21 papers including the term in title, abstract, and keywords. Going through all abstracts of these papers assured us that the literature on operationalization of BRT in the field of entrepreneurship is scarce. Miralles, Giones, & Gozun (2017), as the only direct study of BRT in the entrepreneurship domain, examined a modified model of intentions considering the influence of previous experience as a moderator in the linkages in BRT. Still, the work of Miralles, Giones, & Gozun (2017) does not take the concept of reasoning from BRT into consideration. Hence, we believe operationalization of BRT brings new insight into the related literature that is of specific theoretical value.

2.2- Entrepreneurial Cognition Research Stream

First in 1934, Joseph Schumpeter, the political economist, noted that entrepreneurs are individuals of specific traits and characteristics. He emphasized on the fact that these characteristics are “present in only a small fraction of the population” (p. 132). He also believes that expansion of entrepreneurial activity depends on both entrepreneurial climate and prospective entrepreneurs. Later in 1985, Peter Drucker, the influential author in business arena, states that the literature on entrepreneurship branches into two streams: one focusing on traits and characteristics of entrepreneurs, while the other is mostly concerned with the *behavior* of entrepreneurs. In fact, the gradual shift from traits to behaviors induces a more pragmatic approach toward entrepreneurial research. This shift changes the traditional research question of

“*which people become entrepreneurs?*” to the practical question of “*how people become entrepreneurs?*” (Figure 3).

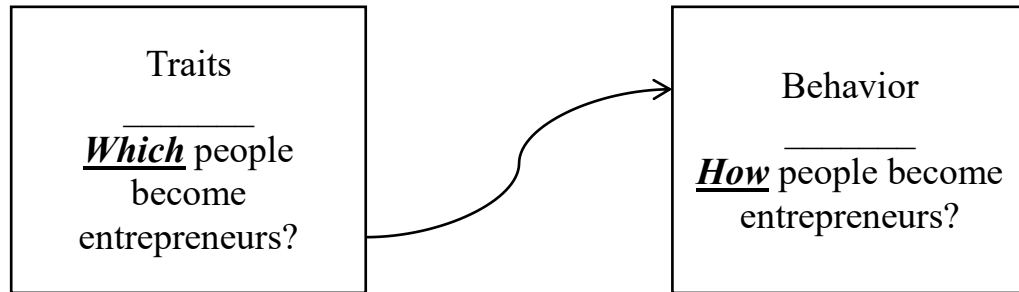


Figure 3 The paradigmatic shift of the research in the field of entrepreneurship

Shapero’s model of entrepreneurial event in 1982, that was mostly ignored by the literature at that time, is now considered as an important step forward in the second stream. Through the same stream, Bird (1988) theoretically attempted to provide the behavioral model of entrepreneurial intentions that helped to distinguish entrepreneurial activity from strategic management. In another considerable contribution to the newly-born concept of ‘psychology of the entrepreneur’, Shaver & Scott (1991) shed light on the importance of personal attributes, cognitive processes, and behavioral choices in entrepreneurship research.

In the same field, Ajzen (1991) developed the social psychology theory of planned behavior (TPB). Later, Krueger & Carsrud (1993) theorized the application of TPB in the field of entrepreneurship. In an attempt to reconcile Shapero’s model with TPB, Krueger & Brazeal (1994) shed light on the concept of potential entrepreneurs as individuals with the tendency to launch their own business in the near future. In parallel, Boyd & Vozikis (1994) developed Bird's

model of intentions in convergence with TPB, which consequently became the dominant theory in the field of behavioral models.

In 2002, the editors of the *Entrepreneurship Theory and Practice* journal drew attention to the individual side of entrepreneurship research in a special issue on information processing and entrepreneurial cognitions (Mitchell, et al., 2002). They believe that the entrepreneurial decision-making process, by entrepreneurs as ‘people’, was missing in entrepreneurship research. Five years later, another special issue of *Entrepreneurship Theory and Practice* reported that entrepreneurial cognition research was still in the early stages of development (Mitchell, et al., 2007). The editors called for a “growing community of entrepreneurship researchers from across multiple disciplines to further develop the ‘thinking–doing’ link in entrepreneurship research” (Mitchell, et al., 2007, p. 2).

From a different perspective, Krueger (2007) argues the human learning process (including entrepreneurial learning) is inherently constructivist. Therefore, he calls for a better understanding of entrepreneurship by delving into entrepreneurial intentions, attitudes, cognitive structures, and deep beliefs (Krueger, 2007, p. 124). He concludes that cognitive sciences provide entrepreneurship researchers an ocean of new methods suitable for exploration of the phenomenon for many years (Krueger, 2007, p. 134).

Another researcher who emphasized the human side of entrepreneurship was Baron (2007). He theorized the possible influence of behavioral and cognitive aspects of entrepreneurs on the process of entrepreneurship, and builds on the concept that ‘entrepreneurship happens because people act to pursue opportunities’ (Shane, Locke, & Collins, 2003, p. 259).

For more than two decades, research on cognitive aspects of entrepreneurship has substantially focused on the application of the Theory of Reasoned Action (TRA) by Fishbein & Ajzen (1975) and the Theory of Planned Behavior (TPB) by Ajzen (1991). In general, these social psychology theories of intentions formed the focal reference for research on cognitive processes of entrepreneurship (Kolvereid & Isaksen, 2006; van Gelderen, et al., 2008; Engle, et al., 2010; Kautonen, van Gelderen, & Tornikoski, 2013; Hattab, 2014; Heuer & Kolvereid, 2014; Entrialgo & Iglesias, 2018). Liñán & Fayolle (2015), who performed a systematic literature review on entrepreneurial intentions, believe that TPB became the ‘reference theory’ in entrepreneurial intentions research after the work of Krueger & Brazeal (1994). Since then, much theoretical and empirical research has been devoted to the application of TPB in entrepreneurship (see Table 1 for a review of the relevant literature).

An important portion of research on entrepreneurial cognition is devoted to cross-country and cross-cultural analyses (Bouncken, Zagvozdina, & Golze, 2009; Liñán & Chen, 2009; Liñán, Urbano, & Guerrero, 2011; Engle, Schlaegel, & Dimirriadi, 2011; Dodd, Jack, & Anderson, 2013; Schlaegel, He, & Engle, 2013; Dheer & Lenartowicz, 2016). This entrepreneurial cognitive research across cultures falls into the broad research category of international entrepreneurship considering the effects of cultures on entrepreneurial behavior of various nations (Coviello, McDougall, & Oviatt, 2011; Calvelli, Cannavale, Parmentola, & Tutore, 2014).

There are many opportunities in the field of IE research. Verbeke & Ciravegna (2018) claim that the contributions on international entrepreneurship focus on international comparisons of entrepreneurship across countries and regions, and could be extended to investigate the reasons

of diversities and the main values affecting entrepreneurship across countries. Terjesen, Hessels, & Li (2016) point out many research opportunities in this field, such as the examination of the role of formal and informal institutions on entrepreneurial activities of individuals at a national level. Pathak & Muralidharan (2018) state that the role of informal institutional conditions is gaining interest among scholars, although the underlying mechanisms through which entrepreneurial behaviors are shaped have not been understood fully in this area. Indeed, there is a gap in the literature about the role of informal institutions, such as culture, in entrepreneurship. Our research aims at understanding the role of cultural values in entrepreneurial cognition.

Table 1 Brief Review of Cognitive Entrepreneurial Research Stream

Author(s)	Approach	Cognitive variable(s)	Argument(s)
(Baum & Bird, 2010)	Empirical	Successful intelligence Self-efficacy	This study confirmed that successful intelligence consists of practical, analytical, and creative intelligence and that, together with entrepreneurial self-efficacy, it enables and motivates successful entrepreneurial behavior.
(Botha & Bignotti, 2017)	Empirical	Cognitive adaptability Entrepreneurial intention	They indicated that three cognitive adaptability dimensions, namely goal orientation, metacognitive experience, and metacognitive choice, have a positive relationship with entrepreneurial intention.
(Bouncken, Zagvozdina, & Golze, 2009)	Empirical (cross-country)	Motivators Intentions of new venture-generation Cultural dimensions	In both countries (Germany and Poland), the motivation to start a new venture leads to the intent to start a new venture. This study explore the influence of power distance, collectivism, and individualism on motivation and intention to start a new business.
(Breugst, Domurath, Patzelt, & Klaukien, 2012)	Empirical	Perceived passion (inventing, founding, and developing) Goal clarity Affective commitment	Employees' perceptions of their supervisors' passion for inventing, founding, and developing differentially impact commitment. While perceptions of entrepreneurs' passion for inventing and developing enhance commitment, passion for founding reduces it.
(Cardon, Foo, Shepherd, & Wiklund, 2012)	Theoretical	Entrepreneurial emotion	They explore the definition of entrepreneurial emotion. They further argue what it means, and some important advances the field has made in this area of research.

(Cornelissen & Clarke, 2010)	Theoretical	<p style="text-align: center;">Inductive reasoning</p> <p>Prior entrepreneurial experience</p> <p>Motivation to resolve uncertainty</p>	They argue that metaphorical reasoning for creating novel ventures are shaped by prior experience as well as the motivation to resolve uncertainty.
(de Pillis & Reardon, 2007)	Empirical (cross-country)	<p style="text-align: center;">Personality traits</p> <p>Persuasive messages</p> <p>Entrepreneurial intentions</p>	Results of this study suggest that the intention to entrepreneurship comes about differently in different cultures.
(Dheer & Lenartowicz, 2016)	Empirical	<p style="text-align: center;">Identity integration</p> <p>Entrepreneurial intentions of bicultural individuals</p> <p>Cognitive and metacognitive cultural intelligence</p>	They argue identity integration is a critical factor that influences entrepreneurial intentions of bicultural individuals. They also found that cognitive and metacognitive cultural intelligence mediate this relationship
(Dodd, Jack, & Anderson, 2013)	Empirical (based on cultural metaphors)	<p style="text-align: center;">Cultural metaphors of entrepreneurship</p>	They argue that entrepreneurship is a socially constructed concept and consequently the meanings, and hence the appeal, of the enterprise will vary internationally. They also argue that how entrepreneurship is understood affects how attractive it seems.
(Engle, et al., 2010)	Empirical (based on TPB)	<p style="text-align: center;">Attitude</p> <p>Social norms</p> <p>Perceived control</p> <p>Entrepreneurial intention</p> <p>Autonomy</p>	TPB does successfully predict entrepreneurial intent in each of the 12 countries under study, although as foreseen by Ajzen, the significant contributing model elements differ by country, as does the percent of the variance explained by the model.

(Engle, Schlaegel, & Dimirriadi, 2011)	Empirical (cross-country)	Formal and informal institutional factors Entrepreneurial intentions	Results give only minor support for the influence of formal institutional factors on intention with the greater impact appearing to come from the informal institutions of need, social norms and parental experience.
(Entrialgo & Iglesias, 2018)	Empirical (based on TPB)	Entrepreneurial intentions Role models Entrepreneurial education Attitudes Control Social norms	Results show that external factors seem to be more critical in the case of women to generate entrepreneurial behavior. In particular, exposure to parental role models has a significantly more favorable influence on attitude toward entrepreneurship in women than men, and exposure to entrepreneurship education has a greater effect over their perceived entrepreneurial behavior control in women than in men.
(Hattab, 2014)	Empirical	Entrepreneurial education Perceived desirability Perceived feasibility Entrepreneurial knowledge	Findings suggest positive relationship between entrepreneurship education and intentions and perceived desirability while no relation existed with perceived feasibility or self-efficacy
(Kautonen, van Gelderen, & Tornikoski, 2013)	Empirical	Attitude Social norms Perceived control Entrepreneurial intention	The econometric results support the predictions outlined in the TPB: attitude, perceived behavioral control and subjective norms are significant predictors of entrepreneurial intention; and intention and perceived behavioral control are significant predictors of subsequent behavior.
(Kolvereid & Isaksen, 2006)	Empirical	Beliefs Attitude Social norms	Findings strongly support the theory of reasoned action, but provide no support for the extension of the theory represented by the theory of planned behavior.

		Perceived control	
		Entrepreneurial intention	
(Liguori, Bendickson, & McDowell, 2018)	Theoretical (propositions based on social cognitive career theory)	Entrepreneurial intention Self-efficacy Expectations	Self-efficacy is an important entrepreneurial construct, central to our understanding of entrepreneurial phenomena, so they explore how self-efficacy shapes entrepreneurial intentions, and provide arguments regarding the roles of both domain-specific and generalized self-efficacy.
(Liñán & Chen, 2009)	Empirical (cross-country based on TPB)	Attitude Social norms Perceived control Entrepreneurial intention	The role of culture in explaining motivational perceptions has been specifically considered.
(Liñán, Urbano, & Guerrero, 2011)	Empirical (cross-cultural based on TPB)	Attitude Social norms Perceived control Entrepreneurial intention Valuation process	Results confirm that valuation of entrepreneurship in each region helps explain regional differences in entrepreneurial intentions.
(Liñán & Fayolle, 2015)	Systematic literature review	Entrepreneurial intention	Despite the large number of publications and their diversity, the present study identifies five main research areas, plus an additional sixth category for a number of new research papers that cannot be easily classified into the five areas.

		Attitude	
(Maresch, Harms, Kailer, & Wimmer-Wurm, 2016)	Empirical (based on TPB)	Social norms Perceived control Entrepreneurial intention Entrepreneurial experience	Entrepreneurial experience moderates the relationships of TPB for different groups of respondents.
(Markman, Balkin, & Baron, 2002)	Empirical	Self-efficacy Regretful thinking	Results, obtained from a random sample of 217 patent inventors show that both general self-efficacy and regretful thinking distinguish inventors who started a business (i.e., technological entrepreneurs) from inventors who did not start a new business (i.e., technological non-entrepreneurs).
		Perceptions of sound businesses	
(Morales-Gualdron & Riog, 2005)	Empirical	Risk aversion Fear of failure Pessimistic expectations Entrepreneurial decisions	Analysis of the GEM 2001 database approves the importance of cognitive elements in the process of entrepreneurial decision making.
		Attitude	
(Roy, Akhtar, & Das, 2017)	Empirical (based on TPB)	Social norms Perceived control Entrepreneurial intention	Moderating effect suggests that student's perceived self-efficacy boosts the entrepreneurial personality traits to EI relationship.

(van Gelderen, et al., 2008)	Empirical (based on TPB)	Attitude Social norms Perceived control Entrepreneurial intention	Results show that the two most important variables to explain entrepreneurial intentions are entrepreneurial alertness and the importance attached to financial security.
------------------------------	--------------------------	--	---

2.3- Research Framework

2.3.1- Overview

The main contribution of this study is related to the fact that BRT has not been investigated in the field of entrepreneurship previously. Thus, it is devoted to the application of BRT in entrepreneurship to respond the research questions mentioned in chapter 1. For doing so, a research framework based on BRT in figure 2 is developed here. According to the framework, collective beliefs and values cause entrepreneurial intention through stimulating favorable reasons as well as motives (including attitudes, norms, and perceived control). Moreover, entrepreneurial intention brings about collective entrepreneurial activities at country level on the other hand. For operationalization of the BRT framework, some parameters from the Global Leadership and Organizational Behavior Effectiveness (GLOBE) and some parameters from the Global Entrepreneurship Monitor (GEM) are derived that are explained in the following section.

2.3.2- Parameters of the research framework

2.3.2.1- Cultural Value Dimensions

Throughout the literature of intention-based cognitive models of entrepreneurship, some scholars have examined direct as well as moderating effects of collective values (cultural values) on entrepreneurship (Bouncken, Zagvozdina, & Golze, 2009; Liñán & Chen, 2009; Liñán, Urbano, & Guerrero, 2011; Schlaegel, He, & Engle, 2013). Values shape the development of certain personality traits and motives (Hofstede, 1980; Schwartz, 1994). They impact on the individuals' need of achievement. They influence the way people feel legitimated. They shape the orientation

of individuals to take initiatives (Baughn & Neupert, 2003). Values determine risk taking and proactiveness that prompt entrepreneurial orientation, and push individuals to become entrepreneurs (Busenitz & Lau, 1996; Kreiser, Marino, Dickson, & Weaver, 2010; Lee & Peterson, 2000; McGrath, MacMillan, & Scheinberg, 1992; McGrath, MacMillan, Yang, & Tsai, 1992; Mitchell, Smith, Seawright, & Morse, 2000; Mueller & Thomas, 2001). And they also influence the orientation of social groups to positively evaluate personal initiatives (Baughn & Neupert, 2003).

In order to operationalize cultural values at country level, we refer to the GLOBE project's 'should-be' scores (House, Hanges, Javidan, Dorfman, & Gupta, 2004). We chose to base our study on the GLOBE because of several significant strengths of the project. First, GLOBE can be considered as one of four major cross-cultural research projects due to the quantity of direct observation and the relatively recent time period in which it was conducted, thus reinforcing the validity of the data (Hofstede, 2006). In addition, by measuring the preferences about the behavior of others in one's society, the GLOBE scholars are able to build predictors of culture's effects (Smith, 2006), which is in alignment with the aim of our study on entrepreneurial intention. Because of their rigorous measurements (Javidan, House, Dorfman, Hanges, & de Luque, 2006), should-be scores are able to give a proxy of the prevailing values characterizing contexts and can be considered to verify how cultural values affect underlying cognitions of EI. In the following paragraphs, each cultural value dimension is described and their effects on entrepreneurship are discussed.

Uncertainty Avoidance

Uncertainty Avoidance (UA), according to the GLOBE, indicates individuals' tolerance or intolerance of ambiguity. Cornelissen & Clarke (2010) argued that the motivation to resolve uncertainty reinforces the inductive process of reasoning in the creation of novel ventures and entrepreneurial activities. In addition, Hofstede, et al. (2004) found out that a high level of uncertainty avoidance is positively related to entrepreneurship because individuals look at entrepreneurial activities as a way to reduce their dissatisfaction. In countries where uncertainty avoidance is high, individuals tend to create their own business to better control risk levels. However, many studies show a negative relationship between UA and entrepreneurial motivation (McGrath, MacMillan, & Scheinberg, 1992; Busenitz & Lau, 1996; Thomas & Mueller, 2000; Mueller & Thomas, 2001; Baughn & Neupert, 2003; Lee & Peterson, 2000; Shane & Venkataraman, 2000; Hayton, George, & Zahra, 2002; Yetim & Yetim, 2006; Kreiser, Marino, Dickson, & Weaver, 2010). This is mostly due to the fact that entrepreneurs are risk-takers who do not avoid uncertainty.

McGrath, MacMillan, Yang, & Tsai (1992) also found an inverse relation between entrepreneurship and uncertainty avoidance because entrepreneurs are often more inclined to risk compared to non-entrepreneurs. In addition, prior research declares that uncertainty avoidance, as well as the fear of possible barriers, limits entrepreneurial activity and the creation of new ventures (Dwyer, Mesak, & Hsu, 2005; Bouncken, Zagvozdina, & Golze, 2009).

Future Orientation

Future Orientation (FO) is the degree to which a collectivity rewards future-oriented behavior such as planning (House, Hanges, Javidan, Dorfman, & Gupta, 2004). In societies that score high on FO, individuals are highly intrinsically motivated and organizations have a longer strategic orientation (House, Hanges, Javidan, Dorfman, & Gupta, 2004). Long-term orientation is, similarly, defined as 'the tendency to prioritize the long-range implications and impact of decisions and actions that come to fruition after an extended time period' (Lumpkin, Brigham, & Moss, 2010, p. 241). Long-term orientation is theoretically proposed to be related to higher innovativeness, proactiveness, and autonomy of family businesses (Lumpkin, Brigham, & Moss, 2010). Future-oriented societies value the efforts of successful entrepreneurs. Planning, hard work, and delayed gratification are characteristics of such societies.

Power Distance

Power Distance (PD) reflects the degree to which a society accepts power differences and privileges (House, Hanges, Javidan, Dorfman, & Gupta, 2004). Throughout the literature on international entrepreneurship, PD is found to have mixed influences on entrepreneurship. House, Hanges, Javidan, Dorfman, & Gupta (2004) pointed out that PD can increase individuals' job dissatisfaction and pushes people toward self-employment and the creation of self-owned companies. However, other scholars find a negative relationship between PD and entrepreneurship (Lee & Peterson, 2000; Kreiser, Marino, Dickson, & Weaver, 2010). Also, PD research is problematic regarding entrepreneurial intentions. Vinogradov & Kolvereid (2007) found out immigrants from higher PD cultures are less likely to become self-employed. In the

same vein, Shneor, Camgöz, & Karapinar (2013) compared entrepreneurial intentions of two opposite cultures, characterized by high vs. low PD. In a clear contradiction to Vinogradov & Kolvereid (2007), findings of Shneor, Camgöz, & Karapinar (2013) indicated that higher PD provides better conditions for entrepreneurial intentions.

Institutional collectivism and In-group Collectivism

Scholars do not agree on the impact of collectivism on entrepreneurship. Lee and Peterson (2000), as well as McGrath, MacMillan, & Scheinberg (1992), argued that countries with a high level of in-group collectivism discourage individual initiative. On the contrary, other authors claim that collectivism has a positive effect on entrepreneurship because creating a new firm is intended as a way to take care of others (Baum, et al., 1993; Pinillos & Reyes, 2011). Other researchers found no significant relation between individualism and entrepreneurship or in-group collectivism and entrepreneurship (Stephan & Uhlaner, 2010). Indeed, Tiessen (1997) noted that individualism and collectivism are not the two extremes of the continuum in regard to entrepreneurship. It is vital to know, however, that collectivists are motivated by the implicit norms of the clan, and that is in contrast to what individualists are motivated by (Ouchi, 1980; Ouchi, 1982; Wilkins & Ouchi, 1983). Moreover, results of the empirical analysis by Bouncken, Zagvozdina, & Golze (2009) as well as by Pinillos & Reyes (2011) showed that the impacts of collectivism and individualism on entrepreneurial activities differ according to the context. House, Hanges, Javidan, Dorfman, & Gupta (2004) divided collectivism into *Institutional collectivism* (Col I) and *In-group Collectivism* (Col II). Col I is the degree to which institutions

encourage collective action, while Col II refers to the degree to which individuals express loyalty to institutions and families (House, Hanges, Javidan, Dorfman, & Gupta, 2004).

Morris, Davis, & Allen (1994) hypothesized pros and cons of individualism and collectivism regarding organizational entrepreneurship. Among the cons are: loss of personal self to the group or collective, emotional dependence of individuals on the group or organization, and less personal responsibility for outcomes (Morris, Davis, & Allen, 1994). Pros of collectivism in organizational entrepreneurship include: greater synergies from combined efforts, ability to incorporate diverse perspectives and achieve comprehensive views, fewer interpersonal conflicts, equally shared credit for failure and success, teamwork and steady progress (Morris, Davis, & Allen, 1994).

Humane Orientation

Humane Orientation (HO) is the degree to which a society encourages and rewards people for being fair, altruistic, generous, caring, and kind to others. Just a few scholars have investigated the effects of HO on entrepreneurship. Stephan and Uhlaner (2010) associated HO with Socially Supportive Culture (SSC) and found a positive relationship between HO and entrepreneurship. Similarly, Zhao, Li, & Rauch (2012) associated HO with traditionalism in society and assumed a positive effect of HO on entrepreneurship, given that traditionalism may help people deal with the insecurities and uncertainty of entrepreneurship by providing social support. From another perspective, if we look at the conceptualization of the GLOBE HO dimension, House, Hanges, Javidan, Dorfman, & Gupta (2004) highlighted that in HO societies, the need for belongingness and affiliation, rather than self-fulfilment, pleasure, material possession, and power, is the

dominant motivational base (House, Hanges, Javidan, Dorfman, & Gupta, 2004, p. 565). The motivation base of HO societies does not increase ‘reasons for’ entrepreneurial intention. This is in line with Schwartz (1992), who analysed the prevailing norms of societies according to the dichotomy of self-transcendence and self-enhancement. According to the theory of basic values (Schwartz, 1992), extreme self-transcendence is associated with altruism, benevolence, and universalism; while extreme self-enhancement values consist of power, achievement, and hedonism. Entrepreneurial activities conceptually lie in the territory of the latter.

Performance Orientation

Improvements, results, performance, and targets are important issues in societies with a high *Performance Orientation* (PO). Stephan & Uhlaner (2010) defined higher order cultural descriptive norms of socially supportive vs. performance-based culture (PBC). Results of their study indicate that PBC predicts demand-side variables of entrepreneurship, such as opportunity existence and the quality of formal institutions to support entrepreneurship. Although PBC does not directly affect entrepreneurship, cultures oriented towards performance provide demands for entrepreneurial activities.

High PO societies are result-driven societies, characterized by an orientation to act and to set regular review targets. Changes in strategy and planning new action are acceptable. People are more prone to take initiative than to focus on relationships and status (House et al., 2004).

Gender Egalitarianism

According to the GLOBE, societies with higher *Gender Egalitarianism* (GE) minimize role differences (House, Hanges, Javidan, Dorfman, & Gupta, 2004). The contributions on this

dimension are very limited. Zhao, Li, & Rauch (2012) found an inverse relationship between gender egalitarianism and entrepreneurship. GE is associated to Hofstede's dimension of masculinity vs. femininity, which considers two different aspects of societies: the inclination to be assertive and goal oriented, and the perception of role differences and inequalities (House, Hanges, Javidan, Dorfman, & Gupta, 2004). Scholars generally agree on the positive relationship between masculinity and entrepreneurship (Mueller, 2004; McGrath, MacMillan, & Scheinberg, 1992; Hofstede, et al., 2004).

In addition, Gupta, Turban, Wasti, & Sikdar (2009), who performed an interesting study about gender stereotypes and entrepreneurial intentions among adults of three nations (India, Turkey, and the US), found that entrepreneurship is viewed as masculine in general and entrepreneurs are predominantly perceived to have masculine characteristics. Their findings, when controlled for female-entrepreneurship congruence, indicated that men have higher entrepreneurial intentions than women.

Assertiveness

Assertiveness (ASS) refers to people who are dominant, assertive, and tough (House, Hanges, Javidan, Dorfman, & Gupta, 2004). According to the GLOBE, societies that score high on assertiveness value competition, success and progress, and believe that anybody can succeed if he or she tries hard enough. Assertive societies value taking initiative, and having control over the environment. In addition, as mentioned before, ASS is a specific trait of masculine societies, normally considered supportive of entrepreneurship.

In assertive societies, individuals emphasize results over relationships. They expect demanding and challenging results, and the desire for self-affirmation makes them more decisive.

2.3.2.2- Reasons

This study focuses on the effects of cultural values on the ‘reasons for’ and ‘reasons against’ entrepreneurship. But what are the reasons for and against entrepreneurial activities that individuals employ in their decision-making processes? The need for achievement is a ‘reason for’ entrepreneurship (Dinis, do Paco, Ferreira, Raposo, & Rodrigues, 2013). According to the theory of needs, the need for achievement drives individuals to excel, to achieve standards, and to strive to succeed (Clark & McClelland, 1956; McClelland, 1985; Liu & Arendt, 2016). Societies that celebrate successful entrepreneurs with high social status might provide individuals with a favorable reasoning for entrepreneurial activities. In this study, the GEM indicator, ‘High status to successful entrepreneurs’, is considered as the ‘reason for’ entrepreneurship, i.e. as a reason for a high level of entrepreneurial intention (EI).

On the other hand, another indicator of GEM, called the ‘fear of failure’ rate, is assumed to provide a strong ‘reason against’ entrepreneurship, since the risks of such activity seem considerable to individuals, with a negative effect on EI.

2.3.2.3- Motives

Attitudes

Fishbein & Ajzen (1975) stated that, since theoretical concepts are defined in terms of relations to other constructs in a theoretical framework, attitudes might have different meanings in various theoretical frameworks. However, they also believe that most investigators might agree that attitude is “*a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object*” (p. 6). Thus, there is a distinction between beliefs and attitudes. Beliefs refer to the information people have about an object, while attitudes are the positive or negative evaluations of the object by the person. In our study, we refer to GEM in order to operationalize attitudes toward entrepreneurship. This is according to the fact that GEM evaluates whether entrepreneurship is considered as a favorable career choice among people of various countries every year.

Subjective Norms

According to the behavioral theories, normative factor is another predictor of intention besides attitudinal factor. In the traditional TRA (Fishbein & Ajzen, 1975), the normative factor is related to the subjects’ perceptions about views of important others in a specific situation and action. In other words,, subjective norms are attributed with the social environment on behavior. GEM project investigated the environmental entrepreneurship framework on yearly basis including the social norms related to entrepreneurship activities.

Perceived Control

TRA was later extended by Ajzen (1991) to build TPB. The central factor in TPB, the same of TRA, is the intention, while TPB also considers the original model's limitation in dealing with behaviors over which people have incomplete volitional control (Ajzen, 1991). Thus, another predictor of the intention factor is added to the attitudinal and normative factor in the TPB named perceived behavioral control. Because, performance of most behaviors depends on factors such as availability of opportunities and resources. These two factor together build up the concept of *actual* behavioral control over behavior, however; the *perception* of one's behavioral control over actions is of greater psychological importance. Therefore, the perceived behavioral control ass added to TPB. BRT emphasizes on the importance of this factor, too. GEM project gathers data about how people perceive their opportunities and capabilities for acting entrepreneurially every year.

2.3.2.4- Intention

Most psychologists believed that motivations (including attitudes) will bring about the formation of specific actions. However, there were no evidence supporting such idea when Fishbein & Ajzen (1975) stated that the impact of motivations and attitudes on actions is mediated by another factor called intention. In other words, motivations form intentions and then intentions form actions respectively. Thus, the effect of attitudes on actions (behaviors) is not direct. But what is intention? Fishbein & Ajzen (1975) defined intention as '*person's location on a subjective probability dimension involving a relation between himself and some action*' (p. 288). To simply

state, the intention can be referred to as the probability that a person will perform a specific behavior. As an example, entrepreneurial intention might refer to the fact that how much a person is willing to start a new business on his/her own. Intention, later in TPB and BRT, play a central role in stimulation of specific behaviors and actions. Again, GEM project covers the concept of entrepreneurial intention with the same meaning every year.

2.3.2.5- Behavior

Our study focuses on a specific behavior, i.e. entrepreneurial activities. Since, behavioral theories of TRA, TPB, as well as BRT are best suitable for specific behaviors instead of broad behaviors. Broad behaviors are affected by personality traits while specific behaviors are not. Specific behaviors are directly influenced by motivational and normative factors (Ajzen, 1991). In this study, building own businesses and working on own is considered as the entrepreneurial activity.

2.3.3- Hypotheses

BRT (figure 2) posits that mediating effects exist between values and intention through reasons (for and against a behavior) as well as motives (including attitudes, subjective norms, and perceived behavioral control). Also, this theoretical perspective, like the previous intentionality models, is based on the assumption that human behavior is volitional, therefore, behavior is mostly shaped through intention. This study is dedicated to the application of BRT in the field on entrepreneurship. Based on BRT, then, the following hypotheses are to be tested here:

H₁: Reasons (including reason for and against entrepreneurship) mediate the effects of cultural values on entrepreneurial intention.

H₂: Entrepreneurial motives (including attitudes, subjective norms, and perceived behavioral control) mediate the effects of cultural values on entrepreneurial intention.

H₃: Entrepreneurial intention bring about entrepreneurial activity. This relationship is robust over time.

There is a major gap in the literature of intentionality models. Although social psychology theories of intention have stated that intention brings about actions, Van Gelderen, Kautonen, & Fink (2015) did find out that only 30 per cent of entrepreneurial activity is explained through entrepreneurial intention. Other researchers also, posit that the gap in the enactment of entrepreneurial intention (or simply the relationship between entrepreneurial intention and entrepreneurial activity) is a result of a variety of individual and institutional variables (Laffranchinia, Kim, & Posthuma, 2018; Bogatyreva, Edelman, Manolova, Osiyevskyy, & Shirokova, 2019). Thus, we seek here to find out how cultural values might affect the formation of entrepreneurial activity through entrepreneurial intention. In other words, it is of our interest to find out how various cultural values moderate the relationship between entrepreneurial intention and entrepreneurial activity. The following hypothesis is therefore stated as:

H₄: The enactment of entrepreneurial intention is affected by cultural values; i.e. cultural values moderate the relationship between entrepreneurial intention and entrepreneurial activity.

Chapter 3

Methodology

3.1- Overview

This study takes a positivist approach towards research. Positivist methodology takes culturally general, universal, and etic methods. Romani, Primecz, & Roger (2014) differentiated various research methods in the field of culture based on two factors of: ‘emic vs. etic approach’ and ‘descriptive vs. prescriptive purpose’. According to figure 4, when researchers aim for neutral reports of reality, without considering their own subjective values, taking etic and universal constructs and models, the best approach is the positivist.

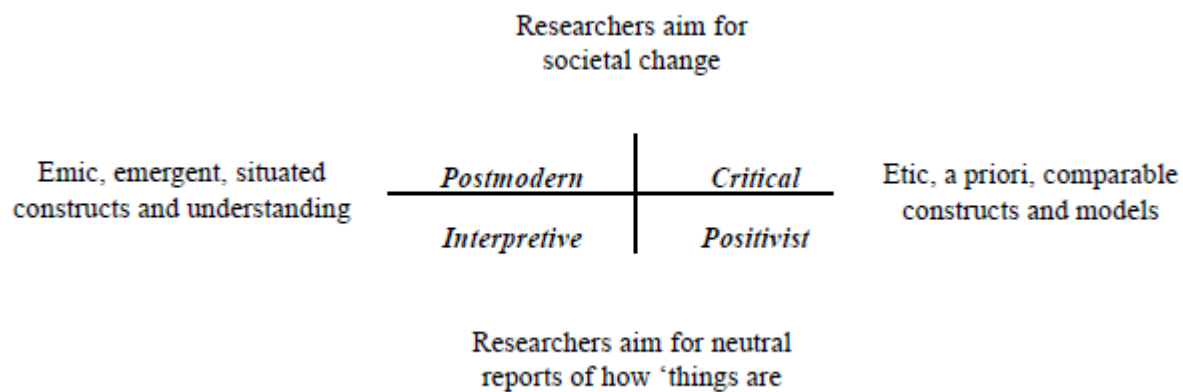


Figure 4 Methodology approaches to cultural studies (Romani, Primecz, & Roger, 2014)

Since our study is about the effect of cultural values on various aspects of entrepreneurial behavior among many countries, the etic and universal constructs of GLOBE will be employed to measure cultural values. From another viewpoint, the purpose of the research is to describe the effects of cultural values on entrepreneurship. Thus, the positivist approach suits best to this study, because positivists aim for neutral descriptive reports using etic models. Moreover, the

positivist studies necessitate quantitative analysis. We employed GLOBE and GEM data for such purpose as explained below.

3.2- Measures

3.2.1- Cultural Values

As mentioned earlier, the GLOBE project has several merits in the global measurement of culture at country level. GLOBE as lead by a team of international professionals has operationalized cultural values as well as cultural practices across 62 societies (House, Hanges, Javidan, Dorfman, & Gupta, 2004). Based on the several merits mentioned earlier, GLOBE has become one of the major cultural projects renowned internationally in the field of international business (Smith, 2006; Hofstede, 2006; Javidan, House, Dorfman, Hanges, & de Luque, 2006).

In the GLOBE, cultural values are measured through the should-be scores. In other words, GLOBE measures preferences of others' behaviors by asking about how culture should be at society level in nine dimensions. This leads to the right measurement of cultural values as ultimate desirable state-of-being in a society. Thus, we measured cultural values at country level based on the GLOBE.

3.2.2- Reasons

GEM is the world's foremost study of entrepreneurship¹. It is a trusted source of data about entrepreneurship that are collected on a yearly basis (Reynolds, et al., 2005). Adults Population Surveys (APS) at national level are built up upon the individual random phone call interviews about entrepreneurial behavior and attitude. Also, National Expert Survey (NES) data, again at country level, are collected by GEM for the purpose of measuring entrepreneurial framework and conditions.

In the GEM APS, two rates can be considered as indicators of the 'reason for' and 'reason against' entrepreneurship at a country level: 'High Status to Successful Entrepreneurs' rate - *defined as the percentage of 18-64 population who agree with the statement that in their country, successful entrepreneurs receive high status* stands for the 'reasons for', while 'Fear of failure' rate - *defined as the percentage of 18-64 population perceiving good opportunities to start a business who indicate that 'fear of failure' would prevent them from setting up a business* stands for the 'reasons against'. Obviously, there is asymmetry between the GEM measurements of 'reason for' and 'reason against'. This asymmetry, is conceptualized according to the different types of reasons that are theorized in BRT, as 'anticipated reasons', 'concurrent reasons', and also 'post-hoc reasons' (Westaby, 2005). The measurement of 'reason for' provides an anticipated one, since people need to be motivated prior to the decision of entrepreneurial activity. While, the fear of failure as a proxy for 'reason against' entrepreneurship, provides a 'post-hoc reasoning'. This is mainly because of the fact that when people do not intend to act

¹ <https://www.gemconsortium.org/>

entrepreneurially, the reasoning against entrepreneurship through fear of failure happens after they have decided previously not to be entrepreneurs. In spite of the asymmetry, 'High Status to Successful Entrepreneurs' rate and 'Fear of failure' rate seem to be appropriate proxies of 'reasons for' and 'reasons against' entrepreneurship because of their coherence with the main social mechanisms through which culture affects entrepreneurship at an aggregate level (Lortie, Barreto, & Cox, 2019; Bogatyreva, Edelman, Manolova, Osiyevskyy & Shirokova, 2019). The psychological traits approach claims that a culture characterized by pro-entrepreneurial values encourages people to develop personality traits congruent with entrepreneurship (Thurik & Dejardin, 2011). In this kind of culture, dissatisfaction can be another important driver of entrepreneurship for all people who don't feel satisfied by their career (Noorderhaven, Thurik, Wennekers & van Stel, 2004). Through primary and secondary socialization (Hofstede, 1991; 2001), people learn that entrepreneurs receive social legitimation, and the desire of a high status is a strong push toward entrepreneurial activities (Davidsson, 1995). The effect of socialization is amplified by institutions, which develop rules that reward or discourage behaviours (Hofstede, 1991; 2001), and in a country where culture is characterized by values which discourage entrepreneurship, entrepreneurial intention will be limited by the lack of moral approval and people will pay more attention to the effects of their potential failures, so that fear becomes a strong barrier to the development of entrepreneurial activities, even when dissatisfaction exists.

3.2.3- Motives

According to TPB, motivation of intention includes attitudes, subjective norms, and perceived behavioral control. As stated before, attitudes declare one's evaluation of positive or negative outcomes of specific behaviors. In GEM APS reports, respondents are asked whether entrepreneurship is considered as good career choice in their country. Since this parameter evaluates the outcome of entrepreneurial behavioral choice positively, it can proxy the positive attitudes towards entrepreneurship.

GEM NES reports also the entrepreneurship social norms in countries under investigation. Societies with higher levels of positive norms regarding entrepreneurial behavioral choice probably provide subjects with better norms that they feel like positive pressure from their important others (including friends, family members, role models, etc.). In GEM NES, the experts respond to evaluate *the extent to which social and cultural norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income*. We conclude that this parameter proxies the subjective norms of entrepreneurship at country level.

Perceived behavioral control is measured in this study through two statements of GEM APS. According to the theory perceived behavioral control is constituted by personal perceived capabilities and perceived opportunities. Both these parameters are reported in GEM as collective positive responses of individuals to some statements to *“see good opportunities to start a firm in the area where they live”* and to *“believe they have the required skills and knowledge to start a business”*.

3.2.4- Intention and Behavior

Intention, which is defined as *'person's location on a subjective probability dimension involving a relation between himself and some action'*, can be considered in the field of entrepreneurship as the probability of deciding to act entrepreneurially, simply put, to build up one's own business. In the GEM APS at national level, a parameter directly measure entrepreneurial intention defined as: *the 'percentage of 18-64 population (individuals involved in any stage of entrepreneurial activity excluded) who are latent entrepreneurs and who intend to start a business within three years'*. Entrepreneurial behavior or activity is also measured in GEM APS national level data, summing up all the 18-64 population who are nascent entrepreneurs or owner/manager of any new business.

Chapter 4

Analyses

The research framework of this study, explained in details in the section 2.3, includes numerous variables that need careful attention in performing analysis not to build an extremely huge research model. For overcoming such problem, the framework is divided in three different studies that collectively check the hypotheses under investigation. In the following sections, each of the three studies are explained structurally and then the results are shown and eventually discussed.

4.1- Study 1, Motives and Reasons

In the first study, the mediating roles of entrepreneurial reasons and motives on the indirect relationship between cultural values and entrepreneurial intention are estimated. The only entrepreneurial motive that is not included in study 1 is the entrepreneurial social norms. This is because of the fact that the GEM APS covers all the reasons and motives except for social norms. The social norms parameter is covered in GEM NES dataset. So, in study 1, the reasons for and against entrepreneurship and the motives including attitudes and perceived control are introduced. The mediating role of entrepreneurial norms on the relationship between cultural values and entrepreneurial intention is then estimated in the next section, Study 2. The schematic framework of the study 1 is shown in the figure 5:

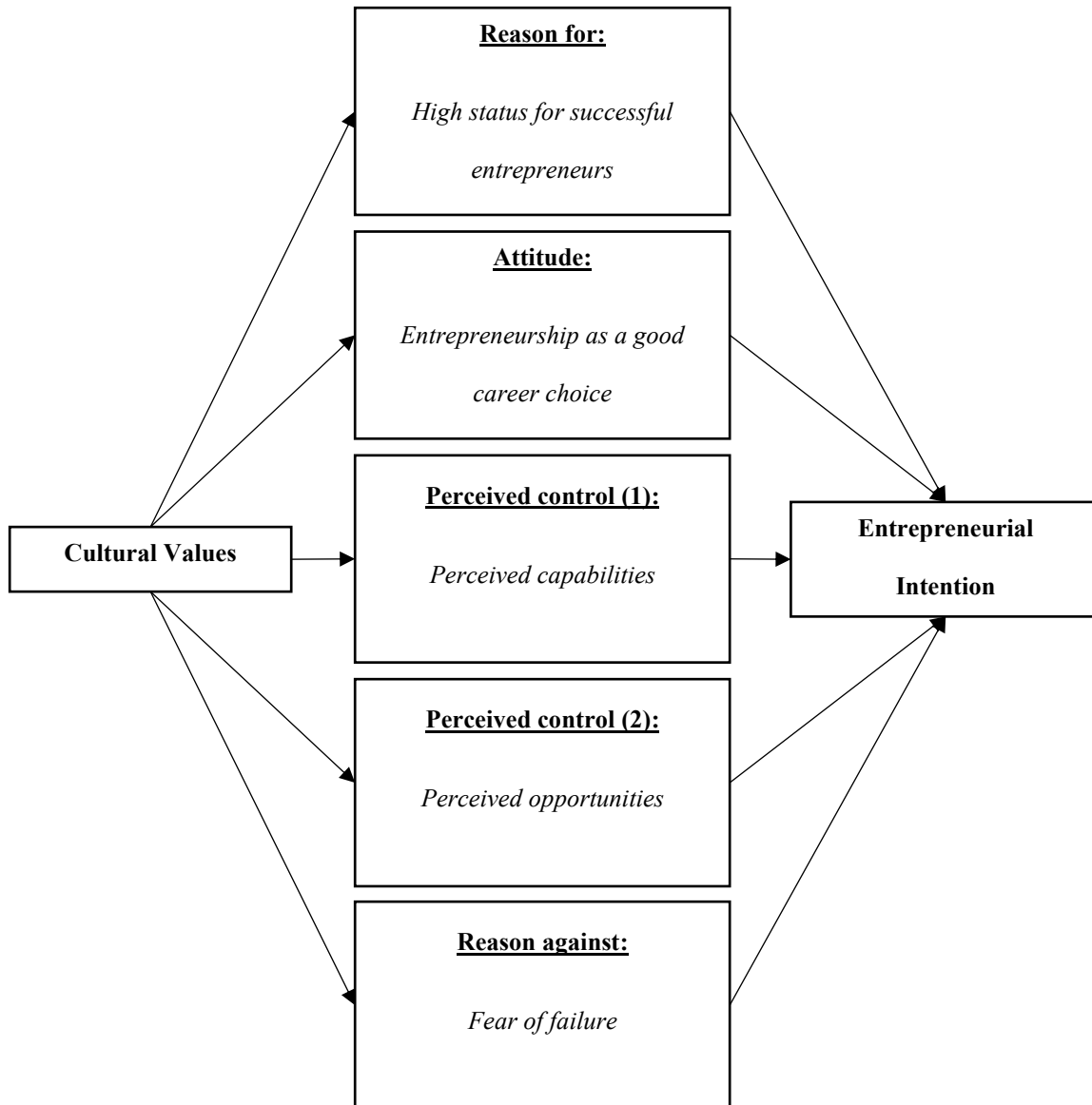


Figure 5 Framework of study 1

Data are the overlap of GLOBE and GEM APS over 15 years (2003 to 2018) according to availability including 440 observations among 51 countries around the world. The GEM APS is reported annually. Thus, there are a panel of data over a period of 15 years. For the purpose of hypotheses testing, multiple regression analysis in SPSS is employed. The issue of time is

introduced in the models as a control variable. The following formula is used according to (Hair, Hult, Ringle, & Sarstedt, 2014) to check whether the effect size of time on the outcome variable(s) is significant or not:

$$f^2 = \frac{R_{included}^2 - R_{excluded}^2}{1 - R_{included}^2}$$

$R_{included}^2$ and $R_{excluded}^2$ are respectively the R^2 of the endogenous variables when a control exogenous variable is included or excluded from the model. Cohen (1988) states that values of 0.02, 0.15, and 0.35 for f^2 are respectively considered low, medium, and high. Small effect sizes indicate an unimportant relationship, regardless of its statistical significance (Franke & Richey, 2010). This kind of analysis is important to evaluate the magnitude of relationships (Brock, 2003), and to understand conceptualizations and implications of empirical studies (Shaver, 2006).

The results are explained and discussed in the following section.

4.1.1- Results

In this section, the Pearson correlation among variables of study 1 are first shown in table 1. According to this table, many variables are slightly correlated to each other. Some are also highly correlated. Also, it is very important to notice that the cultural values are correlated. Thus, the regression models might be unfavorably affected by multi-collinearity. In such way, the Variance Inflation Factor (VIF) should be considered to be less than the threshold of 5 (Sheather, 2009).

Table 2 declares the results of various multiple regression models, in all of which VIF is less than 5.

Table 1 Correlation among variables of Study 1

	FoF	Int	HS	GCC	Cap	Opp	UA	FO	PD	CoII	HO	PO	CoIII	GE	ASS
FoF Pearson Correlation	1	-.265**	-.078	-.047	-.331**	-.298**	.084	-.077	.126**	-.012	.003	-.296**	-.197**	-.033	.023
FoF Sig. (2-tailed)		.000	.100	.327	.000	.000	.079	.105	.008	.805	.943	.000	.000	.490	.631
FoF N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
Int Pearson Correlation	-.265**	1	.280**	.346**	.579**	.269**	.507**	.428**	.008	.457**	-.121*	.371**	.387**	-.283**	-.018
Int Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.859	.000	.011	.000	.000	.000	.707
Int N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
HS Pearson Correlation	-.078	.280**	1	.113*	.255**	.282**	-.013	-.056	-.046	.011	.029	.174**	.013	-.096*	-.095*
HS Sig. (2-tailed)	.100	.000		.018	.000	.000	.789	.239	.334	.822	.542	.000	.786	.045	.046
HS N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
GCC Pearson Correlation	-.047	.346**	.113*	1	.462**	.431**	.237**	.287**	-.006	.336**	-.366**	.185**	.223**	-.046	-.407**
GCC Sig. (2-tailed)	.327	.000	.018		.000	.000	.000	.000	.898	.000	.000	.000	.000	.333	.000
GCC N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
Cap Pearson Correlation	-.331**	.579**	.255**	.462**	1	.526**	.241**	.449**	-.293**	.445**	-.179**	.526**	.566**	.177**	-.238**
Cap Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Cap N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
Opp Pearson Correlation	-.298**	.269**	.282**	.431**	.526**	1	-.327**	-.053	-.031	-.178**	-.049	.226**	.217**	.222**	-.188**
Opp Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.268	.516	.000	.305	.000	.000	.000	.000
Opp N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
UA Pearson Correlation	.084	.507**	-.013	.237**	.241**	-.327**	1	.569**	.153**	.484**	-.288**	.246**	.257**	-.525**	.169**
UA Sig. (2-tailed)	.079	.000	.789	.000	.000	.000		.000	.001	.000	.000	.000	.000	.000	.000
UA N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
FO Pearson Correlation	-.077	.428**	-.056	.287**	.449**	-.053	.569**	1	-.146**	.520**	-.131**	.359**	.533**	-.217**	-.060
FO Sig. (2-tailed)	.105	.000	.239	.000	.000	.268	.000		.002	.000	.006	.000	.000	.000	.207

N		440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
PD	Pearson Correlation	.126**	.008	-.046	-.006	-.293**	-.031	.153**	-.146**	1	-.295**	-.316**	-.320**	-.293**	-.499**	.368**
	Sig. (2-tailed)	.008	.859	.334	.898	.000	.516	.001	.002		.000	.000	.000	.000	.000	.000
	N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
ColI	Pearson Correlation	-.012	.457**	.011	.336**	.445**	-.178**	.484**	.520**	-.295**	1	-.170**	.443**	.413**	-.012	-.188**
	Sig. (2-tailed)	.805	.000	.822	.000	.000	.000	.000	.000	.000		.000	.000	.000	.795	.000
	N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
HO	Pearson Correlation	.003	-.121*	.029	-.366**	-.179**	-.049	-.288**	-.131**	-.316**	-.170**	1	-.023	-.011	.109*	-.051
	Sig. (2-tailed)	.943	.011	.542	.000	.000	.305	.000	.006	.000	.000		.634	.815	.022	.288
	N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
PO	Pearson Correlation	-.296**	.371**	.174**	.185**	.526**	.226**	.246**	.359**	-.320**	.443**	-.023	1	.634**	.241**	-.052
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.634		.000	.000	.278
	N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
ColII	Pearson Correlation	-.197**	.387**	.013	.223**	.566**	.217**	.257**	.533**	-.293**	.413**	-.011	.634**	1	.264**	-.211**
	Sig. (2-tailed)	.000	.000	.786	.000	.000	.000	.000	.000	.000	.000	.815	.000		.000	.000
	N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
GE	Pearson Correlation	-.033	-.283**	-.096*	-.046	.177**	.222**	-.525**	-.217**	-.499**	-.012	.109*	.241**	.264**	1	-.338**
	Sig. (2-tailed)	.490	.000	.045	.333	.000	.000	.000	.000	.000	.795	.022	.000	.000		.000
	N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
ASS	Pearson Correlation	.023	-.018	-.095*	-.407**	-.238**	-.188**	.169**	-.060	.368**	-.188**	-.051	-.052	-.211**	-.338**	1
	Sig. (2-tailed)	.631	.707	.046	.000	.000	.000	.000	.207	.000	.000	.288	.278	.000	.000	
	N	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

FoF: Fear of failure; Int: Entrepreneurial Intention; HS: High status for successful entrepreneurs; GCC: Entrepreneurship as good career choice; Cap: Perceived entrepreneurial capability; Opp: Perceived entrepreneurial opportunity; UA: Uncertainty avoidance; FO: Future orientation; PD: Power distance; ColI: Institutional collectivism; HO: Humane orientation; PO: Performance orientation; ColII: In-group collectivism; GE: Gender egalitarianism; ASS: Assertiveness.

Table 2 indicates the results of regression models that were focused on examination of H₁ and H₂ (in part). H₁ stated that reasons (for and against entrepreneurship) mediate the relationship between cultural values and entrepreneurial intention. It is very important to notice that the type of mediation in this regard is full and not partial since in the BRT cultural values are not theorized to directly affect entrepreneurial intention. The indirect effects of cultural values on entrepreneurial intention is through the mediating roles of reasons and motives. H₂ also stated that motives (including attitudes, subjective norms, and perceived behavioral control) mediate such relationship. In Study 1, H₁ and part of H₂ are tested according to the fact that subjective norms are studied in the next section. H₁ is according to the regression results in table 2 confirmed. Because, high status to successful entrepreneurs (HS) as proxy of reason for and fear of failure (FoF) as proxy of reason against entrepreneurship affect entrepreneurial intention positively and negatively (M₆). Simultaneously, both reasons (for and against entrepreneurship) are affected by some cultural values. For more details, the effects of future orientation (FO), performance orientation (PO), gender egalitarianism (GE), and assertiveness (ASS) on HS are significant. Also, uncertainty avoidance (UA), power distance (PD), humane orientation (HO), performance orientation (PO), and gender egalitarianism (GE) significantly affect FoF according to M₁ and M₅. The signs of the effects are discussed in the following section.

H₂ is also confirmed (M₂, M₃, M₄, and M₆) since some cultural values affect entrepreneurship as good career choice (GCC) as proxy of entrepreneurial attitude, and some affect perceived entrepreneurial capability (Cap) and perceived entrepreneurial opportunity (Opp) as proxies of perceived behavioral control. On the other hand,

Table 2 Regression analyses of Study 1

	Dependent: HS		Dependent: GCC		Dependent: Cap		Dependent: Opp		Dependent: FoF		Dependent: Int	
	M ₁	M _{1t}	M ₂	M _{2t}	M ₃	M _{3t}	M ₄	M _{4t}	M ₅	M _{5t}	M ₆	M _{6t}
UA	-0.14	-0.14*	0.00	-0.05	-0.03	-0.03	-0.52**	-0.52**	0.36**	0.34**		
FO	-0.18**	-0.18**	0.10	0.10	0.16**	0.16**	0.06	0.06	-0.03	-0.03		
PD	-0.10	-0.10	0.09	0.09	-0.11*	-0.11*	0.08	0.07	0.15*	0.15*		
CoII	-0.05	-0.05	0.11*	0.11*	0.09	0.08	-0.26**	-0.26**	0.12	0.12		
HO	-0.03	-0.03	-0.30**	-0.30**	-0.18**	-0.18**	-0.19**	-0.19**	0.12*	0.12*		
PO	0.37**	0.37**	0.13**	0.13**	0.24**	0.24**	0.36**	0.36**	-0.38**	-0.38**		
CoIII	-0.03	-0.03	0.01	0.01	0.25**	0.24**	0.23**	0.23**	-0.13	-0.14*		
GE	-0.40**	-0.40**	-0.14*	-0.12*	0.01	0.02	-0.19**	-0.18**	0.34**	0.38**		
ASS	-0.18**	-0.18**	-0.50**	-0.50**	-0.11**	-0.11**	-0.18**	-0.17**	0.00	0.01		
HS											0.17**	0.16**
GCC											0.15**	0.14**
Cap											0.50**	0.48**
Opp											-0.14**	-0.14**
FoF											-0.12**	-0.16**
Time		0.05		0.09*		0.08*		0.10*		0.17**		0.17**
R ²	0.116	0.116	0.387	0.394	0.446	0.451	0.327	0.335	0.158	0.184	0.376	0.403
f-change	7.408**	0.958	31.855**	5.329*	40.296**	4.451*	24.690**	6.544*	10.127**	14.985**	53.916**	20.575**

f ²		0.00		0.012		0.009		0.012		0.032		0.045
<p>** . Correlation is significant at the 0.01 level.</p> <p>* . Correlation is significant at the 0.05 level.</p> <p>FoF: Fear of failure; Int: Entrepreneurial Intention; HS: High status for successful entrepreneurs; GCC: Entrepreneurship as good career choice; Cap: Perceived entrepreneurial capability; Opp: Perceived entrepreneurial opportunity; UA: Uncertainty avoidance; FO: Future orientation; PD: Power distance; Coll: Institutional collectivism; HO: Humane orientation; PO: Performance orientation; CollI: In-group collectivism; GE: Gender egalitarianism; ASS: Assertiveness.</p>												

Inclusion of a control variable, namely time, in the models (M_{1t} to M_{5t}) indicated that the effect size of such variable on the corresponding dependent variable in all models are negligible or low according to f^2 values depicted in table 2. Thus, it is inferred from these models that they are robust over time. However, the changes that happened to the models after adding time variable as a control are also negligible. Thus, the results of the uncontrolled model (M_1 to M_5) are considered robust and they are reported in the discussion sections.

4.2- Study 2, Norms

Study 2 is dedicated to test part of H_2 which is about the mediating role of social norms as proxy of subjective norms on the relationship between cultural values and entrepreneurial intention. As stated earlier, the social norms of entrepreneurship is reported in the GEM NES every year. It is here taken as the proxy of subjective norms of entrepreneurship, since it is more probable for ordinary people living in a society that exhibits higher level of positive social norms towards entrepreneurship to push the people in their intimate circles to work on their own. The structure of Study 1 is the same as Study 1 with small differences. One difference is related to the different datasets employed in Study 2 in comparison to Study 1.

Table 3 Correlation among variables of Study 2

		Int	Norm	UA	FO	PD	ColI	HO	PO	ColIII	GE	ASS
Int	Pearson Correlation	1	.194**	-.268**	-.236**	.295**	-.204**	.256**	.070	.471**	-.267**	.059
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.116	.000	.000	.184
	N	506	506	506	506	506	506	506	506	506	506	506
Norm	Pearson Correlation	.194**	1	.291**	.216**	-.212**	.308**	.360**	.371**	.055	-.187**	-.074
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.219	.000	.096
	N	506	506	506	506	506	506	506	506	506	506	506
UA	Pearson Correlation	-.268**	.291**	1	.783**	-.642**	.596**	.230**	.519**	-.581**	.020	-.349**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.653	.000
	N	506	506	506	506	506	506	506	506	506	506	506
FO	Pearson Correlation	-.236**	.216**	.783**	1	-.595**	.633**	.267**	.600**	-.446**	-.107*	-.169**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.016	.000
	N	506	506	506	506	506	506	506	506	506	506	506
PD	Pearson Correlation	.295**	-.212**	-.642**	-.595**	1	-.443**	-.164**	-.318**	.727**	-.231**	.227**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	506	506	506	506	506	506	506	506	506	506	506
ColI	Pearson Correlation	-.204**	.308**	.596**	.633**	-.443**	1	.442**	.514**	-.301**	-.082	-.543**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.066	.000
	N	506	506	506	506	506	506	506	506	506	506	506
HO	Pearson Correlation	.256**	.360**	.230**	.267**	-.164**	.442**	1	.380**	.129**	-.264**	-.518**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.004	.000	.000
	N	506	506	506	506	506	506	506	506	506	506	506

PO	PO	Pearson Correlation	.070	.371**	.519**	.600**	-.318**	.514**	.380**	1	-.007	-.431**	-.118**
		Sig. (2-tailed)	.116	.000	.000	.000	.000	.000	.000	.000	.878	.000	.008
		N	506	506	506	506	506	506	506	506	506	506	506
ColII	ColII	Pearson Correlation	.471**	.055	-.581**	-.446**	.727**	-.301**	.129**	-.007	1	-.306**	.190**
		Sig. (2-tailed)	.000	.219	.000	.000	.000	.000	.004	.878		.000	.000
		N	506	506	506	506	506	506	506	506	506	506	506
GE	GE	Pearson Correlation	-.267**	-.187**	.020	-.107*	-.231**	-.082	-.264**	-.431**	-.306**	1	-.072
		Sig. (2-tailed)	.000	.000	.653	.016	.000	.066	.000	.000	.000	.000	.104
		N	506	506	506	506	506	506	506	506	506	506	506
ASS	ASS	Pearson Correlation	.059	-.074	-.349**	-.169**	.227**	-.543**	-.518**	-.118**	.190**	-.072	1
		Sig. (2-tailed)	.184	.096	.000	.000	.000	.000	.000	.000	.008	.000	.104
		N	506	506	506	506	506	506	506	506	506	506	506

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Int: Entrepreneurial Intention; UA: Uncertainty avoidance; FO: Future orientation; PD: Power distance; ColI: Institutional collectivism; HO: Humane orientation; PO: Performance orientation; ColII: In-group collectivism; GE: Gender egalitarianism; ASS: Assertiveness.

Table 4 Regression analyses of Study 2

	Dependent: Norm		Dependent: Int	
	M ₇	M _{7t}	M ₈	M _{8t}
UA	0.49**	0.49**		
FO	-0.42**	-0.43**		
PD	-0.31**	-0.30**		
ColI	0.28**	0.28**		
HO	0.28**	0.28**		
PO	0.03	0.04		
ColII	0.34**	0.33**		
GE	-0.08	-0.07		
ASS	0.33**	0.33**		
Norm			0.19**	0.18**
Time		0.06		0.22**
R ²	0.311	0.313	0.036	0.083
f-change	26.311**	2.256	19.716**	26.857**
f ²		0.002		0.051

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Int: Entrepreneurial Intention; UA: Uncertainty avoidance; FO: Future orientation; PD: Power distance; ColI: Institutional collectivism; HO: Humane orientation; PO: Performance orientation; ColII: In-group collectivism; GE: Gender egalitarianism; ASS: Assertiveness.

4.2.1- Results

In Study 2, the overlap of three datasets (including GLOBE, GEM NES, and GEM APS) is employed resulting in 506 observation among 51 countries. In table 3, the correlations among variables of Study 2 are shown. In table 4, the results of the regression analyses are shown. In

M₇, the impacts of cultural values on entrepreneurial social norms are tested. In M_{7t}, control variable of time is added. Then, in M₈ and M_{8t} the effect of social norms on entrepreneurial intention is tested. Results support the H₂ stating that social norms of entrepreneurship mediates the relationship between cultural values and entrepreneurial intention. The variable of time does not have a big effect size on the explanatory power of the regression models according to f² values. Uncertainty avoidance (UA), institutional collectivism (Coll), humane orientation (HO), in-group collectivism (ColII), and assertiveness (ASS) positively affect entrepreneurial social norms. While, future orientation (FO) as well as power distance (PD) negatively impact entrepreneurial social norms. Social norms, on the other hand, positively increases the entrepreneurial intention. Thus, social norms of entrepreneurship mediate the relationship between some cultural values and entrepreneurial intention.

4.3- Study 3, GE and Entrepreneurial Attitudes

Traditionally, entrepreneurship has been meant as a masculine activity (Ahl, 2006; Gupta et al. 2009; Henry et al. 2016; Shinnar et al. 2018). However, recent surveys of GEM indicate that the growth rate of female entrepreneurs is more than double of that of male entrepreneurs (Qui, 2018). In the two previous studies, Ge declared a controversial negative impact on reasons and motives behind entrepreneurial intention. Now, in Study we only focus on this controversial cultural value. A shortcoming of the previous studies lied in the fact that they were uni-level studies, while consideration of cultural values at country level and motivational factors at individual level can prohibit the fallacy of the fixed variance among all respondents in each

cluster of the data which are various countries in this study. To address such shortcoming, Study 3 will be a multi-level analysis of the effects of cultural value (GE) on the reasons and attitude toward entrepreneurship based on BRT. Figure 6, indicates the research framework of Study 3.

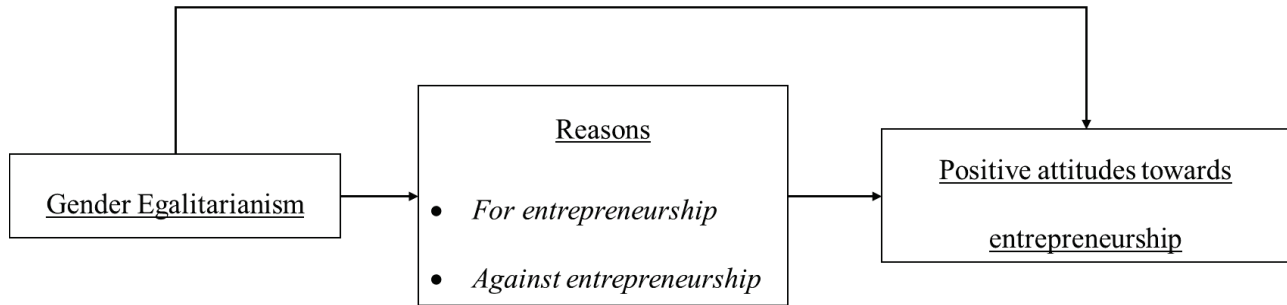


Figure 6 Framework of Study 3

4.3.1- Results

The data, grouped by country, were analyzed by means of hierarchical logistic regression, a multilevel model. Since we combined individual-level observations with country-level data, the analysis was performed using hierarchical non-linear modeling. Furthermore, neglecting the interdependency between individual and country level features, it can produce biased empirical estimates because individual characteristics within countries are not independently distributed (Autio & Acs, 2010; Hofmann, 1997).

In general, fixed effects refer to group specific factors (here, country) that affect the dependent variable. In particular, to estimate the influence of country-level factors on an individual’s likelihood of positive attitude toward entrepreneurship, we adopted a hierarchical logistic regression with random intercept effects that assumes unobserved country-specific effects to be

randomly distributed with a mean of zero, constant variance and uncorrelated to the predictor covariates. This allowed the constant term (intercept) to vary randomly across countries.

After having standardized non-binary variables, the procedure of estimation followed five steps. First, we estimated between-country variance in the dependent variable by including no predictors or controls in our hierarchical logistic regression. We observed significant country-level variance, which necessitated the use of multilevel techniques, comparing the multilevel likelihood ratio (LR) with non-multilevel LR (by chi-square test statistics). This would mean that the positive attitude toward entrepreneurship was varying among countries.

Second, we added individual level and country-level controls in the model to estimate the proportion of variance explained by these controls alone. In addition, this step enabled us to isolate the proportions of the remaining variance further explained by the consideration of the three individual-level predictors alone, added (after accounting for all control variables) in our third step. Then, in the fourth step, we added the country-level predictor to estimate its influence on the dependent variable. At the end of the procedure, we estimated the model considering the cross-level interactions among predictors, in order to verify possible moderator roles of variables involved in the analysis. All analyses were performed by means of R statistical software (package lme4).

Table 5 shows summary statistics of our sample. In Table 6 correlations among the variables are reported, which did not highlight multi-collinearity problems. In the first step, the model includes only the intercept at random and fixed effects, showing the better performance of the multilevel

model rather than the non-multilevel approach, using the simple logistic regression (Likelihood Ratio test $\chi^2 = 5155.3, p < 0.000$).

In Table 7, Model 1 includes only control variables at individual-level, while Model 2 adds the country-level controls. As already shown by the LR test, in order to verify the goodness of the multilevel model choice, the Intra-Class Correlation coefficient (ICC) has to show significant national differences in individual-level variables (Hofmann et al., 2000). To this end, we first estimated two multilevel logistic regressions as null models without predictors, including only controls, then we checked for the ICC. The ICCs, as reported in Models 1 and 2, show the proportion of total variance contributed by the country-level variance component, quantifying the amount of variance in the dependent variable resided between countries. Indeed, ICC values in model 1 and 2 indicate that about 10% of the variance in positive attitude toward entrepreneurship resided between countries. This supports the application of multilevel analysis techniques over a non-multilevel logistic regression model.

In Model 3, we added the two individual-level variables, including reason for and reason against, to measure their effects on the individual's probability of a positive attitude toward entrepreneurship. Model 4 shows the effect of the inclusion of the Gender Egalitarianism (GE). Finally, we try to add the cross-level interactions among predictors (Model 5) to identify possible moderator variables that might improve the overall model fit.

Starting from the variance of random intercept component of the model with the only intercept (0.436), we observe a variance component of Model 2 equal to 0.3264, which explains that the 25% (as relative difference among variances) of country-level variance of the individual's

probability of a positive attitude toward entrepreneurship is explained by control variables, at both levels (higher for the country-level, 18%). The parameter estimates in Model 1 indicate that an individual's age and education joined to a female gender negatively affect the individual's probability of positive attitude toward entrepreneurship. On the country-level side, the GDP and GPI are, respectively, negatively and positively associated with individual's probability of positive attitude toward entrepreneurship. The parameter estimates also show a U-shape relationship between age and such attitude. These results are generally consistent across models. Model 3 includes the *reasons for* and *reasons against* entrepreneurship. This model indicates strong positive impact of *reasons for* on the probability of positive attitude toward entrepreneurship and a positive but weak positive influence of the *reasons against*. The odds ratios indicate that one standard deviation increase in *reasons for* entrepreneurship increases by more than twice ($OR=2.41=e^{0.882}$, $p<0.000$) the *likelihood of average individual-level attitude into entrepreneurship*. The variance component decreases from 0.3264 of Model 2 to 0.3137, suggesting that almost 4% of the remaining variance (after accounting for the control variables) is due to the *reasons for* and *reasons against*. Aikake Information Criterion (AIC) value confirms the inclusion of the individual-level predictors in the model to improve the fit. We observe a non-significant value for the parameter associated to Gender Egalitarianism (GE) in Model 4. Model 5 adds the cross-level interactions among predictors to identify possible moderator roles of variables in improving the overall model fit.

Table 5 Summary Statistics of the Sample of Study 3

Country	N	Positive attitude toward Entrepreneurship (%)	Reasons for Entrepreneurship (%)	Reasons against Entrepreneurship (%)	Age	Gender	Education	Working	Retired or Students
Argentina	1805	58%	50%	32%	43.27	1.52	3.38	0.66	0.19
Australia	1454	54%	68%	40%	47.39	1.52	3.63	0.72	0.20
Bolivia	1962	68%	76%	40%	35.43	1.53	2.78	0.61	0.17
China	2619	67%	73%	34%	38.51	1.50	2.99	0.76	0.09
Colombia	3154	69%	64%	35%	38.17	1.51	3.23	0.73	0.09
Costa	1518	62%	61%	39%	37.31	1.58	2.32	0.41	0.18
Ecuador	1498	66%	67%	35%	41.07	1.53	2.44	0.61	0.08
El Salvador	1441	84%	61%	46%	35.88	1.56	2.75	0.43	0.17
Finland	1388	41%	82%	43%	42.64	1.49	3.36	0.76	0.15
France	1575	61%	70%	42%	47.22	1.51	3.64	0.58	0.30
Georgia	1209	65%	74%	35%	44.47	1.51	3.90	0.30	0.20
Germany	3394	50%	81%	46%	42.89	1.47	3.63	0.77	0.15
Greece	1802	59%	68%	72%	40.18	1.50	3.63	0.55	0.16
Guatemala	1901	95%	76%	38%	34.40	1.52	1.94	0.66	0.06
Hungary	1282	48%	71%	48%	40.76	1.49	3.31	0.67	0.19
India	2393	59%	65%	38%	35.19	1.51	2.86	0.45	0.12
Indonesia	4101	74%	80%	45%	37.05	1.51	2.92	0.74	0.06
Iran	3234	52%	76%	35%	35.43	1.48	3.35	0.53	0.15
Ireland	1496	50%	76%	42%	43.86	1.53	3.88	0.71	0.13
Italy	1414	64%	72%	61%	42.94	1.52	2.87	0.56	0.14
Japan	1406	31%	53%	49%	46.04	1.52	3.84	0.75	0.06
Kazakhstan	749	78%	72%	45%	36.51	1.54	3.95	0.71	0.16
Malaysia	1046	48%	47%	28%	39.93	1.52	3.49	0.44	0.16
Mexico	1601	45%	42%	29%	36.92	1.50	2.37	0.60	0.11
Netherlands	1613	80%	68%	38%	46.00	1.49	3.30	0.76	0.17
Philippines	1796	82%	79%	40%	37.00	1.54	3.25	0.59	0.06
Poland	1168	60%	55%	62%	39.94	1.53	3.83	0.71	0.13
Portugal	1531	62%	63%	50%	40.25	1.51	3.15	0.68	0.12
Qatar	3727	76%	87%	29%	35.99	1.39	3.92	0.76	0.08
Singapore	1411	52%	64%	41%	38.92	1.49	3.92	0.75	0.13
Slovenia	1329	55%	72%	39%	42.92	1.50	3.36	0.61	0.26
Spain	15975	53%	49%	49%	41.26	1.49	2.71	0.55	0.17
Sweden	1122	51%	71%	38%	47.99	1.49	3.80	0.66	0.31
Switzerland	1519	48%	66%	36%	47.38	1.48	3.48	0.64	0.26
Thailand	1806	74%	72%	46%	39.37	1.49	3.28	0.83	0.09
United States	3209	62%	77%	34%	45.70	1.49	3.76	0.69	0.22

Notes: %Positive attitude toward entrepreneurship, % Reasons for entrepreneurship and % Reasons for entrepreneurship are the percentage of respondents per country

Age represents the average age of respondents per country; Gender is coded male=1 and female=2.

Education is the average education level of respondents per country . None=0, some secondary=1, secondary=2, post-secondary=3; graduat.exp=4

Working and Retired or Student are coded Yes=1 and No=0

Table 6 Correlation among Variables of Study 3

Correlation matrix among individual-level variables										
	1	2	3	4	5	6	7	8	9	
1. Attitude toward entrepreneurship	1									
2. Reasons for	0.21	1								
3. Reasons against	0.01	0.03	1							
4. Gender	0	-0.01	0.08	1						
5. Age	-0.05	-0.02	-0.02	0.02	1					
6. Education	-0.06	0.01	-0.03	-0.04	-0.11	1				
7. Retired or student	0	0	-0.02	0	0.08	-0.03	1			
8. Working	-0.01	0.03	-0.02	-0.21	-0.03	0.18	-0.54	1		
9. Not Working	0.01	-0.03	0.04	0.24	-0.03	-0.18	-0.22	-0.7	1	
Mean	0.607	0.663	0.421	1.498	40.396	3.173	0.147	0.632	0.221	
Standard Deviation	0.488	0.473	0.494	0.500	14.052	1.393	0.354	0.482	0.415	
Correlation matrix among country-level variables										
	1	2	3							
1. GE	1									
2. GPI	-0.49	1								
3. GDP	0.07	0.57	1							
Mean	4.563	27575	1.43							
Standard Deviation	0.488	1.179	23679							

Table 7 Results of Study 3

Multilevel regression results					
	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	0.860586***	0.878430***	0.254956*	0.255343**	0.2511043*
Control variables	(0.11083)	(0.100655)	(0.100228)	(0.097969)	(0.0981732)
Individual-level					
Gender	-0.028661.	-0.028551.	-0.027173.	-0.027214.	-0.0278634.
	(0.01533)	(0.015327)	(0.015673)	(0.015673)	(0.0156797)
Working status: retired or student	-0.022909	-0.022513	-0.021447	-0.021607	-0.021547
	(0.027866)	(0.027861)	(0.028424)	(0.02842)	(0.0284292)
Working	0.004847	0.005395	0.001285	0.001178	0.000267
	(0.019957)	(0.019955)	(0.020374)	(0.020373)	(0.0203792)
Age	-0.504326***	-0.505150***	-0.472828***	-0.472804***	-0.4750867***
	(0.048266)	(0.04825)	-0.049165	(0.04914)	(0.0491881)
Age squared	0.453802***	0.454957***	0.428320***	0.428273***	0.430579***
	(0.048907)	(0.048892)	(0.049818)	(0.049793)	(0.0498388)
Education	-0.092498***	-0.092390***	-0.085454***	-0.085432***	-0.0857242***
Control Variables	(0.005842)	(0.005842)	(0.005967)	(0.005967)	(0.0059669)
Country-level					
GPI		0.300536*	0.281729*	0.394222**	0.388229**
		(0.132377)	(0.130486)	(0.14985)	(0.1506717)
GDP		-0.278631**	-0.305100**	-0.374465***	-0.373267***
Explanatory variables		(0.101106)	(0.099613)	(0.10876)	(0.1092397)
Individual-level					
Reasons for			0.882266***	0.882370***	0.8901283***
			(0.016254)	(0.016255)	(0.0163475)
Reasons against			0.028324.	0.028253.	0.0287252.
Explanatory variables			(0.015640)	(0.015639)	(0.015675)
Country-level					
Gender Egalitarianism (GE)				0.160292	0.2146627.
				(0.11407)	(0.1153518)
Cross-level interaction effects					
GE x Reasons for					-0.0755050***
					(0.0175972)
GE x Reasons against					-0.0091362
					(0.0162126)
Variance of the random component	0.4071	0.3264	0.3137	0.2975	0.2975
Intraclass Correlation (%)	11.01	9.03	8.71	8.29	8.29
Log-Likelihood	-51927	-51922.9	-50419	-50418	-50408
LR test (χ^2) vs non multilevel model	4820.1***	3522.8***	3043.7***	2918.9***	2923.9***
LR test (χ^2) vs antecedent model	-	8.0356*	3007.9***	1.9169	19.004***
AIC	103870	103866	100862	100862	100847

***p<0.001; **p<0.01; *p<0.05; .p<0.10

4.3.2.- Post hoc analysis of Study 3

By estimating a model, without predictors related to *reasons*, including only controls and GE, we could show that anyway GE did not exhibit a statistically significant association with positive *attitude toward entrepreneurship* (0.137, $p=0.243$). Therefore, we further studied our data in order to find out how the real effects of GE on the variables of the research are. Model 5 in table 7 adds the interaction terms between the variables of *reasons* and the GE in order to check whether GE can play a role of moderator in the relationship between *reasons for* and *attitude toward entrepreneurship*. This is in line with the fact that cultural values are the lenses through which real relationships related to cognitions are enacted. AIC values show that including the two individual-level variables (Model 3) and the interaction terms (Models 5) significantly improves model fit. Thus, by adding the interaction terms we eventually have a much better fit model that includes the interaction effects across levels and shows that GE can play a role of moderator in the relationship between *reasons for* and *attitude toward entrepreneurship*. In particular, GE negatively moderates the relationship (Figure 7) between *reason for* and *attitude*. The predicted log odds of the outcome for attitude toward entrepreneurship is 8% (OR=0.92, $p<0.000$) less than what we would expect from just summing the baseline effect of GE and the baseline effect of *reasons for*. The last model seems to have the best fit with respect to the others, due to the lowest AIC value indicating that the non-hypothesized moderation effect of GE can improve our estimation of the regression models.

We explored also the relationship between *reasons for* and *reasons against* with respect to their relationship with the outcome. The marginal effect of *reasons against* entrepreneurship (without

including *reasons for*) in the model was significant (0.07, Std. err=0.016; $p < 0.000$), and became not relevant including the reasons for entrepreneurship. The significant effect of *reasons against* over *reasons for* (0.213, Std. err=0.016; $p < 0.000$) confirms the mediating role of the latter on the relationship between *reason against* and the individual's probability of *positive attitude toward entrepreneurship*. Figure 8 indicates the final findings of our analysis.

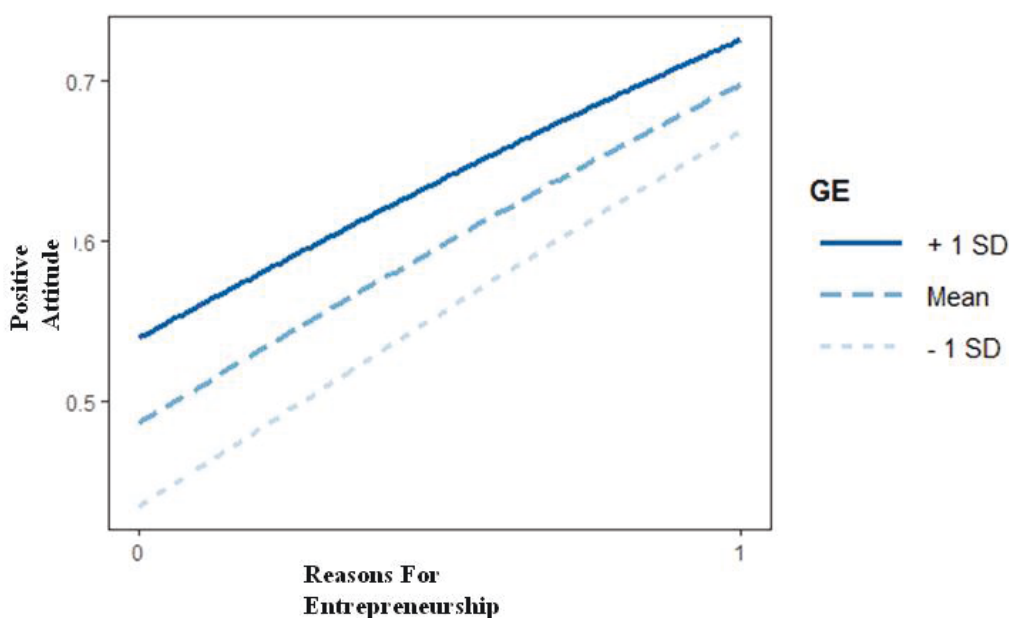


Figure 7 Interaction Plot of Post Hoc Analysis of Study 3

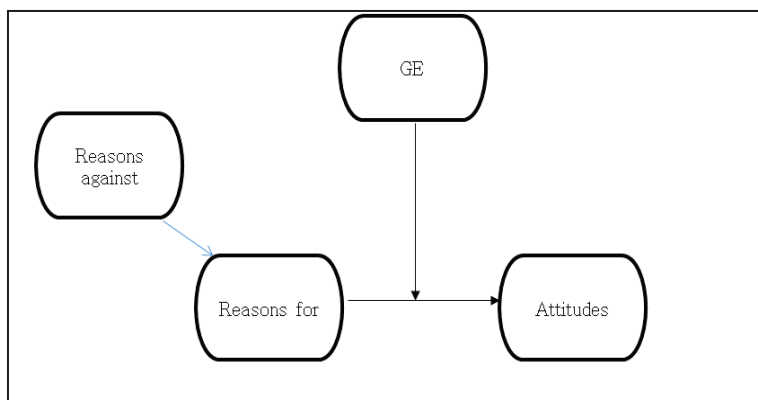


Figure 8 Results of Study 3

4.4- Study 4, Enactment of Intention and GE

In the last study, we shift to the action phase of the intentionality model of BRT, in which the intention brings about action. In other words, study 3 focuses on understanding how entrepreneurial intention leads people to eventually launch their own business. For more elaboration, it is important to note that the relationship between entrepreneurial intention and entrepreneurial activity is controversial. Previous research indicates that only 30 % entrepreneurial activity is explained through entrepreneurial intention (Van Gelderen, Kautonen, & Fink, 2015). While, BRT as well as the previous social psychology theories of intention state that most human behavior (especially a planned behavior such as entrepreneurial behavioral choice) is under volitional control (Fishbein & Ajzen, 1975; Ajzen, 1991; Westaby, 2005). Then, intention should ordinarily result in actions in entrepreneurship, too. This is not roughly what research have observed up to now. Laffranchinia, Kim, & Posthuma (2018) and Bogatyreva, Edelman, Manolova, Osiyevskyy, & Shirokova (2019) conceptualize such gap in the direct impact of intention on activities in the field of entrepreneurship through a missing variety of institutional variables in between such as cultural values. In the last two studies, it was very clear that various cultural values might have different impacts on cognitions behind entrepreneurial intention. The most controversial one is the gender egalitarianism (GE). GE is negatively associated with reason for, attitude, norms, and perceived opportunity, while it is negatively related to reason against entrepreneurial intention. These findings indicate that GE does inhibit formation of entrepreneurial intention among people of various countries inferring that

entrepreneurship is still viewed masculine by many people (Ahl, 2006; Gupta, Turban, Wasti, & Sikdar, 2009; Henry, Foss, & Ahl, 2016; Shinnar, Hsu, Powell, & Zhou, 2018). Now, we are focusing on the role GE plays in the action phase of entrepreneurial intention. Simply put, here we want to understand how GE moderate the entrepreneurial intention and activity relationship (figure 7).

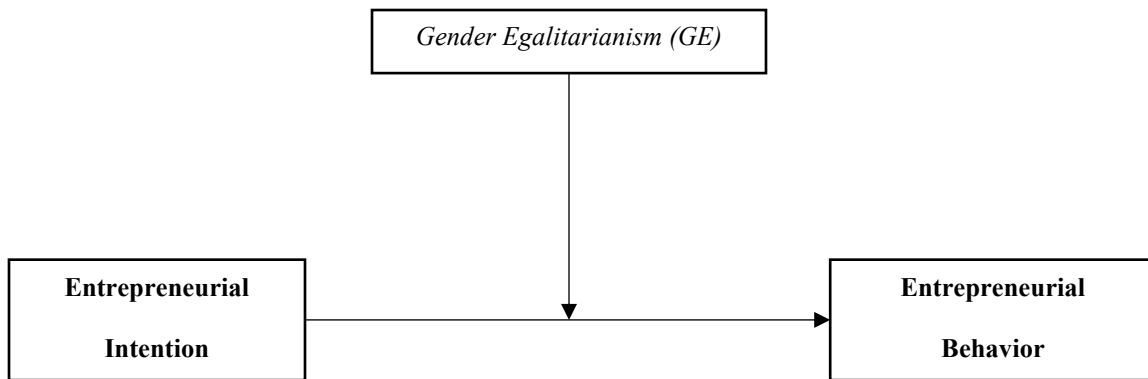


Figure 9 Framework of study 4

4.4.1- Results

In this study, we gathered data from GEM APS at country level from two different years. We took the data for entrepreneurial intention at the year 2012, and the data for entrepreneurial activity at the year 2015. This is according to the fact that it takes some time to enact the intention of building own business. And, this time span of three year is employed here according to GEM APS in which people are asked about their intention to act entrepreneurially in the next three years. So, according to the latest available data we took 2015 and 2012 GEM APS data for these two variables. Also, like the two previous studies, we took GLOBE data for GE values. Here, it would be very useful to control for the effects of GDP and Gender parity index, in which the

equal opportunity for both genders to access tertiary studies in the analyses. These two variables are respectively taken from World Bank and UN education. The overlap of all these data resulted in observation of 27 countries worldwide. Table 5 indicates the correlation, and Table 6 indicates the hierarchical regression models results.

Table 8 Correlation among variables of Study 3

	Total Early-Stage Entrepreneurial Activity (TEA)	Entrepreneurial Intention	Gender Egalitarianism Values	GDP per Capita	Gender Parity Index
Total Early-Stage Entrepreneurial Activity (TEA)	1				
Entrepreneurial Intention	0.762	1			
Gender Egalitarianism Values	-0.041	-0.052	1		
GDPperCapita	-0.395	-0.601	-0.120	1	
Gender Parity Index	-0.055	-0.063	0.651	-0.005	1

Table 9 Hierarchical Regression Results of Study 3

Dependent Variable: Total Early Stage Entrepreneurial Activity (TEA)				
	Model 1	Model 2	Model 3	Model 4
Control Variables				
GDP per capita	-0.395*	0.097	-0.024	-0.048
	0.183	0.164	0.173	0.158
Gender Parity Index	-0.057	-0.003	-0.115	-0.125
	0.183	0.132	0.126	0.115
Explanatory variables				
Entrepreneurial Intentions		0.820***	0.856***	0.867***
		0.165	0.147	0.135
Gender Egalitarianism Values			4.0675*	1.124
			1.828	2.520
GEV ²			-3.745.	-0.973
			1.845	2.462
Interaction effects				
EI X GEV				4.681*
				1.780
EI X GEV ²				-4.731*
				1.802
R ²	0.1594	0.59	0.719	0.791
Adjusted R ²	0.09211	0.5347	0.655	0.718
F	2.37	11.34***	11.24***	10.81***
ΔF	-	24.779***	5.175***	3.459.
***p<0.001; **p<0.01; *p<0.05; .p<0.10				

Taking a look at the scatter plot of our data shown in figure 7 it seemed probable that the main effect of GE on TEA could be non-linear. For testing the non-linear effect, we also included the squared value of GE in the model. Thus, in the first model in table 6, only the control variables are added. Then, the independent variable (EI) is added that significantly adds to the R² of the

model 1 with a significant effect on TEA. Then, the main effects of the moderator (GE Values) and the squared of it (GEV^2) were added to the model. Both relationship are significant, inferring that GE affects TEA in a non-linear manner. Then, in model 4, the interaction terms of the GE and squares GE with the independent variable (EI) were added. Both revealed significant effects on TEA, the dependent variable of the regressions. Thus, it is inferred that GE moderates the EI – TEA relationship, and the moderation is also non-linear. For understanding how the moderation works, interaction plots of the effects are socketed in figure 8.

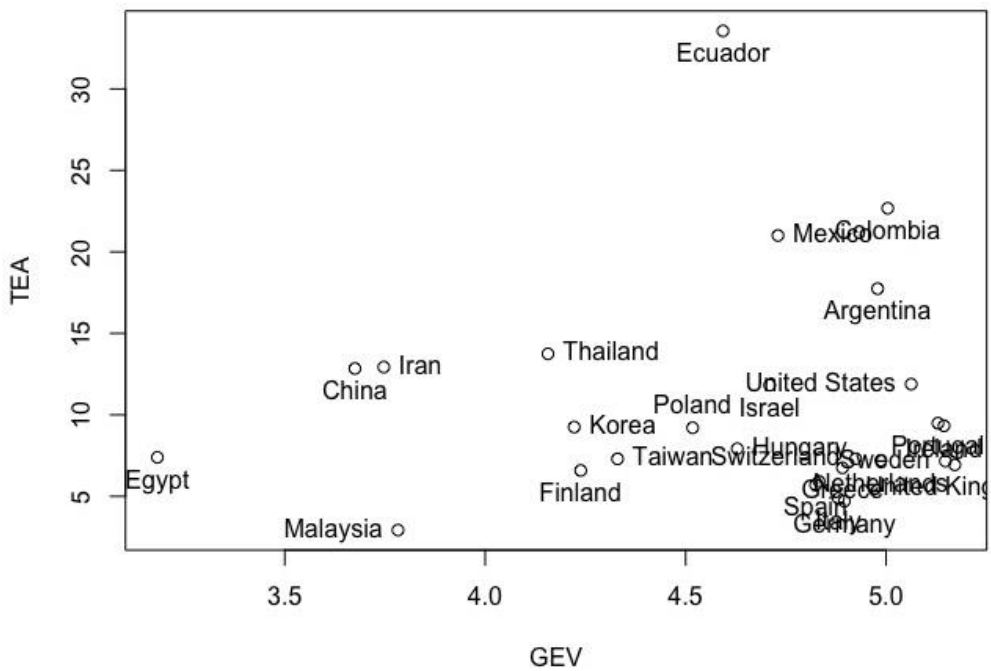


Figure 10 Scatter Plot GEV and TEA data

Figure 8 indicates that, the non-linear moderation of GE on the linear relationship between EI and TEA is positive since higher values of GE are attributed with higher slopes of the relationship between EI and TEA. Thus, GE positively moderates the enactment of entrepreneurial intention.

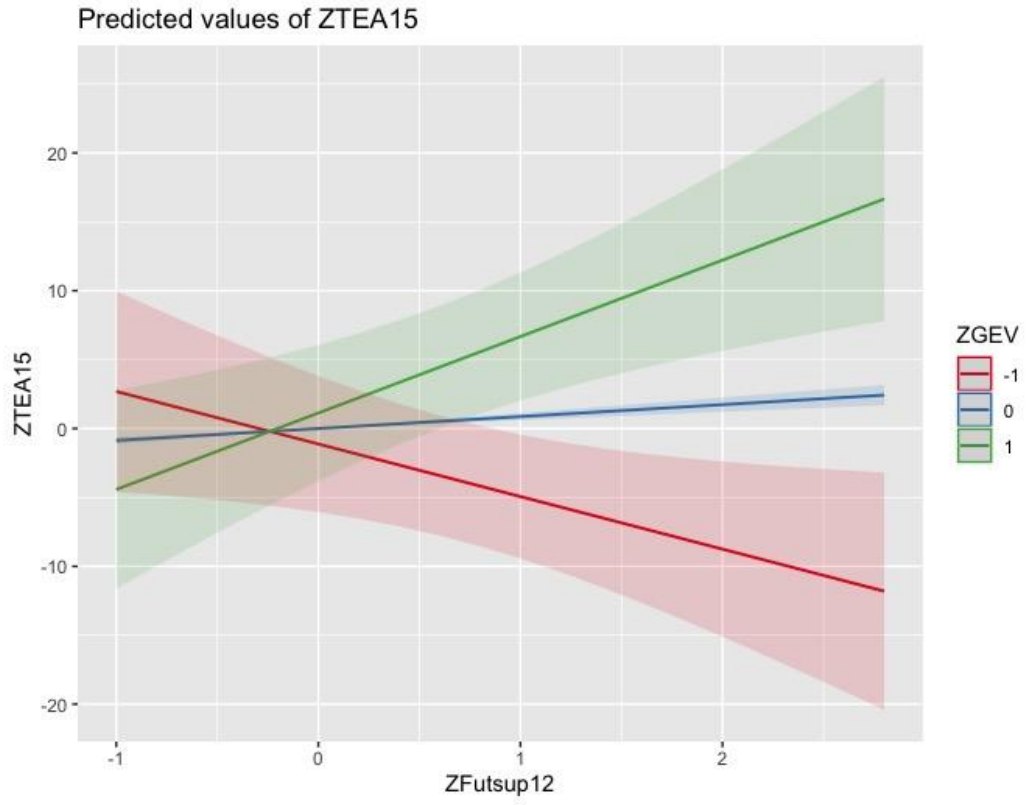


Figure 11 Interaction Plot of The Moderation of GE in the EI-TEA Relationship

Chapter 5

Discussion and Conclusion

5.1- Discussions and Conclusion

The whole thesis aimed at investigation of the effects of cultural values on entrepreneurial intention based on a relevant theory from social psychology called Behavioral Reasoning Theory (BRT). As stated earlier, BRT proposes important links among beliefs, values, reasons, motives, intention, and behavior. The overall theory contains some level of complexity. According to this complexity, the framework of the research was divided into some parts that in total deeply scrutinized the cause and effect relationships among various variables related to culture and entrepreneurship. Findings generally indicate that BRT can explain major parts of entrepreneurial intention based on the data from individuals and countries around the world. Application of BRT in the field of entrepreneurship, using data about cultural values, brings much insight for the theory and also for the practice of entrepreneurship. In the literature, there is lack of consensus about how culture influences entrepreneurship. Application of BRT in the field of entrepreneurship, however, shows that for such a broad question of the effect of entrepreneurship on culture, we should zoom deeper to specific variables related to each concepts. In such way, we would avoid the broad and complex concepts of culture and entrepreneurship, rather we take the proxies of them in our analyses. Thus, this thesis considered the effect of cultural values on entrepreneurial reasons, motives, intention, and behavior. The structure of studies 1 and 2 are the same. They are set apart according to the fact that the required data for those two studies were not homogeneous. While reasons, attitudes, perceived control, and intention are gathered from GEM APS data, the data for subjective norms are only available in GEM NES. Such non-homogeneity of these two datasets necessitates to perform two separate studies. In general, these two studies confirm the idea that reasons and motive mediate the

relationship between cultural values and entrepreneurial intention. The details of such impact are discussed in the following sections. These two studies bear important implications for theory and practice of entrepreneurial intention formation among people in various cultural contexts. Then, studies 3 and 4 focus on the so-called most controversial cultural value dimension, gender egalitarianism or GE, regarding to entrepreneurship. The two studies attempt to solve the problem of a masculine view of entrepreneurship around the world by understanding how GE influences the formation of entrepreneurial intention as well as the formation of real-world entrepreneurial behavior. This part of the thesis contains substantial and useful implications for national and international policy-makers of entrepreneurship. Details are fully discussed below.

5.1.1- Lessons Learnt from Study 1

Findings of Study 1 show that, with the exception of Institutional Collectivism (Col I), all the dimensions affect EI and entrepreneurial activity at a country level through the mediating effects of both ‘reason for’ and ‘reason against’ entrepreneurship. The mediating roles for these types of reasons are full, not partial, according to BRT. Thus, for discussions of the mediations in details, we have to go through the effects of cultural values on reasons and also the effects of reasons on EI. The regression analysis indicates that ‘reason for’ and ‘reason against’ entrepreneurship have a positive and negative effect on EI, respectively. However, the effects of various dimensions of cultural values on the reasons should be discussed in detail to get the idea of the mediation processes.

Performance orientation and gender egalitarianism have the strongest effects on the reasoning process because they impact both the ‘reason for’ and the ‘reason against’ entrepreneurship. PO

impacts positively on the 'reason for' and negatively on the 'reason against', and both effects are significant. Thus, PO increases EI through full mediating roles of both 'reason for' as well as 'reason against'. On the contrary, GE impacts negatively on the 'reason for' and positively on the 'reason against', and again both effects are significant. And therefore, GE decreases EI through the mediating roles of both 'reason for' and 'reason against'. PO, the degree to which a collectivity encourages and rewards (and should encourage and reward) group members for performance improvement and excellence, is a trigger of entrepreneurship through the reasoning processes, while GE, the degree to which a collectivity minimizes (and should minimize) gender inequality, works as a barrier. Looking at the meanings of the two dimensions, we can derive some important implications.

PO forces individuals to look for high status and to compete for success. The desire to emerge is an important push towards personal initiative and risk-taking. A country which aims at improving entrepreneurship should value these behaviors and educate people to consider failures as opportunities for learning more than as negative outcomes of their activities. This is not easy in cultures which do not feel comfortable with risks and failures, but incentives, as well as the educational policies, can play an important role in improving performance orientation. Goal and success orientation are also typical of what Hofstede (1980) names masculine society, and this finding is coherent with all the contributions highlighting a positive impact of masculinity on entrepreneurship (Mueller, 2004; McGrath, MacMillan, & Scheinberg, 1992; Hofstede, et al., 2004).

Our results show that GE impacts negatively on entrepreneurial intention through the mediating role of reasoning processes. In a country where GE is high, the ‘reason for’ entrepreneurial intention (high status to successful entrepreneurs) is low, while the ‘reason against’ entrepreneurial intention (fear of failure) is high. Countries with a high level of GE care about equality and equal opportunities, and this probably reduces the importance of prestige and success. In such countries, people focus more on rights than on results, and this can discourage personal initiative and risk-taking.

In addition, House, Hanges, Javidan, Dorfman, & Gupta (2004) associate GE with femininity – the opposite of the masculinity dimension. This reinforces the coherence between our results and the previous contributions on the positive effects of masculinity on entrepreneurship above (such as: Mueller, 2004; McGrath, MacMillan, & Scheinberg, 1992; Hofstede, et al., 2004). The output of our analysis reinforces the idea of a connection between PO and masculinity on one side, and between GE and femininity on the other, and suggests that the values associated with masculinity are the ones which affect EI the most.

Other cultural dimensions impact either on the ‘reason for’ or on the ‘reason against’ entrepreneurship. So, their impacts on EI are either mediated by ‘reason for’ or ‘reason against’. Future orientation, assertiveness, and in-group collectivism have a significant negative impact on the ‘reason for’, while uncertainty avoidance, power distance, and humane orientation have a significant positive impact on the ‘reason against’ entrepreneurship. In other words, FO, ASS, and Col II decrease EI through the mediating role of ‘reason for’. Also, UA, PD, and HO decrease EI but through the mediating role of ‘reason against’.

It is very critical to note that FO and ASS behave unconventionally in our results. While researchers might assume that FO would have a positive impact on ‘reason for’, it turns out to have a negative effect on it. This is the same for ASS. FO, the extent to which individuals engage (and should engage) in future-oriented behaviors such as planning, investing in the future, and delaying gratification, and ASS, the degree to which individuals are (and should be) assertive, confrontational, and aggressive in their relationship with others, reduce the value of ‘high status to successful entrepreneurs’ at a country level. Although unexpected, these results are in line with those of Stephan & Uhlaner (2010), who found that performance-based culture (PBC), highly affected by FO, does not affect either entrepreneurial rate or desirability. They also found that ASS is highly associated with socially supportive culture (SSC), which increases entrepreneurial rates, although it has no impact on beliefs of entrepreneurial self-efficacy. Our results add to Stephan & Uhlaner’s work (2010) that the impacts of FO and ASS on EI are negative though the mediation of ‘reason for’. This implies that long-range planning and inclination to compete and dominate do not push people to become entrepreneurs, and suggests that the capability to see opportunities, as well as the desire to succeed, are much more important values of entrepreneurs.

With regard to in-group collectivism, our analysis confirms that it can inhibit EI through the mediating role of ‘reason for’. When collectivism is high, harmony is much more important than individual success, and people do their best to satisfy the group. Collective actions are valued more than individual ones, and this reduces the value of ‘high status to successful entrepreneurs’, which on the other hand increases EI. This result suggests that policies aimed to encourage

entrepreneurship should be aware of this negative impact of in-group collectivism on EI through 'reason for' entrepreneurship.

Uncertainty avoidance, power distance, and humane orientation do not affect the 'reason for', but have a significant positive impact on the 'reason against' entrepreneurship. Uncertainty avoidance, the extent to which a society, organization, or group relies on established social norms, rituals, and procedures to avoid uncertainty, creates risk aversion, reducing EI through the mediation for 'reason against' entrepreneurship. Entrepreneurial activities are risky, and policies aimed at supporting entrepreneurship in uncertainty avoidance countries should create social mechanisms able to reduce the effects of risks. Networking and support services could be of help in this regard.

The negative effect of power distance, the degree to which members of a group expect and agree that power should be shared unequally, on EI, through the mediating role of 'reason against', could be due to the importance people give to their position. Failures would reduce their prestige, and this is of low desirability in power distance societies. Information control and the lack of social mobility seem to reduce individuals' inclination to act and to start a business, although the negative effect of PD on the 'reason for' entrepreneurship intention is not statistically significant.

Finally, our results confirm that humane orientation, the degree to which a culture encourages and rewards people for being fair, altruistic, generous, caring, and kind to others, can create some barriers to entrepreneurship. The negative impact of HO on the 'reason for' EI is not confirmed, thus suggesting that being altruistic and fair does not reduce the value of 'high status to successful entrepreneurs'. The positive impact of HO on the 'reason against' EI suggests, however, that

individuals, feeling responsible for others, consider the possible collective effects of their failure, and this inhibits their inclination to start a business.

A very interesting finding of our study concern the applicability of BRT to the domain of entrepreneurship. Our results confirm the positive and significant impact of the ‘reason for’ and the negative and significant impact of the ‘reason against’ on EI. It is interesting to note that these results remain consistent over time, as the low effects of time shows. These findings confirm Terjesen, Hessels, & Li’s (2016) suggestion of the opportunity to combine different research streams, and offers new insight on the complex effects of cultural values on entrepreneurship at a country level.

Our analysis sheds light on the complexity of human cognition regarding the new venture creation decision-making process. The greater part of previous studies about the effects of cultural values on entrepreneurship had focused on the rates of entrepreneurship at the country level. Our study posits that the question “Which aspect of entrepreneurship is affected by cultural values?” is as important as the question “How do cultural values affect entrepreneurship?”. The focus on reasoning helps to understand the complex relationship between culture and entrepreneurship at a country level through the lens of ‘reasoning processes’.

Future orientation (FO), in-group collectivism (Col II), and assertiveness (ASS) have significant effects on the ‘reason for’ EI, while uncertainty avoidance (UA), power distance (PD), and humane orientation (HO) have a significant impact on the ‘reason against’ EI. Only performance orientation (PO) and gender egalitarianism (GE) have a significant impact both on the ‘reasons for’ (+, -) and ‘reasons against’ (-, +), with a clear positive effect of the former and a clear

negative effect of the latter on EI, and consequently on entrepreneurial activity at a country level. Finally, institutional collectivism (Col I) has no significant effect on the ‘reason for’ nor the ‘reason against’ EI; but given that in our analysis we tested linear relationships, we cannot exclude that it impacts in a non-linear way.

5.1.2- Lessons Learnt from Study 2

In Study, we focused on the mediating role of norms on the relationship between cultural values and entrepreneurial intention. In GEM NES, the experts respond to evaluate *the extent to which social and cultural norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income*. This measurement, as a proxy to the subjective norms, positively influences the entrepreneurial intention according to the results of Study 2. On the other hand, it is affected by all cultural values except for PO and GE. It means that performance orientation and also gender egalitarianism do not increase the possibility of positive subjective norms among various countries. In contrast to the results of Study 1, these two very critical cultural values are not of importance when experts discuss about the social norms. FO increases entrepreneurial intention through providing higher reasons for and lower reasons against entrepreneurship, while GE decreases entrepreneurial intention through providing lower reasons for and higher reasons against entrepreneurship. But, in Study 2 they are not of significant importance regarding the social norms of entrepreneurship. It seems that both these cultural variables mostly affect the personal reasoning and not the subjective

social norms of entrepreneurship. UA, ColI, HO, ColII, and ASS are positively related to social norms, while FO and PD are negatively associated with norms.

5.1.3- Lessons Learnt from Study 3

Study 3 was aimed at investigating the effects of GE on the cognitions behind entrepreneurial behavior. Following the BRT, we verified the effects of reasoning on attitudes, and the effects of a specific cultural value – i.e. gender egalitarianism, the most controversial one – on them. The positive attitude towards entrepreneurship indeed varies across countries, and this was the starting point of our analyses.

A first very interesting finding is that in model 1 and model 2 (Table 7), ICC values indicate that about 10% of the variance in *positive attitude toward entrepreneurship* resided between countries. The variance is strongly connected to the control variables, and this finding confirms the necessity to apply multilevel analysis techniques to avoid error type 1 in cross-countries analyses. On the same hand, in model 2, 25% of country-level variance of the individual's probability of a *positive attitude toward entrepreneurship* is explained by control variables, and the country-level variables explain 18% of the variance. This finding suggests that the inclusion of country-level control variables is very important to have a good observation of the phenomenon, and that more control variables should be included in the analysis together with GDP and GPI.

Model 1 shows that age, education and female gender negatively affect the individual's probability of a *positive attitude toward entrepreneurship*. With regards to age and education,

this finding suggests that the attitude to become entrepreneur is higher in young people, and that the higher is the level of education the lower becomes the attitude, probably because high level of education are associated with higher age. With regard to gender, this result is coherent with those studies, which recognized entrepreneurship as a masculine activity (Ahl, 2006; Gupta et al. 2009; Henry et al. 2016; Shinnar et al. 2018).

As mentioned before, GDP and GPI are very important in the analysis. GDP is negatively associated with individual's probability of *positive attitude toward entrepreneurship*, and this is in line with previous studies which found a negative relationship between GDP and entrepreneurial activities (Calvelli et al. 2014). The finding suggests that in richer countries people find more opportunities, and probably the presence of less risky working opportunities reduces the attitude to become entrepreneur. GPI on the contrary is positively associated with individual's probability of *positive attitude toward entrepreneurship*. This result suggests that in countries where men and women do have similar opportunities in education, the attitude to become entrepreneur is higher, probably because the percentage of female entrepreneurs arises.

According to our findings, *reasons for* do have a strong positive impact on the *attitude toward entrepreneurship*, while *reasons against* have a positive even if weak impact. This result suggests that *reasons against* do not play the expected role on attitudes, and also to look for other variables, which could represent between the reasoning behind entrepreneurial behavior. Of course, the positive even if weak effect of the *reasons against* on the *positive attitude toward entrepreneurship* is observed in a limited sample, which is the countries derived from the overlap between the GEM and the GLOBE Project. We cannot exclude that the relationship would

change if we consider different countries, and even if we would select the database in the more accurate way, for example excluding countries, which still present distortions in the data.

Reasons for and *reasons against* do not affect the relationship between GE and the *positive attitude toward entrepreneurship*, and GE does not have a significant impact on the *positive attitude toward entrepreneurship* anyway. However, GE interacts with the *reasons* because when we consider both *reasons* and *GE*, the effects of the *reasons for* on the *positive attitude toward entrepreneurship* decrease. GE covers a role of moderator in the relationship between *reasons for* and attitude toward entrepreneurship. This result is in line with Cannavale & Nadali (2018), and suggests that *reasons for* become more important in countries where GE is low, i.e. when gender discrimination exists, *reasons for* are fundamental to develop a *positive attitude toward entrepreneurship*.

5.1.4- Lessons Learnt from Study 4

Following the idea that entrepreneurship is a complex planned behavior (Krueger & Carsrud, 1993; Calvelli, Cannavale, Parmentola, & Tutore, 2014), we applied the Behavioral Reasoning Theory to understand the impact on cultural values on Entrepreneurial Intention (EI) and on its transformation into Entrepreneurial Activity (EA). Previous research claim indeed that EI explains a very small percentage of the variance in entrepreneurial behavior (Van Gelderen, Kautonen, & Fink, 2015), and this poses some challenges in the application of the behavioral theories to the field of entrepreneurship.

We decided to focus on one of nine GLOBE's dimensions: Gender Egalitarianism (GE) because just a few contributions are given on the effect of this dimensions, while GEM data demonstrated that the gap between female and male entrepreneurship is still very relevant, and scholars claim that more egalitarian conditions should lead to an increasing rate of entrepreneurial activity.

Given that the role of culture is very debated in the literature and that scholars reach inhomogeneous results about a main effect of cultural dimensions on EI and EA, we decided to investigate a moderating role of GE value (should be scores) on the relationship between EI and EA. We considered countries analyzed both in the GLOBE and in the GEM, and we excluded countries for which GEM data were missing, so that finally the analysis considered 27 countries.

According to our findings, GE value strengthens the effect of the Entrepreneurial Intentions on Entrepreneurial Activity. More specifically, we found out that GE value has a relevant curvilinear moderating effect on the relationship between intention and activity, which means that where Gender Egalitarianism value is low, there is a decreasing relationship between EI and TEA; where the level of GEV is moderate, there is a weak positive relationship between EI and TEA, but when the level of GEV is high, there is a strong positive relationship between EI and TEA.

This result is very interesting because it sheds new light on the complex relationship between cultural values and social phenomenon, and confirms the role of cultural values on EA, and more specifically on the relationship between EI and EA.

5.2- Limitations

Study 1 & Study 2

Despite its novelty and originality, this study has some limitations. Our study is mainly focused on the ‘reason for’ and the ‘reason against’ EI, and consequent activities, but it does not consider global motives-attitudes, norms, and perceived control, which are conceptually affected by reasons and simultaneously impact on intentions. It is highly recommended that future studies focus on the simultaneous effects of all the aforementioned variables, to empirically test whether reasons behave differently from motives in the field of entrepreneurship.

It is important to note that we limited our analysis to linear relationships among cultural values and reasons, i.e. on the first part of the model. However, an investigation of nonlinear correlations among different cultural values of GLOBE (Hofstede, 2006; Javidan et al, 2006) would shed more light on the complexity of cultural values and on their effects on the reasoning behind entrepreneurial intention.

Another limitation of the present study is based on the GEM dataset, which offers just one variable corresponding to ‘reason for’ and one to ‘reason against’ entrepreneurial intention. Considering just one value as a proxy for a complex reasoning creates the risk of a limited analysis and understanding. According to the theory of needs, the ‘reason for’ entrepreneurial intention is taken as equivalent to ‘high status to successful entrepreneurs’, but this image of the ‘reason for’ entrepreneurial intention is incomplete. The same limitation is at play for the ‘reason against’ EI, which takes as equivalent the ‘fear of failure’. Also, the asymmetry, mentioned in the methodology section, between the two measurements brings about another limitation for this

study. While conceptually linked to the mechanisms through which culture affects intention and action, 'High Status to Successful Entrepreneurs' rate and 'Fear of failure' rate are asymmetric and refer to different timing of the cognitive processes. Further research should be aimed at finding different measures of 'reason for' and 'reason against' entrepreneurship, and test again their mediating role on the relationship between cultural values and entrepreneurial intention.

Secondary data from GLOBE and GEM cause another limitation in our study. Some social scientists observe that secondary data based on the opinions of individuals are distorted and therefore not trustworthy. The inspirational book by Stephens-Davidowitz (2017), a data scientist at Google, provides new knowledge about how data might deceive researchers. Although much research in the field of culture and entrepreneurship rely on GLOBE and GEM, it is highly recommended that we move forward to the great data era of social networks and search engines to provide a better picture of the issue to overcome this limitation.

Study 3

The unexpected results of Study 3 about the *reasons against* pushed us to analyse more in-depth the relationships between *reasons for* and *reasons against*. Without considering the *reasons for*, *reasons against entrepreneurship* have a significant effect on the *positive attitude toward entrepreneurship*, but the effect becomes not significant if we include the *reasons for entrepreneurship*. This finding suggests a mediation role of the *reasons for* on the relationship between *reasons against* and the *positive attitude toward entrepreneurship*. This finding suggests that *reasons for* are more important than *reasons against* in the cognition behind entrepreneurial

orientation. While, the measurement is also another implication in such manner. 'Reasons for' were measured by 'high status to successful entrepreneurs', and 'reasons against' were measured by 'fear of failure rate'. These two measurement models seem to be theoretically redundant regarding attitude which was measured by 'entrepreneurship as good career choice'. This is due to the fact that societies that represent higher levels of fear of failure in entrepreneurial activities might celebrate the successful entrepreneurs as heroes who could overcome the frightening obstacle of launching own businesses. Thus, *our* reason against entrepreneurship increases the reason for which respectively increases positive attitude toward entrepreneurship. This relationship is negatively moderated by GE. It is indeed an interesting outcome of the present study that clarifies the complicated effect of GE on reasoning processes and attitude toward entrepreneurship as well.

Study 4

Although interesting, Study 4 suffers of some important limitations. Not all authors agree on the possibility to consider one dimension at a time, and results could change by inserting in the model different cultural dimensions, whose role will be investigated in the future. This paper follows the previous Studies about the effects of cultural values on reasoning and intention, but considering all the behavioral model at the same time, although very complex, could contribute sensibly to the understanding of the systemic relationship between values and entrepreneurship.

References

- Ahl, H. (2006). Why research on women entrepreneurs needs new directions. *Entrepreneurship Theory and Practice*, 30(5), 595-621.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Autio, E., & Acs, Z. (2010). Intellectual property protection and the formation of entrepreneurial growth aspirations . *Strategic Entrepreneurship Journal*, 4(3), 234-251.
- Baron, R. A. (2007). Behavioral and cognitive factors in entrepreneurship: entrepreneurs as the active element in new venture creation. *Strategic Entrepreneurship Journal*, 1(1/2), 167-182.
- Baughn, C. C., & Neupert, K. E. (2003). Culture and National Conditions Facilitating Entrepreneurial Start-ups. *Journal of International Entrepreneurship*, 1(3), 313-330.
- Baum, J. R., & Bird, B. J. (2010). The Successful Intelligence of High-Growth Entrepreneurs: Links to New Venture Growth. *Organization Science*, 21(2), 397-412.
- Baum, J. R., Olian, J. D., Erez, M., Schnell, E. R., Smith, K. G., Sims, H. P., . . . Smith, K. A. (1993). Nationality and work role interactions: a cultural contrast of Israeli and U.S. entrepreneurs' versus managers' needs. *Journal of Business Venturing*, 8(6), 499-512.
- Bird, B. (1988). Implementing Entrepreneurial Ideas: The Case of Intention. *Academy of Management Review*, 13(3), 442-453.
- Bogatyрева, K., Edelman, L. F., Manolova, T. S., Osiyevskyy, O., & Shirokova, G. (2019). When do entrepreneurial intentions lead to actions? The role of national culture. *Journal of Business Research*, 96, 309-321.

- Botha, M., & Bignotti, A. (2017). Exploring moderators in the relationship between cognitive adaptability and entrepreneurial intention: findings from South Africa. *International Entrepreneurship and Management Journal*, 13(4). doi:10.1007/s11365-017-0437-8
- Bouncken, R. B., Zagvozdina, J., & Golze, A. (2009). A comparative study of cultural influences on intentions to found a new venture in Germany and Poland. *International Journal of Business and Globalisation*, 3(1), 47-65.
- Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship: Theory and Practice*, 18(4), 63-77.
- Breugst, N., Domurath, A., Patzelt, H., & Klaukien, A. (2012). Perceptions of Entrepreneurial Passion and Employees' Commitment to Entrepreneurial Ventures. *Entrepreneurship Theory and Practice*, 36(1), 171-192.
- Brock, J. K.-U. (2003). The 'power' of international business research. *Journal of International Business Studies*, 34(1), 90-99.
- Busenitz, L. W., & Lau, C. M. (1996). A Cross-Cultural Cognitive Model of New Venture Creation. *Entrepreneurship Theory and Practice*, 20(4), 25-40.
- Calvelli, A., Cannavale, C., Parmentola, A., & Tutore, I. (2014). Do 'cultural gaps' affect entrepreneurial activities? An analysis based on globe's dimensions. *European J. Cross-Cultural Competence and Management*, 3(3/4), 279-298.
- Cannavale, C., & Nadali, I. (2018). Entrepreneurship across cultures. A BR approach. *Sinergie-SIMA*, (pp. 412-416). Venice.
- Cardon, M. S., Foo, M. D., Shepherd, D., & Wiklund, J. (2012). Exploring the Heart: Entrepreneurial Emotion Is a Hot Topic. *Entrepreneurship Theory and Practice*, 36(1), 1-10.

- Chand, M., & Ghorbani, M. (2011). National culture, networks and ethnic entrepreneurship: A comparison of the Indian and Chinese immigrants in the US. *International Business Review, 20*(6), 593-606.
- Clark, R. A., & McClelland, D. C. (1956). A Factor Analytic Integration of Imaginative and Performance Measures of the Need for Achievement. *The Journal of General Psychology, 55*(1), 73-83.
- Claudy, M. C., Garcia, R., & O'Driscoll, A. (2015). Consumer resistance to innovation—a behavioral reasoning perspective. *Journal of the Academy of Marketing Science, 43*(4), 528-544.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Mahwah, NJ: Lawrence Erlbaum.
- Cornelissen, J. P., & Clarke, J. S. (2010). Imagining and rationalizing opportunities: Inductive reasoning, and the creation and justification of new ventures. *The Academy of Management Review, 35*(4), 539-557.
- Coviello, N. E., McDougall, P. P., & Oviatt, B. M. (2011). The emergence, advance and future of international entrepreneurship research — An introduction to the special forum. *Journal of Business Venturing, 26*(6), 625-631.
- Davidsson, P. (1995). Culture, structure and regional levels of entrepreneurship. *Entrepreneurship & Regional Development, 7*(1), 41-62.
- de Pillis, E., & Reardon, K. K. (2007). The influence of personality traits and persuasive messages on entrepreneurial intention: A cross-cultural comparison. *Career Development International, 12*(4), 382-396.
- Dheer, R. J., & Lenartowicz, T. (2016). Multiculturalism and Entrepreneurial Intentions: Understanding the Mediating Role of Cognitions. *Entrepreneurship Theory and Practice, In Press*. doi:10.1111/etap.12260

- Dinis, A., do Paco, A., Ferreira, J., Raposo, M., & Rodrigues, R. G. (2013). Psychological characteristics and entrepreneurial intentions among secondary students. *Education + Training, 55*(8/9), 763-780.
- Dodd, S. D., Jack, S., & Anderson, A. R. (2013). From admiration to abhorrence: the contentious appeal of entrepreneurship across Europe. *Entrepreneurship & Regional Development, 25*(1/2), 69-89.
- Drucker, P. (1985). *Innovation and entrepreneurship*. Oxon, UK: Routledge Classics.
- Dwyer, S., Mesak, H., & Hsu, M. (2005). An Exploratory Examination of the Influence of National Culture on Cross-National Product Diffusion. *Journal of International Marketing, 13*(2), 1-27.
- Engelen, A., Heinemann, F., & Brettel, M. (2009). Cross-cultural entrepreneurship research: current status and framework for future studies. *Journal of International Entrepreneurship, 7*(3), 163-189.
- Engle, R. L., Dimitriadi, N., Gavidia, J. V., Schlaegel, C., Delanoe, S., Alvarado, I., . . . Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behavior & Research, 16*(1), 35-57.
- Engle, R. L., Schlaegel, C., & Dimirriadi, N. (2011). Institutions and Entrepreneurial Intent: A Cross-country Study. *Journal of Developmental Entrepreneurship, 16*(2), 227-250.
- Entrialgo, M., & Iglesias, V. (2018). Are the Intentions to Entrepreneurship of Men and Women Shaped Differently? The Impact of Entrepreneurial Role-Model Exposure and Entrepreneurship Education. *Entrepreneurship Research Journal, 8*(1). doi:<https://doi.org/10.1515/erj-2017-0013>
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. MA: Addison-Wesley: Reading.

- Franke, G. R., & Richey, G. (2010). Improving generalizations from multi-country comparisons in international business research. *Journal of International Business Studies*, 41(8), 1275-1293.
- Grégoire, D. A., Barr, P. S., & Shepherd, D. A. (2010). Cognitive Processes of Opportunity Recognition: The Role of Structural Alignment. *Organization Science*, 21(2), 413-431.
- Gupta, A., & Arora, N. (2017). Understanding determinants and barriers of mobile shopping adoption using behavioral reasoning theory. *Journal of Retailing and Consumer Services*, 36, 1-7.
- 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.
- Hair, J. F., Hult, G. T., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks, CA: SAGE Publications, Inc.
- Hattab, H. W. (2014). Impact of Entrepreneurship Education on Entrepreneurial Intentions of University Students in Egypt. *The Journal of Entrepreneurship*, 23(1), 1-18.
- Hayton, J. C., George, G., & Zahra, S. A. (2002). National culture and entrepreneurship: A review of behavioral research. *Entrepreneurship Theory and Practice*, 26(4), 33-52.
- Henry, C., Foss, L., & Ahl, H. (2016). Gender and entrepreneurship research: A review of methodological approaches. *International Small Business Journal*, 34(3), 217-241.
- Heuer, A., & Kolvereid, L. (2014). Education in entrepreneurship and the Theory of Planned Behaviour. *European Journal of Training and Development*, 38(6), 506-523.
- Hofmann, D. A. (1997). An Overview of the Logic and Rationale of Hierarchical Linear Models. *Journal of Management*, 23(6), 723-744.
- Hofmann, D. A., Griffin, M. A., & Gavin, M. B. (2000). The application of hierarchical linear modeling to organizational research. In K. J. Klein, & S. W. Kozlowski, *Multilevel theory*,

research, and methods in organizations: Foundations, extension (pp. 467–511). San Francisco, CA: Jossey-Bass.

Hofstede, G. (1991). *Organizations and cultures: Software of the mind*. New York: McGrawHill.

Hofstede, G. (2001). *Culture's Consequences. Comparing values, behaviors, institutions and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.

Hofstede, G. (2006). What did GLOBE really measure? Researchers' minds versus respondents' minds. *Journal of International Business Studies*, 37(6), 882-896.

Hofstede, G. H. (1980). *Culture Consequences: International Differences in Work-related Values*. London: Sage Publication.

Hofstede, G., Noorderhaven, N. G., Thurik, A. R., Uhlaner, L. M., Wennekers, A. R., & Wildeman, R. E. (2004). Culture's role in entrepreneurship: Self-employment out of dissatisfaction. In T. Brown, & J. Ulijn (Eds.), *Innovation, entrepreneurship and culture: The interaction between technology, progress and economic growth* (pp. 162-203). Cheltenham, UK: Edward Elgar.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. Thousand Oaks, CA: Sage Publication Inc.

Ihaka, R., & Gentleman, R. (1996). R: a language for data analysis and graphics. *Journal of Computational and Graphical Statistics*, 5(3), 299-314.

Javidan, M., House, R. J., Dorfman, P. W., Hanges, P. J., & de Luque, M. S. (2006). Conceptualizing and measuring cultures and their consequences: a comparative review of GLOBE's and Hofstede's approaches. *Journal of International Business Studies*, 37(6), 897-914.

Jones, M. V., Coviello, N., & Tang, Y. K. (2011). International Entrepreneurship research (1989–2009): A domain ontology and thematic analysis. *Journal of Business Venturing*, 26(6), 632-659.

- Kautonen, T., van Gelderen, M., & Tornikoski, E. T. (2013). Predicting entrepreneurial behaviour: a test of the theory of planned behaviour. *Applied Economics*, 45(6), 697–707.
- Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment. *Journal of Business Venturing*, 21(6), 866-885.
- 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. (2009). Entrepreneurial Intentions Are Dead: Long Live Entrepreneurial Intentions. In A. L. Carsrud, & M. Brannback, *Understanding the Entrepreneurial Mind: Opening the Black Box* (pp. 51-74). New York: Springer.
- Krueger, N. F. (2007). What Lies Beneath? The Experiential Essence of Entrepreneurial Thinking. *Entrepreneurship Theory and Practice*, 31(1), 123-138.
- Krueger, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship: Theory and Practice*, 19(3), 91-104.
- Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial intentions: Applying the theory of planned behaviour. *Entrepreneurship & Regional Development*, 5(4), 315-330.
- Laffranchinia, G., Kim, S. H., & Posthuma, R. A. (2018). A metacultural approach to predicting self-employment across the globe. *International Business Review*, 27(2), 481-500.
- Lee, S. M., & Peterson, S. J. (2000). Culture, entrepreneurial orientation, and global competitiveness. *Journal of World Business*, 35(4), 401-416.
- Liguori, E. W., Bendickson, J. S., & McDowell, W. C. (2018). Revisiting entrepreneurial intentions: a social cognitive career theory approach. *International Entrepreneurship and Management Journal*, 14(1), 67-78.

- Lim, D. S., Oh, C. H., & Clercq, D. D. (2016). Engagement in entrepreneurship in emerging economies: Interactive effects of individual-level factors and institutional conditions. *International Business Review*, 25(4), 933-945.
- 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., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, 11(4), 907-933.
- Liñán, F., Urbano, D., & Guerrero, M. (2011). Regional variations in entrepreneurial cognitions: Start-up intentions of university students in Spain. *Entrepreneurship and Regional Development*, 23(3/4), 187-215.
- Liu, Y. S., & Arendt, S. W. (2016). Development and validation of a work motive measurement scale. *International Journal of Contemporary Hospitality Management*, 28(4), 700-716.
- Liu, Y., & Almor, T. (2016). How culture influences the way entrepreneurs deal with uncertainty in inter-organizational relationships: The case of returnee versus local entrepreneurs in China. *International Business Review*, 25(1), 4-14.
- Lortie, J., & Castogiovanni, G. (2015). The theory of planned behavior in entrepreneurship research: what we know and future directions. *International Entrepreneurship and Management Journal*, 11(4), 935–957.
- Lortie, J., Barreto, T., & Cox, K. (2019). The implications of national and regional long-term orientation on entrepreneurial activity. *International Journal of Entrepreneurial Behavior & Research*. doi:<https://doi.org/10.1108/IJEER-01-2018-0026>
- Lumpkin, G. T., Brigham, K. H., & Moss, T. W. (2010). Long-term orientation: Implications for the entrepreneurial orientation and performance of family businesses. *Entrepreneurship & Regional Development*, 22(3/4), 241-264.

- Maresch, D., Harms, R., Kailer, N., & Wimmer-Wurm, B. (2016). The impact of entrepreneurship education on the entrepreneurial intention of students in science and engineering versus business studies university programs. *Technological Forecasting & Social Change, 104*, 172-179.
- Markman, G., Balkin, D. B., & Baron, R. A. (2002). Inventors and New Venture Formation: the Effects of General Self-Efficacy and Regretful Thinking. *Entrepreneurship Theory and Practice, 27*(2), 149-165.
- McClelland, D. C. (1985). How Motives, Skills, and Values Determine What People Do. *American Psychologist, 40*(7), 812-825.
- McGrath, R. G., MacMillan, I. C., & Scheinberg, S. (1992). Elitists, risk-takers, and rugged individuals? An exploratory analysis of cultural differences between entrepreneurs and non-entrepreneurs. *Journal of Business Venturing, 7*(2), 115-135.
- McGrath, R. G., MacMillan, I. C., Yang, E. A., & Tsai, W. (1992). Does culture endure, or is it malleable? *Journal of Business Venturing, 7*(6), 441-458.
- Miralles, F., Giones, F., & Gozun, B. (2017). Does direct experience matter? Examining the consequences of current entrepreneurial behavior on entrepreneurial intention. *International Entrepreneurship and Management Journal, 13*(3). doi:10.1007/s11365-016-0430-7
- Mitchell, R. K., Busenitz, L. W., Bird, B., Gaglio, C. M., McMullen, J. S., Morse, E. A., & Smith, B. (2007). The Central Question in Entrepreneurial Cognition Research 2007. *Entrepreneurship Theory and Practice, 31*(1), 1-27.
- Mitchell, R. K., Busenitz, L. W., Lant, T., McDougall, P. P., Morse, E. A., & Smith, J. B. (2002). Toward a Theory of Entrepreneurial Cognition: Rethinking the People Side of Entrepreneurship Research. *Entrepreneurship Theory and Practice, 27*(2), 93-104.
- Mitchell, R. K., Smith, B., Seawright, K. W., & Morse, E. A. (2000). Cross-cultural cognitions and the venture creation decision. *Academy of Management Journal, 43*(5), 974-993.

- Morales-Gualdron, S. T., & Riog, S. (2005). The new venture decision: an analysis based on the GEM project database. *International Entrepreneurship and Management Journal*, 1, 479-499.
- Morris, M. H., Davis, D. L., & Allen, J. W. (1994). Fostering Corporate Entrepreneurship: Cross-Cultural Comparisons of the Importance of Individualism versus Collectivism. *Journal of International Business Studies*, 25(1), 65-89.
- Mueller, S. L. (2004). Gender gaps in potential for entrepreneurship across countries and cultures. *Journal of Developmental Entrepreneurship*, 9(3), 199-220.
- Mueller, S. L., & Thomas, A. S. (2001). Culture and entrepreneurial potential: a nine country study of locus of control and innovativeness. *Journal of Business Venturing*, 16(1), 51-75.
- Noorderhaven, N., Thurik, R., Wennekers, S., & van Stel, A. (2004). The Role of Dissatisfaction and per Capita Income in Explaining Self-Employment across 15 European Countries. *Entrepreneurship Theory and Practice*, 28(5), 447-466.
- Ouchi, W. G. (1980). Markets, bureaucracies and clans. *Administrative Science Quarterly*, 25, 129-141.
- Ouchi, W. G. (1982). *Theory Z*. New York: Avon Books.
- Pathak, S., & Muralidharan, E. (2018). GLOBE leadership dimensions: Implications for cross-country entrepreneurship research. *Academy of International Business Insights*, 18(2), 11-15.
- Paul, J., & Shrivatava, A. (2016). Do young managers in a developing country have stronger entrepreneurial intentions? Theory and debate. *International Business Review*, 25(6), 1197-1210.
- Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, 29, 123-134.

- Pennington, N., & Hastie, R. (1988). Explanation-based decision making: Effects of memory structure on judgment. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *14*, 521-533.
- Pinillos, M. J., & Reyes, L. (2011). Relationship between individualist–collectivist culture and entrepreneurial activity: evidence from Global Entrepreneurship Monitor data. *Small Business Economics*, *37*(1), 23-37.
- Qui, T. (2018). Influence of cultural practices on social support of female entrepreneurs' startups. *Journal of Developmental Entrepreneurship*, *23*(1). doi:10.1142/S1084946718500073
- Reynolds, P., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., . . . Chin, N. (2005). Global entrepreneurship monitor: Data collection design and implementation 1998-2003. *Small Business Economics*, *24*(3), 205–231.
- Romani, L., Primecz, H., & Roger, B. (2014). There is nothing so practical as four good theories. In B. Gehrke, & M. T. Claes, *Global leadership practices: A cross-cultural management perspective* (pp. 13-47). Hampshire: Palgrave Mcmillan.
- Roy, R., Akhtar, F., & Das, N. (2017). Entrepreneurial intention among science & technology students in India: extending the theory of planned behavior. *International Entrepreneurship and Management Journal*, *13*(4), 1013-1041.
- Ryan, J., & Casidy, R. (2018). The role of brand reputation in organic food consumption: A behavioral reasoning perspective. *Journal of Retailing and Consumer Services*, *41*, 239-247.
- Sarasvathy, S. D. (2001a). Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency. *The Academy of Management Review*, *26*(2), 243-263.
- Sarasvathy, S. D. (2001b). Effectual reasoning in entrepreneurial decision making: existence and bounds. *Academy of Management Proceedings*.

- Schlaegel, C., He, X., & Engle, R. L. (2013). The direct and indirect influences of national culture on entrepreneurial intentions: a fourteen nation study. *International Journal of Management, 30*(2), 597-609.
- Schumpeter, J. A. (1934). *The theory of economic development*. Cambridge, MA: Harvard Press.
- Schwartz, S. H. (1992). Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries. *Advances in Experimental Social Psychology, 25*, 1-65.
- Schwartz, S. H. (1994). Beyond individualism/collectivism: new cultural dimensions of values. In U. Kim, H. C. Triandis, C. Kagitcibasi, S. Choi, & G. Yoon (Eds.), *Individualism and Collectivism: Theory, Method and Applications* (pp. 85-119). Thousands Oaks, CA: Sage Publication.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review, 25*(1), 217-226.
- Shane, S., Locke, E. A., & Collins, J. C. (2003). Entrepreneurial motivation. *Human Resource Management Review, 13*, 257-279.
- Shapero, A. (1982). Social Dimensions of Entrepreneurship. In C. Kent, D. Sexton, & K. Vesper (Eds.), *The Encyclopaedia of Entrepreneurship* (pp. 72-90). Englewood Cliffs: Prentice-Hall.
- Shaver, J. M. (2006). Interpreting empirical findings. *Journal of International Business Studies, 37*(4), 451-452.
- Shaver, K. G., & Scott, L. R. (1991). Person, Process, Choice: The Psychology of New Venture Creation. *Entrepreneurship Theory and Practice, 16*(2), 23-45.
- Sheather, S. (2009). *A modern approach to regression with R*. New York, NY: Springer.

- Shinnar, R. S., Hsu, D. K., Powell, B. C., & Zhou, H. (2018). Entrepreneurial intentions and start-ups: Are women or men more likely to enact their intentions? *International Small Business Journal*, 36(1), 60-80.
- Shneor, R., Camgöz, S. M., & Karapinar, P. B. (2013). The interaction between culture and sex in the formation of entrepreneurial intentions. *Entrepreneurship & Regional Development*, 25(9/10), 781-803.
- Smith, P. B. (2006). When elephants fight, the grass gets trampled: the GLOBE and Hofstede projects. *Journal of International Business Studies*, 37(6), 915-921.
- Stephan, U., & Uhlaner, L. M. (2010). Performance-based vs socially supportive culture: A cross-national study of descriptive norms and entrepreneurship. *Journal of International Business Studies*, 41(8), 1347-1364.
- Stephens-Davidowitz, S. (2017). *Everybody lies: What the internet can tell us about who we really are*. London, UK: Bloomsbury.
- Teal, E. J., & Carroll, A. B. (1999). Moral Reasoning Skills: Are Entrepreneurs Different? *Journal of Business Ethics*, 19(3), 229-240.
- Temiz, D., & Gokmen, A. (2014). FDI inflow as an international business operation by MNCs and economic growth: An empirical study on Turkey. *International Business Review*, 23(1), 145–154.
- Terjesen, S., Hessels, J., & Li, D. (2016). Comparative international entrepreneurship: A review and research agenda. *Journal of Management*, 42(1), 299-344.
- Thomas, A. S., & Mueller, S. L. (2000). A case for comparative entrepreneurship: Assessing the relevance of culture. *Journal of International Business Studies*, 31(2), 287-301.
- Thurik, R., & Dejardin, M. (2011). The impact of culture on entrepreneurship. *The European Business Review*, 1(2), 57-59.

- Tiessen, J. H. (1997). Individualism, collectivism, and entrepreneurship: A framework for international comparative research. *Journal of Business Venturing*, 12(5), 367-384.
- Tversky, A., & Kahneman, D. (1971). Belief in the law of small numbers. *Psychological Bulletin*, 76(2), 105-110.
- van Gelderen, M., Brand, M, Van Praag, M., Bodewes, W., Poutsma, E., & Van Gils, A. (2008). Explaining entrepreneurial intentions by means of the theory of planned behaviour. *Career Development International*, 13(6), 538-559.
- Van Gelderen, M., Kautonen, T., & Fink, M. (2015). From entrepreneurial intentions to actions: Self-control and action-related doubt, fear, and aversion . *Journal of Business Venturing*, 30(5), 655-673.
- Verbeke, A., & Ciravegna, L. (2018). International entrepreneurship research versus international business research: A false dichotomy? *Journal of International Business Studies*, 49(4), 387-394.
- Vinogradov, E., & Kolvereid, L. (2007). Cultural background, human capital and self-employment rates among immigrants in Norway. *Entrepreneurship and Regional Development*, 19(4), 359-376.
- Weber, M. (1930). *The protestant ethic and the spirit of capitalism*. New York: The Citadel Press.
- Westaby, J. D. (2005). Behavioral reasoning theory: Identifying new linkages underlying intentions and behavior. *Organizational Behavior and Human Decision Processes*, 98, 97-120.
- Westaby, J. D., & Fishbein, M. (1996). Factors underlying behavioral choice: Testing a new reasons theory approach. *Journal of Applied Social Psychology*, 13, 1307-1323.
- Westaby, J. D., Probst, T. M., & Lee, B. C. (2010). Leadership decision-making: A behavioral reasoning theory analysis. *The Leadership Quarterly*, 21, 481-495.

- Wilkins, A. L., & Ouchi, W. G. (1983). Efficient cultures: Exploring the relationship between culture and organizational performance. *Administrative Science Quarterly*, 28, 468-481.
- Yetim, N., & Yetim, U. (2006). The Cultural Orientations of Entrepreneurs and Employees' Job Satisfaction: The Turkish Small and Medium Sized Enterprises (SMEs) Case. *Social Indicators Research*, 77(2), 257-286.
- Zhao, X., Li, H., & Rauch, A. (2012). Cross-Country Differences in Entrepreneurial Activity: The Role of Cultural Practice and National Wealth. *Frontiers of Business Research in Chiana*, 6(4), 447-474.