

Factors Influencing Entrepreneurship Choice and The Well-being of Entrepreneurs in Different Cultural Contexts

İzzet Atalay

Submitted to the
Institute of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy
in
Business Administration

Eastern Mediterranean University
August 2021
Gazimağusa, North Cyprus

Approval of the Institute of Graduate Studies and Research

Prof. Dr. Ali Hakan Ulusoy
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Doctor of Philosophy in Business Administration.

Prof. Dr. Melek Şule Aker
Chair, Department of Business
Administration

We certify that we have read this thesis and that in our opinion it is fully adequate in scope and quality as a thesis for the degree of Doctor of Philosophy in Business Administration.

Prof. Dr. Sami Fethi
Co-Supervisor

Prof. Dr. Cem Tanova
Supervisor

Examining Committee

1. Prof. Dr. Himmet Karadal

2. Prof. Dr. İbrahim Sani Mert

3. Prof. Dr. Ali Öztüren

4. Prof. Dr. Cem Tanova

5. Asst. Prof. Dr. Mehmet İslamoğlu

ABSTRACT

Entrepreneurship is a key driver of economic growth. Although there is general agreement on its importance, there are a variety of opinions on what triggers and sustains entrepreneurial activity. Furthermore, as policy makers become more aware that economic policies should not only be assessed based on economic outcomes but also on their ability to improve well-being of the society, the issue of well-being of entrepreneurs also becomes a critical issue to be investigated. Moreover, the fact that entrepreneurs are a very heterogeneous group that may range from Elon Musk on one extreme to a young man collecting waste paper to sell it, shows us that we need to differentiate between opportunity entrepreneurs which have become entrepreneurs to follow a dream and necessity entrepreneurs that had to become self-employed due to lack of alternative forms of employment available.

This dissertation consists of two studies. The first study analyzes three groups of motivational factors affecting entrepreneurship and perceptions of opportunity for entrepreneurs: social, cultural, and economic factors. Hence, Study One uses data from the “Global Entrepreneurship Monitor” (GEM) Project to analyze the factors motivating entrepreneurs to start their own businesses. Uncertainty Avoidance level of the countries are also investigated to see if it influences the likelihood of becoming an entrepreneur. The study uses entrepreneurship data from GEM data set for 54 countries and matches the uncertainty avoidance value for each country from Hofstede dataset (2011).

The purpose of Study Two is to show how autonomy, competence and meaningful work serves as mechanisms through which opportunity entrepreneurship leads to higher levels of well-being, and how this relationship may be altered by the country's level of individualism. Global Entrepreneurship Monitor data for 37 countries and 14,514 individuals that are active in early stage entrepreneurship are used to investigate the relationship between opportunity entrepreneurship and well-being. To account for the nested nature of our data, we use a multilevel model to assess how factors of autonomy and competence as components of self-determination and meaningful work as a component of decent work mediate the opportunity entrepreneurship and well-being relationship. We also test the moderating effects of individualism cultural dimension at the country level on the relationship between opportunity entrepreneurship and well-being.

Keywords: entrepreneurship, motivation, cultural values, economic growth, uncertainty avoidance, opportunity entrepreneurship, subjective well-being, autonomy, competence, meaningfulness, individualism

ÖZ

Girişimcilik ekonomik gelişmenin itici gücü olarak kabul edilmektedir. Ancak önemi ile ilgili olarak genel bir görüş birliği olsa da girişimciliği etkileyen ve devamlılığını sağlayan faktörlerin neler olduğu konusunda farklı görüşler bulunmaktadır. Bunun yanında, politika oluşturucular ekonomik kararların sadece ekonomik etkilerinin değil sosyal refah ve bireylerin iyi olma hali ile de değerlendirilmesi gerektiğini görmeye başlamıştır. Bununla birlikte girişimcilerin iyi olma hali ve girişimciliğin iyi olma haline etkisi de önemli bir araştırma konusu olmuştur. Dahası, girişimcilerin homojen bir grup olmaması ve Elon Musk gibi birisine girişimci derken atık kağıtları satmak için toplayan yoksul bir gencin de girişimci olarak sınıflandırılması bize fırsat girişimcileri ve gereklilik girişimcilerinin ayrımının yapılması gerektiğini göstermektedir. Fırsat girişimcileri bir hayali gerçekleştirmek için girişimciliği seçerken gereklilik girişimcileri başka alternatif iş imkanları olmadığından dolayı girişimciliğe başlamak durumunda kalmaktadır.

Bu çalışma iki araştırmadan oluşmaktadır. Birinci araştırma girişimciliğe girişi etkileyen faktörleri incelemektedir. Global Entrepreneurship Monitor verileri kullanılarak bireylerin girişimci olmasını etkileyen kişisel, sosyal ve kültürel faktörler araştırılmıştır. Bireysel ve sosyal özelliklerin yanında ülkelerin belirsizlikten kaçınma kültür boyutları verilerimize eklenerek incelenmiştir. Araştırmada 54 ülke yer almıştır.

İkinci araştırmada ise otonom olma, yeterlilik ve anlamlı iş değişkenlerinin fırsat girişimcilerinin iyi olma halinin daha yüksek olmasına yol açmada aracılık rolü

incelenmektedir. Bunun yanında fırsat girişimciliği ile iyi olma hali arasındaki ilişkinin bireyci ve kolektivist kültürel ortamlarda ne gibi farklılıklar gösterdiği de incelenmektedir. Fırsat girişimciliği ve iyi olma hali arasındaki ilişki 37 ülkeden 14,514 girişimci verisinin Global Entrepreneurship Monitor veri setinden alınması ile incelenmiştir. Verilerimizin ülke kültürü ve ekonomik özelliklerine göre kümelenme özelliği dikkate alınarak çok düzeyli modelleme kullanılmıştır.

Anahtar Kelimeler: girişimcilik, motivasyon, kültürel değerler, ekonomik büyüme, belirsizlikten kaçınma, fırsat girişimciliği, öznel iyi oluş, özerklik, yeterlilik, anlamlılık, bireycilik

DEDICATION

To my family who remain patient, understanding and motivating me to put all my energy and time in my PhD education until I completed. Especially, my wife truly is an angel.

ACKNOWLEDGMENT

I would like to extend my gratitude to Prof. Dr. Cem Tanova for his supervision, advice, and guidance since he accepted me as one of his PhD researchers. He has given me remarkable experiences during the process. Moreover, he always provided me encouragement and support, and inspired me to achieve my work completing in high quality. His ideas, experiences, and ambition has truly motivated and improved my progress as a student. I am grateful to him more than he knows.

I would like to acknowledge Prof. Dr. Sami Fethi for his co-supervision, encouragement and support to this study. Special thanks go to Assist. Prof. Dr. Mehmet İslamoğlu for his crucial call four years ago to persuade me entering the PhD program at EMU, and he continued to encourage and support me during the PhD study.

Many thanks go to the Department of Business Administration members and all my classmates for their support during my study. It was truly a unique experience and an exceptional opportunity to be a PhD student at the age of forty-nine in the Department of Business Administration.

İzzet Atalay
July 2021

TABLE OF CONTENTS

ABSTRACT	iii
ÖZ	v
DEDICATION	vii
ACKNOWLEDGMENT	viii
LIST OF TABLES	xii
LIST OF FIGURES	xiii
LIST OF ABBREVIATIONS	xiv
1 INTRODUCTION	1
1.1 Introduction to the background of the study	1
1.2 Background of the study.....	1
1.3 Statement of the Problem	1
1.4 Purpose of the Study.....	2
1.5 Main Contribution	2
1.6 Research Questions	2
1.7 Research Hypotheses.....	3
1.8 Significance of the Study	4
1.9 Assumptions	5
1.10 Limitations.....	5
1.11 Definition of Key Terms	6
2 LITERATURE REVIEW AND THEORETICAL FRAMEWORK	10
2.1 Introduction	10
2.2 Well-being	10
2.3 Self Determination Theory (SDT).....	11

2.4 Psychology of Working Framework (PWF).....	14
3 WHO BECOMES AN ENTREPRENEUR?.....	16
3.1 Introduction	16
3.2 Hypotheses Development for Study One	18
3.2.1 Age	18
3.2.2 Gender	19
3.2.3 Socio-cultural Factors	21
3.2.4 Perceived Opportunity.....	23
3.2.5 Perceived Confidence.....	23
3.2.6 Entrepreneurial Network	24
3.2.7 Fear of Failure	25
3.2.8 Uncertainty Avoidance.....	26
3.3 Methodology for Study One	28
3.3.1 Sample	28
3.3.2 Measures.....	28
3.4 Findings and Discussion for Study One	30
3.4.1 Analysis.....	30
3.5 Conclusion and Recommendations for Study One.....	37
4 ENTREPRENEUR WELL-BEING	40
4.1 Introduction	40
4.2 Hypotheses Development for Study Two	42
4.2.1 Entrepreneurship and Subjective Well-being.....	42
4.2.2 Mediating Effect of Autonomy	44
4.2.3 Mediating Effect of Competence	45
4.2.4 Mediating Effect of Meaningfulness.....	46

4.2.5 Moderating Effect of Individualism	48
4.3 Research Method for Study Two.....	50
4.3.1 Data	50
4.3.2 Measures.....	52
4.3.3 Data Analysis	54
4.4 Results for Study Two.....	54
4.5 Discussion for Study Two	58
4.6 Conclusion for Study Two	60
4.7 Implications for Study Two.....	61
4.8 Limitations and Recommendations for Future Research	64
5 CONCLUSION	66
REFERENCES.....	76
APPENDICES	105
Appendix 1: Country Individualism, GDP Per Capita and Gini Index Levels ...	106
Appendix 2: Uncertainty Avoidance Values for Countries for Study One	107
Appendix 3: Results Output for the Multilevel Model.....	109
Appendix 4: Results of the Multilevel Mediation using The Rockwood Macro	116

LIST OF TABLES

Table 1: Correlation Matrix	30
Table 2: Logistic regression analysis showing factors influencing whether an individual will be an entrepreneur.....	31
Table 3: Descriptive statistics	51
Table 4: Correlation results.....	55
Table 5: Multilevel regression results with Subjective Well-being as the dependent variable.....	55

LIST OF FIGURES

Figure 1: The Conceptual Model	18
Figure 2: Fear of failure vs ratio of individuals that are in an entrepreneurial activity	26
Figure 3: Variable coefficients and standard error values.	35
Figure 4: Uncertainty Avoidance Index in 54 countries.	35
Figure 5: Relationship between TEA and UAI between 54 countries.	36
Figure 6: The Conceptual Model	44
Figure 7: Mediation model results	57
Figure 8: Moderating effect on the opportunity entrepreneurship – subjective well- being relationship	57

LIST OF ABBREVIATIONS

APS	Adult Population Survey
EMU	Eastern Mediterranean University
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
ICC	Intraclass Correlation Coefficient
IND	Individualism
PWF	Psychology of Working Framework
PWT	Psychology of Working Theory
SWB	Subjective Well-being
SDT	Self Determination Theory
TEA	Total Entrepreneurial Activity
TEAopp	Opportunistic Entrepreneurial Behavior
UAI	Uncertainty Avoidance Index
UK	United Kingdom
USA	United States of America
VIF	Variance Inflation Factor

Chapter 1

INTRODUCTION

1.1 Introduction to the background of the study

This chapter deliberates the background of the study in which the main concept is discussed. The main topic to be examined is explained to form the research problem, following the aim of the research.

To connect the procedural and comprehension of this study, this chapter is formed by the background of the study, the research objectives, stating the research problem, purpose of the study, main contribution of the study, research questions, a list of research hypotheses, significance of the study, assumptions, limitations, and the definitions of the key terms.

1.2 Background of the study

We know that entrepreneurship and self-employment are important for economic growth of countries. Entrepreneurship is known as the source of innovation, employment and welfare for a country (Acs, Desai, & Hessels, 2008). In some countries governments focus on innovation and entrepreneurship to reduce unemployment by encouraging self-employment and getting benefit from entrepreneurial activities to create more jobs (Bakry, Khalifa, & Dabab, 2019).

1.3 Statement of the Problem

Self-employment through entrepreneurship influences well-being by involving the psychological needs of individuals associated with Self Determination Theory (SDT)

referring that autonomy, competence and relatedness are three needs that influence well-being. Previous studies demonstrate that satisfaction of these needs results in higher-levels of well-being and performance. (Deci & Ryan, 1985; Ryan & Deci, 2000b).

There is a difference in the outcome levels of well-being between opportunity entrepreneurship and necessity entrepreneurship. As both opportunity and necessity entrepreneurs get the benefit by becoming self-employment, opportunity entrepreneurs have higher levels of well-being (Binder & Coad, 2013; Larsson & Thulin, 2019)

1.4 Purpose of the Study

Opportunity and Necessity entrepreneurs will differ in well-being, we investigate why this happens and we investigate how individualistic culture may influence this.

1.5 Main Contribution

We demonstrate how autonomy, competence and meaningfulness are the key factors that lead to well-being among entrepreneurs. This can help policy makers make more informed decisions in how to encourage entrepreneurship. Understanding how opportunity entrepreneurs are motivated can also allow managers to motivate their salaried employees using the autonomy, competence, and meaningfulness.

1.6 Research Questions

RQ1: What are the factors to influence someone to become an entrepreneur?

RQ2: Do higher levels of autonomy, competence, and meaningfulness result in higher levels of well-being for opportunity entrepreneurs?

RQ3: to what extent are these relationships influenced by the level of individualism value of the country where the entrepreneur operates?

1.7 Research Hypotheses

Hypothesis 1: As the age increases probability of entrepreneurship decreases.

Hypothesis 2: Females have less probability of becoming entrepreneurs compared to males.

Hypothesis 3: Socio-cultural factors influence entrepreneurship choice.

Hypothesis 3a: Society's desire for equality will reduce entrepreneurship probability.

Hypothesis 3b: Society's perception of entrepreneurship as desirable will increase entrepreneurship probability.

Hypothesis 3c: Society's positive perception of successful entrepreneurs will increase entrepreneurship probability

Hypothesis 3d: Media's positive coverage of entrepreneurs will increase entrepreneurship probability

Hypothesis 3e: Ease of starting a business will increase entrepreneurship probability.

Hypothesis 4: As the perceived opportunity increases probability of entrepreneurship increases as well.

Hypothesis 5: As the perceived confidence increases probability of entrepreneurship increases as well.

Hypothesis 6: As the entrepreneurial network increases probability of entrepreneurship increases as well.

Hypothesis 7: As the fear of failure increases probability of entrepreneurship decreases.

Hypothesis 8: As the uncertainty avoidance increases probability of entrepreneurship decreases.

Hypothesis 9: Opportunity entrepreneurs have higher subjective well-being than necessity entrepreneurs.

Hypothesis 10: Psychological autonomy mediates the relationship between opportunity entrepreneurship and well-being.

Hypothesis 11. Competence mediates the relationship between opportunity entrepreneurship and well-being.

Hypothesis 12. Meaningfulness mediates the relationship between opportunity entrepreneurship and well-being.

Hypothesis 13. Individualism moderates the positive relationship between opportunity entrepreneurship and subjective well-being resulting in greater increases in well-being for opportunity entrepreneurs in individualistic countries.

1.8 Significance of the Study

A number of studies that have investigated entrepreneurship and well-being relationship have focused on single country samples. Among those that used multi-country samples some have analyzed the country level factors and not individual level factors have focused on macroeconomic conditions, gender and immigrant status and not the self-determination related needs of autonomy, competence. Furthermore, at the country level we will be using individualism as a cultural dimension to expose its moderating effect. In individualistic countries, the strength of the opportunity entrepreneurship and well-being will be even stronger because opportunistic entrepreneurs have more opportunities and are freer to make decisions which in turn results in higher levels of well-being. Policy makers should strive to enable people to be in a position to choose entrepreneurship as a career and not just end up in entrepreneurship due to a lack of other options for employment. More supportive social policies would allow people to have these choices. Policy makers should focus on programs to build skills and knowledge of entrepreneurs to enhance competence.

Furthermore, the entrepreneurs should be able to spend more time in performing tasks that they find relevant and meaningful.

1.9 Assumptions

We assumed GEM data is made of samplings representing countries. In addition, we assumed autonomy could be measured with the statement “I can decide on my own how I go about doing my work” which could take a value between 1-5 ranging from strongly disagree to strongly agree. We assumed competence could be measured with the question “Do you have the knowledge, skill and experience required to start a new business?” which could take either 0 or 1 to indicate a yes or no response. We assumed meaningfulness could be measured with the statement “The work I do is meaningful to me” which could take a value between 1-5 ranging from strongly disagree to strongly agree.

These assumptions were necessary to make because we used the GEM data. We assessed the benefits of using this rich and well-established dataset and the drawbacks of not being able to customize our own scales to measure autonomy, competence and meaningfulness.

There were clear benefits of using this international dataset rather than developing a new questionnaire and running an independent study. Therefore, we used the relevant questions from the GEM dataset and made the assumption that these items could serve our purpose adequately.

1.10 Limitations

Well-being is a concept that can be discussed in terms of hedonic – avoiding pain and eudaimonic – fulfilment of potential and growth and it is not constant but will change

over time and across contexts which themselves are changing (Ryff, 2019). Future studies should distinguish between eudaimonic well-being and hedonic well-being among opportunity and necessity entrepreneurs. Although we account for the country context in our empirical investigation, we do not have the longitudinal change accounted for in our data over time. Thus, the time dimension of well-being is missing from our investigation. We rely on GEM data from 2013 for our study. While the GEM provides a multinational dataset that allows comparison across contexts and the 2013 data includes a multiple item measure of well-being, for the opportunity entrepreneurship, we had to make use of a dichotomous response that classified entrepreneurs into one or the other group. We were also limited in the available items to measure autonomy, competence, and meaningfulness in the GEM study. Due to the lack of relevant items, we had could not include relatedness in our model. This is a limitation for our study.

1.11 Definition of Key Terms

In general, the following terms have been used in this study.

Entrepreneurship: Generally, we think of entrepreneurship as the act of establishing a venture and managing it. We see the term used to refer to those who run their own business as self-employed individuals. According to Kirzner (1973) entrepreneurship is about recognizing and seizing the opportunities to reach desired outcomes. Entrepreneurship also means the individual willingly takes responsibilities and uses the mental skill to convert the idea to implementation.

Motivation: Motivation of an individual who wishes to become an entrepreneur will affect his or her goals which at the end will influence his or her company's

performance and indeed his or her well-being (Hessels, Van Gelderen, & Thurik, 2008b).

Cultural values: Culture is defined as values and beliefs shared by a community and the behaviors that the community expects to see (Hofstede, 1980). Hofstede (1980) also refers to culture as “software of the mind” which means that although we may have similar or differing “hardware” characteristics, our culture influences how we operate. Cultural values refer to the extent of a society reflecting desirable entrepreneurial behaviors (e.g. taking risks and thinking independently). Thus, cultures that value and reward such behaviors demonstrate tendency for innovation, whereas cultures supporting traditionalism and control over the future are not intending to take risks and showing entrepreneurial behavior (Hofstede, 1980).

Economic growth: When entrepreneurship is productive in a country it creates innovation and eventually economic growth (Baumol, 2010). The three important channels through which entrepreneurship may lead to economic growth are creating innovation by increasing variety in the economy, diffusion of innovation by vigilant entrepreneurs who see opportunities to fill gaps in the market, and competition (Wennekers & Thurik, 1999).

Uncertainty Avoidance: In countries with high uncertainty avoidance, uncertain or unknown circumstances cause people to feel very worried, anxious or even threatened. People living in countries with high uncertainty avoidance feel uncomfortable when faced with uncontrollable and unstructured situations. Hence, to deal with ambiguity or uncertain future events, they structure their relationships, organizations and institutions in ways that increase predictability and they develop strict rules and

procedures with a hope to eliminate the uncertainty (Hofstede *et al.*, 2010). People in high uncertainty avoidance cultures are more likely to be risk averse and choose stability.

Opportunity entrepreneurship: Opportunity entrepreneurs choose to be self-employed because they wish to become independent or they see an opportunity for a new product, service or market.

Autonomy: Autonomy is the control over our affairs, decisions and the feeling of responsibility for the outcomes. we would expect opportunity entrepreneurs to have greater feelings of autonomy compared to the necessity entrepreneurs because the choice and motivation of going into entrepreneurship is what distinguishes the two types of entrepreneurs.

Competence: Entrepreneurs are more likely to possess higher levels of core self-efficacy, develop personal mastery feel greater competence compared to non-entrepreneurs. Opportunity entrepreneurs in particular would be self-motivated to follow their goals and have more opportunities to improve their competence and capabilities in the process.

Meaningfulness: Since the opportunity entrepreneurs make a willing choice to be self-employed their work provides, they can perceive that they are shaping their work in line with their values, needs, and skills. The opportunity entrepreneurs can engage in job crafting (Wrzesniewski & Dutton, 2001) which means that they can shape their jobs to make it more meaningful.

Individualism: In individualistic societies, the main focus is on the individual whereas collectivist societies focus on group identity. We associate individualistic cultures with values that are entrepreneurial in nature such as personal freedom, independence, agency and competitiveness.

Chapter 2

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

In this chapter the main concepts and theories used in this study are discussed to aid our understanding of the relationships between opportunity entrepreneurship, well-being, psychological needs of autonomy and competence, and decent work of meaningfulness.

2.2 Well-being

Well-being can be defined as a multi-dimensional construct taking into account hedonic (experience of happiness) and eudaimonic (experience of meaning or achievement) concepts (Huta & Ryan, 2010). Although we can conceptually differentiate the eudaimonic and hedonic dimensions, their influence on our level of well-being are simultaneous. Maximum level of well-being or flourishing can be achieved when both hedonic and eudaimonic aspects are experienced. The eudaimonic aspect of well-being which is sometimes considered as a higher order experience of pleasure that come from achieving a goal can be distinguished from lower order pleasure labelled as hedonic which is experienced by an absence of pain. However, when we feel a eudaimonic pleasure from an achievement or a meaningful effort, we will also feel a hedonic pleasure at the same time.

We see an increased interest from policy makers in measuring well-being not only at the individual level but also at the country level. Parallel to the concept of keeping accounting records in order to allow stakeholders to understand the financial health of an organization, well-being measures can shed light on the emotional health of individuals and societies (Howell, 2009; Keyes, 2010).

Deci & Ryan (1985) argue the basic psychological needs which are autonomy, competence and relatedness should be fulfilled as emphasized by the Self Determination Theory in order to practice well-being.

2.3 Self Determination Theory (SDT)

Self Determination Theory distinguishes between motivation which is autonomous versus controlled. The autonomous motivation is an intrinsic desire to do something. This is usually for things we do without an expectation of a reward, and we wish to do it out of our own free will. On the other hand, controlled motivation is when we do something with the condition that our action will be rewarded. In reality we know that no motivation is completely autonomous or controlled. In many situations we may feel a degree of autonomy and a degree of external control at the same time. Thus, it is the magnitude of which one influences our motivation. Are we doing something more to satisfy our own wish or are we acting in line with another party's conditions?

According to the Basic Psychological Needs Theory, there are three main needs that have to be met if one can actually feel autonomous motivation. These are the needs of autonomy, competence and relatedness (Deci & Ryan, 1985). In line with this theory, an entrepreneur has to be able to have freedom of choice to experience autonomy, has to be able to feel self-efficacy and confidence in their ability to perform their tasks

effectively to experience competence and has to have a social support network in order to experience relatedness.

Cognitive Evaluation Theory focuses on whether we value the rewards from the pleasure of performing a task itself or value the external rewards for completing the task. There are many tasks that we may get personal pleasure and satisfaction from performing and that we are not to performing in order to get external rewards. For example, we may enjoy playing a musical instrument for pleasure or reading or jogging. However, if we have to perform these tasks because we are forced to or because we need to perform them in order to be paid, the value that we place on the external reward may outweigh the value that we place on the intrinsic reward. Some studies even report that if the feeling of autonomy is lost due to external rewards becoming more significant than the intrinsic ones can lead to loss of autonomy. For example, it was reported that people working as volunteers due to their desire to contribute to an important cause felt less satisfied after merit pay systems were introduced and the perception shifted to conditional rewards instead of intrinsic ones (Gagné & Deci, 2005).

The entrepreneurs who chose to become self-employed in order to fulfil their dreams rather than working in salaried employment would differ from those who are self-employed because they have no other alternative available. The necessity entrepreneurs who have no other employment options would perceive their tasks as less autonomous and more as conditions that are necessary for their survival. The more the autonomy is restricted, the less they will feel motivated.

Causality Orientation Theory argues that not all individuals feel the same need for autonomy. There may be differences in how much autonomy matters for the individual. While some individuals feel that their independence is very important and feels restricted by any form of control over their actions, others may be more comfortable if there is a clear and consistent structure that determines what needs to be done. Deadlines may seem to provide clarity for some, but they may be seen as loss of control for others. In addition to individual orientations towards autonomy, there are also environmental forces or social norms about autonomy. Cultural dimensions such as high Uncertainty Avoidance creates a context where the society expects clear rules, fears the unknown avoids risk taking. In this kind of cultural context, the person with a high need for autonomy is not likely to thrive and flourish (Gagné & Deci, 2005).

Deci & Ryan (1985) state that the basic psychological needs which are autonomy, competence and relatedness either increase or decrease motivation in various situations. High quality motivation is dependent on having autonomy, competence and relatedness whether we are discussing the motivation of students, employees or athletes (Deci & Ryan, 1985). Motivation can be viewed as autonomous or controlled (Ryan & Deci, 2017). Autonomous motivation includes having decision and option. On the other hand, controlled motivation includes experiencing of oppression and forced. Extrinsic motivation which are incorporated within oneself and intrinsic motivation are classified as autonomous. Not well internalized constructs of extrinsic motivation are classified as controlled (Deci & Ryan, 1985).

Where people experience autonomy, competence and relatedness, they can experience optimal growth and integration, and also develop constructively and have higher levels

of personal well-being. In order to reach that level, the social setting should support these requirements (Deci & Ryan, 1985). SDT studies also analyzed how environmental elements prevent or weaken self-motivation, societal performance, and individual well-being (Deci & Ryan, 1985). In this respect motivation is considered as intrinsic and extrinsic. According to these researchers, people can be motivated by external factors like high marks in school, pay rise or social approval. However, this is considered controlled motivation which in fact can deteriorate their feelings about the worth of the work they are doing and thwart intrinsic motivation (Deci & Ryan, 1985; Ryan & Deci, 2000).

Researchers, grounded on previous theories, propose that people all around the world have many psychological necessities like the necessity for competence, relatedness and self-acceptance which can be evaluated by Flourishing Scale. (Ryff, 1989; Ryff & Singer, 1998; Ryan & Deci, 2000b). Flourishing or high levels of well-being will be improved when these necessities are supported by the environment and the social context (Deci & Ryan, 1985; Ryan & Deci, 2000b). On the other hand, flourishing will be lessened when constraint is set by culture and other factors by the environment (Deci & Ryan, 1985; Ryan & Deci, 2000b).

2.4 Psychology of Working Framework (PWF)

Similar to SDT, Blustein's (2001, 2013) Psychology of Working Framework (PWF) emphasizes that general human needs satisfaction is related to well-being. According to Blustein (2001, 2013) basic needs that can be satisfied by work are divided into three groups: survival/power needs, relational needs, and self-determination needs. In satisfying needs, the PWF primarily focuses on its privilege and social power side together with fostering inclusivity and social justice in work fields of research, policy,

and practice. Previously researchers grounded their studies on the PWF have proposed the Psychology of Working Theory (PWT), which combines decent work concepts (Duffy, Blustein, Diemer, & Autin, 2016). Precisely, the PWT suggests that social and economic restrictions have caused to result in decent work, which refers to distinguished, protected, and providing fair wages and social security (International Labour Organization, 2015). Furthermore, Duffy et al. (2016) state that decent work enables self-determination, and the self-determination subsequently results in perceptions of meaningful and satisfying work.

Chapter 3

WHO BECOMES AN ENTREPRENEUR?

3.1 Introduction

Many recent studies recognize the effect of entrepreneurship on the economy (Fisher, Maritz, & Lobo, 2014). Due to the economic benefits of entrepreneurship for countries, policymakers and academics have concentrated on understanding more of entrepreneurship and the processes that influence it.

Early studies on the factors affecting the decision to start a new business concentrated on entrepreneurial characteristics or traits (Brockhaus, 1980); including personality characteristics Brockhaus, 1982; McClelland & Mac Clelland, 1961). Behavioral and situational factors were also included in some models about the entrepreneurial process (Gartner, 1988; Van de Ven, Hudson, & Schroeder, 1984). Later, intention models concentrating on attitudes have been suggested to describe the entrepreneurship process better (Bird, 1988; Boyd & Vozikis, 1994; Shapero, 1975; Shapero & Sokol, 1982). As an example, Davidsson (1995) utilized individual characteristics such as age, gender, education, experience to see how they were related to a person's attitudes which had impact on conviction and entrepreneurial intentions.

Instead of being an employee and working for someone else many individuals prefer to be an entrepreneur, and be self-employed by establishing, organizing, managing, and undertaking responsibility for their business. (Segal, Borgia, & Schoenfeld, 2005).

However, being an entrepreneur may also be seen as an unpleasant career selection for some individuals because being an entrepreneur means that they will be faced with life and work situations full of increased uncertainty, barriers, failures, and frustrations related with the process of new firm creation (Campbell, 1992).

So, why are some people still driven to take on the risk and the uncertainty of establishing their own business?

The objective of this study is to analyze the entrepreneurial activity, taking into account some factors that affect entrepreneurial intentions, specifically, individual's perception of their skills, the perceived opportunities and perceived confidence, subjective norms like social and cultural factors, entrepreneurial network and attitudes like fear of failure. The analysis uses a dataset of individuals from 54 countries worldwide in the Global Entrepreneurship Monitor (GEM) Adults Population Survey (APS) 2015 study. Each country's data were matched with the Uncertainty Avoidance scores from the Hofstede Insights (2018) study of national cultural values.

Entrepreneurs, according to GEM, are those adults that are active in developing a startup or currently running a young business that they own or partially own (Reijonen & Komppula, 2007; Hosseini, Dadfar, & Brege, 2018). In a general sense, an entrepreneurial experience consists of creating a small business which gives opportunity for employment (Lee & Wong, 2004) regardless of the sustainability of the venture.

Hence, this study unveils the attitudes and intentions towards becoming entrepreneurs in 54 countries based on GEM data. The study has three parts. In the first part we

utilize the age and gender as control variables to see the influence on the entrepreneurial activity. In the second part we use some GEM data related to the variables socio-cultural factors, perceived opportunity, perceived confidence, entrepreneurial network, and fear of failure to find out the impact on the entrepreneurship. In the third part we compare the entrepreneurial activity – Total Entrepreneurial Activity (TEA) – in 54 countries with the uncertainty avoidance values.

3.2 Hypotheses Development for Study One

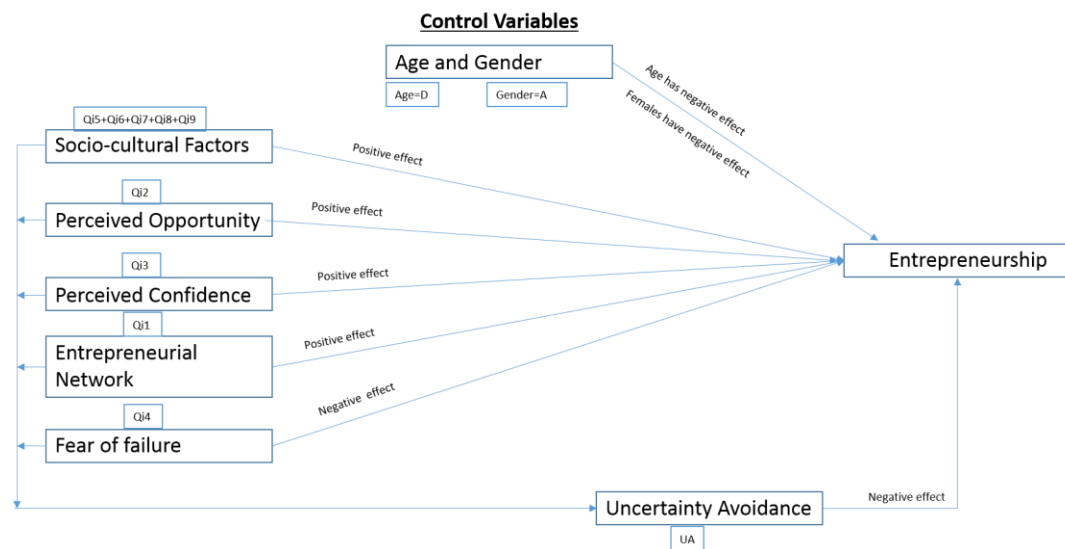


Figure 1: The Conceptual Model

3.2.1 Age

There is a debate whether being old or being young may provide an advantage in becoming an entrepreneur (Conner, 2012, para. 1; see also Kautonen, Down, & Minniti, 2014; Lévesque & Minniti, 2006). Some authors argue that older people have earned human, social, and financial capital over the years, which is thought to be an advantage for starting a business (Rogoff, 2007; Singh & DeNoble, 2003; Weber & Schaper, 2004). However, others contend that older people may not be interested

enough to cope with the challenging effort of entrepreneurship (Blanch, Oswald, & Stutzer, 2001; Johnson, Curran, Duberley, & Blackburn, 2001). These arguments can be combined into a lifespan view proposing that benefits in human capital and losses in motivation are two opposite age-related forces which increase and decrease the possibility of entrepreneurship. Taking all these forces into consideration, researchers proposed that the relationship between age and entrepreneurship generates an inverted U-shape (Levesque & Minniti, 2011; Minola & Criaco, 2016). Actually, studies have revealed a curvilinear relationship between entrepreneurship and age with a maximum probability at the age of around 45 years (Kautonen et al., 2014; Reynolds, Fitzsimons, Reynolds, & Camp, 2004).

Therefore, we can develop the following hypothesis:

Hypothesis 1: As the age increases probability of entrepreneurship decreases.

3.2.2 Gender

There are several factors that will differentiate entrepreneurship orientation of men and women. One issue that needs to be considered is how men and women are socialized in their families and by the educational system. According to the Social Feminist Theory, women are not provided with the same opportunities as men and different expectations are placed on men and women as they develop as individuals. While men are expected to have managerial business roles and are expected to become the primary income generator for the family, different expectations are placed on the women (Kalleberg & Leicht, 1991; Yordanova & Tarrazon, 2010). The male dominated business environments also do not provide adequate opportunities for women in many countries. The concept of the glass ceiling demonstrates that women are represented less in executive positions in many organizations. The structural nature of

discrimination does not provide the same opportunities for women to get managerial experience which in turn prevents them from reaching the higher levels of management. A similar vicious circle exists in the opportunities that women lack in entrepreneurship. The lack of opportunities and experience may also result in women feeling that they lack the abilities or know how to start their own business (Verheul, Uhlaner, & Thurik, 2005; Yordanova & Tarrazon, 2010). Confidence in one's abilities as experienced by self-efficacy (Kickul, Page, Wilson, Marlino, & Lyon, 2008) is a critical determinant of entrepreneurial intention and may work against women. Some studies have also demonstrated that young women and female MBA students reported lower levels of entrepreneurial self-efficacy and entrepreneurial intentions.

According to the Social Learning Theory people assess their own competence under a social lens that influences their perceptions. Thus, the entrepreneurial self-efficacy is not an objective but a subjective assessment of how confident an individual is about their ability required by entrepreneurial tasks (Bandura, 1989; Chen, Greene, & Crick, 1998). Entrepreneurial self-efficacy not only influences entrepreneurial intention but also may influence the determination of the entrepreneurs when they face difficulties. When we look at the entrepreneurial self-efficacy from a gender perspective, we see studies that have reported higher portion of women stating that they do not believe that they have the necessary competence to become entrepreneurs (Chen et al., 1998; Kickul et al., 2008; Wilson, Kickul, & Marlino, 2007).

In many societies, the level of economic independence of women is also more limited when compared with men. This results in lack of capital in addition to other factors that may inhibit the ability and intention of women in starting their own business.

Thus, we hypothesize:

Hypothesis 2: Females have less probability of becoming entrepreneurs compared to males.

3.2.3 Socio-cultural Factors

Academics have emphasized that socio-cultural factors play an important role on whether an individual decides to create a new venture. Entrepreneurship should be placed in a social context in order to be understood fully (H. E. Aldrich, 1986).

When we think of the social environment where the business is established, entrepreneurial differences are clearly understood since, entrepreneurship is a social action and not merely an economic one (Berger, 1991; Steyaert, 2007). Although, economic circumstances may describe some of these differences, social and cultural characteristics of entrepreneurship are also needed for clarification (Drakopoulou Dodd & Anderson, 2007).

Determining, defining and measuring how cultural and social factors influence individual behavior is clearly not an easy task. Each person is a part of a group such as their family, work, political, religious and recreational and according to Reynolds (1992) their relationship with these groups and the group norms in these groups have to be taken into account. Similarly, the entrepreneur has links to a large number of contacts (Aldrich, 1986; Birley, 1985), and they rely on these links in order to generate entrepreneurial ideas (Shane, 2000), they share the vision of entrepreneurship (Reynolds, 1992), and also use these links to have access to necessary resources to establish their business (Shane & Cable, 2002).

Social network analysis has been used in previous studies on entrepreneurship to describe how entrepreneurs obtain resources not available internally by using their social network (Bowey & Easton, 2007). Therefore, though entrepreneurs normally possess some ideas or ability to establish and run their business, they still need to rely on their social network for support in gaining information, financial, human resources (Aldrich, 1986; Ribeiro-Soriano & Urbano, 2009). The social networks also serve as a primary source of suppliers and customers for the new entrepreneurs (Teece, 1986).

The role of culture on entrepreneurship has been studied from a variety of perspectives. For example, Hayton, George, & Zahra (2002b), identify three research streams linking culture and entrepreneurship. The first focuses on the effect of culture on total innovative production or new businesses ventures created which are assessed at the country level. The second stream investigates the role of culture on individual entrepreneur traits or characteristics which are assessed at the individual level. And the third stream investigates culture in terms of how it leads to corporate entrepreneurship or intrapreneurship.

According to the above findings we can formulate the following hypothesis:

Hypothesis 3: Socio-cultural factors influence entrepreneurship choice.

Hypothesis 3a: Society's desire for equality will reduce entrepreneurship probability

Hypothesis 3b: Society's perception of entrepreneurship as desirable will increase entrepreneurship probability

Hypothesis 3c: Society's positive perception of successful entrepreneurs will increase entrepreneurship probability

Hypothesis 3d: Media's positive coverage of entrepreneurs will increase entrepreneurship probability

Hypothesis 3e: Ease of starting a business will increase entrepreneurship probability

3.2.4 Perceived Opportunity

The ability to identify opportunities is a precondition to seize the opportunities for entrepreneurial activities (Ozgen & Baron, 2007). Not all individuals may be as perceptive of the opportunities that the environment may provide (Baron & Ensley, 2006; Casson & Della Giusta, 2007; Clarysse, Tartari, & Salter, 2011). While some may be more capable in recognizing opportunities, others may notice these to a lesser extent. The ability to see an opportunity that can provide a sustainable competitive advantage through establishing a business is a cognitive process. Those that are more perceptive and can see the opportunities are more likely to take advantage of such opportunities (Ozgen & Baron, 2007).

Therefore, we can develop the following hypothesis:

Hypothesis 4: As the perceived opportunity increases probability of entrepreneurship increases as well.

3.2.5 Perceived Confidence

We can view confidence in terms of confidence in our skills and our knowledge as well as our confidence in our future (Griffin & Varey, 1996; Hayward, Shepherd, & Griffin, 2006). The evidence for confidence gained in the test results on general knowledge is unknown that is related to entrepreneurs tend to start a new business. Generally, these questions have been designed to find out one's fitting level in confidence, instead of to predict behavior (Lichtenstein, Fischhoff, & Phillips, 1982).

Although we view confidence as a positive aspect in becoming an entrepreneurs, there is also some evidence that extreme confidence in their future may also harm entrepreneurs in obtaining important resources because as it can express the impression of arrogance and lack of commitment (Hayward et al., 2006). Therefore, we concentrate on confidence in skills and knowledge or self-efficacy which is defined as belief in our ability to use our cognitive resources, drive and capability to act according to the possible demands of the situation (Wood & Bandura, 1989:408).

How does increased confidence bear positive emotions? First, when confidence increases it is believed that actors can present a desired future, raising a feeling of expectation, excitement and aspiration, between other forms of interest and motivation (Seligman & Csikszentmihalyi, 2000). Furthermore, increased confidence can increase one's senses of safety and security. Fredrickson (1998) investigated specific emotions which are clear in a setting where an individual feels safe and secure. As a result, confidence reduces feelings of uncertainty and nervousness and triggers an enthusiasm and dedication. A number of mechanisms allow more positive emotions towards their business and increases emotional flexibility.

The following hypothesis is possible to develop:

Hypothesis 5: As the perceived confidence increases probability of entrepreneurship increases as well.

3.2.6 Entrepreneurial Network

One important explanation for start-up success has clearly referred to network theory and examined the personal networks of entrepreneurs and their effect on start-up performance (Birley, 1985; H. Aldrich, Rosen, & Woodward, 1987; Johannisson, 1988). This research line will be called as the 'network success hypothesis' of

entrepreneurship theory (Brüderl & Preisendörfer, 1998: 213). According to the network success hypothesis, entrepreneurs are able to use their network to reach resources more economically instead of relying on the market which may involve more costly transactions. Furthermore, the entrepreneurial network may provide some resources that would not be available through market transactions. Thus the entrepreneurial network can provide advantages which would not be available through the market transactions or can provide the resources more quickly and less costly (Dubini & Aldrich, 1991).

According to the above explanations the following hypothesis can be developed:

Hypothesis 6: As the entrepreneurial network increases probability of entrepreneurship increases as well.

3.2.7 Fear of Failure

According to Minniti (2009), individuals are generally risk averse and will not choose to establish a business when they perceive high levels of risk. The perceived level of risk is associated with the loss that one would bear in the event of possible failure. If the failure is not perceived as a high cost outcome, then the perceived risk would be lower, however if the failure is seen as a high cost outcome the perception of risk would be high. Thus, those with a high level of fear of failure will be less likely to take the risk of starting a business. The prior studies in entrepreneurship also demonstrate that entrepreneurial intentions are influenced by perceptions of risk and fear of failure (Arano, Parker, & Terry, 2010; Langowitz & Minniti, 2007; Minniti, 2009).

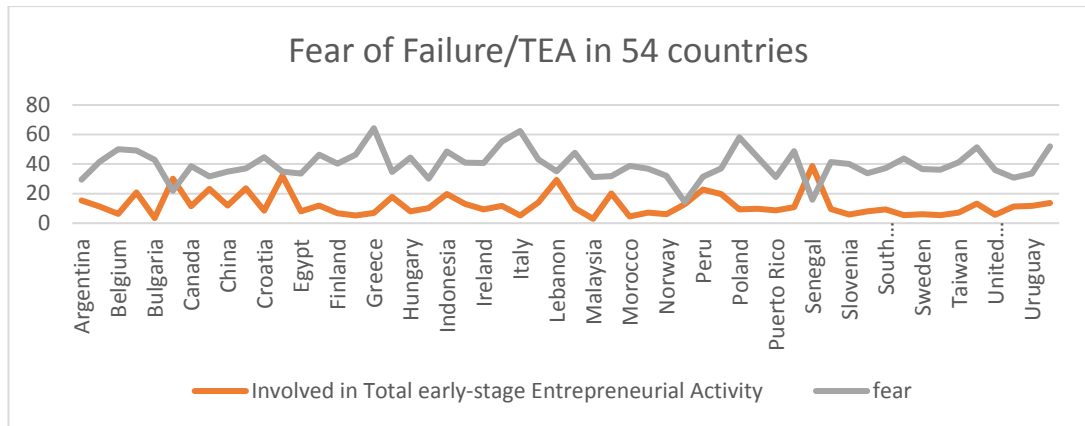


Figure 2: Fear of failure vs ratio of individuals that are in an entrepreneurial activity

The studies of Caliendo, Fossen, & Kritikos (2009), Zhao, Seibert, & Lumpkin (2010) and Shinnar, Giacomini, & Janssen (2012) indicated that entrepreneurial intention is positively related to risk tolerance which means disliking risk decreases probability of individuals' becoming self-employed. Figure 2 shows how the ratio of entrepreneurs move in relation to ratio of those that fear failure by countries. In countries such as Italy, Greece and Poland we see high levels of fear of failure and also low levels of entrepreneurship.

So, we can develop the following hypothesis:

Hypothesis 7: As the fear of failure increases probability of entrepreneurship decreases.

3.2.8 Uncertainty Avoidance

Uncertainty avoidance influences how individuals of a country view ambiguity, unknown and unfamiliar situations. In countries that score high on uncertainty avoidance, the fear of the unknown and unfamiliar creates high levels of anxiety and the society reacts negatively to the unfamiliar as well as trying to control it by establishing rules and procedures to limit the uncertainty (Lonnér, Berry, & Hofstede,

1980). The uncertainty avoidance also influences attitudes towards risk and thus entrepreneurship intentions.

Uncertainty avoidance is a cultural characteristic which influences individual attitudes of uncertainty and risk. Uncertainty avoidance is associated with how much ambiguity a society can tolerate (Hofstede, 2001:146). A culture with high uncertainty avoidance will have members who feel threatened by uncertain or unknown situations. The desire to reduce uncertainty drives the individuals in high uncertainty avoidance countries to develop structures and procedures as predictable as possible thus, they will develop many procedures and rules to try to reduce the unpredictability (Hofstede, 2001:148). In contrast, the countries with low uncertainty avoidance will regard the unfamiliar and the unknown as inevitable and not be threatened by risks of changing jobs or starting new ventures compared to the high uncertainty countries. Hence, low uncertainty avoidance implies more willingness to start new ventures and take on risks (Hofstede, 2001:164). So, countries with high uncertainty avoidance will decrease individuals desire to enter entrepreneurship because they will have lower expectations of possible entrepreneurial income and their perceived risks will be magnified. Whereas, in countries with low uncertainty avoidance individuals will have more positive perceptions of entrepreneurial values and they will see greater utility and rewards of self-employment.

Therefore, we can develop the following hypothesis:

Hypothesis 8: As the uncertainty avoidance increases probability of entrepreneurship decreases.

3.3 Methodology for Study One

3.3.1 Sample

The Study One (Atalay & Tanova, 2019) uses the data from the Global Entrepreneurship Monitor (GEM) 2015 survey. The GEM survey consists of primary data collection through an Adult Population Survey (APS) of minimum 2,000 randomly selected adults (18-64 years of age) in each country. GEM studies the behaviors of individuals who start their own businesses. GEM evaluated the characteristics, motivations and ambitions of entrepreneurs, together with the societies' attitudes towards this activity. GEM is the world's leading study in entrepreneurship. GEM carries out survey-based research on entrepreneurship around the world. GEM is a networked consortium of national country teams primarily associated with top academic institutions such as Babson College (USA), London Business School (UK) which are also the founding institutions. GEM is the only global research source that collects data on entrepreneurship directly from individual entrepreneurs. Hence, GEM data are unique and benefit many interested parties.

3.3.2 Measures

Dependent variable

In this study our dependent variable is based on the total entrepreneurial activity (TEA) in GEM survey. This variable takes the value of one if the respondent is an entrepreneur (including those who are in the process of setting up a business and those that currently own and manage a business established in the last 3.5 years) and the value of zero if the respondent is not an entrepreneur.

Independent variables

Our independent variables were grouped into five groups. The first group is the socio-cultural factors which consist of the society's values on the following issues: equal standard of life for all, entrepreneurship as a desirable career, positive view of entrepreneurial success, coverage of entrepreneurship, ease of starting a business. The second group is the, entrepreneurial network which was measured by whether the respondent knows an entrepreneur that started a business. The third group is the perceived opportunity. The fourth group is the perceived confidence and the last group is the fear of failure.

Control variables

Recent studies have shown the importance of sociodemographic factors (Arenius & Minniti, 2005; Langowitz & Minniti, 2007) and the development level in countries in describing entrepreneurial behavior. In addition to our independent variables, we also included some control variables in the study. Demographic factors have been shown as factors that influence entrepreneurial intentions (Langowitz & Minniti, 2007). We have therefore included gender and age as control variables to control for the impact of these on our results.

- *Gender*. Studies report a lower rate of participation of women in entrepreneurship and higher intention to start a business among men (Blanchflower, 2004; Langowitz & Minniti, 2007).
- *Age*. Studies have shown that there is an increasing likelihood of becoming an entrepreneur as teenagers get older but after a certain age this begins to decline again. We can expect an inverted U-shaped relationship between age and entrepreneurship. We added age as a control variable

				5		6	6	8	2	3
				*		*	*	*	*	*
				*			*	*	*	*
						-				
							.0			
							0			
3	Society wants equal standard of life	1	.147*	.099	.082	.029*	.012*	0.005	.066*	
			*	*	*	*	*		*	
4	Society sees entrepreneurship is seen as desirable	1	.222	.173	.093*	.034*	.120*	.061*	.014*	
			*	*	*	*	*	*	*	
5	Society views successful entrepreneurs positively	1	.189	.066*	.037*	.109*	.026*	.058*		
			*	*	*	*	*	*	*	
6	Media covers successful entrepreneurs	1	.125*	.065*	.147*	.073*	0			
			*	*	*	*	*			
										.0
										5
7	Ease of starting a business	1	.098*	.191*	.165*					
			*	*	*					
										.0
										3
8	Knows an entrepreneur that started a business	1	.225*	.252*						
			*	*						
										.0
										8
										0
9	Sees opportunities	1	.207*							
			*							
										.1
										4
										4
10	Believes that has the skills and knowledge to start a business	1								
										*
11	Has fear of failure	1								

** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed).

Table 1 reports the results of the correlation analysis. Regarding the possible problems of collinearity between the variables, Table 1 shows that the correlations between the variables are not too high to indicate any collinearity problems. Furthermore, we analyzed the variance inflation factor (VIF) to check for collinearity and found that all study variables have VIF less than 10 which show that collinearity is not a problem (Kennedy, 1992: 183).

Table 2: Logistic regression analysis showing factors influencing whether an individual will be an entrepreneur

	Model 1		
Variables	Beta	p	Odds ratio
Gender (Men=1, Women=2)	-0.279	0.000	0.756

65-120 (Reference)		0.000	
18-34	1.530	0.000	4.620
35-54	1.435	0.000	4.200
55-64	0.786	0.000	2.194
Model X2 & DF	888.193	4	
Block X2 & DF	888.193	4	
Cox & Snell R2	0.011		
Nagelkerke R2	0.020		

Model 2			
Variables	Beta	p	Odds ratio
Gender (Men=1, Women=2)	-0.270	0.000	0.764
65-120 (Reference)		0.000	
18-34	1.614	0.000	5.022
35-54	1.527	0.000	4.605
55-64	0.872	0.000	2.392
Society wants equal standard of life	-0.080	0.000	0.924
Society sees entrepreneurship is seen as desirable	0.201	0.000	1.223
Society views successful entrepreneurs positively	0.159	0.000	1.173
Media covers successful entrepreneurs	0.261	0.000	1.298
Ease of starting a business	0.470	0.000	1.600
Model X ² & DF	2033.888	9	
Block X ² & DF	1145.696	5	
Cox & Snell R ²	0.024		
Nagelkerke R ²	0.045		
Model 3			
Variables	Beta		Odds ratio
Gender (Men=1, Women=2)	-0.090	0.000	0.914
65-120 (Reference)		0.000	
18-34	1.349	0.000	3.853
35-54	1.227	0.000	3.411
55-64	0.706	0.000	2.026
Society wants equal standard of life	-0.060	0.009	0.941
Society sees entrepreneurship is seen as desirable	0.075	0.002	1.078
Society views successful entrepreneurs positively	0.073	0.003	1.076
Media covers successful entrepreneurs	0.086	0.000	1.089
Ease of starting a business	0.197	0.000	1.217
Knows an entrepreneur that started a business	0.735	0.000	2.085

Sees opportunities	0.614	0	1.848
Believes that has the skills and knowledge to start a business	1.395	0.000	4.034
Has fear of failure	-0.314	0.000	0.730
Model X ² & DF	9196.842	13	
Block X ² & DF	7162.953	4	
Cox & Snell R ²	0.104		
Nagelkerke R ²	0.193		

Three binomial logistic regressions were constructed to analyze the influence whether an individual will be an entrepreneur or not. The results for control variables in the Models 1, 2 and 3 indicate the negative relationship between the female gender and entrepreneurship (Model 1: $\beta = -0.279$; $p < 0.001$; Model 2: $\beta = -0.270$; $p < 0.001$; Model 3: $\beta = -0.090$; $p < 0.001$). The likelihood of a woman choosing entrepreneurship is 24.4% less than a man. Arenius & Minniti (2005) argues that possibility of becoming an entrepreneur is higher among men compared to women.

However, in all the models age and entrepreneurship are positively correlated with each other (Model 1: $\beta = 1.530, 1.435, \text{ and } 0.786$; $p < 0.001$; Model 2: $\beta = 1.614, 1.527, \text{ and } 0.872$; $p < 0.001$; Model 3: $\beta = 1.349, 1.227, \text{ and } 0.706$; $p < 0.001$). When we look at the age groups to see the effect on entrepreneurship, we see that ages are divided into 18-34, 35-54, 55-64, and 65-120. As we are conducting logistic regression, we take age group 65-120 as the reference point, we see that entrepreneurs in 18-34 and 35-54 age groups have more than four times positive influence on entrepreneurship compared to age group 65-120. The effect of age group 55-64 is almost half of the younger age groups. According to the research done by Lévesque and Minniti (2006),

the age and entrepreneurship relationship reaches its highest level while young and begins to decline as one gets older.

When we check the socio-cultural factors we find that Models 2 and 3 show positive influence of socio-cultural factors on entrepreneurship (Model 2: $\beta = 0.201, 0.159, 0.261, \text{ and } 0.470$; $p > 0.01$; Model 3: $\beta = 0.075, 0.073, 0.086, \text{ and } 0.197$; $p > 0.01$). Only one socio-cultural factor (Society wants equal standard of life) has negative influence on entrepreneurship (Model 2: $\beta = -0.080$; $p < 0.001$; Model 3: $\beta = -0.060$; $p < 0.001$).

In the motivational factors, perceived of opportunity shows positive influence on entrepreneurship (Model 3: $\beta = 0.614$; $p > 0.1$), perceived confidence shows positive influence on entrepreneurship (Model 3: $\beta = 1.395$; $p > 0.1$), entrepreneurial network shows positive influence on entrepreneurship (Model 3: $\beta = 0.735$; $p > 0.1$). Whereas, fear of failure shows negative influence on entrepreneurship (Model 3: $\beta = -0.314$; $p < 0.1$). We find that if an individual knows an entrepreneur that started a business and/or sees opportunities in the society, this will influence the individual a lot almost by 200% to become an entrepreneur. When an individual believes that he/she has the skills and knowledge to start a business in the country then the probability to become an entrepreneur is almost four times higher. Lastly, when an individual has fear of failure in starting a business the probability to become an entrepreneur is 27% (i.e. decreases the intention by 73%).

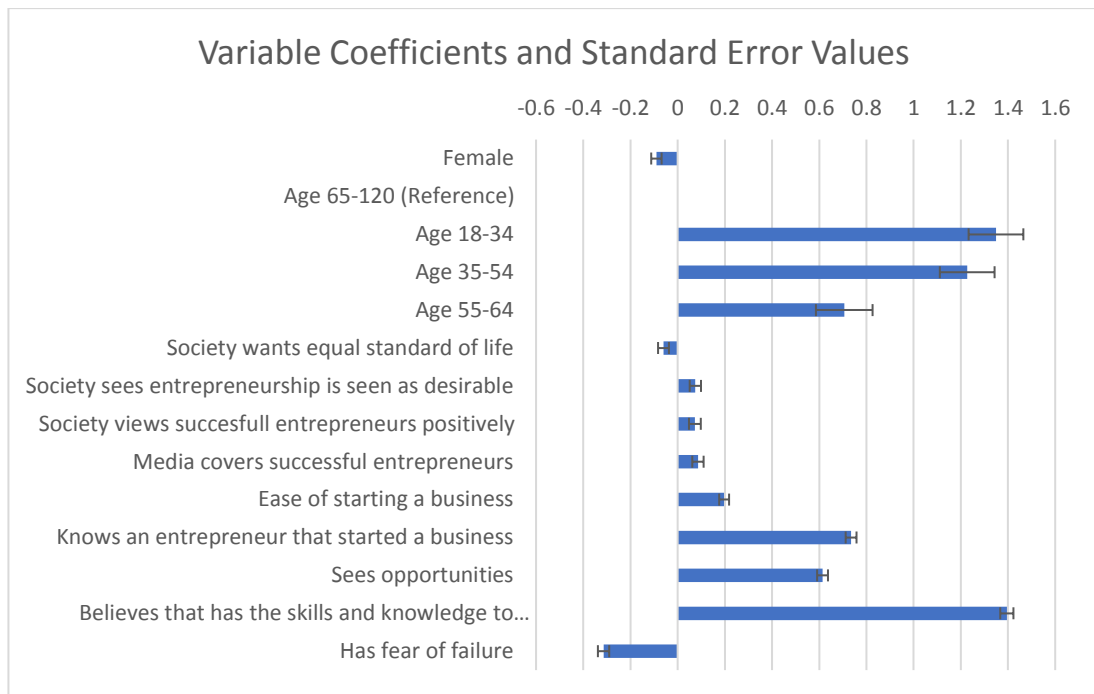


Figure 3: Variable coefficients and standard error values.

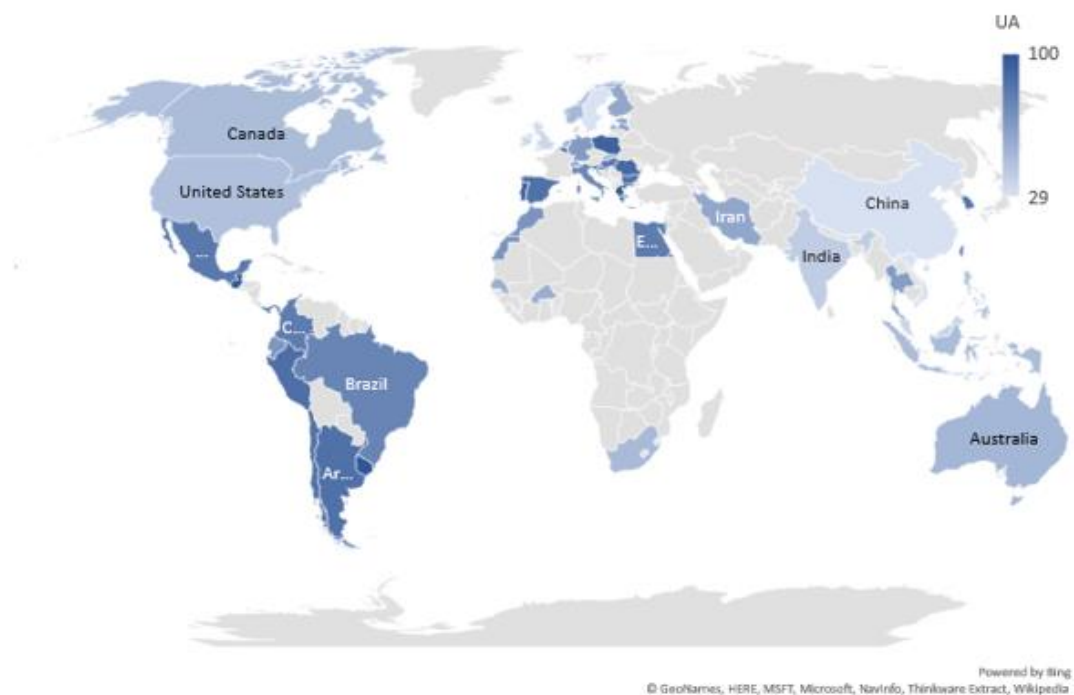


Figure 4: Uncertainty Avoidance Index in 54 countries.

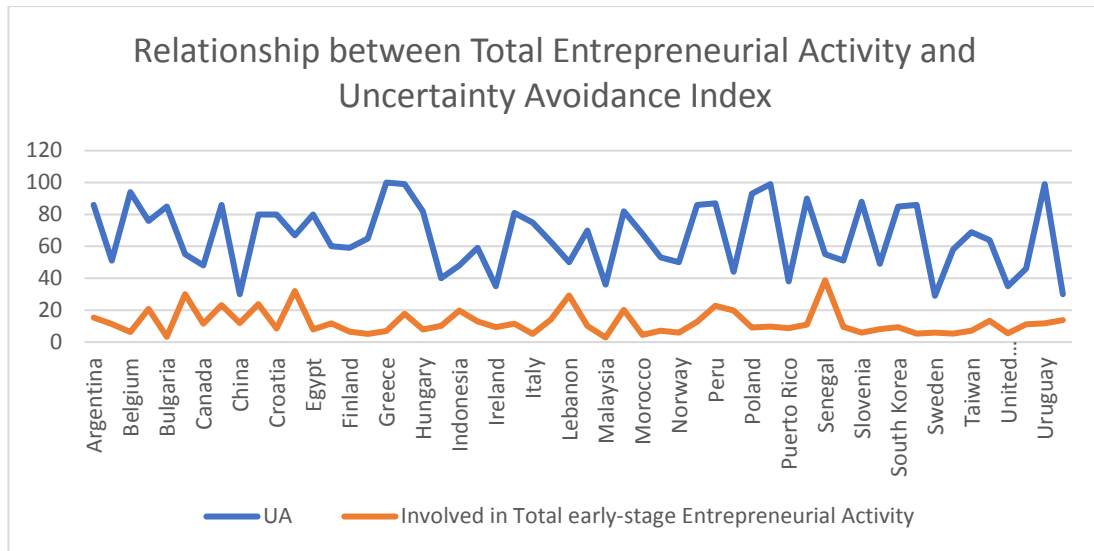


Figure 5: Relationship between TEA and UAI between 54 countries.

As we can see in Figure 4 and 5, the relationship between Total Entrepreneurial Activity (TEA) and Uncertainty Avoidance (UAI) is negative. The TEA for a country includes those that are nascent entrepreneurs and owner/managers of newly established businesses. Wennekers, Van Wennekers, Thurik, and Reynolds (2005) state that to study entrepreneurship we should include nascent entrepreneurs in our analysis, and they define nascent entrepreneurship as those that are in the initial process of starting a venture. According to Hofstede (1984) the uncertainty avoidance index UAI of a country indicates the level of fear of the unknown and ambiguity. When UAI is high, the society develops many regulations and procedures to prevent risk and unfamiliar. As we can imagine, this will not develop the ideal environment for entrepreneurs who wish to sail into uncharted territory and establish novel and innovative ventures. As it can be seen in the above figure that in many countries almost 50%, this may not be true, such as United Kingdom, Chile, Australia, China, Colombia, Guatemala, Indonesia, Iran, Ireland, Israel, Malaysia, Mexico, Morocco, Norway, Panama, Peru, Puerto Rico, Romania, Slovakia, South Korea, Taiwan, United States, and Uruguay.

We need to understand what are the reasons that entrepreneurship thrives more in some countries and not others. We can approach this problem from a cultural or an institutional perspective or we can combine both perspectives (Nguyen, Bryant, Rose, Tseng, & Kapasuwan, 2009). Some studies, in developed countries have found that the uncertainty avoidance level has a negative relationship. Valdez, Doktor, Singer, and Dana (2011) have focused on opportunity entrepreneurship where individuals establish their business in order to take advantage of an opportunity that they sense rather than the necessity entrepreneurs who become self-employed because they have no other viable option to earn an income. They hypothesized opportunity entrepreneurship would be more negatively impacted by the level of uncertainty avoidance. Compared to necessity entrepreneurship, the opportunity entrepreneurship would be stifled by the culture of uncertainty avoidance.

3.5 Conclusion and Recommendations for Study One

We have used GEM 2015 APS data for 54 countries (Urbano & Alvarez, 2014) that have the uncertainty avoidance indexes from the Hofstede Insights (Hofstede Insights, 2018). We examined the factors we have proposed in our conceptual model to see the influence on the individuals whether to become entrepreneur or not. We have used binary logistic regression analysis in three parts. First we analyzed the control variables (Arenius & Minniti, 2005), gender, age, and education and found that as the number of women increases in starting business, it has negative effect on the entrepreneurship. In fact, if women are compared with men in case of starting businesses, women frequently report that they do not have the required experience, training and entrepreneurial network (Ettl & Welter, 2010); (Verheul & Thurik, 2001). Individuals with ages between 18-34 and 35-54 are very much desired to become entrepreneurs (Lévesque & Minniti, 2006). As the age increases individuals are less

likely to become entrepreneurs. Individuals having university undergraduate education levels are more likely to become entrepreneurs.

In the second part we analyzed the independent variables to see the effects on the dependent variable (entrepreneurship). We have found that socio-cultural factors, entrepreneurial network, perceived opportunity, and perceived confidence have positive influence on individuals to become entrepreneurs. Last independent variable fear of failure has negative influence on individuals for entrepreneurship. Therefore, all the eight hypotheses are supported.

In the third part, we have compared the Total Entrepreneurial Activity (TEA) values and the uncertainty avoidance indexes (UAI) of 54 countries, and found that with few exceptions, countries with low UAI have high entrepreneurial activities. Low UAI societies such as Sweden, maintain a more relaxed attitude where practice is considered more than principles and deviation from the norm is more easily tolerated. In societies showing low UAI, people believe there should be no more rules but only whenever needed and if they are uncertain or do not work, they must be abandoned or changed. Countries demonstrating high UAI such as Greece, Portugal etc. are generally more intolerant of unusual behavior and ideas. In these cultures, security is a more important element in individual motivation. This results in lower motivation to start something new and unfamiliar. The countries with high UAI usually develop a large number of rules, regulations and a massive bureaucracy to prevent the risk of unanticipated events or ventures. Although, it is debatable whether the rules that are created are indeed internalized by the individuals, the result is that an environment that prevent innovation and supports the status quo will encourage individuals to value salaried employment rather than become entrepreneurs (Hofstede Insights, 2018).

Since our results show that compared to men, women are less likely to start a business, this indicates governments need to develop policies that encourage and support women in order to increase the women's participation in entrepreneurship. The reluctance of women to become entrepreneurs compared to men is probably due to the gender roles that inhibit women's networks and their confidence placed by the male dominated societies. This means that governments should support programs to encourage women to become entrepreneurs.

Programs are also needed to encourage older individuals to become entrepreneurs. The social and intellectual capital that is gained with age can contribute to success of startups. However, there are many obstacles social and personal that inhibit individuals to establish a new business as they get older. The fact that many societies have an aging population means that measures are necessary to keep the older generations in the creation of new businesses. We see some examples of programs to prevent discrimination of older individuals in employment. There are also programs to encourage entrepreneurship for young people. However, programs to support older individuals in entrepreneurship are lacking and are needed.

Based on our findings that confidence, entrepreneurial network, perceived opportunity influence entrepreneurship positively, we can conclude that the programs to encourage and support women and older individuals in entrepreneurship should not only focus on improving skills and knowledge but also in developing the entrepreneurial network.

Chapter 4

ENTREPRENEUR WELL-BEING

4.1 Introduction

Much of the literature on entrepreneurship discusses its role as an engine of innovation, employment and welfare effects at the country level (Acs et al., 2008), however, studies also demonstrate that entrepreneurship is related to better psychological functioning and well-being at the individual level (Nikolaev, Boudreaux, & Wood, 2020). We also see an emphasis in entrepreneurial firm performance in the entrepreneurship research literature, but there are calls for studying well-being as an important dependent variable (Wiklund, Nikolaev, Shir, Foo, & Bradley, 2019).

However, entrepreneurs are not a homogeneous group and one of the ways that they differ from each other is whether they became entrepreneurs by choice or by necessity. Those that are entrepreneurs because they have no other option are labelled necessity entrepreneurs and those that have become entrepreneurs to take advantage of an opportunity are called opportunity entrepreneurs (Binder & Coad, 2013, 2016). The factors that lead an individual to entrepreneurship can influence many factors at the individual and at the country levels.

Our study is grounded in the Self Determination Theory (SDT) and the Psychology of Working Framework (PWF) and investigates the role of psychological needs of autonomy, competence, and meaningfulness as the mechanism that opportunity

entrepreneurship improves well-being. SDT argues that satisfaction of autonomy, competence and relatedness needs leads to individual motivation, performance, and wellness (Deci & Ryan, 1985; Ryan & Deci, 2000; Ryan & Deci, 2011). Earlier studies reveal that satisfaction of these needs results in higher levels of well-being and performance (Deci & Ryan, 2004), however studies using large scale multi-country samples to explore the well-being of opportunity entrepreneurs and how autonomy, competence and meaningfulness may be the route that this relationship occurs is still scarce. Studies reveal that meaningful work is closely related to self-determination (Allan, Autin, & Duffy, 2016). When we consider that opportunity entrepreneurs are independent in their choices of opportunities, SDT would indicate that they would be more likely to have higher levels of well-being.

We use the Self-Determination Theory (SDT) and the Psychology of Working Theory (PWT) on the foundation of the Psychology of Working Framework (PWF) focusing on the concept of decent work. Decent work is work that offers fair pay, social protection, safe and dignified (ILO, n.d.). Decent work is one of the Sustainable Development Goals of the United Nations and leads to meaningfulness (Allan et al., 2016). Furthermore, at the country level we use individualism as a cultural dimension to expose its moderating effect. In individualistic countries, the strength of the opportunity entrepreneurship and well-being will be even stronger because opportunity entrepreneurs have more freedom to make decisions which in turn results in higher levels of well-being.

4.2 Hypotheses Development for Study Two

4.2.1 Entrepreneurship and Subjective Well-being

Entrepreneurial activities include elements of stressful factors that are generally antagonistic to subjective well-being, such as emotional demand, failure risks, protracted work hours, intense work efforts (Nikolaev, Boudreaux, & Wood, 2020; Wiklund et al., 2019). Paradoxically, the literature suggests that entrepreneurs most often report positive state of well-being including satisfaction (Binder & Coad, 2013; Nikolaev et al., 2020; Stephan, 2018). This paradox is explained by Lazarus & Folkman (1984) transactional theory of stress, which posits that individuals ponder stressful circumstances as either a threatening hindrance or a promoting challenge to their future gains, goal achievements, and personal growth (LePine, Podsakoff, & LePine, 2005). In this line, challenge stressors are associated with motivation and self-efficacy, because self-efficacious and motivated individuals are resolute to endure requisite extra efforts that will enable them meeting the work demands and reaping the valued outcome (LePine et al., 2005; Webster, Beehr, & Christiansen, 2010). Due to the centrality of their activities, entrepreneurs are more likely to find their work-related demands as a challenge and get satisfaction from the opportunities to learn and thrive (Nikolaev et al., 2020). They are more likely to report high well-being in contrast to non-entrepreneurs, who are less autonomous and bound to follow rules and policies designed by others (Larsson & Thulin, 2019; Nikolaev et al., 2020).

However, not all entrepreneurs are in a position to see the stressors in a positive way. Many studies make a distinction between "opportunity entrepreneurs" and "necessity entrepreneurs" (Beynon, Jones, & Pickernell, 2016; Hessels, Van Gelderen, & Thurik, 2008a; Larsson & Thulin, 2019; Nikolaev et al., 2020; Xavier-Oliveira, Laplume, &

Pathak, 2015). Necessity entrepreneurs choose to become entrepreneurs in order to prevent unemployment when they have no other choices and they must become self-employed (Cueto & Pruneda, 2017). Whereas the opportunity entrepreneurs choose to be self-employed because they wish to become independent or they see an opportunity for a new product, service or market (Xavier-Oliveira et al., 2015). The necessity entrepreneur wishes to satisfy a survival need while the opportunity entrepreneur wishes to satisfy an achievement need (Carsrud & Brännback, 2011).

A recent longitudinal research suggest that opportunity entrepreneurs' subjective well-being tops necessity entrepreneurs' (Nikolova, 2019). This study revealed that over a period between 2002 and 2014, those who became self employed from regular employment (opportunity) experience an improved mental and physical health. In contrast, the self employed from unemployment (necessity) only experience a mental health improvement. Cueto & Pruneda (2017) argue that what matters for satisfaction is not whether one is self-employed or in salaried employment, but whether they are in the type of employment of their preference. Opportunity entrepreneurs, who are "pulled" into self-employment by their preference to fulfill a desire, differ from necessity entrepreneurs who are "pushed" into entrepreneurship due to lack of alternatives and not due to their actual preference (Larsson & Thulin, 2019).

Opportunity entrepreneurs are driven by higher order, self-fulfilling purpose that exceed necessity and makes their activity meaningful and more impactful. Subsequently, they are less constrained and find pleasure in exploring potentially risk-bearing alternatives that will stimulate their intrinsic needs (Larsson & Thulin, 2019). Necessity entrepreneurs on the other hand are more reactive and risk averse, which limits their realm of action and prevent them from stepping out of the necessity-

providing comfort zone. Precisely, failure for the necessity entrepreneur may be very costly because it can prompt the loss of the basic necessity, they sought to fulfil by pulling away from unemployment. Under these circumstances, the necessity entrepreneurs may not be able to focus on opportunities that have a longer payback period. Additionally, the necessity entrepreneur is more focused on extrinsic rewards rather than intrinsic rewards (Carsrud & Brännback, 2011).

Hence, we can hypothesize:

Hypothesis 9: Opportunity entrepreneurs have higher subjective well-being than necessity entrepreneurs.

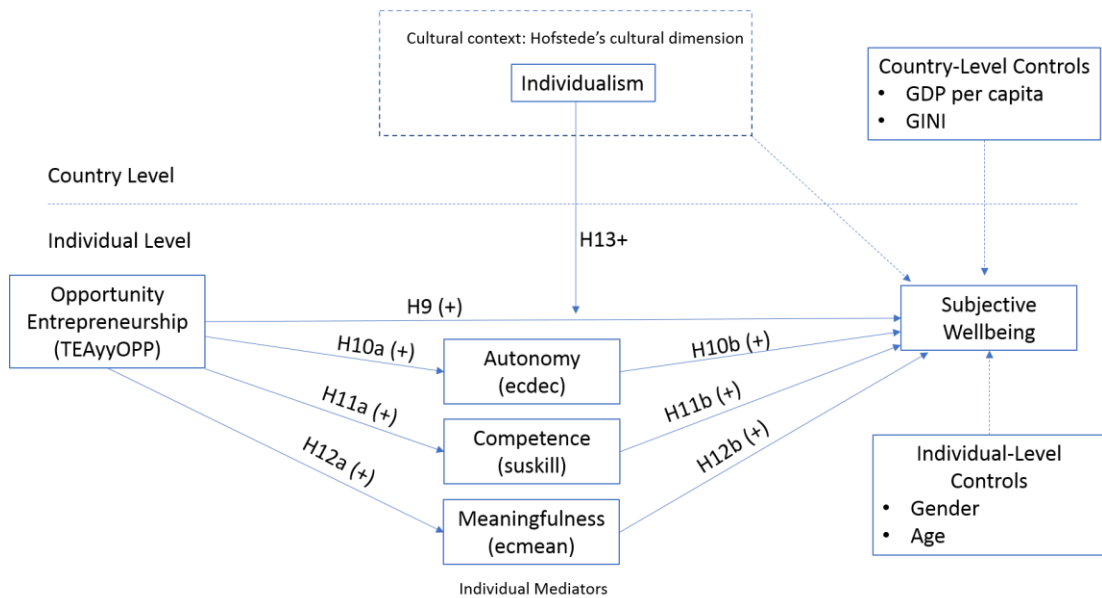


Figure 6: The Conceptual Model

4.2.2 Mediating Effect of Autonomy

Autonomy, as a feeling of independence and freedom, is seen a key motivator for entrepreneurs (van Gelderen & Jansen, 2006). The desire for autonomy is one of the reasons opportunity entrepreneurs start their businesses (van Gelderen & Jansen, 2006). People who value autonomy desire independent self-determination. Autonomy

can be seen as the control over our affairs, decisions and the feeling of responsibility for the outcomes (Keller, 2016). Since autonomy is related to the freedom to make choices, we would expect opportunity entrepreneurs to have greater feelings of autonomy compared to the necessity entrepreneurs because the choice and motivation of going into entrepreneurship is what distinguishes the two types of entrepreneurs (Fotiadis, Abdulrahman, & Spyridou, 2019). Therefore, opportunity entrepreneurs will feel greater autonomy as they fulfill the opportunities as they start up their businesses.

Previous studies have established a relationship between autonomy and daily well-being (Reis, 1996), life satisfaction (Cordeiro, Paixão, Lens, Lacante, & Sheldon, 2016), and subjective vitality. The theoretical arguments and the empirical results of prior research strengthen our expectation that in our sample of entrepreneurs from different countries the opportunity entrepreneurs will have higher levels of autonomy and this autonomy will result higher levels of well-being among the opportunity entrepreneurs compared to the necessity entrepreneurs who normally experience relatively lower autonomy.

Hence, we hypothesize:

Hypothesis 10: Psychological autonomy mediates the relationship between opportunity entrepreneurship and well-being.

4.2.3 Mediating Effect of Competence

As the search for entrepreneurial opportunities is full of uncertainty (Shir, Nikolaev, & Wincent, 2019), entrepreneurs cannot rely on set routines but must show adaptability in response to a dynamic environment (Haynie, Shepherd, & Patzelt, 2012). As a result of these conditions, the entrepreneurs need to develop their core competencies (Eisenhardt, Brown, & Neck, 2000; McGrath & MacMillan, 2000).

Entrepreneurs are more likely to possess higher levels of core self-efficacy, develop personal mastery feel greater competence compared to non-entrepreneurs.

Opportunity entrepreneurs in particular would be self-motivated to follow their goals and have more opportunities to improve their competence and capabilities in the process (Shir, Nikolaev, & Wincent, 2019). This in turn can help them to achieve their objectives and have higher levels of psychological well-being.

The empirical evidence from the literature also point out that there is a positive relationship between the level of perceived competence and well-being. It is reasonable to expect that opportunity entrepreneurs who have chosen self-employment to fulfill a goal would be more likely to possess skills that enable them to succeed as entrepreneurs. Subsequently, these entrepreneurs are more likely to continuously add to their abilities in a virtuous circle. On the other hand, the traits that will help entrepreneurs to succeed may be less prevalent in the pool of the necessity entrepreneurs who did not self-select to become entrepreneurs but rather are self-employed due to lack of other alternatives.

Therefore, we hypothesize:

Hypothesis 11: Competence mediates the relationship between opportunity entrepreneurship and well-being.

4.2.4 Mediating Effect of Meaningfulness

Our experienced meaningfulness is high when our work provides us with a sense of purpose (Ashforth & Pratt, 2003) and when we see our work as a source of personal growth and development (Steger, Dik, & Duffy, 2012). When we deal with tasks that are related to our goals and we can clearly see their relevance, we are more likely to

have a positive experience. Meaningfulness and work engagement have been shown to be related (Lips-Wiersma & Wright, 2012; May, Gilson, & Harter, 2004) as well as meaningfulness and feeling energized in one's work (Fritz, Lam, & Spreitzer, 2011).

Since the opportunity entrepreneurs chose to be self-employed willingly and intentionally, they can perceive that they are shaping their work in line with their values, needs, and skills. Thus, they would be more convinced that the work tasks are worth doing and they can relate the tasks with themselves (Baron, 2010). The opportunity entrepreneurs can engage in job crafting which means that they can shape their jobs to make it more meaningful (Wrzesniewski & Dutton, 2001). They are in a position to determine the scope, order and number of tasks they perform, they can have more influence on who they interact with and perhaps more importantly they are in a position to modify how they interpret the work that they have to carry out. This means that the opportunity entrepreneurs can relate their work and their identity (Baron, 2010). This is essential for experiencing meaningfulness in their work (Lips-Wiersma & Morris, 2009; Rosso, Dekas, & Wrzesniewski, 2010).

The opportunity entrepreneurs who are moving into entrepreneurship by choice to take advantage of an opportunity that they have identified would be able to express themselves through their work (Allan et al., 2016; FerDuffy, Autin, & Bott, 2015) thus find a source of intrinsic motivation which will lead to a greater sense of meaningfulness compared to necessity entrepreneurs. The necessity entrepreneurs who are pushed into self-employment due to limited alternatives would not be as lucky to be able to interpret the work they have to carry out as relevant to their identity and as an expression of themselves.

Previous studies confirm that those who find their work meaningful rely on this as a psychological resource (Cornelia, Sabine, & Fried-erike, 2012; Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, n.d.) and have higher levels of well-being (Allan, Batz-Barbarich, Sterling, & Tay, 2019; Steger et al., 2012; Tavares, 2016). Therefore, the opportunity entrepreneurs have increased well-being due to the meaningfulness they feel about their work.

Hence, we can hypothesize:

Hypothesis 12: Meaningfulness mediates the relationship between opportunity entrepreneurship and well-being.

4.2.5 Moderating Effect of Individualism

In individualistic societies, the main focus is on the individual whereas collectivist societies focus on group identity (Dheer, 2017). In individualistic societies the self is based on our personal identity but in collectivist societies the self is embedded within the group identity. Collectivist societies, on the other hand, consider groups as the most important component where individuals are expected to conform to the group rather than challenge the group (Geert H Hofstede & Hofstede, 2001).

We associate individualistic cultures with values that are entrepreneurial in nature such as personal freedom, independence, agency and competitiveness (Dheer, 2017; Gartner, 1988; Mueller & Thomas, 2001). Such values support risk taking through innovation and creativity (Mueller & Thomas, 2001) which are related with entrepreneurship in general (Hayton, George, & Zahra, 2002a) and serve as pull factors that distinguish opportunity entrepreneurs who go into self-employment to take advantage of perceived opportunities.

Individualistic societies allow more information to flow across groups compared to collectivist societies which emphasize less communication across groups. This flow of information would also help entrepreneurship through cross pollination of ideas (Taylor & Wilson, 2012) and identification of new opportunities (Alvarez & Busenitz, 2001; Dheer, 2017) especially serving as an enabler for opportunity entrepreneurs. Intuitively individualism is perceived to be more supportive for the formation of new business ventures and thus entrepreneurship (Dheer, 2017).

On the other hand, there are empirical evidence that our assumptions that individualistic societies are more supportive of entrepreneurship may not be necessarily always be accurate (Acs, 1992; De Clercq, Danis, & Dakhli, 2010; Dheer, 2017; Morris, Avila, & Allen, 1993; Pinillos & Reyes, 2011; Shane, 1993). Some go even further to argue that collectivist societies may in fact provide a better support structure for entrepreneurship due to the stronger networks and the comradery (De Clercq et al., 2010; Pinillos & Reyes, 2011).

Veenhoven (1999) reports a negative relationship between individualism and well-being in poor countries and a positive relationship between individualism and well-being in rich countries. This finding can be interpreted by arguing that collectivism is highly efficient in may exist in poorer country environment where a support network is necessary, individualism may become more effective in modernized societies where the individual needs have changed (Ahuvia, 2002; Cummins, 1998; Myers & Diener, 1995).

Not only are there conflicting empirical and theoretical debates about individualism and entrepreneurship, there are also conflicting findings on individualism and well-

being relationship. Some authors report higher levels of well-being in individualistic societies compared to collectivist societies (Kasser, 2000; Kasser & Ryan, 2001; Kasser, Ryan, Zax, & Sameroff, 1995). Whereas others have reported collectivism being positively related to well-being in less developed country contexts (Veenhoven, 1999).

We hypothesize:

Hypothesis 13: Individualism moderates the positive relationship between opportunity entrepreneurship and subjective well-being resulting in greater increases in well-being for opportunity entrepreneurs in individualistic countries.

4.3 Research Method for Study Two

4.3.1 Data

In our study two (Atalay & Tanova, 2021) we have used the Global Entrepreneurship Monitor's (GEM) individual-level data from the Adult Population Survey (APS) for the year 2013. The choice of the 2013 was because of the availability of questions related to well-being of the respondents in that round of data collection. The GEM project collects data every year from at least 2,000 adults in more than 50 countries to measure the entrepreneurial activity and attitudes towards entrepreneurship. The data have served as a valuable resource for research into entrepreneurship and been found to have good measurement characteristics (De Clercq, Lim, & Oh, 2013; P. Reynolds et al., 2005; Sternberg & Wennekers, 2005). The GEM data for 2013 provides data from 70 economies and includes surveys of over 197,000 individuals. Collectively it is reported that the sampling represented 75% of the world's population and 90% of the global GDP (Amoros & Bosma, 2013). Since our study focuses on how opportunity and necessity entrepreneurs may experience different levels of well-being, to form our

sample we only included those individuals that were currently entrepreneurs and we excluded those that were in paid employment.

Since we were interested in controlling for wealth and income distribution and we wanted to see how individualism values dominant in the country would influence the relationship between our dependent and independent variables, we had to eliminate the countries for which this data was not available. Therefore, from the GEM 2013 data we only included countries that we could match with Hofstede data for Individualism and World Bank data for GDP per capita in terms of purchasing power parity and the Gini index.

As a result, the number of countries in our final sample was 37 and the number of individuals was 14,514, as detailed in Table 3. The level of individualism, GDP per capita in 2013 according to purchasing power parity, and the Gini index for the countries included in our sample are provided in the appendix.

Table 3: Descriptive statistics

<i>Variables</i>	N	Mean	SD	Min.	Max.
1. Age	14,514	37.4	11.3	18	86
2. Entrepreneurship	14,514	0.703	0.457	0	1
3. Autonomy	14,514	4.17	1.11	1	5
4. Meaningfulness	14,514	4.30	1.01	1	5
5. Competence	14,514	0.851	0.356	0	1
6. Subjective well-being	14,514	3.49	0.96	1	5
7. GDP per capita	37	20,780	17423	1444	57874
8. GINI	37	38.63	8.44	25.90	63
9. Individualism	37	43.03	22.87	8	89

4.3.2 Measures

Individual-level Variables

Dependent Variable. Subjective well-being (SWB) is the dependent variable considering the degree to which the existence of positive influence, the lack of negative influence, and the awareness of happiness/satisfaction of an entrepreneur who wants to attain subjective well-being. We used 5 questions that were available in the GEM 2013 data in which well-being was added as a special topic. The items were:

- “I am satisfied with my life.”, -
- “The conditions of my life are excellent.”
- “If I could live my life again, I would not change anything.”
- “In most ways my life is close to my ideal”,
- “So far I have obtained the important things I want in life.”

Independent Variable. Whether the respondent was an opportunity entrepreneurship or not was measured with one question:

- “Are you involved in this start-up to take advantage of a business opportunity or because you have no better choices for work?”.

The responses were dichotomous where 0 indicated necessity driven and 1 indicating opportunity driven entrepreneurs.

Control variables. Gender and age were used as control variables.

Mediators. In order to assess the autonomy and competence variables related to self-determination we used the following questions respectively. Autonomy was measured with one statement:

-“I can decide on my own how I go about doing my work” which could take a value between 1-5 ranging from strongly disagree to strongly agree and competence was measured with one question:

-“Do you have the knowledge, skill and experience required to start a new business?” which could take either 0 or 1 to indicate a yes or no response.

Meaningful work related to the psychology of working theory and decent work concept was measured with one statement:

-“The work I do is meaningful to me” which could take a value between 1-5 ranging from strongly disagree to strongly agree.

Country-level Variables

Cultural context. To measure the dominant values for the country on the collectivism - individualism continuum (IND) we relied on the Hofstede data (Geert H Hofstede & Hofstede, 2001). In addition to using the individualism cultural value at level, we also controlled for GDP per capita, and the Gini coefficient. Hoogendoorn (2016) states that GDP per capita and the occurrence of entrepreneurial activities are related. The Gini coefficient is used to control for income inequality, which may influence the well-being as well as motivations towards entrepreneurship (Brieger & De Clercq, 2019). Data from the World Bank was used for GDP per capita based on Purchasing Power Parity and for the Gini coefficient.

4.3.2 Data Analysis

In our study the individual entrepreneurs are nested in the context of the country in which they operate. This means that a multilevel regression approach is necessary in order to take the role of clustering of certain characteristics by country into consideration while we still consider individual characteristics of the entrepreneurs. The well-being as the dependent variable varies significantly between countries (Hox, J., Moerbeek, M., & van de Schoot, 2010). We checked the Intraclass Correlation Coefficient (ICC) to see how much well-being varied between countries compared to its total variance by running the multilevel model without entering any predictors (null model). The ICC value of 12.9 % indicates that the between country variance exists for well-being, our dependent variable. ICC values of 5 %, 10% and 15% are considered as small, medium and large, respectively (Hox, J., Moerbeek, M., & van de Schoot, 2010). We tested our hypotheses using a multilevel regression model with random intercepts using the “lme4” package and “lmer” function (Bates, Mächler, Bolker, & Walker, 2015) in the R statistics software. We also used MLMED macro of Rockwood (Hayes & Rockwood, 2017) to test the multilevel mediation.

4.4 Results for Study Two

Table 4 and Table 5 show the results of correlations between our variable and the regression models used to test the hypotheses. Model 1 includes both individual-level and country-level control variables, and Model 2 adds the independent variable which is the opportunity entrepreneurship to test for Hypothesis 9. Model 3 adds the mediators; autonomy, competence and meaningfulness to test Hypotheses 10, 11 and 12. Model 4 adds the cross-level moderation of individualism which influences the relationship between opportunity entrepreneurship and well-being to test Hypothesis 13.

Table 4: Correlation results

<i>Individual-level</i>	1	2	3	4	5	6
1. Gender	—					
2. Age	-.010	—				
3. Entrepreneurship	-.054***	-.043***	—			
4. Autonomy	-.037***	.080***	.037** *	—		
5. Meaningfulness	-.058**	.080***	.078** *	.571** *	—	
6. Competence	-.025**	.022**	.067** *	.083** *	.079** *	—
7. Subjective well-being	-.022**	.062***	.139** *	.302** *	.358** *	.049** *
<i>Country-level</i>						
1. GDP per capita	—					
2. GINI	-.687***	—				
3. Individualism	.617***	-.539**				

Note. N = 37 countries, 14514 observations. Gender: male = 1, female = 2; Entrepreneurship: necessity = 0, opportunity = 1; Competence: no = 0, yes = 1

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 5: Multilevel regression results with Subjective Well-being as the dependent variable

	Subjective well-being				
	M0	M1	M2	M3	M4
<i>Individual-level variables</i>					
Age		.001	.001	.000	.000
Gender		.018	.032*	.032*	.031*
Entrepreneurship (ENT)			.228***	.199***	.199***
Autonomy				.056**	.056**
Meaningfulness				.197***	.197***
Competence				.104***	.104***
<i>Country level variable</i>					
GDP per capita		.737**	.697**	.621**	.722**
GINI		.014	.014	.016*	.014
Individualism (IDV)					.004
<i>Cross-level interaction</i>					
ENT x IDV					.003**
Intercept	3.44***	3.42***	3.374***	3.394***	3.41***
ICC	.147	.124	.121	.097	.096
R ² marginal	.000	.037	.047	.143	.15
R ² conditional	.147	.156	.162	.226	.231

Note. N = 37 countries, 14514 observations. Gender: male = 1, female = 2; Entrepreneurship: necessity = 0, opportunity = 1; Competence: no = 0, yes = 1; ICC = intraclass correlation.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Model 1 results show that individual-level control variables which were age ($\beta=0.001$, $p<0.001$) and gender ($\beta=0.018$, $p<0.001$); country-level control variables which were GDP per capita ($\beta=0.737$, $p<0.01$) and GINI ($\beta=0.014$, $p<0.01$) are significantly related to well-being. Next, Model 2 results support our Hypothesis 9, indicating opportunity entrepreneurship is positively related with subjective well-being ($\beta=0.228$, $p<0.001$). When we check the Model 3 to see the impact of autonomy ($\beta=0.056$, $p<0.01$), meaningfulness ($\beta=0.197$, $p<0.001$) and competence ($\beta=0.104$, $p<0.001$) on subjective well-being we find that, in line with the Self Determination Theory, these satisfaction of these needs are related to well-being of entrepreneurs.

The role of individualistic cultural orientation of the country can be seen in Model 4 which indicates that individualism ($\beta=0.003$, $p<0.01$) moderates the relationship between the opportunity entrepreneurship and the subjective well-being significantly. The well-being of opportunity entrepreneurs is generally higher compared to the well-being of necessity entrepreneurs as shown in Figure 8. The individualism culture in a country amplifies the opportunity entrepreneurship well-being relationship such that the opportunity entrepreneur well-being increases at a faster rate when the individualism culture is higher in a country. Whereas the opportunity entrepreneur well-being in low individualistic countries increases at a slower rate. However, it is interesting to note that the plot of the simple slopes in Figure 8 also indicate that the well-being seems to be lower among entrepreneurs in the high individualistic countries.

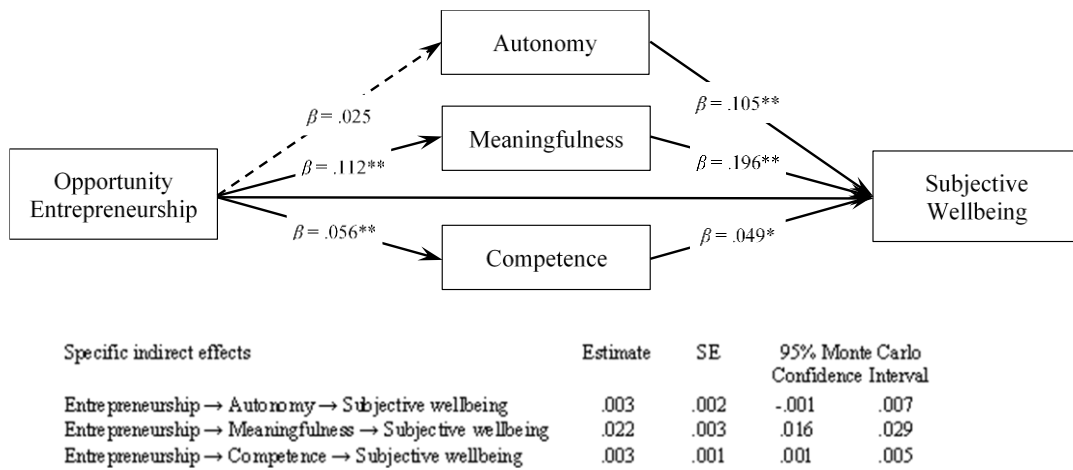


Figure 7: Mediation model results

In Figure 7 above, the multilevel mediation model was fitted using the MLMED macro in SPSS (Hayes & Rockwood, 2017). Using the MLMED allowed us to test our multilevel mediation model which contained more than one mediator. The macro performs the centering and other data management necessary prior to running the analysis (Rockwood, 2017).

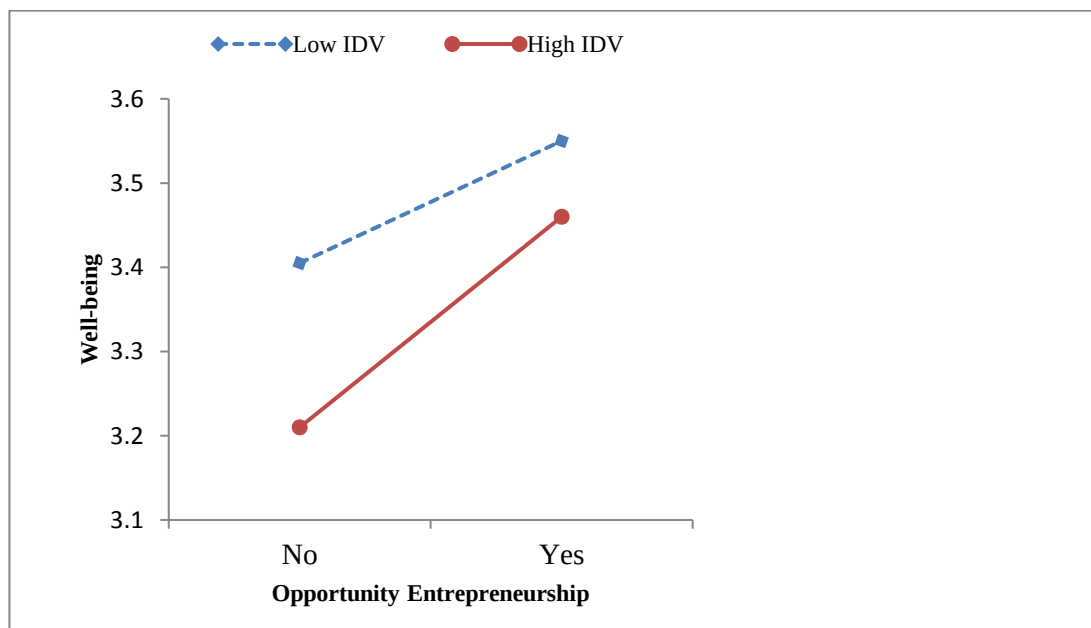


Figure 8: Moderating effect on the opportunity entrepreneurship – subjective well-being relationship

4.5 Discussion for Study Two

Our empirical findings provide support for Hypothesis 9 which argued that opportunity entrepreneurs have higher subjective well-being than necessity entrepreneurs. Our findings are in support of Larsson & Thulin (2019) who also demonstrated that opportunity entrepreneurs have higher levels of well-being compared to necessity entrepreneurs. When we consider hedonic and eudaimonic approaches to well-being, we see that while hedonic well-being focuses on pleasure attainment or prevention of pain, life satisfaction but eudaimonic well-being focuses on the full functioning of the person including their search for meaning, autonomy, mastery, relationships and self-realization (Ryff, 2019). Although, necessity entrepreneurs are less likely to experience well-being compared to opportunity entrepreneurs in general, from the perspective of eudaimonic well-being the contrast will be much larger. Many aspects of eudaimonia such as mastery, autonomy, growth, purpose, and self-realization will be compromised for necessity entrepreneurs. Correspondingly, our, hypotheses 10, 11, and 12 argue that the needs for self-determination which are autonomy, competence and meaningfulness are the avenues through which opportunity entrepreneurship results in improved well-being.

Shir et al. (2019) similarly demonstrated in a study of entrepreneurs in Sweden, that individuals engaged in entrepreneurial tasks fulfill their inherent psychological needs of autonomy, competence and relatedness that result in higher levels of well-being. Similarly, Kara & Petrescu (2018) found that a relationship between that ability to satisfy the psychological needs of autonomy, competence and relatedness was related to subjective well-being. Cultural context moderates this relationship. Our hypotheses were not merely investigating a direct relationship between the psychological needs

and well-being among entrepreneurs, but we distinguished between opportunity and necessity entrepreneurs and argued that the psychological needs will be more effectively satisfied by opportunity entrepreneurs compared to necessity entrepreneurs. Thus, we were interested in demonstrating the mediating role of the psychological needs on the relationship between opportunity entrepreneurship and well-being. Our findings provide support for the mediating role of competence and meaningfulness however, our hypothesis that autonomy also mediates the opportunity entrepreneurship and well-being relationship did not receive support. Perhaps the difference between the results could be due to the fact that Shir et al. (2019) study did not differentiate between opportunity and necessity entrepreneurs and the study was conducted in the economic and cultural context of Sweden. Perhaps when we control from the individualistic cultural context and the motivation to become an entrepreneur, the role of autonomy as a mediator loses support. However, Kara & Petrescu (2018) found support for the three psychological needs in their study.

Our last hypothesis, Hypothesis 13, argued that individualism as a cultural orientation at the country level moderates the positive relationship between opportunity entrepreneurship and subjective well-being. We find that in individualistic countries being an opportunity entrepreneur rather than a necessity entrepreneur results in a higher increase in subjective well-being. In contrast, we see a smaller difference in well-being improvement between necessity and opportunity entrepreneurs in collectivist countries. However, Kara & Petrescu (2018) investigated how an individualistic culture would alter the relationship between autonomy and well-being and as expected found that in individualistic countries, the relationship between entrepreneurs' autonomy and SWB was less important compared to the collectivist

countries. In our study, our goal was to look at the moderating role of individualism on the relationship between being an opportunity entrepreneur and the well-being, and we found that this was supported as well.

4.6 Conclusion for Study Two

Even though there have been studies that examined the subjective well-being of entrepreneurs, we still do not have a clear understanding of the process through which entrepreneurship improves well-being and an understanding the conditions under which this relationship becomes stronger or weaker. Much of the literature on entrepreneurship have studied factors that lead to success or failure of entrepreneurs. However, there has been increased interest in understanding the factors that related to the well-being of entrepreneurs (Wiklund et al., 2019). As entrepreneurs are not a homogeneous group and as the conditions under which one finds themselves as an entrepreneur may differ, attention needs to be placed on whether an entrepreneur has chosen self-employment through seeking an opportunity – opportunity entrepreneurs or whether they have had to become an entrepreneur due to a lack of other alternatives – necessity entrepreneurs. Studies that have examined how this motivation to become an entrepreneur may relate to the well-being of entrepreneurs is still limited (Amorós, Cristi, & Naudé, 2021).

The aim of this paper was to use the tenets of the SDT and the PWT to show how opportunity entrepreneurship results in higher levels of well-being. SDT tells us that psychological needs of autonomy and competence, and the PWT tells us that decent work as meaningfulness are the key for well-being, and we argue that opportunity entrepreneurship provides support for the satisfaction of these needs which in turn lead to higher well-being. We find that with the presence of autonomy, competence, and

meaningfulness among opportunity entrepreneurs they are more likely to have higher levels of well-being. This finding provides support to by Ryff's (2019) arguments about the conditions necessary for eudaimonic well-being among entrepreneurs. Furthermore, by using individualism as a cultural dimension at the country level, we demonstrate its moderating effect on the opportunity entrepreneurship and well-being relationship. We show that in individualistic countries the well-being improves faster when an entrepreneur is an opportunity entrepreneur. Whereas in a collectivist country the gains, in terms of well-being, from becoming an opportunity entrepreneur is relatively more modest.

4.7 Implications for Study Two

Our study has some important practical implications. First, we found that opportunity entrepreneurs have higher subjective well-being than necessity entrepreneurs. This means that policy makers should strive to enable people to be in a position to choose entrepreneurship as a career and not just end up in entrepreneurship due to a lack of other options for employment. More supportive social policies would allow people to have these choices. Entrepreneurship has been lauded as a way to alleviate poverty and reduce unemployment by many governments. However, as we argue in this study, entrepreneurship due to necessity and to take advantage of perceived opportunities should not be lumped into a single label of "entrepreneurship". The experiences, motivation and well-being of the two types differ significantly. And policies that ignore the difference are bound to fail in achieving desired outcomes. To encourage opportunity entrepreneurship, individuals should be in a position to have options other than starting their own business and have access to decent work. Governments should create support mechanisms such as cooperatives for those that wish to start their business.

Policy makers should not take a one size fits all attitude towards entrepreneurship because the necessity and opportunity entrepreneurs have very distinct characteristics. Policies that assume the entrepreneurs are generally opportunity oriented may not be suitable to support necessity entrepreneurs. The balance between the necessity and opportunity entrepreneurs may be different in different economies. Furthermore, we would be more likely to see a predominance of necessity entrepreneurs in disadvantaged populations and more opportunity entrepreneurs in more affluent ones (Williams, Nadin, & Rodgers, 2012). More nuanced policies are needed to ensure that low-paid, sweatshop like informal necessity entrepreneurship are not created but voluntarily chosen self-employment is supported. To increase the ratio of opportunity entrepreneurs, policy makers need to strengthen the trust in the state by eliminating corruption (Aparicio, Urbano, & Audretsch, 2016).

An effective social security system also serves as a tool to encourage individuals to take the risk of becoming an opportunity entrepreneur. Social security systems that provide a safety net have been proven as promoter of opportunity entrepreneurship in the high technology based businesses (Song, Park, & Kim, 2020).

The governments, the education system, the financial infrastructure, the productive sectors and the civil society must interact to provide the context that is conducive for opportunity entrepreneurship (Aparicio et al., 2016). The education system must ensure that the necessary skills are developed and that individuals have the confidence in their skills to establish their own business. Individuals that may consider starting their own business to take advantage of opportunities in the market also need to be able to find funding that is reasonable.

The quality of life for entrepreneurs is an issue that governments should consider in their policies to promote entrepreneurship. Our results have shown that the opportunity entrepreneurs have higher levels of well-being compared to necessity entrepreneurs and that autonomy, competence, and meaningfulness are also positively related to well-being. We have also shown that those in individualistic societies especially benefit more from being an opportunity entrepreneur in terms of their well-being. Thus, policies that merely focus on reducing unemployment by moving people into self-employed status because they are provided no other option are not likely to enhance their quality of life. Quality of life of entrepreneurs must be included as a policy objective by governments. Improvements in quality of life require the satisfaction of basic needs, however, the satisfaction of basic needs is only a precondition and not sufficient for improved quality of life. Thus, economic development and specifically increases in per capita income will increase the portion of the population that can meet their basic needs, however, the mere satisfaction of basic needs will not guarantee increased quality of life (Samli, 2008). The policy makers need to develop a favorable atmosphere for entrepreneurship including infrastructure, establishment of communities of entrepreneurs through mechanisms such as cooperatives that can assist individuals especially in collectivist societies.

Second, we demonstrate using a sample from 37 different countries that competence and meaningfulness are key processes that elevate the subjective well-being among entrepreneurs. This means that policy makers should focus on programs to build skills and knowledge of entrepreneurs to enhance competence. Furthermore, the entrepreneurs should be able to spend more time in performing tasks that they find relevant and meaningful. Many entrepreneurs may lose motivation when they spend

too much time with the governmental bureaucratic processes instead of actually running their business. Entrepreneurs would find more meaning in activities that lead them to become entrepreneurs in the first place.

Third, we found that in individualistic countries the well-being gain to be an opportunity entrepreneur is higher. This reveals that to encourage entrepreneurship, there are no one size fits all policies. The local context needs to be taken into account. Different cultural conditions or economic conditions may inhibit or enhance the impact of a policy.

Our study also has some important theoretical implications. We contribute to the SDT by showing how the psychological needs may have differing levels of influence on well-being under different cultural contexts. Moreover, we contribute to the PWT by investigating decent work in terms of meaningfulness of work among entrepreneurs. As one of the Sustainable Development Goals of the United Nations, decent work concept means that only reducing unemployment should not be the goal for policy makers but creating jobs that provide “decent work” or meaningful work should be a policy objective. Some countries view entrepreneurship as a strategy to reduce unemployment. When individuals become opportunity entrepreneurs it would be regarded as decent work and meaningful. Whereas when an individual becomes an entrepreneur by necessity, they are less likely to see what they do as meaningful (ILO, n.d.).

4.8 Limitations and Recommendations for Future Research

The entrepreneurship and well-being relationships are certainly not simple. Well-being is a concept that can be discussed in terms of hedonic – avoiding pain and eudaimonic

– fulfilment of potential and growth and it is not constant but will change over time and across contexts which themselves are changing (Ryff, 2019). Future studies should distinguish between eudaimonic well-being and hedonic well-being among opportunity and necessity entrepreneurs.

Although we account for the country context in our empirical investigation, we do not have the longitudinal change accounted for in our data over time. Thus, the time dimension of well-being is missing from our investigation (Wach, Stephan, Weinberger, & Wegge, 2020). We rely on GEM data from 2013 for our study. While the GEM provides a multinational dataset that allows comparison across contexts and the 2013 data includes a multiple item measure of well-being, for the opportunity entrepreneurship, we had to make use of a dichotomous response that classified entrepreneurs into one or the other group. We were also limited in the available items to measure autonomy, competence, and meaningfulness in the GEM study. Due to the lack of relevant items, we had could not include relatedness in our model. This is a limitation for our study.

Necessity versus opportunity entrepreneurship orientation is not necessarily a mutually exclusive position but can be viewed on a continuum. Furthermore, there is evidence that some necessity entrepreneurs' explanations for why they entered entrepreneurship seem to change in later years when they are questioned again (Williams et al., 2012). Thus, future studies should use longitudinal designs to see how responses may change over time. Future studies can also utilize scales that can reveal on a to what extent the respondent is following a calling and choosing to start their own business versus to what extent they start a business due to lack of other alternatives.

Chapter 5

CONCLUSION

Entrepreneurship is getting popular nowadays. Countries view entrepreneurship as a way to reduce unemployment. We believe that policy makers who wish to support an entrepreneurial climate and ecosystem in their countries need to have a good understanding of the factors that lead people to become entrepreneurs and the factors that lead to the well-being of those entrepreneurs. In Study One (Atalay & Tanova, 2019) we investigated entry into entrepreneurship, we identified factors that enable entrepreneurship at the personal and at the country level. In Study Two (Atalay & Tanova, 2021) we investigated opportunity and necessity entrepreneurs, and we found that opportunity and necessity entrepreneurs differ in their well-being.

This dissertation reports the results of two studies that use the Global Entrepreneurship Monitor datasets (GEM). In Study One (Atalay & Tanova, 2019) we have used data from GEM 2015 APS for 54 countries (Urbano & Alvarez, 2014) and we combined this data with the uncertainty avoidance indexes from the Hofstede Insights (Hofstede Insights, 2018) for each country that had been included in the data we used. This study investigated the factors that influence why individuals become entrepreneurs. We included the factors that were listed in the prior literature in our conceptual model. In our analysis we used binary logistic regression in three stages where we added groups of independent variables or predictors that we believed were factors that influence entrepreneurship. In the first stage we examined the control variables (Arenius &

Minniti, 2005), gender and age. We noticed that there is a negative effect on the entrepreneurship the gender is female. Similar results have been reported in the literature indicating that women face more barriers in becoming entrepreneurs. The conditions in which women are not provided the same opportunities as men limit the experience, training and social capital of women to become entrepreneurs (Ettl & Welter, 2010; Verheul & Thurik, 2001). In terms of age, we have found that individuals with ages between 18-34 and 35-54 are more likely to become entrepreneurs (Lévesque & Minniti, 2006). We have also observed that as the individuals get older, they are less likely to become entrepreneurs.

In the second stage of introducing predictors or independent variable to see how they may influence our dependent variable (entrepreneurship), we examined several independent variables. We have noticed that independent variables we proposed; socio-cultural factors, entrepreneurial network, perceived opportunity, and perceived confidence have positive impact on entrepreneurship. On the other hand, fear of failure has a negative effect on individuals to become entrepreneurs.

In the third stage, we introduced a country level predictor or independent variable to see how it may influence entrepreneurship as measured by Total Entrepreneurial Activity (TEA). The uncertainty avoidance indexes (UAI) of 54 countries was added to our model and the result show that countries with low UAI are more likely to have high entrepreneurial activities. As an example, Sweden with a low UAI has a cultural atmosphere which has a more relaxed attitude about things that are less familiar and deviation from the norm is more easily tolerated people are more likely to be willing to become entrepreneurs. In countries with low UAI, people are more willing to accept ambiguity and they are more comfortable with the unknown or the unfamiliar. On the

other hand, in countries with high UAI such as Greece or Portugal where the culture encourages that firm codes of belief are kept, and prejudice of unusual behavior and ideas is the norm entrepreneurship is less attractive. In these cultures, there is a psychological need for rules (although in reality or in practice the rules rarely seem to work) innovation may be refused, safety is a significant element in individual motivation (Hofstede Insights, 2018). These cultural characteristics may make salaried employment more appealing in countries with high UAI rather than taking the route of entrepreneurship which requires tolerance of the unknown, risk taking and innovation.

As our findings demonstrate women face more barriers in starting a business compared to men, hence governments must initiate policies that foster and support women to increase the number of women participating in entrepreneurship. The reason women are facing challenges in becoming entrepreneurs compared to men is perhaps because of gender roles in many societies prevent women from being part of the social networks that can lead to opportunities for them to become entrepreneurs. Male dominated countries may also exclude women from many of the opportunities that men have and place the child rearing and home making responsibilities on women who are left with limited time to work on establishing their businesses. This shows that governments must reinforce programs supporting women to become entrepreneurs.

We have seen in our results that as the age increases individuals are less likely to become entrepreneurs. When consider that in many countries there is a problem of an “aging population” which means that there will be more people that are older in the society, we can see that it is necessary to keep more of the older generation as contributing members to the economy, Therefore programs are required to foster older individuals to stay in employment longer or to become entrepreneurs. Older

individuals who have gained the social and intellectual capital, can utilize these to succeed in starting their own businesses. Yet, there are many social and personal impediments that hinder older individuals in starting a new business. Many countries have population of older individuals which refers to necessary precautions should be taken to maintain the aging individuals in the establishment of new businesses. There are some examples of programs to inhibit discrimination of older generations in employment. There are also programs to foster entrepreneurship for young individuals. But programs supporting older people in entrepreneurship are missing and are required.

According to our results, confidence, entrepreneurial network, perceived opportunity have positive impact on entrepreneurship, we can conclude that the programs fostering and supporting women and older generations in entrepreneurship must not only concentrate in developing skills and knowledge but also in developing the entrepreneurial network.

In Study Two (Atalay & Tanova, 2021) we examined the relationship between opportunity entrepreneurship and subjective well-being. We were interested in how the opportunity entrepreneurship improves well-being thus we investigated whether the opportunity entrepreneurship improves psychological functioning of the entrepreneurs which then enables elevated well-being. So, we wanted to understand if the reason that opportunity entrepreneurs seem to be happier compared to necessity entrepreneurs is because being an opportunity entrepreneur improves the levels of psychological functioning with higher levels of autonomy, meaningfulness and competence which in turn leads to well-being. We also examined how opportunity entrepreneurship and the well-being relationship may be weaker or stronger in

different cultural contexts. Thus, we examined the moderating role of individualism as a cultural characteristic in a country to see if it makes a difference in the opportunity entrepreneurship and well-being relationship. So, we wanted to understand if the well-being of opportunity entrepreneurs in individualistic societies compared to necessity entrepreneurs increases at a faster rate.

Well-being is becoming a policy objective for many governments. As policy makers realize that the goal of economic development is not merely achieving increases in economic outcomes but should also lead to well-being of the society, they are becoming more concerned in what factors can increase well-being. As a result, the well-being of entrepreneurs is also receiving more interest from academics and policy makers. However, how the process of entrepreneurship enhances well-being and the circumstances in which this relationship becomes stronger or weaker is still not well understood. Mostly of the literature on entrepreneurship have investigated factors influencing the success or failure of entrepreneurs. As the importance of well-being as a concept becomes more widely understood, we also see that understanding the factors regarding the well-being of entrepreneurs is receiving more interest (Wiklund et al., 2019). To understand the well-being of entrepreneurs we need to first understand that entrepreneurs are not a homogenous group and as the circumstances that entrepreneurs find themselves are different. Some entrepreneurs have gone into entrepreneurship by their own desire to take advantage of an opportunity they identified. These are the opportunity entrepreneurs. On the other hand, some entrepreneurs have had to become an entrepreneur because they were missing other viable choices and they could not become employed by others. These are the necessity entrepreneurs. Yet, many studies

have ignored this important distinction in entrepreneurship in their analysis of well-being of entrepreneurs (Amorós, Cristi, & Naudé, 2020).

Our objective in Study Two (Atalay & Tanova, 2021) was to employ the principles of the Self Determination Theory (SDT) and the Psychology of Work Theory (PWT) to explain how opportunity entrepreneurship results in higher levels of well-being. We expect that the psychological needs of autonomy and competence as explained by SDT, and meaningfulness that comes from decent work as explained by the PWT are the reasons that opportunity entrepreneurs have higher levels of well-being. Particularly, we state that opportunity entrepreneurship enables the fulfillment of these needs and subsequently result in higher well-being. In Study Two (Atalay & Tanova, 2021) we find that opportunity entrepreneurs have higher levels of well-being as they are likely to have higher levels of autonomy, competence and meaningfulness. This result also supports Ryff's (2019) arguments on the situations required for eudaimonic well-being within entrepreneurs. Besides, we expose the moderating effect of individualism at the country level on the relationship of opportunity entrepreneurship and well-being. We demonstrate that the well-being of an opportunity entrepreneur in an individualistic country increases rapidly, however the well-being of an opportunity entrepreneur in a collectivist country increases at a slower rate.

There are some important theoretical implications in our study. We contribute to the SDT by exposing how the psychological needs may have different impact levels on well-being under different cultural dimensions. In addition, we contribute to the PWT by examining decent work in terms of meaningfulness of work between entrepreneurs. Decent work notion is one of the Sustainable Development Goals of the United Nations referring that the objective of policy makers should not be just decreasing

unemployment, instead their objective should be creating jobs which in turn provide “decent work” or meaningful work. But some countries still consider entrepreneurship as a way to decrease unemployment. Countries should focus on encouraging opportunity entrepreneurs rather than leaving people without alternatives and forcing them to become necessity entrepreneurs. Meaningful and decent work can be achieved when individuals become opportunity entrepreneurs. However, when an individual becomes an entrepreneur by necessity, they would be less likely to sense the work they do as decent work or meaningful work. (ILO, n.d.).

There are also some important practical implications for policy makers. Firstly, since we observed that opportunity entrepreneurs have higher subjective well-being than necessity entrepreneurs, policy makers should develop programs to encourage people to willingly choose entrepreneurship as a career. The policy makers should realize that they can improve well-being of their society if they increase the ratio of opportunity entrepreneurs to necessity entrepreneurs that have to go into self-employment due to lack of alternative employment choices. There should be more encouraging social policies that would enable people to have choices. In many countries, governments have praised entrepreneurship to relieve poverty and decrease unemployment. Nevertheless, we defend in this study that necessity entrepreneurship and opportunity entrepreneurship should not be considered together under the same identification of “entrepreneurship”. These two sorts are notably different by means of experiences, motivation and well-being. Any policies disregarding these differences would not be successful in reaching desired goals. Individuals must have choices than establishing their own business and have reach to decent work in order to inspire opportunity

entrepreneurship. Cooperatives could be one of the support instruments as a government policy for individuals who want to start their businesses.

There is no one kind of policy for entrepreneurship since opportunity and necessity entrepreneurship are two different features. Policies made for opportunity entrepreneurs may not be right for necessity entrepreneurs. The balance of policies may be different in various countries with different economies. Moreover, perhaps we would see the majority of entrepreneurs are necessity entrepreneurs in poor countries and opportunity entrepreneurs in rich countries (Williams et al., 2012). Fine distinctive policies are required to make sure that willingly chosen self-employment is supported. The number of opportunity entrepreneurs could be increased when policy makers remove corruption to reinforce the trust in the country (Aparicio et al., 2016).

Individuals could be motivated to take the risk of becoming an opportunity entrepreneur by means of a successful social security system. Social security systems providing a secure system have been demonstrated as supporter of opportunity entrepreneurship in the businesses using high technology (Song et al., 2020).

To offer the suitable background for opportunity entrepreneurship, the governments, the education system, the financial infrastructure, the production lines and the civil society should work together (Aparicio et al., 2016). The education system must provide the development of the required skills and the self-confidence for starting their own businesses. In addition, these individuals who take advantage of opportunities in the market must be able to find the necessary funding.

In policy making governments must consider the quality of life for entrepreneurs as an important issue. In our findings the opportunity entrepreneurs have higher levels of well-being compared to necessity entrepreneurs and that autonomy, competence, and meaningfulness are also positively related to well-being. We have also demonstrated that in terms of well-being, opportunity entrepreneurs benefit more in individualistic countries. Hence, policies that only concentrate in decreasing unemployment by encouraging individuals to be self-employed as they have no other choice are perhaps not improving their quality of life. Governments must see quality of life of entrepreneurs as a policy goal. The satisfaction of basic needs is necessary to improve quality of life, but, the fulfilment of basic needs is just a prerequisite and not adequate for better quality of life. Therefore, economic development and increases in per capita income precisely will increase the ratio of population that can satisfy their basic needs, nevertheless, the satisfaction of basic needs only will not assure better quality of life (Samli, 2008). The governments must initiate an advantageous environment for entrepreneurship involving infrastructure such as cooperatives that can support individuals particularly in collectivist countries.

Secondly, we show that competence and meaningfulness are the main mechanisms raising the well-being of entrepreneurs. This indicates that governments must concentrate in policies developing entrepreneurs' skills and knowledge to improve competence. Moreover, the entrepreneurs must focus on performing tasks that they feel relevant and meaningful. Numerous entrepreneurs spend a lot of time in dealing with governmental bureaucratic procedures rather than operating their businesses, and this may reduce their motivation. It would be more meaningful if entrepreneurs focus on activities that make them to become entrepreneurs in the first place.

Thirdly, we realized that an opportunity entrepreneur obtains higher well-being in individualistic countries. This means that there is no one kind of standard set of policies to encourage entrepreneurship. Each country's situation must be considered. Unlike cultural circumstances or economic circumstances may hinder or improve the effect of a policy.

REFERENCES

- Acs, Z. J. (1992). Small business economics: A global perspective. *Challenge*, 35(6), 38–44.
- Acs, Z. J., Desai, S., & Hessels, J. (2008). Entrepreneurship, economic development and institutions. *Small Business Economics*, 31(3), 219–234. <https://doi.org/10.1007/s11187-008-9135-9>
- Ahuvia, A. C. (2002). Individualism / Collectivism and Cultures of Happiness : a Theoretical Conjecture on the Relationship Between Consumption ., *Journal of Happiness Studies*, 3, 23–36.
- Aldrich, H. E. (1986). Entrepreneurship through social networks. *The Art and Science of Entrepreneurship*, 3–23.
- Aldrich, H., Rosen, B., & Woodward, W. (1987). The impact of social networks on business foundings and profit: a longitudinal study. *Frontiers of Entrepreneurship Research*, 7(154), 68.
- Allan, B. A., Autin, K. L., & Duffy, R. D. (2016). Self-Determination and Meaningful Work: Exploring Socioeconomic Constraints. *Frontiers in Psychology*, 7(February), 1–9. <https://doi.org/10.3389/fpsyg.2016.00071>

- Allan, B. A., Batz-Barbarich, C., Sterling, H. M., & Tay, L. (2019). Outcomes of Meaningful Work: A Meta-Analysis. *Journal of Management Studies*, 56(3), 500–528. <https://doi.org/10.1111/joms.12406>
- Alvarez, S. A., & Busenitz, L. W. (2001). A resource-based theory of entrepreneurship. *Journal of Management*, 27(6), 755–775.
- Amoros, J. E., & Bosma, N. (2013). *Global Entrepreneurship Monitor 2013 Global Report*.
- Amorós, J. E., Cristi, O., & Naudé, W. (2020). Entrepreneurship and subjective well-being: Does the motivation to start-up a firm matter? *Journal of Business Research*, 127(December 2020), 389–398. <https://doi.org/10.1016/j.jbusres.2020.11.044>
- Amorós, J. E., Cristi, O., & Naudé, W. (2021). Entrepreneurship and subjective well-being: Does the motivation to start-up a firm matter? *Journal of Business Research*, 127, 389–398. <https://doi.org/10.1016/j.jbusres.2020.11.044>
- Aparicio, S., Urbano, D., & Audretsch, D. (2016). Institutional factors, opportunity entrepreneurship and economic growth: Panel data evidence. *Technological Forecasting and Social Change*, 102, 45–61. <https://doi.org/10.1016/j.techfore.2015.04.006>

Arano, K., Parker, C., & Terry, R. (2010). Gender-based risk aversion and retirement asset allocation. *Economic Inquiry*, 48(1), 147–155.
<https://doi.org/10.1111/j.1465-7295.2008.00201.x>

Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Business Economics*, 24(3), 233–247. <https://doi.org/10.1007/s11187-005-1984-x>

Ashforth, B. E., & Pratt, M. G. (2003). Institutionalized spirituality. *Handbook of Workplace Spirituality and Organizational Performance*, 93–107.

Atalay, I., & Tanova, C. (2019). The effect of motivational factors on entrepreneurship: Does uncertainty avoidance cultural value at the country level make a difference? In *3rd International EMI Entrepreneurship & Social Sciences Congress*. Nicosia, Cyprus.

Atalay, I., & Tanova, C. (2021). Opportunity Entrepreneurship and Subjective Wellbeing: The Role of Psychological Functioning. Does individualism change this relationship? *Applied Research in Quality of Life*.
<https://doi.org/https://doi.org/10.1007/s11482-021-09962-2>

Bakry, D., Khalifa, R., & Dabab, M. (2019). The effectiveness of entrepreneurship programs to reduce unemployment in developing countries: The case of Saudi Arabia. *PICMET 2019 - Portland International Conference on Management of Engineering and Technology: Technology Management in the World of Intelligent Systems, Proceedings*, 1–8.
<https://doi.org/10.23919/PICMET.2019.8893678>

Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology*, 25(5), 729.

Baron, R. A. (2010). Job design and entrepreneurship: Why closer connections= mutual gains. *Journal of Organizational Behavior*, 31(2/3), 370–378.

Baron, R. A., & Ensley, M. D. (2006). Opportunity recognition as the detection of meaningful patterns: Evidence from comparisons of novice and experienced entrepreneurs. *Management Science*, 52(9), 1331–1344.

Bates, D., Mächler, M., Bolker, B. M., & Walker, S. C. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, 67(1).
<https://doi.org/10.18637/jss.v067.i01>

Baumol, W. J. (2010). *The microtheory of innovative entrepreneurship*. Princeton University Press.

Berger, B. (1991). *The culture of entrepreneurship*. Ics Press San Francisco.

- Beynon, M. J., Jones, P., & Pickernell, D. (2016). Country-based comparison analysis using fsQCA investigating entrepreneurial attitudes and activity. *Journal of Business Research*, 69(4), 1271–1276.
<https://doi.org/10.1016/j.jbusres.2015.10.091>
- Binder, M., & Coad, A. (2013). Life satisfaction and self-employment: A matching approach. *Small Business Economics*, 40(4), 1009–1033.
<https://doi.org/10.1007/s11187-011-9413-9>
- Binder, M., & Coad, A. (2016). How Satisfied are the Self-Employed? A Life Domain View. *Journal of Happiness Studies*, 17(4), 1409–1433.
<https://doi.org/10.1007/s10902-015-9650-8>
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3), 442–453.
- Birley, S. (1985). The role of networks in the entrepreneurial process. *Journal of Business Venturing*, 1(1), 107–117.
- Blanch, D. G., Oswald, A., & Stutzer, A. (2001). Latent entrepreneurship across nations, 45, 680–691.
- Blanchflower, D. G. (2004). *Self-employment: More may not be better*. National Bureau of Economic Research.

- Blustein, D. L. (2001). Extending the reach of vocational psychology: Toward an inclusive and integrative psychology of working. *Journal of Vocational Behavior*, 59(2), 171–182. <https://doi.org/10.1006/jvbe.2001.1823>
- Blustein, D. L. (2013). The psychology of working: A new perspective for a new era. *The Oxford Handbook of the Psychology of Working*, 3–18.
- Bowey, J. L., & Easton, G. (2007). Entrepreneurial social capital unplugged: An activity-based analysis. *International Small Business Journal*, 25(3), 273–306. <https://doi.org/10.1177/0266242607076528>
- 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. <https://doi.org/10.1177/104225879401800404>
- Brieger, S. A., & De Clercq, D. (2019). Entrepreneurs' individual-level resources and social value creation goals: The moderating role of cultural context. *International Journal of Entrepreneurial Behaviour and Research*, 25(2), 193–216. <https://doi.org/10.1108/IJEBR-12-2017-0503>
- Brockhaus, R. H. (1980). Risk taking propensity of entrepreneurs_Brockhaus_1980. *Academy of Management Journal*, 23(3), 509–520. Retrieved from <https://search-proquest-com.libproxy.tuni.fi/docview/229512667/fulltextPDF/F59ECF71BC8D4430PQ/1?accountid=14242>

- Brockhaus, R. H. (1982). The psychology of the entrepreneur. *University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship*.
- Brüderl, J., & Preisendörfer, P. (1998). Network Support and the Success of Newly Founded Businesses. *Small Business Economics*, 10(3), 213–225. <https://doi.org/10.1023/A:1007997102930>
- Caliendo, M., Fossen, F. M., & Kritikos, A. S. (2009). Risk attitudes of nascent entrepreneurs-new evidence from an experimentally validated survey. *Small Business Economics*, 32(2), 153–167. <https://doi.org/10.1007/s11187-007-9078-6>
- Campbell, C. A. (1992). A Decision Theory Model for Entrepreneurial Acts. *Entrepreneurship Theory and Practice*.
- Carsrud, A., & Brännback, M. (2011). Entrepreneurial Motivations: What Do We Still Need to Know? *Journal of Small Business Management*, 49(1), 9–26. <https://doi.org/10.1111/j.1540-627X.2010.00312.x>
- Casson, M., & Della Giusta, M. (2007). Entrepreneurship and social capital: Analysing the impact of social networks on entrepreneurial activity from a rational action perspective. *International Small Business Journal*, 25(3), 220–244. <https://doi.org/10.1177/0266242607076524>

- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 9026(97), 295–316.
- Clarysse, B., Tartari, V., & Salter, A. (2011). The impact of entrepreneurial capacity, experience and organizational support on academic entrepreneurship. *Research Policy*, 40(8), 1084–1093. <https://doi.org/10.1016/j.respol.2011.05.010>
- Conner, C. (2012). Do older or younger entrepreneurs have the greater advantage? *Forbes*. Retrieved from <https://www.forbes.com/sites/cherylsnappconner/2012/09/03/do-older-or-younger-entrepreneurs-have-the-greater-advantage/?sh=1be454d63baa>
- Cordeiro, P., Paixão, P., Lens, W., Lacante, M., & Sheldon, K. (2016). Factor structure and dimensionality of the balanced measure of psychological needs among Portuguese high school students. Relations to well-being and ill-being. *Learning and Individual Differences*, 47, 51–60. <https://doi.org/10.1016/j.lindif.2015.12.010>
- Cornelia, N., Sabine, S., & Fried-erike, S. (2012). Thriving at work—A diary study. *Journal of Organizational Behavior*, 33(4), 468.
- Cueto, B., & Pruneda, G. (2017). Job Satisfaction of Wage and Self-Employed Workers. Do Job Preferences Make a Difference? *Applied Research in Quality of Life*, 12(1), 103–123. <https://doi.org/10.1007/s11482-016-9456-9>

- Cummins, R. A. (1998). The second approximation to an international standard for life satisfaction. *Social Indicators Research*, 43(3), 307–334. <https://doi.org/10.1023/A:1006831107052>
- Davidsson, P. (1995). Determinants of entrepreneurial intentions. In *RENT XI Workshop*.
- De Clercq, D., Danis, W. M., & Dakhli, M. (2010). The moderating effect of institutional context on the relationship between associational activity and new business activity in emerging economies. *International Business Review*, 19(1), 85–101. <https://doi.org/10.1016/j.ibusrev.2009.09.002>
- De Clercq, D., Lim, D. S. K., & Oh, C. H. (2013). Individual-level resources and new business activity: The contingent role of institutional context. *Entrepreneurship: Theory and Practice*, 37(2), 303–330. <https://doi.org/10.1111/j.1540-6520.2011.00470.x>
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19(2), 109–134.
- Deci, E. L., & Ryan, R. M. (2004). *Handbook of self-determination research*. University Rochester Press.
- Dheer, R. J. S. (2017). Cross-national differences in entrepreneurial activity: role of culture and institutional factors. *Small Business Economics*, 48(4), 813–842. <https://doi.org/10.1007/s11187-016-9816-8>

- Drakopoulou Dodd, S., & Anderson, A. R. (2007). Mumpsimus and the mything of the individualistic entrepreneur. *International Small Business Journal*, 25(4), 341–360. <https://doi.org/10.1177/0266242607078561>
- Dubini, P., & Aldrich, H. (1991). Personal and extended networks are central to the entrepreneurial process. *Journal of Business Venturing*, 6(5), 305–313. [https://doi.org/10.1016/0883-9026\(91\)90021-5](https://doi.org/10.1016/0883-9026(91)90021-5)
- Duffy, R. D., Blustein, D. L., Diemer, M. A., & Autin, K. L. (2016). The psychology of working theory. *Journal of Counseling Psychology*, 63(2), 127.
- Eisenhardt, K. M., Brown, S. L., & Neck, H. M. (2000). Competing on the entrepreneurial edge. *Entrepreneurship as Strategy*, 49–62.
- Ettl, K., & Welter, F. (2010). Gender, context and entrepreneurial learning. *International Journal of Gender and Entrepreneurship*, 2(2), 108–129. <https://doi.org/10.1108/17566261011050991>
- FerDuffy, R. D., Autin, K. L., & Bott, E. M. (2015). Work volition and job satisfaction: Examining the role of work meaning and person environment. *Career Development Quarterly*, 63, 126–140.
- Fisher, R., Maritz, A., & Lobo, A. (2014). Evaluating entrepreneurs' perception of success: Development of a measurement scale. *International Journal of Entrepreneurial Behaviour and Research*, 20(5), 478–492. <https://doi.org/10.1108/IJEER-10-2013-0157>

- Fotiadis, A., Abdulrahman, K., & Spyridou, A. (2019). The mediating roles of psychological autonomy, competence and relatedness on work-life balance and well-being. *Frontiers in Psychology*, 10(MAY), 1–7. <https://doi.org/10.3389/fpsyg.2019.01267>
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2(3), 300–319. <https://doi.org/10.1037/1089-2680.2.3.300>
- Fritz, C., Lam, C. F., & Spreitzer, G. M. (2011). It's the little things that matter: An examination of knowledge workers' energy management. *Academy of Management Perspectives*, 25(3), 28–39.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331–362. <https://doi.org/10.1002/job.322>
- Gartner, W. B. (1988). “Who is an entrepreneur?” is the wrong question. *American Journal of Small Business*, 12(4), 11–32.
- Griffin, D. W., & Varey, C. A. (1996). Towards a Consensus on Overconfidence. *Organizational Behavior and Human Decision Processes*, 65(3), 227–231. <https://doi.org/10.1006/obhd.1996.0023>

- Hayes, A. F., & Rockwood, N. J. (2017). Regression-based statistical mediation and moderation analysis in clinical research: Observations, recommendations, and implementation. *Behaviour Research and Therapy*, 98, 39–57. <https://doi.org/10.1016/j.brat.2016.11.001>
- Haynie, J. M., Shepherd, D. A., & Patzelt, H. (2012). Cognitive Adaptability and an Entrepreneurial Task: The Role of Metacognitive Ability and Feedback. *Entrepreneurship: Theory and Practice*, 36(2), 237–265. <https://doi.org/10.1111/j.1540-6520.2010.00410.x>
- Hayton, J. C., George, G., & Zahra, S. A. (2002a). National culture and entrepreneurship: A review of behavioral research. *Entrepreneurship Theory and Practice*, 26(4), 33–52.
- Hayton, J. C., George, G., & Zahra, S. A. (2002b). National Culture and Entrepreneurship: A Review of Behavioral Research. *Entrepreneurship Theory and Practice*, 26(4), 33–52. <https://doi.org/10.1177/105960117900400419>
- Hayward, M. L. A., Shepherd, D. A., & Griffin, D. (2006). A hubris theory of entrepreneurship. *Management Science*, 52(2), 160–172.
- Hessels, J., Van Gelderen, M., & Thurik, R. (2008a). Drivers of entrepreneurial aspirations at the country level: The role of start-up motivations and social security. *International Entrepreneurship and Management Journal*, 4(4), 401–417. <https://doi.org/10.1007/s11365-008-0083-2>

- Hessels, J., Van Gelderen, M., & Thurik, R. (2008b). Entrepreneurial aspirations, motivations, and their drivers. *Small Business Economics*, 31(3), 323–339. <https://doi.org/10.1007/s11187-008-9134-x>
- Hofstede, G. (1980). Culture's consequences: International differences in work-related values. *SAGE Open*.
- Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia Pacific Journal of Management*, 1(2), 81–99. <https://doi.org/10.1007/BF01733682>
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage publications.
- Hofstede, G.H., Hofstede, G. J., & Minkov, M. (2010). *Cultures and Organizations: Software of the Mind: Intercultural Cooperation and Its Importance for Survival* (3rd ed.). New York, NY: McGraw-Hill.
- Hofstede, Geert H, & Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage.
- Hoogendoorn, B. (2016). The Prevalence and Determinants of Social Entrepreneurship at the Macro Level, 54, 278–296. <https://doi.org/10.1111/jsbm.12301>
- Hosseini, M., Dadfar, H., & Brege, S. (2018). Firm-level entrepreneurship and international performance: A simultaneous examination of orientation and action. *Journal of International Entrepreneurship*, 16(3), 338–368.

- Howell, A. J. (2009). Flourishing: Achievement-related correlates of students' well-being. *Journal of Positive Psychology*, 4(1), 1–13. <https://doi.org/10.1080/17439760802043459>
- Hox, J., Moerbeek, M., & van de Schoot, R. (2010). *Multilevel Analysis: Techniques and Applications* (Second). Routledge. Retrieved from <https://doi.org/10.4324/9780203852279>
- Huta, V., & Ryan, R. M. (2010). Pursuing Pleasure or Virtue: The Differential and Overlapping Well-Being Benefits of Hedonic and Eudaimonic Motives. *Journal of Happiness Studies*, 11(6), 735–762. <https://doi.org/10.1007/s10902-009-9171-4>
- ILO. (n.d.). Decent work. <https://www.ilo.org/global/topics/decent-work/lang--en/index.htm>
- Insights, H. (2018). Country comparison. *Hofstede Insights*. <https://www.hofstede-insights.com/>
- International Labour Organization. (2015). Decent Work. <https://www.ilo.org/global/topics/decent-work/lang--en/index.htm>
- Johannisson, B. (1988). Business formation—a network approach. *Scandinavian Journal of Management*, 4(3–4), 83–99.

- Johnson, P., Curran, J., Duberley, J., & Blackburn, R. A. (2001). *Researching the small Enterprise*. Sage.
- Kalleberg, A. L., & Leicht, K. T. (1991). Gender and organizational performance: Determinants of small business survival and success. *Academy of Management Journal*, 34(1), 136–161.
- Kara, A., & Petrescu, M. (2018). Self-Employment and its Relationship to Subjective Well-Being. *International Review of Entrepreneurship*, 16(1), 115–140.
<https://doi.org/1575>
- Kasser, T. (2000). Two versions of the American dream: Which goals and values make for a high quality of life? In *Advances in quality of life theory and research* (pp. 3–12). Springer.
- Kasser, T., & Ryan, R. M. (2001). Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals.
- Kasser, T., Ryan, R. M., Zax, M., & Sameroff, A. J. (1995). The relations of maternal and social environments to late adolescents' materialistic and prosocial values. *Developmental Psychology*, 31(6), 907.
- Kautonen, T., Down, S., & Minniti, M. (2014). Ageing and entrepreneurial preferences. *Small Business Economics*, 42(3), 579–594.
<https://doi.org/10.1007/s11187-013-9489-5>

- Keller, H. (2016). Psychological autonomy and hierarchical relatedness as organizers of developmental pathways. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 371(1686). <https://doi.org/10.1098/rstb.2015.0070>
- Kennedy, P. (1992). A guide to Econometrics (the MIT press, Cambridge, Massachusetts).
- Keyes, C. L. M. (2010). Flourishing. *The Corsini Encyclopedia of Psychology*, 1.
- Kickul, J., Page, T. C., Wilson, F., Marlino, D., & Lyon, E. M. (2008). Are misalignments of perceptions and self-efficacy causing gender gaps in entrepreneurial intentions among our nation ' s teens ?, 15(2), 321–335. <https://doi.org/10.1108/14626000810871709>
- Kirzner, I. M. (1973). *Competition and Entrepreneurship*. University of Chicago Press.
- Langowitz, N., & Minniti, M. (2007). The Entrepreneurial Propensity of Women. *Entrepreneurship Theory and Practice*, (May), 341–365.
- Larsson, J. P., & Thulin, P. (2019). Independent by necessity? The life satisfaction of necessity and opportunity entrepreneurs in 70 countries. *Small Business Economics*, 53(4), 921–934. <https://doi.org/10.1007/s11187-018-0110-9>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.

- Lee, S. H., & Wong, P. K. (2004). An exploratory study of technopreneurial intentions: A career anchor perspective. *Journal of Business Venturing*, 19(1), 7–28.
[https://doi.org/10.1016/S0883-9026\(02\)00112-X](https://doi.org/10.1016/S0883-9026(02)00112-X)
- LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal*, 48(5), 764–775.
- Levesque, M., & Minniti, M. (2011). AGE MATTERS : HOW DEMOGRAPHICS INFLUENCE AGGREGATE ENTREPRENEURSHIP, 284, 269–284.
<https://doi.org/10.1002/sej>
- Lévesque, M., & Minniti, M. (2006). The effect of aging on entrepreneurial behavior. *Journal of Business Venturing*, 21(2), 177–194.
<https://doi.org/10.1016/j.jbusvent.2005.04.003>
- Lichtenstein, S., Fischhoff, B., & Phillips, L. (1982). Calibration of probabilities: The state of the art to 1980. D. Kahneman, P. Slovic, and A. Tverski (Eds.) *Judgement under uncertainty: Heuristics and biases*.
- Lips-Wiersma, M., & Morris, L. (2009). Discriminating between “meaningful work” and the “management of meaning.” *Journal of Business Ethics*, 88(3), 491–511.
<https://doi.org/10.1007/s10551-009-0118-9>

- Lips-Wiersma, M., & Wright, S. (2012). Measuring the Meaning of Meaningful Work: Development and Validation of the Comprehensive Meaningful Work Scale (CMWS). *Group and Organization Management*, 37(5), 655–685.
<https://doi.org/10.1177/1059601112461578>
- Lonner, W. J., Berry, J. W., & Hofstede, G. H. (1980). Culture's consequences: International differences in work-related values. *University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship*.
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77(1), 11–37.
<https://doi.org/10.1348/096317904322915892>
- McClelland, D. C., & Mac Clelland, D. C. (1961). *Achieving society* (Vol. 92051). Simon and Schuster.
- McGrath, R. G., & MacMillan, I. C. (2000). *The entrepreneurial mindset: Strategies for continuously creating opportunity in an age of uncertainty* (Vol. 284). Harvard Business Press.
- Minniti, M. (2009). *Gender issues in entrepreneurship*. Now Publishers Inc.

- Minola, T., & Criaco, G. (2016). Age , culture , and self-employment motivation. *Small Business Economics*, 46(2), 187–213. <https://doi.org/10.1007/s11187-015-9685-6>
- Morris, M. H., Avila, R. A., & Allen, J. (1993). Individualism and the modern corporation: Implications for innovation and entrepreneurship. *Journal of Management*, 19(3), 595–612.
- 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. [https://doi.org/10.1016/S0883-9026\(99\)00039-7](https://doi.org/10.1016/S0883-9026(99)00039-7)
- Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science*, 6(1), 10–19.
- Nguyen, T. V., Bryant, S. E., Rose, J., Tseng, C. H., & Kapasuwan, S. (2009). Cultural values, market institutions, and entrepreneurship potential: A comparative study of the United States, Taiwan, and Vietnam. *Journal of Developmental Entrepreneurship*, 14(1), 21–37. <https://doi.org/10.1142/S1084946709001120>
- Nikolaev, B., Boudreaux, C. J., & Wood, M. (2020). Entrepreneurship and Subjective Well-Being: The Mediating Role of Psychological Functioning. *Entrepreneurship: Theory and Practice*, 44(3), 557–586. <https://doi.org/10.1177/1042258719830314>

- Nikolova, M. (2019). Switching to self-employment can be good for your health. *Journal of Business Venturing*, 34(4), 664–691. <https://doi.org/10.1016/j.jbusvent.2018.09.001>
- Ozgen, E., & Baron, R. A. (2007). Social sources of information in opportunity recognition: Effects of mentors, industry networks, and professional forums. *Journal of Business Venturing*, 22(2), 174–192. <https://doi.org/10.1016/j.jbusvent.2005.12.001>
- 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. <https://doi.org/10.1007/s11187-009-9230-6>
- Reijonen, H., & Komppula, R. (2007). Perception of success and its effect on small firm performance. *Journal of Small Business and Enterprise Development*, 14(4), 689–701. <https://doi.org/10.1108/14626000710832776>
- Reis, S. R. (1996). 1996_SheldonRyanReis.pdf.
- 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. <https://doi.org/10.1007/s11187-005-1980-1>

- Reynolds, P. D. (1992). Sociology and Entrepreneurship: Concepts and Contributions. *Entrepreneurship Theory and Practice*, 16(2), 47–70. <https://doi.org/10.1177/104225879201600205>
- Reynolds, P., Fitzsimons, P., Reynolds, P., & Camp, M. (2004). GEM 2003 global report.
- Ribeiro-Soriano, D., & Urbano, D. (2009). Overview of collaborative entrepreneurship: An integrated approach between business decisions and negotiations. *Group Decision and Negotiation*, 18(5), 419–430. <https://doi.org/10.1007/s10726-008-9134-x>
- Rockwood, N. J. (2017). Advancing the formulation and testing of multilevel mediation and moderated mediation models, 1–176. Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num=osu1489578419777238
- Rogoff, K. (2007). Impact of Globalization on Monetary Policy. *Global Journal of Commerce & Management Perspective*. <https://doi.org/10.24105/gjcmp.7.2.1807>
- Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, 30(C), 91–127. <https://doi.org/10.1016/j.riob.2010.09.001>
- Ryan, R. M., & Deci, E. L. (2000a). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68.

- Ryan, R. M., & Deci, E. L. (2000b). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being, (February). <https://doi.org/10.1037/0003-066X.55.1.68>
- Ryan, R. M., & Deci, E. L. (2011). A self-determination theory perspective on social, institutional, cultural, and economic supports for autonomy and their importance for well-being. In *Human autonomy in cross-cultural context* (pp. 45–64). Springer.
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069.
- Ryff, C. D. (2019). Entrepreneurship and eudaimonic well-being: Five venues for new science. *Journal of Business Venturing*, 34(4), 646–663. <https://doi.org/10.1016/j.jbusvent.2018.09.003>
- Ryff, C. D., & Singer, B. (1998). The Contours of Positive Human Health. *Psychological Inquiry*, 9(1), 1–28. https://doi.org/10.1207/s15327965pli0901_1
- Samli, A. C. (2008). Entrepreneurship economic development and quality of life in third-world countries. *Applied Research in Quality of Life*, 3(3), 203–213. <https://doi.org/10.1007/s11482-009-9056-z>

- Segal, G., Borgia, D., & Schoenfeld, J. (2005). The motivation to become an entrepreneur. *International Journal of Entrepreneurial Behaviour and Research*, 11(1), 42–57. <https://doi.org/10.1108/13552550510580834>
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology. An introduction. *The American Psychologist*, 55(1), 5–14. <https://doi.org/10.1037/0003-066X.55.1.5>
- Shane, S. (1993). Cultural influences on national rates of innovation. *Journal of Business Venturing*, 8(1), 59–73.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, 11(4), 448–469.
- Shane, S., & Cable, D. (2002). Network ties, reputation, and the financing of new ventures. *Management Science*, 48(3), 364–381.
- Shapiro, A. (1975). The displaced, uncomfortable entrepreneur. *Psychology Today*, 9(6), 83–88.
- Shapiro, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. *University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship*.

- Shinnar, R. S., Giacomini, O., & Janssen, F. (2012). Entrepreneurial Perceptions and Intentions: The Role of Gender and Culture. *Entrepreneurship: Theory and Practice*, 36(3), 465–493. <https://doi.org/10.1111/j.1540-6520.2012.00509.x>
- Shir, N., Nikolaev, B. N., & Wincent, J. (2019). Entrepreneurship and well-being: The role of psychological autonomy, competence, and relatedness. *Journal of Business Venturing*, 34(5), 105875. <https://doi.org/10.1016/j.jbusvent.2018.05.002>
- Singh, G., & DeNoble, A. (2003). Early retirees as the next generation of entrepreneurs. *Entrepreneurship Theory and Practice*, 27(3), 207–226.
- Song, C., Park, K. M., & Kim, Y. (2020). Socio-cultural factors explaining technology-based entrepreneurial activity: Direct and indirect role of social security. *Technology in Society*, 101246. <https://doi.org/10.1016/j.techsoc.2020.101246>
- Spreitzer, G., Sutcliffe, K., Dutton, J. E., Sonenshein, S., & Grant, M. (n.d.). i in.(2005), A socially embedded model of thriving at work,". *Organization Science*, 16(5), 537.
- Steger, M. F., Dik, B. J., & Duffy, R. D. (2012). Measuring Meaningful Work: The Work and Meaning Inventory (WAMI). *Journal of Career Assessment*, 20(3), 322–337. <https://doi.org/10.1177/1069072711436160>
- Stephan, U. (2018). Entrepreneurs' mental health and well-being: A review and research agenda. *Academy of Management Perspectives*, 32(3), 290–322.

- Sternberg, R., & Wennekers, S. (2005). Determinants and effects of new business creation using global entrepreneurship monitor data. *Small Business Economics*, 24(3), 193–203. <https://doi.org/10.1007/s11187-005-1974-z>
- Steyaert, C. (2007). “Entrepreneuring” as a conceptual attractor? A review of process theories in 20 years of entrepreneurship studies. *Entrepreneurship and Regional Development*, 19(6), 453–477. <https://doi.org/10.1080/08985620701671759>
- Tavares, S. M. (2016). How does creativity at work influence employee’s positive affect at work? *European Journal of Work and Organizational Psychology*, 25(4), 525–539. <https://doi.org/10.1080/1359432X.2016.1186012>
- Taylor, M. Z., & Wilson, S. (2012). Does culture still matter?: The effects of individualism on national innovation rates. *Journal of Business Venturing*, 27(2), 234–247. <https://doi.org/10.1016/j.jbusvent.2010.10.001>
- Teece, D. J. (1986). Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. *Research Policy*, 15(6), 285–305.
- Urbano, D., & Alvarez, C. (2014). Institutional dimensions and entrepreneurial activity: An international study. *Small Business Economics*, 42(4), 703–716. <https://doi.org/10.1007/s11187-013-9523-7>

Valdez, M. E., Doktor, R. H., Singer, A. E., & Dana, L.-P. (2011). Impact of tolerance for uncertainty upon opportunity and necessity entrepreneurship. *Human Systems Management*, 30(3), 145–153.

Van de Ven, A. H., Hudson, R., & Schroeder, D. M. (1984). Designing New Business Startups: Entrepreneurial, Organizational, and Ecological Considerations. *Journal of Management*, 10(1), 87–108.
<https://doi.org/10.1177/014920638401000108>

van Gelderen, M., & Jansen, P. (2006). Autonomy as a start-up motive. *Journal of Small Business and Enterprise Development*, 13(1), 23–32.
<https://doi.org/10.1108/14626000610645289>

Veenhoven, R. (1999). QUALITY-OF-LIFE IN INDIVIDUALISTIC SOCIETY 1 A comparison of 43 nations in the early 1990's. *Social Indicators Research*, 48, 157–186.

Verheul, I., & Thurik, R. (2001). Start-Up Capital: Does Gender Matter? *Small Business Economics*, 16(4), 329–346.

Verheul, I., Uhlaner, L., & Thurik, R. (2005). *Business accomplishments, gender and entrepreneurial self-image*. *Journal of Business Venturing* (Vol. 20).
<https://doi.org/10.1016/j.jbusvent.2004.03.002>

- Wach, D., Stephan, U., Weinberger, E., & Wegge, J. (2020). Entrepreneurs' stressors and well-being: A recovery perspective and diary study. *Journal of Business Venturing*, (March), 106016. <https://doi.org/10.1016/j.jbusvent.2020.106016>
- WEBER, P., & SCHAPER, M. (2004). Understanding the Grey Entrepreneur. *Journal of Enterprising Culture*, 12(02), 147–164. <https://doi.org/10.1142/s0218495804000087>
- Webster, J. R., Beehr, T. A., & Christiansen, N. D. (2010). Toward a better understanding of the effects of hindrance and challenge stressors on work behavior. *Journal of Vocational Behavior*, 76(1), 68–77. <https://doi.org/10.1016/j.jvb.2009.06.012>
- Wennekers, S., & Thurik, R. (1999). Linking Entrepreneurship and Economic Growth. *Small Business Economics*, 13(1), 27–56. <https://doi.org/10.1023/A:1008063200484>
- Wennekers, S., Van Wennekers, A., Thurik, R., & Reynolds, P. (2005). Nascent entrepreneurship and the level of economic development. *Small Business Economics*, 24(3), 293–309. <https://doi.org/10.1007/s11187-005-1994-8>
- Wiklund, J., Nikolaev, B., Shir, N., Foo, M. Der, & Bradley, S. (2019). Entrepreneurship and well-being: Past, present, and future. *Journal of Business Venturing*, 34(4), 579–588. <https://doi.org/10.1016/j.jbusvent.2019.01.002>

- Williams, C. C., Nadin, S., & Rodgers, P. (2012). Evaluating competing theories of informal entrepreneurship: Some lessons from Ukraine. *International Journal of Entrepreneurial Behaviour & Research*, 18(5), 528–543. <https://doi.org/10.1108/13552551211253919>
- Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, Entrepreneurial Self-Efficacy, and Entrepreneurial Career Intentions: Implications for Entrepreneurship Education, (617), 387–406.
- Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, 14(3), 361–384.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26(2), 179–201.
- Xavier-Oliveira, E., Laplume, A. O., & Pathak, S. (2015). What motivates entrepreneurial entry under economic inequality? The role of human and financial capital. *Human Relations*, 68(7), 1183–1207. <https://doi.org/10.1177/0018726715578200>
- Yordanova, D. I., & Tarrazon, M. A. (2010). Gender differences in entrepreneurial intentions: Evidence from Bulgaria. *Journal of Developmental Entrepreneurship*, 15(3), 245–261. <https://doi.org/10.1142/S1084946710001543>

Zhao, H., Seibert, S. E., & Lumpkin, G. T. (2010). The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review. *Journal of Management*, 36(2), 381–404. <https://doi.org/10.1177/0149206309335187>

APPENDICES

Appendix 1: Country Individualism, GDP Per Capita and Gini Index Levels

	Country	Individualism	GDP per capita (\$)	Gini index (%)
1	Argentina	46	10006	41.40
2	Australia	90	54907	34.40
3	Brazil	38	8717	53.90
4	Canada	80	46195	33.30
5	China	20	10262	38.50
6	Colombia	13	6432	50.40
7	Ecuador	8	6184	45.40
8	Egypt	25	3020	31.50
9	Finland	63	48686	27.40
10	Germany	67	46259	31.90
11	Greece	35	19583	34.40
12	Guatemala	6	4620	48.30
13	Hungary	80	16476	30.60
14	India	48	2104	35.70
15	Indonesia	14	4136	37.80
16	Iran	41	5550	40.80
17	Ireland	70	78661	32.80
18	Israel	54	43641	39.00
19	Italy	76	33190	35.90
20	Kazakhstan	20	9731	27.50
21	Malaysia	26	11415	41.00
22	Mexico	30	9863	45.40
23	Morocco	46	3204	39.50
24	Netherlands	80	52448	28.50
25	Philippines	32	3485	44.40
26	Poland	60	15595	29.70
27	Portugal	27	23145	33.80
28	Slovenia	27	25739	24.20
29	South Africa	65	6001	63.00
30	South Korea	18	31762	31.60
31	Spain	51	29614	34.70
32	Sweden	71	51610	28.80
33	Switzerland	68	81994	32.70
34	Taiwan	17	25893	33.90
35	Thailand	20	7808	36.40
36	United Kingdom	89	42300	34.80
37	United States	91	65118	41.10

Appendix 2: Uncertainty Avoidance Values for Countries for Study One

	Country	Uncertainty Avoidance
1	Sweden	29
2	Vietnam	30
3	China	30
4	United Kingdom	35
5	Ireland	35
6	Malaysia	36
7	Puerto Rico	38
8	India	40
9	Philippines	44
10	United States	46
11	Indonesia	48
12	Canada	48
13	South Africa	49
14	Norway	50
15	Lebanon	50
16	Australia	51
17	Slovakia	51
18	Netherlands	53
19	Senegal	55
20	Burkina Faso	55
21	Switzerland	58
22	Iran	59
23	Finland	59
24	Estonia	60
25	Latvia	63
26	Thailand	64
27	Germany	65
28	Ecuador	67
29	Morocco	68
30	Taiwan	69
31	Luxembourg	70
32	Italy	75
33	Brazil	76
34	Egypt	80
35	Colombia	80
36	Croatia	80
37	Israel	81
38	Hungary	82
39	Mexico	82

40	South Korea	85
41	Bulgaria	85
42	Spain	86
43	Argentina	86
44	Chile	86
45	Panama	86
46	Peru	87
47	Slovenia	88
48	Romania	90
49	Poland	93
50	Belgium	94
51	Portugal	99
52	Guatemala	99
53	Uruguay	99
54	Greece	100
55	Tunisia	NA
56	Cameroon	NA
57	Barbados	NA
58	Botswana	NA
59	Macedonia	NA
60	Kazakhstan	NA

Appendix 3: Results Output for the Multilevel Model

Step 1: Null model to measure ICC Mixed Model

Model Info

Info	
Estimate	Linear mixed model fit by REML
Call	WB ~ 1 +(1 country)
AIC	58029.920
BIC	58057.755
LogLikel.	58027.866
R-squared Marginal	0.000
R-squared Conditional	0.129
Converged	yes
Optimizer	bobyqa

Model Results

Fixed Effect Omnibus tests

F	Num df	Den df	p

Fixed Effects Parameter Estimates

Names	Estimate	SE	95% Confidence Interval		df	t	p
			Lower	Upper			
(Intercept)	3.44	0.0558	3.33	3.55	43.7	61.6	< .001

Random Components

Groups	Name	SD	Variance	ICC
country	(Intercept)	0.364	0.133	0.129
	Residual	0.945	0.894	

Note. Number of Obs: 21228 , groups: country 44

Step 2: Individual level and Country level controls

Mixed Model

Model Info

Info	
Estimate	Linear mixed model fit by REML
Call	WB ~ 1 + age + gender + Gini + GDPperCapPPP+(1 country)
AIC	57841.6564
BIC	57931.1372
LogLikel.	57861.4145
R-squared Marginal	0.0279
R-squared Conditional	0.1335
Converged	yes
Optimizer	bobyqa

Model Results

Fixed Effect Omnibus tests

	F	Num df	Den df	p
age	11.80	1	21149.7	< .001
gender	1.08	1	21140.6	0.298
Gini	1.87	1	40.6	0.179
GDPperCapPPP	9.18	1	40.4	0.004

Note. Satterthwaite method for degrees of freedom

Fixed Effects Parameter Estimates

Names	Effect	Estimate	SE	95% Confidence Interval		df	t	p
				Lower	Upper			
(Intercept)	(Intercept)	3.42008	0.05535	3.31158	3.52857	40.4	61.78	< .001
age	age	0.00190	5.52e-4	8.14e-4	0.00298	21149.7	3.43	< .001
gender1	Female - Male	0.01424	0.01367	-0.01256	0.04103	21140.6	1.04	0.298
Gini	Gini	0.01138	0.00832	-0.00493	0.02769	40.6	1.37	0.179
GDPperCapPPP	GDPperCapPPP	0.65067	0.21475	0.22977	1.07157	40.4	3.03	0.004

Random Components

Groups	Name	SD	Variance	ICC
country	(Intercept)	0.330	0.109	0.109
	Residual	0.945	0.892	

Note. Number of Obs: 21171 , groups: country 44

Step 3: Independent variable Introduced Mixed Model

Model Info

Info	
Estimate	Linear mixed model fit by REML
Call	WB ~ 1 + age + gender + Gini + GDPperCapPPP + TEAyyOPP+(1 country)
AIC	57559.3449
BIC	57663.6099
LogLikel.	57583.9268
R-squared Marginal	0.0383
R-squared Conditional	0.1396
Converged	yes
Optimizer	bobyqa

Model Results

Fixed Effect Omnibus tests

	F	Num df	Den df	p
age	19.74	1	21149.4	< .001
gender	4.51	1	21140.5	0.034
Gini	1.89	1	40.6	0.176
GDPperCapPPP	8.44	1	40.4	0.006
TEAyyOPP	286.07	1	21147.6	< .001

Note. Satterthwaite method for degrees of freedom

Fixed Effects Parameter Estimates

Names	Effect	Estimate	SE	95% Confidence Interval		df	t	p
				Lower	Upper			
(Intercept)	(Intercept)	3.41945	0.05409	3.31344	3.52545	40.4	63.22	< .001
age	age	0.00244	5.49e-4	0.00136	0.00352	21149.4	4.44	< .001
gender1	Female - Male	0.02889	0.01361	0.00222	0.05556	21140.5	2.12	0.034
Gini	Gini	0.01119	0.00813	-0.00475	0.02713	40.6	1.38	0.176
GDPperCapPPP	GDPperCapPPP	0.60961	0.20984	0.19833	1.02089	40.4	2.91	0.006
TEAyyOPP	TEAyyOPP	0.24168	0.01429	0.21368	0.26969	21147.6	16.91	< .001

Random Components

Groups	Name	SD	Variance	ICC
country	(Intercept)	0.322	0.104	0.105
	Residual	0.938	0.881	

Note. Number of Obs: 21171 , groups: country 44

Step 4: Introduction of Mediators

Mixed Model

Model Info

Info	
Estimate	Linear mixed model fit by REML
Call	WB ~ 1 + age + gender + Gini + GDPperCapPPP + TEAyyOPP + suskill + ecdec + ecmean+(1 country)
AIC	36853.378
BIC	36998.822
LogLikel.	36893.327
R-squared Marginal	0.142
R-squared Conditional	0.224
Converged	yes
Optimizer	bobyqa

Model Results

Fixed Effect Omnibus tests

	F	Num df	Den df	p
age	0.00206	1	14608.0	0.964
gender	4.50552	1	14598.4	0.034
Gini	4.24686	1	33.6	0.047
GDPperCapPPP	9.26612	1	33.2	0.005
TEAyyOPP	161.40921	1	14603.9	< .001
suskill	6.87915	1	14598.2	0.009
ecdec	169.11897	1	14613.5	< .001
ecmean	485.48044	1	14615.6	< .001

Note. Satterthwaite method for degrees of freedom

Fixed Effects Parameter Estimates

Names	Effect	Estimate	SE	95% Confidence Interval		df	t	p
				Lower	Upper			
(Intercept)	(Intercept)	3.4363	0.05018	3.33794	3.53463	34.7	68.4830	< .001
age	age	2.80e-5	6.17e-4	-0.00118	0.00124	14608.0	0.0453	0.964
gender1	Female - Male	0.0319	0.01504	0.00245	0.06139	14598.4	2.1226	0.034
Gini	Gini	0.0158	0.00768	7.74e-4	0.03087	33.6	2.0608	0.047
GDPperCapPPP	GDPperCapPPP	0.6120	0.20105	0.21796	1.00608	33.2	3.0440	0.005
TEAyyOPP	TEAyyOPP	0.2007	0.01580	0.16974	0.23166	14603.9	12.7047	< .001
suskill1	Yes - No	0.0527	0.02011	0.01333	0.09214	14598.2	2.6228	0.009
ecdec	ecdec	0.1044	0.00803	0.08869	0.12017	14613.5	13.0046	< .001
ecmean	ecmean	0.1973	0.00896	0.17979	0.21490	14615.6	22.0336	< .001

Random Components

Groups	Name	SD	Variance	ICC
country	(Intercept)	0.277	0.0765	0.0959
	Residual	0.849	0.7209	

Note. Number of Obs: 14625 , groups: country 37

Step 5: Introduction of Cross-level moderation

Mixed Model

Model Info

Info	
Estimate	Linear mixed model fit by REML
Call	WB ~ 1 + age + gender + Gini + TEAyyOPP + suskill + ecdec + ecmean + IDV + IDV:TEAyyOPP+(1 country)
AIC	36854.858
BIC	37028.096
LogLikel.	36913.010
R-squared Marginal	0.102
R-squared Conditional	0.210
Converged	yes
Optimizer	bobyqa

Model Results

Fixed Effect Omnibus tests

	F	Num df	Den df	p
age	0.00369	1	14605.5	0.952
gender	4.32084	1	14597.4	0.038
Gini	0.00391	1	34.5	0.950
TEAyyOPP	162.58008	1	14602.1	< .001
suskill	6.55143	1	14596.4	0.010
ecdec	168.52259	1	14608.7	< .001
ecmean	487.44271	1	14613.0	< .001
IDV	0.00818	1	35.0	0.928
TEAyyOPP * IDV	9.36612	1	14610.9	0.002

Note. Satterthwaite method for degrees of freedom

Fixed Effects Parameter Estimates

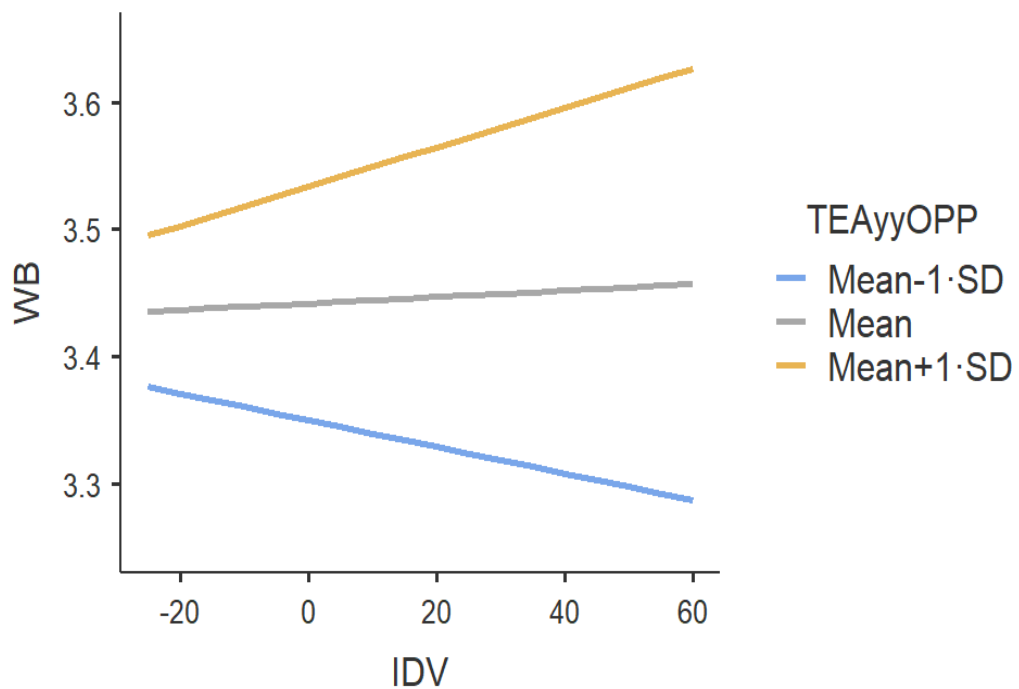
Names	Effect	Estimate	SE	95% Confidence Interval		df	t	p
				Lower	Upper			
(Intercept)	(Intercept)	3.44166	0.05850	3.32699	3.55633	34.7	58.8274	< .001
age	age	3.75e-5	6.16e-4	-0.00117	0.00125	14605.5	0.0608	0.952
gender1	Female - Male	0.03125	0.01503	0.00178	0.06072	14597.4	2.0787	0.038
Gini	Gini	4.69e-4	0.00750	-0.01423	0.01517	34.5	0.0626	0.950
TEAyyOPP	TEAyyOPP	0.20137	0.01579	0.17042	0.23233	14602.1	12.7507	< .001
suskill1	Yes - No	0.05145	0.02010	0.01205	0.09085	14596.4	2.5596	0.010
ecdec	ecdec	0.10423	0.00803	0.08850	0.11997	14608.7	12.9816	< .001
ecmean	ecmean	0.19772	0.00896	0.18017	0.21528	14613.0	22.0781	< .001
IDV	IDV	2.51e-4	0.00278	-0.00519	0.00570	35.0	0.0905	0.928
TEAyyOPP * IDV	TEAyyOPP * IDV	0.00284	9.29e-4	0.00102	0.00466	14610.9	3.0604	0.002

Random Components

Groups	Name	SD	Variance	ICC
country	(Intercept)	0.314	0.0985	0.120
Residual		0.849	0.7205	

Note. Number of Obs: 14625 , groups: country 37

Effects Plots



Appendix 4: Results of the Multilevel Mediation using The Rockwood Macro

Run MATRIX procedure:

***** MLMED - BETA VERSION 2 *****

Written by Nicholas J. Rockwood

Documentation available at www.njrockwood.com

Please report any bugs to rockwood.19@osu.edu

Estimator:
REML

Variables
X: TEAyyOPP
M1: suskill
M2: ecdec
M3: ecmean
Y: WellB
Mod(D): IDV

Model Specification
N 241276
Fixed 21
Rand(L1) 4
Rand(L2) 4
Total 29

Model Fit Statistics
Value
-2LL 1213909
AIC 1213925
AICC 1213925
CAIC 1214022
BIC 1214014

***** FIXED EFFECTS *****

Outcome: suskill

Within- Effects							
	Estimate	S.E.	df	t	p	LL	UL
constant	.3280	.0255	67.9483	12.8410	.0000	.2771	.3790
TEAyyOPP	.3216	.0035	238426.0	90.6413	.0000	.3146	.3285

Between- Effects							
	Estimate	S.E.	df	t	p	LL	UL
TEAyyOPP	1.9882	.2348	67.9365	8.4689	.0000	1.5198	2.4567

Outcome: ecdec

Within- Effects							
	Estimate	S.E.	df	t	p	LL	UL
constant	3.6910	.0890	58.9990	41.4523	.0000	3.5128	3.8692
TEAyyOPP	.3109	.0108	115044.6	28.8795	.0000	.2898	.3320

Between- Effects							
	Estimate	S.E.	df	t	p	LL	UL
TEAyyOPP	.9448	.7984	58.9254	1.1833	.2414	-.6529	2.5425

Outcome: ecmean

Within- Effects							
	Estimate	S.E.	df	t	p	LL	UL
Int	4.1603	.0939	59.0505	44.3252	.0000	3.9725	4.3481
TEAyyOPP	.2033	.0091	115111.6	22.4187	.0000	.1856	.2211

Between- Effects							
	Estimate	S.E.	df	t	p	LL	UL
TEAyyOPP	-.9552	.8417	59.0036	-1.1348	.2610	-2.6394	.7291

Outcome: WellB

Within- Effects							
	Estimate	S.E.	df	t	p	LL	UL
constant	1.1734	.6205	30.9956	1.8909	.0680	-.0922	2.4390
int_cp_W	-.0011	.0005	82139.84	-2.4488	.0143	-.0021	-.0002
TEAyyOPP	.1073	.0183	82139.70	5.8757	.0000	.0715	.1431
suskill	.0108	.0062	82140.20	1.7478	.0805	-.0013	.0229
ecdec	.1090	.0027	82139.00	40.7158	.0000	.1038	.1143
ecmean	.2002	.0032	82138.98	62.9744	.0000	.1940	.2064

Between- Effects							
	Estimate	S.E.	df	t	p	LL	UL
IDV	.0092	.0054	31.0027	1.6963	.0998	-.0019	.0203
int_cp_B	-.1108	.0771	30.9753	-1.4373	.1607	-.2680	.0464
TEAyyOPP	3.5264	1.9240	30.9719	1.8329	.0765	-.3977	7.4505
suskill	-.4756	.4951	30.9624	-.9607	.3442	-1.4854	.5342
ecdec	.1483	.2514	31.0125	.5898	.5596	-.3644	.6609
ecmean	.3759	.2575	30.9982	1.4599	.1544	-.1492	.9010

Interaction Codes
int_cp_W Within- IDV x TEAyyOPP -> WellB
int_cp_B Between- IDV x TEAyyOPP -> WellB

***** RANDOM EFFECTS *****

Level-1 Residual Estimates						
	Estimate	S.E.	Wald Z	p	LL	UL
suskill	.2244	.0006	345.2723	.0000	.2231	.2257
ecdec	1.4084	.0059	239.8322	.0000	1.3969	1.4199
ecmean	.9999	.0042	239.9042	.0000	.9918	1.0081
WellB	.6618	.0033	202.6561	.0000	.6555	.6683

Random Effect Estimates						
	Estimate	S.E.	Wald Z	p	LL	UL
1	.0130	.0023	5.7859	.0000	.0093	.0183
2	.1469	.0273	5.3901	.0000	.1021	.2114
3	.1637	.0303	5.4073	.0000	.1139	.2352
4	.1011	.0258	3.9170	.0001	.0613	.1668

Random Effect Key
1 Int suskill
2 Int ecdec
3 Int ecmean
4 Int WellB

***** DIRECT EFFECT(S) *****

NOTE: Direct Effects are Conditional on a Moderator Value of:

value
IDV .0000

Within- Direct Effect

	Estimate	S.E.	df	t	p	LL	UL
TEAyyOPP	.1073	.0183	82139.70	5.8757	.0000	.0715	.1431

Between- Direct Effect

	Estimate	S.E.	df	t	p	LL	UL
TEAyyOPP	3.5264	1.9240	30.9719	1.8329	.0765	-.3977	7.4505

***** INDIRECT EFFECT(S) *****

Within- Indirect Effect(s)

	E(ab)	Var(ab)	SD(ab)
suskill	.0035	.0000	.0000
ecdec	.0339	.0000	.0000
ecmean	.0407	.0000	.0000

Within- Indirect Effect(s)

	Effect	SE	Z	p	MCLL	MCUL
suskill	.0035	.0020	1.7474	.0806	-.0005	.0074
ecdec	.0339	.0014	23.5510	.0000	.0311	.0367
ecmean	.0407	.0019	21.1179	.0000	.0370	.0446

Between- Indirect Effect(s)

	Effect	SE	Z	p	MCLL	MCUL
suskill	-.9457	.9975	-.9480	.3431	-2.9544	1.0068
ecdec	.1401	.3327	.4210	.6738	-.4343	.9689
ecmean	-.3590	.4556	-.7881	.4306	-1.4871	.3350

Within- Indirect Effect Contrasts

	Dif	MCLL	MCUL
ab2-ab1	.0304	.0255	.0355
ab3-ab1	.0372	.0318	.0428
ab3-ab2	.0068	.0020	.0117

Between- Indirect Effect Contrasts

	Dif	MCLL	MCUL
ab2-ab1	1.0857	-.9434	3.1783
ab3-ab1	.5866	-1.4858	2.7109
ab3-ab2	-.4991	-1.4880	.4348

Test of Indirect Contextual Effect(s): Between - Within

	Dif	MCLL	MCUL
suskill	-.9491	-2.9559	1.0067
ecdec	.1062	-.4680	.9357
ecmean	-.3997	-1.5282	.2950

----- END MATRIX -----