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Universitat Autònoma de Barcelona

The role of Saudi's institutional environment on entrepreneurial activity.

DOCTORAL THESIS

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Table of Contents

List of Tables and Figures	4
Acknowledgments	5
Abstract	6
1. General Introduction	8
1.1 Problem statement	8
1.1 Research Contribution	10
1.1 Conceptual Framework: Institutional Economics	11
1.4 Structure of the research.....	12
1.5 Research methodology	15
Chapter 2	15
2. The role of Saudi's institutional environment on entrepreneurial activity: A literature review	16
2.1 Introduction.....	16
2.2 Methodology.....	17
2.3 Results.....	17
Chapter 3	27
3. The influence of Saudi's institutional environment on entrepreneurial activity.	28
3.1 Introduction.....	28
3.2 Entrepreneurship in the context of Saudi Arabia.....	29
3.3 Conceptual framework.....	30
3.4 Data and methods.....	36
3.5 Results and discussion	39
3.6 Conclusions	44
Chapter 4	46
4. The impact of culture on entrepreneurial activity: a study in the Saudi context.	47
4.1 Introduction.....	47
4.2 The Saudi Context.....	49
4.3 Conceptual framework	51
4.4 Data and methods.....	55
4.5 Results and discussion	57
4.6 Conclusions	61
Chapter 5	64
5. The effect of fear of failure on entrepreneurial activity: an empirical study in the Saudi context	65
5.1 Introduction.....	65
5.2 Conceptual framework.....	66

5.3 Data and methods.....	70
5.4 Results and discussion.....	73
5.5 Conclusions	79
Chapter 6	82
6. How giving women the right to drive can impact entrepreneurial activity: A Study in the Saudi context	83
6.1 Introduction.....	83
6.2 The Saudi Context.....	84
6.3 Conceptual framework.....	86
6.4 Data and Methods.....	89
6.5 Results and Discussion	92
6.6 Conclusions	95
Chapter 7	98
7. General Conclusions	99
7.1 Conclusions	99
7.2 Implications	103
7.3 Limitations and future studies	106
8. References	110
9. Appendix.....	128

List of Tables and Figures

Table 2.1 Search Keywords.....	17
Table 2.2 The approach of the articles.	23
Table 2.3 The scope of articles	23
Table 2.4 The technique used in the articles.....	24
Table 2.5 Number of citations for each article.	25
Table 3.1 Description variables.....	39
Table 3.2 Correlation matrix	40
Table 3.3 Logit results in predicting entrepreneurial activity.....	41
Table 3.4 Pearson chi2 test	40
Table 4.1 Description of variables.....	57
Table 4.2 Correlation matrix	58
Table 4.3 Logit results in predicting entrepreneurial activity.....	59
Table 5.1 Description of variables.....	73
Table 5.2 Means and Std dev. for entrepreneurs and not entrepreneurs	74
Table 5.3 Correlation matrix	75
Table 5.4 Logit results in predicting entrepreneurial activity.....	77
Table 6.1 Description variables.....	91
Table 6.2 Correlation matrix	92
Table 6.3 Logit results in predicting entrepreneurial activity.....	94

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Abstract

Empirical evidence throughout the years has proved that entrepreneurship is an essential part of any economic development due to its part in creating jobs, innovating and welfare. Not only does it play an important role, but it also helps the economy to grow and develop. As a result of this, scholars and policymakers have paid more attention to the study of the field of entrepreneurship. Moreover, scholars have used several theories and methods to study the phenomena of entrepreneurship, and institutional theory is one of the theories that have been used and yield a better understanding of the entrepreneurial activity.

As a result, this study uses the institutional theory to analyze the Saudi entrepreneurial environment and investigates how institutional factors influence entrepreneurial activity in the country. Moreover, this study uses quantitative methods to analyze the institutional environment. This investigation started with a systematic literature review of the field, which identified the most critical institutional factors that need to be studied to understand the entrepreneurial activity. In order to measure and analyze those factors, this research uses primary and secondary data. The primary data was collected through a survey at three stages of the study. On the other hand, the secondary data that has been used was obtained from the Global Entrepreneurship Monitor (GEM).

The main findings of this research prove that there is a significant impact of institutional factors on entrepreneurial activity. The study also suggests that while both formal and informal institutions impact entrepreneurial activity, informal institutions play a more significant and more important part. The study also suggests that informal institutions not only impact entrepreneurship but also impact the relationship between formal factors and entrepreneurial activity.

The research contributes to the literature and theory by giving empirical evidence to understand the nature of entrepreneurial activity in developing countries. Nevertheless, the study also offers policymakers some useful insights about how to use institutional factors to encourage more growth in entrepreneurial activity.

Keywords: Entrepreneurship, Entrepreneurial Activity, Institutional Economics, Emerging economy, Saudi Arabia, Institutional Theory, Global Entrepreneurship Monitor (GEM).

Chapter 1

General Introduction

1. General Introduction

1.1 Problem statement and research objectives

In the last few decades, scholars have paid more attention to studying developing countries because it has demonstrated unparalleled growth and because it is changing the world economic map (De Silva, 2019). Nevertheless, researchers have agreed that it might not be possible to apply those theories that have come out from the West directly in developing countries (Young et al., 2002). This is due to the fact that emerging markets have a different business system and market structure than western markets (De Silva, 2019). As a result, it became vital to extend the knowledge of how those developing economies are working and how they are different from developed economies. Moreover, researchers also agreed that the economic performance and the attitude of conducting business in any country are largely shaped by institutions (Furubotn & Richter, 2000). Therefore, scholars such as Thornton et al. (2011) and Urbano et al. (2019) have applied institutional economics in the field of entrepreneurship to analyze any countries economic performance or attitude toward conducting business. North (1990) has defined institutions as "rules of the game." He came back later in 1991 to build on that by adding that institutions refer to the "humanly devised constraints that structure political, economic and social interaction" (North, 1991). North represented institutions as either formal or informal institutions where formal are the written rules and laws and that guide any society; on the other hand, informal institutions are the unwritten norms and traditions that have been set by the society. As the importance of studying and understanding the developing countries' economies emerged and how institutions shape it, scholars started to look at countries' economies from an institutional approach. Moreover, studies found that entrepreneurship is found to be essential to the economy's development in any country (Acs et al., 2008). Additionally, as Baumol (1990) argued that institutional arrangements explain the variation in entrepreneurial outcomes across nations, scholars started to analyze the entrepreneurial activity using an institutional approach. As a result, studying entrepreneurship became one of the fastest-growing branches of management and business (Estrin al, 2019). However, those studies that investigate the institutional context are mostly conducted in developing countries (Estrin al, 2019). This focus on developed countries led to creating a need for more research on entrepreneurship in developing countries, which will lead to comparative

studies to advance the understanding of entrepreneurship and how it occurs in emerging economies.

As Saudi Arabia is one of the developing countries, still Saudi has a very different and unique economic and social overview than other developing countries. The uniqueness of the Saudi economic view comes from that it is one of the first three countries in the world that mainly depend only on oil as an income according to the world bank (Hutt, 2016). The country, since the discovery of oil, has been relying on it to the point that it is responsible for more than 79% of the country's income (Workman, 2017). On the other hand, the uniqueness of the Saudi social's overview comes from that it is one of the most religious Islamic countries in the world where religion is the source of customary law and the source of social norms. Nevertheless, not only the different economic and social overview what makes it a compelling case to study but also that Saudi Arabia is going through formal and informal changes. First of all, the official and legal environment is changing rapidly as the country has been implementing new laws and rules in the past few years. Those new laws are changing the landscape of the Saudi system as a whole as it touches everyone in somehow. Nevertheless, the Saudi culture itself is also gaining new characteristics and letting go of some old traditions and rules. Young educated people in Saudi people are letting go of ancient traditions. This change is due to a couple of reasons that we will discuss in detail in the upcoming chapters. Moreover, even though they are not directly related to entrepreneurship, these changes impact entrepreneurship at a high level, as we will discover in this study.

This has been said; this gives us a golden opportunity to use an institutional approach to analyze the Saudi entrepreneurial environment. Such a study will extend and enrich the literature in developing countries by giving a better understanding of a unique institutional context and how it impacts entrepreneurship. Nevertheless, even though there is some available data, still there are just very few published empirical papers that analyze the entrepreneurial environment. This study will try to fill this gap by examining how the institutions in Saudi Arabia affects entrepreneurial activity. The study will use the institutional approach to be one of the pioneers in uncovering the Saudi institutional environment with some empirical evidence. Moreover, the study will give some important implications, not only to the theory but also the policies towards a better environment for entrepreneurs and will shed light

on what it takes to become an entrepreneur in Saudi Arabia.

This study generally aims to analyze the entrepreneurial environment in Saudi Arabia and to analyze how institutional factors influence entrepreneurial activity. Moreover, this research will also have some specific objectives, which are as follows:

- (a) To explore the existing literature review on entrepreneurial activity and institutions in emerging economies. (Phase 1)
- (b) To analyze the influence of formal and informal institutions on entrepreneurial activity in Saudi Arabia. (Phase 2)
- (c) To explore the influence of culture on entrepreneurial activity in Saudi Arabia. (Phase 3)
- (d) To analyze the effect of fear of failure on entrepreneurial activity in the Saudi context and to discover the factors that moderate the relationship between fear of failure and entrepreneurial activity. (Phase 3)
- (e) To study how the new women-related laws and regulations affect female entrepreneurial activity in Saudi Arabia. (Phase 3)

1.2 Research Contribution

This research will give a better understanding of Saudi's entrepreneurial environment and how institutional factors can both help entrepreneurs to grow their businesses and help to improve the economy of the whole country. The research will develop a framework to study any country's institutional environment's influence on entrepreneurial activity. The research will contribute to the Saudi market by suggesting better policies and regulations to help current and potential entrepreneurs. Moreover, by studying the Saudi's institutional environment and its effect on the entrepreneurial activity, the research is expected to help determine what needs to be changed in the institutional environment and push it towards being more useful for entrepreneurs.

After the observation of several types of research and databases, it has been found that there is a lack of papers written that investigate the institutional environment and how it affects entrepreneurial activity in developing countries. Nevertheless, there is a lack of studying the Saudi Arabian context itself. This research attempt to fill this gap by examining the Saudi institutional environment and how it impacts the Saudi individuals when it comes to being involved in entrepreneurial

activity,

Several scholars have studied the same or similar topics but in other countries around the world. For instance, Millman and Li (2017) wrote an article on establishing a viable institutional environment for entrepreneurship in China. In their research, they looked at the transfer of the Chinese economy from a centrally planned economy into a market-oriented economy in the 1980s with the support of the government who was pushing for economic reforms (Millman & Li, 2017). The case of China is a similar case to what is happening in Saudi Arabia, where the government is pushing to decentralize the economy by involving entrepreneurs and small companies. This could be an area of a future study and a gap that can be filled by this research. Moreover, Álvarez and Urbano (2017) wrote a paper on environmental factors and entrepreneurial activity in Latin America. In their study, they looked at the influence of environmental factors on entrepreneurial activity by dividing institutions into two types: formal and informal (Alvarez & Urbano, 2017). Moreover, they used several variables for each formal and informal part. For example, the variables for the informal institutions were political stability, control of corruption, and role models. On the other hand, for the formal institutions, they used the procedures for starting a business, access to credit, and business and entrepreneurial skills. As a result, by adding different variables and applying those to Saudi Arabia, the gap will be filled.

1.3 Conceptual Framework: Institutional Economics

To understand the entrepreneurial activity in any country, a researcher should consider the institution's effect in the context of those activities (Tonoyan, et al., 2010). Institutions are the "rule of the game" in any society, and they are formal or informal institutions that rule the entrepreneurial activity (Denzau & North, 1994). The institutional approach is one of the methods that has been used to conduct research on entrepreneurial activity where scholars studied the sociocultural environment. The approach was used more often after two of the earlier scholars in this field had won the Nobel Prize in Economics: Ronald Coase in 1991, and Douglass North in 1993 (Drobak, 2008). North has defined institutions as "the humanly devised constraints that structure political, economic and social interaction" (North, 1991). The goals of institutions are to minimize the risk of the exchange and set orders (North, 1991). Some even went further by suggesting that every market has to have rules and institutions to work and also to exist (Mair & Marti, 2009). Moreover, individuals and

organizations interact with institutions, and institutions affect the decisions that are made by those individuals or organizations (Williams & Vorley, 2015). After defining institutions, North divided them into two main types—formal institutions and informal institutions—and called them the "rule of the game" in any society (Denzau & North, 1994). Moreover, the institutional mix in any country can form its economic and social system (Williamson, 2000). Formal institutions are rules designed by humans, mostly in written form, and most often enforced by the country or organization's authority (Skoog, 1994). Formal institutions can be anything like statutory law, property rights, regulations, and constitutions (Denzau & North, 1994; North, 1991). On the other hand, informal institutions are constraints that evolved unintentionally between humans through time, such as conventions, norms, taboos, and self-imposed codes of conduct and traditions (Denzau & North, 1994). Moreover, the structure of the economy was built on institutions. Not only that, but institutions shape the economy and make it clearer to understand or to identify where it grows or decline. (North, 1991). This study will use the institutional approach as the approach to analyze the entrepreneurial environment in Saudi Arabia. The research will look into the formal and informal Saudi institutions and how they impact the entrepreneurial activity.

1.4 Structure of the research and methodology

In this section, we lay down the structure of this study. First, the investigation starts with a general introduction and ends with a general conclusion. In between, the study was divided into three phases. Phase 1 (Chapter 2) of the study was a literature review conducted to understand the field and to point out the gaps. Then phase 2 (Chapter 3) contains a study that targeted those gaps we found in phase 1. This study gave us a better understanding of Saudi institutions, which led to phase 3 (Chapter 4, 5 &6), where specific variables were looked at as a result of phase 2. This section will contain a summary of the three phases of the thesis, including each chapter's summary and the methodology used in the thesis.

Phase 1: *A literature review*

In chapter 2, we will look at the literature that was written in the entrepreneurship field using the institutional approach. We will analyze what was written qualitatively and quantitatively using a systematic method. This chapter will

start with a conceptual framework of the institutional approach. After that, we will lay down our selection methodology and our analysis's methodology. Finally, we will lay down our results of the conducted research. This chapter will contribute to future researchers who want to conduct research using the institutional approach by providing him/her with what was written in the field.

Phase 2: *The role of Saudi's institutional environment on entrepreneurial activity.*

Chapter 3 will analyze the Saudi institutional environment and how it influences entrepreneurial activity in the country generally. The approach that will be used in this research is the institution's approach. After analyzing formal and informal institutions, the chapter aims to identify which institutions of the two influence the entrepreneurial activity the most. The chapter's methodology will be a qualitative analysis of the obtained data. The data that will be used in this chapter is obtained from the Global Entrepreneurship Monitor (GEM). Nevertheless, we will use a Standard Binary logit model to analyze the data. Finally, findings will be discussed, and recommendations will be stated, depending on the results and findings.

Phase 3: *The impact of formal and informal institutional factors on entrepreneurial activity.*

Chapter 4 will investigate the impact of culture on entrepreneurial activity: a study in the Saudi context. The chapter will consider two types of culture: socially supportive culture and performance-based culture. The chapter will consider culture as an informal institution's variable. Concerning the methodology, the chapter will empirically analyze primary data that was collected to represent the variables of the study. The data was collected during 2019 and captured a sum of 466 participants. The data was analyzed using logit regression. Moreover, the empirical results will be discussed against the literature review.

Chapter 5 talks about the effect of fear of failure on entrepreneurial activity: an empirical study in the Saudi context. In this chapter, we aim to study the impact of fear of failure on Saudi individuals and how it influences the decision to become an entrepreneur in the context of Saudi Arabia using the institutional economics as a theoretical framework. We also look at the moderator effect of role models and media on the relationship between fear of failure and entrepreneurship. The chapter will try to find if fear of failure has a behavioral approach in Saudi where it pushes individuals

to start new firms looking to succeed, or it has an avoidance approach where it prevents them from engaging in entrepreneurial activity. Moreover, we will also study if there is any moderating effect of role model or the media on fear of failure and its relationship to entrepreneurship activity. Furthermore, the chapter will use quantitative methods to test the hypotheses. Moreover, primary data was collected after creating a questioner that works as a proxy to the variables chosen for the study. The data were collected in Saudi Arabia in 2019. The sample size of this study was 602 participants, and the data was tested using logit regression.

In Chapter 6, we look into how giving women the right to drive can impact entrepreneurial activity. This chapter uses the institutional theory to study the effect of the formal institutions on entrepreneurial activity in Saudi Arabia and the moderating impact of the informal institutions on this relationship. As for the formal institutions, we chose to focus on the change in female related laws and mainly on driving laws. In this chapter, we study the effect of the new driving law on females' entrepreneurial activity in Saudi Arabia. We then look at the moderating effect of culture as an informal institution's factor on the relationship between the new law and entrepreneurial activity. Nevertheless, this analysis will be looked at from a regional perspective, as in rural and urban areas will moderate the effect of culture. The study will give us a better understanding of the relationship between formal and informal institutions when it comes to entrepreneurial activity. Moreover, the methodology of the chapter is set to analyze the variables of the chapter empirically. A logit regression will be used to analyze the response of 387 Saudi females to a questioner that was designed to capture the variables.

Chapter 2

The role of Saudi's institutional environment on entrepreneurial activity: A literature review

2. The role of Saudi's institutional environment on entrepreneurial activity: A literature review

2.1 Introduction

There is more than enough evidence that economic activity in the 1970s and 1980s has shifted from big companies to small companies and start-ups (Carree & Thurik, 2010). This shift in economic activity led to witness an increase in the late 1980s in the researches that investigate the relationship between entrepreneurship and economic performance (Carree & Thurik, 2010). Since then, entrepreneurship activity has been found to be critical to economic growth through innovations and through utilizing the under-used resources (Levesque & Minniti 2006). Scholars also argued that, through increasing employment and affecting welfare, the entrepreneurial activity also plays a significant part in a country's economic development (Acs et al., 2008; Wright & Marlow, 2011; Wright & Stigliani, 2013). Moreover, those same scholars also concluded that entrepreneurial activity is the engine of economic growth (Acs et al., 2008; Wright & Marlow, 2011; Wright & Stigliani, 2013). Moreover, scholars, such as Hall et al. (2012) and Peredo and Chrisman (2006), entrepreneurial activity is associated with earlier stages of economic development; nevertheless, it can also transform poor regions (Hall et al. 2012; Peredo & Chrisman, 2006). Not only scholars but also policymakers stressed the importance of entrepreneurial activity in the underdeveloped areas because of the social improvement it causes (Matos & Hall, 2020).

As the importance of entrepreneurship to economic development became well-established in the literature, scholars started to investigate the phenomena of entrepreneurship itself. Scholars such as Manolova et al. (2019) argued that entrepreneurial activity is placed within the institutional context (Manolova et al. 2019) and shaped by institutions (Matos & Hall, 2020). As a result of occurring in an institutional context, scholars started to use the institutional approach to analyze and investigate the entrepreneurial activity.

In this chapter, we will look at the literature that was written in the entrepreneurship field using the institutional approach. We will analyze what has been written qualitatively and quantitatively. This chapter will start by laying out our selection methodology. Finally, the results of the conducted research will be displayed,

and the implication of it will be discussed. This chapter will contribute to the field of institutional economics by providing an analysis of the existed knowledge and pointing out the gaps that have not been addressed enough.

2.2 Methodology

The first step to conduct a systematic literature review is to choose a database to search for articles. As the use of SSCI for sampling got consensus recently (Alvarez et al. 2014), we decided to use the SSCI Web of Knowledge database tool to collect the articles needed. Going back to the main objective of this chapter which is to give an idea about what has been written in the literature about institutions and entrepreneurial activity. As a result, we picked up our keywords that relate to this topic. Our keywords are combinations of words that are used in the title plus words used to search within the topic. The keywords are as follows in Table 2.1:

Topic	Title
entrepreneur*	formal institution
entrepreneur*	informal institution
entrepreneur*activity	formal
entrepreneur*activity	Informal
entrepreneur*activity	Institutional theory
entrepreneur*activity	Emerging economy
Institutional theory	enterprise
Institutional theory	venturing
Institutional theory	company
Institutional theory	firm

Table 2.1: Search Keywords

2.3 Results

We will analyze the collected papers qualitatively and quantitatively. After going through the database of articles that we have created, we categorized the articles depending on how we look at them. On the one hand, in the qualitative analysis, we will look at the articles based on which institutions were examined. That will create three different categories: (a) formal institutions, (b) informal institutions, and (c) formal and informal institutions. We will look at each category, factors that were

examined, and the main results of the papers. On the other hand, the quantitative analysis will look at other numerical such as the percentage of the papers used formal factors only or informal factors or both. Moreover, in the quantitative analysis, we will also consider the number of citations per paper and the techniques used in each.

2.3.1 Qualitative Analysis:

As this chapter aims to give a better understanding of the existing knowledge on entrepreneurship and institutions, it is only wise to look at the results from what type of institutions the papers analyze (e.g., formal, informal or both). Looking at the results from an institutional point of view helps to address the missing gaps in the literature. Moreover, it highlights the essential variables used to measure institutions. Furthermore, it gives us a base to compare our analysis results in the next few chapters.

Scholars have been investigating the impact of only formal institutions on entrepreneurship. As it has been proved that government policies shape the whole economic development (Fogel et al., 2006; Rodrik, 2006), government policies were critical formal factors that some of the papers look at in our results. Furthermore, governmental policies give entrepreneurs a more predictable market with less cost for acquiring information as well as it protects entrepreneurs' rights. One of the papers that highlighted the importance of governmental policies was conducted by Roxas and Chadee (2013). They investigated how formal institutions affect entrepreneurial orientation in one of the most significant sectors in the Philippines, the tourism sector. The study found that government policies, besides other formal factors, have a substantial impact on the entrepreneurial orientation (Roxas & Chadee, 2013).

Furthermore, some scholars went as far as to blame the applicable laws as one of the main reasons for entrepreneurs' unproductivity (Dominiak & Wasilczuk, 2016). Nevertheless, Fuentelsaz et al. (2015) studied the impact of several governmental policies on entrepreneurship rate and entrepreneurship quality. The results showed that more developed policies would not only positively impact entrepreneurship but also positively impact the quality of entrepreneurship (Fuentelsaz et al., 2015). The literature proved that governmental policies could help grantee that markets are working efficiently, and it allows entrepreneurs to be in a context that assumes reasonable risks in the running of their business. As a result of the importance of

governmental policies and as the literature lake studies on the impact of governmental policies on entrepreneurship activity in Saudi Arabia, chapter 6 was devoted to analyzing this impact. In chapter 6 as we will follow the steps of Roxas and Chadee's (2013), we will look at how new policies can impact entrepreneurial activity.

On the other hand, many scholars studied entrepreneurial activity and how it is influenced by informal factors only. One of the informal variables that the literature strongly suggested its importance to entrepreneurship is a role model. Furthermore, the results of the literature showed that an entrepreneurial role model would reduce the ambiguity that comes with being involved in entrepreneurial activity and will also help to gain some of the necessary skills to start a business. For instance, Álvarez and Urbano (2011) found that the existence of an entrepreneurial role model would stimulate individuals to get involved in entrepreneurial activity in Latin America. Moreover, "peer effects," which is a similar proxy to role model, was one of the variables found to have a significant impact on entrepreneurial activity (Giannetti & Simonov, 2009). Nevertheless, it also found that individuals who live in communities with high entrepreneurial activity get involved in entrepreneurial activity more than people who live in communities with less entrepreneurial activity because of the peer effect (Giannetti & Simonov, 2009). As a result of the importance of a role model, we considered the impact of it in two chapters in this research. In chapter 3, we will analyze the direct effects of role models. After, in chapter 5, we will examine the moderating impact of an entrepreneurial role model.

Moreover, fear of failure was one of the informal factors that scholars paid attention to it and to its impact on entrepreneurial activity. For instance, scholars such as Boudreaux et al. (2019) studied the data of 42 countries and found that fear of failure discourages opportunity entrepreneurship. Moreover, some scholars looked even deeper into fear of failure by looking at other variables that might impact or moderate the relationship between fear of failure and entrepreneurial activity. For instance, Tubadji et al. (2019) studied the role that fear of failure play in the decisions to become an entrepreneur in Germany and Greece and how age impact that. The results show that age plays a significant role when it comes to the impact on the relationship between fear of failure and entrepreneurial activity where they found younger individuals are less entrepreneurial than older. These results highlight the importance of having control variables or moderating variables as age to capture the

full impact of a variable.

Another critical informal institution factor that is found to have a significant impact on entrepreneurship is culture. Scholars have analyzed culture intensively and looked into different types of culture. For instance, socially supportive cultures give individuals different types of support to start a business (Stephan & Uhlaner, 2010). Other types of cultural aspects, such as individualism and uncertainty avoidance, were analyzed and found to highly impact the entrepreneurial activity (Harms & Groen, 2016). Not only that, but cultural aspects were found to affect the quality of entrepreneurship (Stephan & Uhlaner, 2010). Culture is found in some cases to impact entrepreneurship negatively. For example, Muralidharan and Pathak (2017) found that collectivist culture will have a negative impact on commercial entrepreneurship. Other scholars went to study the diversity of the culture and if it positively impact entrepreneurship. For instance, Pathak et al. (2016) found that cultural diversity positively affects the latest technological uses in entrepreneurship. Additionally, culture with diverse religions, ethnicity and languages impact entrepreneurial activity (Alvarez & Urbano, 2013). As a result of this impact of culture, this thesis will analyze the effect of two types of culture on entrepreneurial activity in chapter 4.

Moreover, scholars also looked into the impact of formal and informal institutions at the same time. Such studies yielded critical results that gave us a visible comparison between formal and informal institutions' impact. One of the main findings is that informal institutional factors are more essential when it comes to entrepreneurial activity than formal institutional factors. For example, it has been found that in Russia and China, where formal institutions are not well-established and effective, informal institutions influence entrepreneurs the most (Puffer et al., 2010). Nevertheless, informal factors are found undermining the impact of the formal rules and affecting entrepreneurial activity more than formal rules (Vorley, 2015). Those results led us to focus more on informal factors in this investigation as we set two whole chapters to study them.

Moreover, Sepulveda and Bonilla (2011) investigated the informal factors that influence individuals to start a business despite the risks in Chile. They found that being a male who received years of formal education and who has the skills to create new business will increase the probability of becoming an entrepreneur. The

relationship between education and entrepreneurship has been complicated, and this encouraged us to look into the education's impact on entrepreneurship in chapter 3.

Even more, some scholars went to study the moderating impact of one of the two institutions on the relationship between the other and entrepreneurship activity. For example, Gimenez-Jimenez et al. (2020) studied the moderating impact of informal institutions factors such as masculinity and individualism on the relationship between formal factors and entrepreneurship activity. The results show that high masculinity and individualism impact the relationship between informal factors (such as expenditure on childcare) and women's decision to get involved in entrepreneurial activity (Gimenez-Jimenez et al., 2020). Additionally, other scholars who studied both institutions, such as Eijdenberg et al. (2019), examined the impact that culture, politics, or economic institutions has on entrepreneurship in Tanzania. They found that entrepreneurship in Tanzania is constrained by formal factors such as access to capital, and by informal factors such as language barriers and negative media portrayals. Moreover, Arabiyat et al. (2019) used the institutional theory to look into the impact of regulatory, normative, cognitive and supportive variables on innovative entrepreneurship. They found that regulatory factors such as taxes and finance have a high positive impact on the innovative entrepreneurship rate (Arabiyat et al., 2019).

Other variables that the papers came to agree on its importance to be considered are gender and education. For instance, Tominc and Rebernik (2012) examined how both gender and formal or informal education influence entrepreneurial activity in the part of the Danube region. They found that individuals who received formal or informal training or education in the field of entrepreneurship are more likely to start a business regardless of being male or female; however, results showed that females have more fear of failure and receive less education than males. Regarding gender, some scholars looked at female individuals and how institutions impact their decision to become entrepreneurs. For instance, Shastri et al. (2019) studied female entrepreneurship in Rajasthan and found that informal factors are the most significant barrier to female entrepreneurship. Moreover, other scholars studied specifically entrepreneurship education and how it impacts entrepreneurial activity. For example, Wannamakok and Liang (2019) found that entrepreneurship education was found to have a high impact on the decision of university students to become involved in entrepreneurship. On the other hand, others studied the impact of age on

entrepreneurship rate and what moderates this relationship. It has been found that in countries with high institutional quality, middle-age individuals are more often starting a business with the goal of gaining wealth. However, younger individuals and older ones create a business aiming to create a higher social value (Brieger et al., 2020). This led us to consider gender and educations as factors to be considered in all the coming chapters.

Nevertheless, other variables have been found noteworthy from the conducted literature. For example, Lewellyn and Muller-Kahle (2016) studied how social cognitive factors (e.g., entrepreneurial opportunity recognition and entrepreneurial self-efficacy) and institutional factors (e.g., business environments' formal institutions, socially supportive cultures, and gender-egalitarian cultures) help us to understand the gender differences in entrepreneurial activity. The results of the study show that social cognitive and institutional factors cannot work in isolation from each other. Actually, they reinforce and substitute each other to influence entrepreneurial activity. Also, Dheer (2016) studied how culture moderates the relationship between formal institutional factors (e.g., political freedom, corruption, and education) and entrepreneurial activity. Finally, Lajqi and Krasniqi (2017) investigated how institutional quality, human capital, and social capital inspire entrepreneurs' growth in Kosovo. Their key finding was that entrepreneurs who found higher formal barriers have learned to work better with informal institutions. Even though they have those barriers, they have growth aspirations. Nevertheless, in a more recent study, Sedeh et al. (2019) also looked at the impact of culture on entrepreneurial activity. They found that if a country has a well developed formal institution, culture such as socially supportive culture will not have an impact on entrepreneurial activity. Moreover, they found that in countries with strong informal institutions, the impact of socially supportive culture will be seen, and it only occurs with social entrepreneurs but not commercial ones.

Such qualitative analysis highlighted the most critical institutional factors to be considered in the next chapters. Nevertheless, it pointed out the gaps in the literature and helped to give a better understanding of the useful techniques used to analyze entrepreneurial activity. This chapter's results will be referred to in the next few chapters when it is needed.

2.3.2 Quantitative analysis:

Table 2.2 shows the articles divided according to the approach it uses. The results show that 41.3% of the papers examined the informal factors of the institutions. Moreover, 10.3% looked into formal factors to study entrepreneurial activity. On the other hand, 51.4% used both formal and informal factors.

Approach	Articles		Author and year of publication
	No.	%	
INSTITUTIONAL APPROACH Informal factors	12	41.3%	Stephan and Uhlaner (2010), Basu (1998), Giannetti & Simonov (2009), Clercq et al. (2014), Sepulveda & Bonilla (2011), Harms & Groen (2017), Muralidharan and Pathak (2017), Pathak et al. (2016), Alvarez & Urbano (2013), Pathak & Muralidharan (2016), Ostapenko (2017), Boudreaux, Nikolaev & Klein (2019)
INSTITUTIONAL APPROACH Formal factors	3	10.3%	Roxas & Chadee (2013), Fuentelsaz et al (2015), Dominiak & Wasilczuk (2016),
INSTITUTIONAL APPROACH Formal and informal factors	15	51.7%	Puffer et al (2010), Tonoyan et al (2010), Estrin & Prevezer (2010), Williams & Vorley (2015), Álvarez & Urbano (2011), Tominc & Rebernik (2012), Lewellyn & Muller-Kahle (2016), Dheer (2016), Lajqi & Krasniqi (2017), Urbano et al. (2019), Gimenez-Jimenez D. et al. (2020), Wannamakok & Liang (2019), Eijdenberg et al. (2019), Arabiyat et al.(2019), Brieger et al. (2020)
Total	29	100%	

Table 2.2: the approach of the articles.

We also looked at the articles with the most number of citations in the Web Of Science. Table 3.1 shows the author(s) of the paper and the number of times it got cited in the Web Of Science.

No.	Paper	Total citations
		No.
1	WEBB et al. (2009)	888
2	Puffer et al (2010)	638
3	Stephan and Uhlaner (2010)	508
4	Tonoyan et al. (2010)	386
5	Estrin & Prevezer (2010)	331
5	Anuradha Basu (1998)	330
7	Giannetti & Simonov (2009)	169
8	Williams & Vorley (2015)	139
9	Álvarez & Urbano (2011)	132
10	Others	753
	Total	4224

Table 2.3: Number of citations for each article.

Moreover, we also considered what type of analysis that was used in those papers. According to table 4, 16.7% of the papers used multiple regression models,

10% uses Hierarchical regression and also 6.7% used Logit also probit regressions. Nevertheless, other papers used different techniques that fit the data used, such as panel data, or even fuzzy-set analysis.

Technique	Articles		Author and year of publication
	No	%	
Multiple regression model	5	16.7	Tonoyan,, Strohmeier, Habib & Perlitz,(2010), Pathak, Saurav, Andre, Laplume & Xavier-Oliveira (2016) Muralidharan &Pathak (2017), Giannetti & Simonov (2009), Wannamakok & Liang (2019)
Hierarchical regression	3	10	Stephan & Uhlaner (2010), Sedeh and Bajestani (2020), Gimenez-Jimenez D. et al. (2020).
Logit	2	6.7	Lajqi & Krasniqi (2017), Fuentelsaz, González, Maícas & Montero (2015)
structural equation modelling	2	6.7	Roxas & Chadee (2013), Arabiyat et al.(2019)
Probit	2	6.7	Sepulveda & Bonilla (2011), Tubadjia et al. (2019)
linear regression	1	3.3	Alvarez & Urbano (2013)
Panel data	1	3.3	Álvarez & Urbano (2011)
multilevel estimation methods	1	3.3	Pathak & Muralidharan (2016)
Fuzzy-set analysis	1	3.3	Lewellyn & Muller-Kahle (2016)
Stepwise moderated regression	1	3.3	Harms & Groen (2017)
ANOVA	1	3.3	Basu (1998)
Ahlstrom and Bruton model	1	3.3	Puffer, McCarthy & Boisot. (2010).
Other	9	31	Williams & Vorley (2015), WEBB et al. (2009), Estrin & Prevezer (2010), Dheer (2016), Tominc & Rebernik (2012), Dominiak & Wasilczuk (2016), Ostapenko (2017), Boudreaux, Nikolaev & Klein (2019), Brieger et al. (2020)
Total	30	100%	

Table 2.4: the technique used in the articles.

Finally, table 2.5 shows the Journals and published articles per year. As it shows that more than 40% of the articles come from only 5 journals. Small Business Economics has 4 papers and the journals: Entrepreneurship Theory and Practice, International Small Business Journal, Journal of Small Business and Enterprise

Development and Academia-Revista Latinoamericana De Administracion which each has 2 published papers from the chosen articles for this literature review.

Journal's name	Number of papers	Year of publication
Small Business Economics	4	1998, 2016, 2020. 2020
Entrepreneurship Theory and Practice	2	2010. 2010
Journal of Small Business and Enterprise Development	2	2017, 2020
International Small Business Journal	2	2015. 2009
Academia-Revista Latinoamericana De Administracion	2	2011. 2011
Journal of International Business Studies	1	2010
Journal of Business Venturing	1	2019
Journal of Entrepreneurship, Business and Economics	1	2019
Journal of Small Business & Entrepreneurship	1	2019
International Journal of Entrepreneurial Behavior & Research	1	2019
Asia Pacific Journal of Management	1	2010
Journal of Enterprise Information Management	1	2019
Journal of International Entrepreneurship	1	2020
Academy of Management Review	1	2009
Tourism Management	1	2013
Strategic Change-Briefings in Entrepreneurial Finance	1	2017
Brq-Business Research Quarterly	1	2015
Revista De Ciencias Sociales	1	2013
Journal of Small Business Management	1	2016
Actual Problems of Economics	1	2012
Technological Forecasting and Social Change	1	2017
International Entrepreneurship and Management Journal	1	2016
International Journal of Sociology and Social Policy	1	2019
International Business Review	1	2017
International Journal of Emerging Markets	1	2016
Conference	1	2016
Total	33	

Table 2.5: Journals and published articles per year.

After searching for those keywords in the Web of Knowledge database, we started to apply some elimination factors to end up with the most relevant papers. First, we restricted our results to those categories that were in the fields of management, economics, and business. Out of the results pool, we selected those articles that were written between the years 1998 and 2020 to cover what was written in the last 22 years. We then focused our search on the results that were included in the Social Sciences Citation Index (SSCI). Finally, we eliminated any duplications in the results.

Next, we started to go through the articles we collected to make sure they fell in the area of entrepreneurial activity and used institutional theory. We eliminated every paper that talked about the entrepreneurial activity using one of the approaches

that are not the institutional approach. Finally, at the end of the search, we added some papers that were not a part of the results due to the importance of capturing a better idea about the research conducted in the field of entrepreneurship using the institutional approach.

2.4 Conclusions

This chapter sheds light on the articles written about entrepreneurial activity from the institutional approach. The chapter analyzed each of the selected articles, qualitatively and quantitatively. The qualitative analysis tried to look at the objectives of each paper. Moreover, it also looked at the key findings of each one of them. On the other hand, the quantitative analysis sheds light on the methods used in each article. It also looked at the journals it was published in and finally, the review concluded with each paper's citation number.

This chapter lays down the existed knowledge in the field of entrepreneurship and institutional economics. It also adds to the literature by pointing out the gaps in the research where will displayed some interesting quantitative results. For example, a gap we can point out is that only 10% of the papers entirely focused on formal factors. Nevertheless, the chapter also sheds alight on the importance of some factors when analyzing institutional activity. For example, the results showed the relationship between education and entrepreneurship has been complicated, according to the literature. Investigating the relationship between them in future studies could yield important results. Moreover, another interesting result that drowned from this chapter is that informal factors found undermining the impact of the formal rules and affecting entrepreneurial activity more than formal rules, as Williams and Vorley (2015) found. As a result, focusing on informal factors when conducting future research could give a better understanding of the phenomena of entrepreneurship.

Finally, at the end of this thesis, an appendix can be found. The appendix includes a table with a list of all the articles that have been analyzed. The table contains the following information: title, authors, year of publication, key findings, approach, technique, etc.

Chapter 3

The influence of Saudi's institutional environment on entrepreneurial activity.

3. The influence of Saudi's institutional environment on entrepreneurial activity.

3.1 Introduction

Entrepreneurs and entrepreneurial activity play a big part in any country's economic development by increasing employment, affecting welfare, and leading to innovations (Acs, Desai & Hessels, 2008). Moreover, entrepreneurship research has argued that entrepreneurial activity helps increase economic growth and development (Levesque & Minniti, 2006). Entrepreneurs impact any country's economic growth, and, in fact, they are considered to be the engine of economic growth in any country (Acs et al., 2008; Wright & Marlow, 2011; Wright & Stigliani, 2013).

Researchers in the field of entrepreneurship have approached their studies from one of four different approaches (Alvarez et al., 2014). The first approach that has been used in the field of entrepreneurship is the economic approach. Researchers who used the economic approach have conducted their studies from an economic rationality angle and have proposed that entrepreneurial activity is mainly because of some economic factors (Audretsch et al., 2002; Wennekers et al., 2005). The second approach that has been used is the psychological approach. Studies that used the psychological approach have argued that entrepreneurial activity and venture creation are due to psychological traits or individual factors (Carsrud & Johnson, 1989; McClelland, 1961). Third, researchers have studied entrepreneurial activity from an organizational approach. They have argued that entrepreneurial activity results from the organization's characteristics or the capabilities and resources of the new venture (Cooper et al., 1994; Alvarez & Busenitz, 2001). Finally, scholars have used the institutional approach to study entrepreneurial activity. Researchers who used this approach have argued that the creation of new ventures and the involvement in entrepreneurial activity are results of the sociocultural environment (Aldrich & Zimmer, 1986; Berger, 1991; Steyaert & Katz, 2004).

In chapter 2, a literature review on entrepreneurial activity and institutional theory has been conducted, where it has been found that almost 40% of the paper looked into the formal and informal institutions. This led us to want to discover both the formal and informal institutions in Saudi Arabia. In this chapter, we will use the institutional approach to analyze the role of Saudi institutions in entrepreneurial activity. After conducting the literature review in the second chapter, we concluded that there is a lack of using this approach to analyze the entrepreneurial activity in

Saudi Arabia. The main objective of this chapter is to analyze the influence of formal and informal institutions on entrepreneurial activity in Saudi Arabia. As a result of the literature review in the previous chapter, education, fear of failure, and role model found to have an impact on the entrepreneurial activity, this chapter will examine their impact on entrepreneurial activity in Saudi Arabia. Hence, those factors help us to understand the entrepreneurial environment better. The chapter will start with a brief introduction of the Saudi context to make it easier to relate to the results at the end. This will be followed by the methodology of the chapter and then the data analyses. Finally, results will be stated and discussed. Furthermore, the limitations, implications and future studies will also be addressed in the end.

3.2 Entrepreneurship in the context of Saudi Arabia

In 1938, oil was discovered in Saudi Arabia in commercial quantities. Since then, and for decades, Saudi Arabia has depended on the oil; in 2016, oil accounted for 78.9% of total exports of the whole country (Workman, 2017). For decades, the oil prices were as high as the Saudi government could wish for. As a result of the extra cash the government had, the governmental sector flourished, and a lot of well-paid governmental sector jobs have opened up. Young people who just graduated from college or even high school were able to secure a job in one of the governmental entities easily. While this was happening, the whole country's cultural mindset shifted away from being business owners to being well-paid employees.

However, depending on oil puts Saudi Arabia in a vulnerable place where the economy totally depends on the oil prices, which are set in a free market. This vulnerability was evident when the oil went down from \$141.32 per barrel in 2008 to hit \$31.04 per barrel in 2009. As a result, the new Saudi government decided to break its dependence on oil. On April 25, 2016, Deputy Crown Prince Mohammad bin Salman announced the country's new vision, which is called "Vision 2030." The new vision aims mainly to reduce the country's dependence on oil by diversifying the sources of income (Even & Guzansky, 2016). Before the vision was unveiled, and for the previous five years, the government had already started supporting and encouraging Saudi people to start new businesses, which would create more jobs and support the Saudi economy. This support includes making it easier to start a business by relaxing laws and regulations and encouraging schools and universities to push the entrepreneurial spirit to young people. As a result, Saudi people, especially young ones, are making it

a trend to quit their jobs and start to follow their dreams by creating a new business. Moreover, universities began to open their business accelerators and incubators; For example, King Abdulaziz University decided to start a business accelerator to support the country's vision and help entrepreneurs by educating them on how to start and run a successful business. The support of the government and the role of the formal Saudi institution in motivating people to start their own business has never been better.

Besides the economic overview of the country, culture and religion also play a massive role in the whole entrepreneurial activity in Saudi Arabia. The culture of the country mainly evolved around some old tribes' traditions or some Islamic rules. Now, when the internet has connected the whole world, the young generation of Saudi Arabia is changing their way of looking at things and adopting a more modern and open way of thinking. For instance, as it was easy to have a well-paid governmental sector's job; this led the previous generation the 1990s to have it as a goal to secure a governmental position. However, the young generation of today dreams of becoming the next Steve Jobs or Mark Zuckerberg. This shift in the culture, with the encouragement of the government, led to a huge trend towards owning a business in the country.

One of the other factors that have been helping in changing Saudi culture is the internet. Those people who did not get the chance to travel outside the country were able to see the world from their living rooms. In a very closed country which has been run by religion and the old tribe's traditions, the internet gave the young studies the opportunities to read about other views and watch different environments. Finally, keep in mind that the population of Saudi Arabia is 31.7 million people, and out of those, 58% are under age 35. Not only that, but 49% of the population is under the age of 29, making it one of the youngest countries in the world. This, also, has helped shape a new culture in the country.

3.3 Conceptual framework

The institutional approach is used to study the institutions' effect in the context of those activities occurs in (Tonoyan et al., 2010). Humans created those institutions throughout the time to ensure that there is an order in place and to minimize the transaction risk (North, 1991). Some went even further by suggesting that every market has to have rules and institutions to work and also to exist (Mair & Marti,

2009). Moreover, those institutions directly affect the individuals' decisions to be involved in entrepreneurship activity. (Williams & Vorley, 2014). After defining institutions, North divided institutions into two main parts, either formal institutions or informal institutions, and called them the "rule of the game" in any society. As the entrepreneurial activity is a part of the economic and social system, a researcher should analyze the two institutions and explain how they affect entrepreneurial activity to understand this system. Institutions, both formal and informal, build the structure of the economy, and with this structure, the shape of the economy becomes more apparent as well as does the direction of it, where it grows, stagnates, or even declines (North, 1991).

Formal institutions are the formally written rules, laws, and regulations that were put in place to guide the society economically and legally (Tonoyan et al., 2010). Formal institutions are the written rules which are usually set by humans themselves as in governments and organizations, and they are enforced by the authority who is in place (Skoog, 1994). Formal institutions can include statutory law, property rights, regulations and constitutions (Denzau & North, 1994; North, 1991). Moreover, formal institutions can reduce or enhance the risk of starting a new venture, which can impact entrepreneurial activity either positively or negatively; This impact can happen by facilitating the efforts of individuals in their journey to acquire capital or resources (Veciana & Urbano, 2008). Moreover, in seeking more understanding of the entrepreneurial activity, formal institutions were found to be a critical exogenous factor (Stephen et al., 2005). For instance, governmental taxes, laws, and rules illustrate how conducive the environment is for entrepreneurial activity (Baumol et al., 2009; Bruton et al., 2010). The enforcement of laws, contracts, or even property rights also affects the decision to create a new venture (Ahlstrom et al., 2000). Empirical evidence suggests that formal institutions are essential for entrepreneurial activity because a transaction cost is a significant factor in economic exchange (North, 1990). Moreover, formal institutions, if well-regulated and enforced, can foster and promote private sector development and even pay off people who are risk-taking (Baygan & Freudenberg, 2000).

As we saw in our literature review, 13% of the papers looked into formal factors. One of the formal institution variables that scholars have examined and found significant is education. As a result, we decided to look at how the education level of

Saudi citizens affects their probability of becoming entrepreneurs. The literature that has empirically analyzed the relationship between education and entrepreneurship mainly suggests that the higher the level of education, the greater is the likelihood of starting a new business (Alvarez & Urbano, 2011). Many papers and studies support this suggestion. For example, Arenius and Minniti (2005) found that the probability of becoming an entrepreneur increases if the individual has a higher education level (Arenius & Minniti, 2005). Moreover, when taking a sample of American entrepreneurs, Cooper and Dunkelberg (1987) found that those entrepreneurs have a higher level of education than the general population. To put it into numbers, Robinson and Sexton (1994) found that the probability of becoming an entrepreneur will increase by 0.8% for each year of formal education, which indicated a significant relationship between entrepreneurial activity and education (Robinson & Sexton, 1994). In addition, Calvo and Wellisz (1980) explained that education would increase managerial skills and ability, which in turn will increase the probability of being self-employed (Sluis et al., 2005). Nevertheless, empirical data from the United States shows that people with less education show less interest in getting involved in any entrepreneurial activity (Davidsson, 1995). In a more recent study, Urbano and Alvarez (2014) found that individuals in Latin America with some secondary education degrees have a lower probability of starting a business than those with graduate degrees.

The relationship between education and entrepreneurship, however, is a little more complicated than that. This complexity is due to the fact that people with higher education have better chances of being successful and reaching their goals not only by being involved in entrepreneurial activity but also by being an employee (Davidsson, 1995). In the same direction, Sluis et al. (2005) have suggested that people with higher education might get better options for a well-paid job, which will decrease their likelihood of becoming entrepreneurs (Sluis et al., 2005). On the contrary, some scholars have suggested that individuals with secondary education or higher acquire a set of knowledge and skills that help them get involved in entrepreneurial activities where they put the knowledge and skills they gained to use (Jiménez et al., 2015). Furthermore, some scholars have argued that a higher education level gives individuals the skills needed to discover opportunities and evaluate them better than individuals with less education levels (Schultz, 1959). For example, De Clerq and

Arenius (2006) found that individuals with a secondary education level are more likely to start a venture than those with lower education levels (De Clercq & Arenius, 2006). Moreover, some even connected the level of education with the perceived risk of being an entrepreneur. Those argued that individuals with a higher level of education find themselves in a position where they can easily find a job if their business fails; their high education level minimizes the perceived risk, which leads them to get involved in entrepreneurial activities (Shane & Venkataraman, 2000). This leads us to our next hypothesis:

Hypothesis 1: A higher education level will increase the probability of Saudi individuals creating a new venture.

On the other hand, informal institutions are the unwritten rules of society. Those rules are not enforced by any authority; however, those rules came from the culture, traditions, and social norms, and they evolved through time (Baumol, 1990; North, 1990). Informal institutions' rules are constraints that evolved between humans through time unintentionally such as conventions, norms, taboos, and self-imposed codes of conduct and traditions. (Denzau & North, 1994). Informal institutions have formed unconsciously due to living in an institutional environment (Ostapenko, 2017). Some scholars such as Helmke and Levitsky (2004) have even gone further to say that informal institutions are "the actual rules that are being followed." Nevertheless, there have been a lot of informal factors analyzed by researchers to figure out the effect of those factors on entrepreneurial activity. Moreover, national culture is one of the most critical informal institutions when it comes to explaining how an individual perceives information and influences the decisions and behavior of entrepreneurs (North, 1991).

One of the informal factors that we will analyze in this chapter is the effect of role model. According to an analysis of the new stream of research done by Urbano et al. (2014) role model as a factor is found to be the most studied informal factor (Urbano et al. 2014). This shows the importance of a role model when it comes to influencing individuals to get involved in entrepreneurial activity. Other scholars have looked at the effect of role models on entrepreneurial intentions. Krueger et al. (2000) found out that if role models changed the individual's attitude and belief, they could affect his entrepreneurial intentions too (Krueger et al., 2000). Some scholars looked

at the effect of role models on the career planning of students and kids. Scott and Twomey (1988) found that students who have business-owner parents showed more preferences for being self-employed than being an employee (Van Auken et al., 2005). In the same area, some authors such as Carroll and Mosakowski (1987) suggested that kids with entrepreneurial parents were more likely to have worked and helped their parents, which gave them the knowledge and skills to start their own businesses later (Urbano et al., 2017).

Bygrave (1995) introduced a model to find the most important factors that give birth to new ventures. One of the critical factors that influenced the birth of new ventures in his model was the existent of an entrepreneurial role model. Bygrave found that role models play a huge part in facilitating opportunity detection and business idea generation (Lafuente et al., 2007). Moreover, he suggested that the existence of role models during the implementation stage is essential because, according to Bygrava, "Knowing successful entrepreneurs make the act of becoming one yourself seem much more credible." Fornahl (2003) suggested that becoming an entrepreneur may be a result of observing a peer who is involved in entrepreneurial activity. The studies showed that existing experience and having successful entrepreneurs as role models would send positive messages to potential entrepreneurs (Alvarez & Urbano, 2011). Furthermore, some studies found that having a role model makes a person more confident and decreases their uncertainty, which leads to an increase in their probability of becoming an entrepreneur (Davidsson & Honig, 2003). Studies also showed that having a role model influences the career planning of individuals. For example, Guerrero et al. (2016) and Urbano et al. (2017) found that in the universities' communities, students with entrepreneurial intentions are mostly influenced by role models (Urbano et al., 2017). In addition, Scherer et al. (1989) suggested that having an entrepreneur as a role model would create a desire and self-efficacy to be involved in entrepreneurial activities (Fry & Van Auken, 2003). Additionally, scholars have suggested that a role model gives an observational learning experience and can directly influence individuals by letting them be a part of the learning experience (Van Auken et al., 2006). Moreover, having an entrepreneur as a role model gives opportunities to individuals to learn entrepreneurial skills and capabilities, which leads to reduced ambiguity that might come with starting a new business (Wyrwich et al., 2016). This leads us to our next

hypothesis:

Hypothesis 2: An existing role model will increase the probability of Saudi individuals creating a new venture.

Another informal factor that we will analyze is the fear of failure. Since most new businesses fail, failure has a significant impact on entrepreneurship rates (Knott & Posen, 2005). As a result, the interest in investigating the effect of fear of failure on entrepreneurial activity has been growing (Mitchell & Shepherd, 2011). Three approaches have been used to study the impact of fear of failure on entrepreneurship: economic, psychological and social psychological (Hayton et al., 2013). Fear of failure could be seen as a proxy for the level of risk tolerance or the level of belief that fear of failing will affect the decision to start a new business (Koellinger et al., 2005). Fear of failure could be a fear of the financial and legal losses that could happen when a business fails. At the same time, it could also be a fear of the social and cultural judgment of failure (Andersson, Evers & Griot, 2013). The relationship between fear of failure and entrepreneurial activity has been investigated in the context of entrepreneurial decisions and risk aversion (Donyo, 2017). Scholars looked at fear of failure as the perceived risk of starting a new business and found that it influences the rate of entrepreneurship. Arenius and Minniti (2005) suggested that fear of failure is a main component of the risk that comes with starting a new venture, where a lesser fear of failure will reduce the perceived threat and, as a result, will increase the probability of creating a new business (Turro et al., 2016). Similarly, other empirical evidence shows that fear of failure influences the decision to become an entrepreneur, and it has a negative impact on that decision (Wyrwich, 2015). For example, Landier (2004) found that in cultures with a higher tolerance or acceptance of failure, more individuals get engaged in entrepreneurial activities than in cultures with less acceptance of failure (Vaillant & Lafuente, 2007). Other scholars, such as Urbano and Alvarez (2013), in an international study of 30 countries, found that fear of failure has a negative effect on being an entrepreneur.

The main findings in the literature suggest that fear of failure has a negative impact on the entrepreneurship rate. Another explanation for this negative impact could be drawn from research on achievement orientation, which suggests that one of the strongest human motivations is fear (Wyrwich et al., 2015). In a similar study to

ours in terms of the data, Shinnar et al. (2012) used the same proxy that will be used in this chapter from the GEM project to analyze the influence of fear of failure in three different countries: the United States, China, and Belgium. They found that in all three countries, the perception of fear of failure decreases the probability of having the intention to get involved in entrepreneurial activity (Cacciotti & Hayton, 2015). Additionally, Stuetzer et al. (2014) examined the fear of failure as a control variable on entrepreneurship. They found, once again, that fear of failure has a significant impact on individual entrepreneurial intentions with a negative correlation (Stuetzer et al., 2014). Another example is Wagner and Stenberg's study (2004), which also found that fear of failure negatively impacts entrepreneurial activity (Wagner & Stenberg, 2004). This leads us to our next hypothesis:

Hypothesis 3: A Fear of failure will decrease the probability of Saudi individuals creating a new venture.

3.4 Data and methods

This research uses quantitative methods to analyze the institutional factors in Saudi Arabia to find out the factors that influence entrepreneurial activity. Here is more explanation of the variables and methods that will be used to help achieve the aim of the study:

3.4.1 Dependent variable:

The dependent variable is gathered by the Global Entrepreneurship Monitor research project (GEM) in 2016. The GEM assesses the national level of entrepreneurial activity annually. The GEM project started as joint research between two universities, the London Business School in the United Kingdom and Babson College in the United States of America. It expanded to reach more than 100 countries. The GEM Project aims to enhance the understanding of entrepreneurial activity by providing high-quality information and comprehensive reports. In this research, the dependent variable is a dummy variable, which is the total entrepreneurial activity (TEA). Moreover, TEA is the main factor of the GEM project, which indicates the individuals who are adults and in the process of starting a business that they will be one of the owners or already owning and managing an existed business that has been created in the past three years and a half. The GEM data were used in many studies to

analyze the entrepreneurial activity around the world, such as Urbano and Alvarez (2014), Wong et al. (2005), etc.

3.4.2 Independent variables:

Regarding the independent variables, two dimensions will be considered: formal institutional variables and informal institutional variables. Regarding the formal variables, we will look at the level of education (Edu) of the participants. GEM collects this proxy and categorizes it into four levels. Regarding the informal variables, two variables will be used in this study, which are: fear of failure (FoF) and role models (RM). Both variables were obtained from the GEM report. FoF represents the fact if fear of failure would prevent the participant from starting a business. On the other hand, the role model indicates if the participants know someone personally who started a business in the last two years.

3.4.3 Control variables:

Even though this research follows an institutional approach, other studies indicated that other factors might also impact entrepreneurial activity. Some researchers suggested that sociodemographic factors are essential to clarifying entrepreneurial behavior (Alvarez & Urbano, 2014). As a result, we included the following individual-level control variables.

Age: Regarding the age, scholars such as Evans and Leighton (1989) and Levesque and Minniti (2006) have found out that there is an inverted U-shaped relationship between the age of the person and entrepreneurial activity (Alvarez & Urbano, 2014). We include age as a control variable to test its impact. Participants were asked to state their age.

Gender: It has been found that females have less entrepreneurial involvement rates than men (Arenius & Minniti, 2005). Nevertheless, we include gender as a dummy control variable.

Income level: Evidence showed that income level also tends to impact the decision of becoming an entrepreneur where it is expected that individuals with high incomes are more likely to start a business (Aparicio et al., 2016). We included the income level as a variable with four categories.

Work Status: Evidence showed that work status impacts the decision to

become an entrepreneur. Blanchflower (2004), after a study on 30 countries, stated that work status, besides other variables, influences the decision to become an entrepreneur (Koellinger et al., 2013)

Table 3.1 includes a description of all the variables that were used in this chapter.

3.4.4 Data analysis and model:

The approach that will be used in this research would be the institutional approach, where we look at the formal institutional variables and informal institutional variables to analyze the Saudi entrepreneurial activity. The research equation will as follow

$$TEA = f(F, I)$$

Where TEA is the dependent variable, and "F" represents the formal independent variables and where "I" represents the informal independent variables. Our dependent variable is a binary variable, and for that, we analyzed the data using a binary logit model where the dependent variable is 0 or 1. Moreover, the logit model is one of the binary regressions which indicate the relation between the independent variables (F and I) and the dependent variable (TEA), and it is the model that will be in this research.

Our data is taken from the GEM report 2016. The number of participants who answered our dependent variable question is 3816 participants (observations). The number of people who responded by "yes" when they had been asked if they are starting a new business or owning and managing a new startup is 404 participants. On the other hand, the number of people who answered "no" is 3412. The first thing we did after seeing the small number of people responding "yes" is that we tested if our data considered as rare event data to know what regression we could choose. We found out that the percentage of people answered "yes" is 10.5%, which makes the data above the line of being a rare event.

	Variable	Description and database	Possible values
Dependent variables	Entrepreneur (TEA)	Dummy variable equal to 1 if the participant is starting a new business or owning and managing a new startup; equal to zero otherwise. Source: Global Entrepreneurship Monitor (GEM) 2016	Entrepreneur = 1 In other cases = 0
Independent variables	Education (Edu)	Participants were asked to state their highest education level that they have attained. They have been categorized into four levels. Source: (GEM) 2016	1. Some secondary 2. Secondary degree 3. Post-secondary 4. Graduate degree
	Fear of Failure (Fof)	Dummy variable equal to 1 if the participant agrees with the statement: "Fear of failure would prevent starting a business." And equal to 0 if he doesn't. Source: (GEM) 2016	1. Yes 0. No
	Role Model (RM)	Dummy Variable that equal to 1 if the participant agrees with the statement: 'You know someone personally who started a business in the past 2 years'. Equal to 0 if not. Source: (GEM)	1. Yes 0. No
Control variables	Age	Participants were asked to state their age. Source: (GEM) 2016	
	Income (Inc)	Participants were asked to place their income level into one of three categories. Source: (GEM) 2016	1. Lowest 33%tile 2. Middle 33%tile 3. Highest 33%tile
	Gender	Participants were asked to state their gender. Source: (GEM) 2016	1. Male 0. Female
	Work status (WS)	Participants were asked to choose their work status out of three categories. Source: (GEM) 2016	0. Not Working 1. Retired or Student 2. working full/ part-time

Table 3.1 description variables

3.5 Results and discussion

Table 3.2 shows the mean, stander deviations and the correlation coefficients of the entire variables in this study. On the other hand, table 3.3 shows the logit regression model that was used to analyze the institutional variables and how they impact entrepreneurial activity. In table 2, the result is showing that most of the variables are highly correlated. Nevertheless, some of the variables showed small to no correlation, such as income or gender.

In addition, we applied the Pearson chi2 test to our categorical variables (Education and income). Pearson chi2 test tells if the distribution of the data is by

chance or not. Table 3 shows the categories of each variable with the number and total of observation that answered "yes" or "no" to the TEA involvement questions. Table 4 shows the Logit Regression results in predicting entrepreneurial activity, and it has two models. The first model includes only the controlling variables (age, income, gender and work status). On the other hand, in model 2, we included the independent variables only (Edu, FoF and RM).

	Mean	Std. Dev	ENT	Edu	FoF	RM	Age	Inc	Gender	WS
Entrepreneur (TEA)	0.1059	0.3077	1							
Education (Edu)	1.9017	0.9187	-0.0123	1						
Fear of failure (FoF)	0.4195	0.4935	0.0682***	-0.1137***	1					
Role Model (RM)	0.7130	0.4524	0.1204***	0.0846***	-0.0918***	1				
Age	34.7539	10.4196	-0.0506**	0.1163***	-0.0712***	0.050**	1			
Income (Inc)	0.6794	0.7125	-0.0206	0.0275	0.0189	-0.031	0.0726***	1		
Gender	0.5566	0.4969	0.0311	0.1589***	-0.2329***	0.075***	0.0161***	-0.0197	1	
Work status (WS)	1.8228	0.5486	0.1020***	0.1446***	-0.0551***	0.009	-0.0549***	-0.0752***	0.3099***	1

Table 3.2 Correlation matrix

In model 1, we only looked at the control variables. The model shows that age and work status are highly significant. The results show that the younger the person, the more the probability he will start a business, and this goes with other scholars' findings like Levesque and Minniti (2006), where they found the same results. On the other hand, the people who have a job (part-time or full-time) are more likely to be involved in entrepreneurial activity. This could be explained as people who work usually are more experienced and exposed to opportunities than people who are not engaged in any job.

Moreover, the model also indicates that gender does not have an impact on the decision to become an entrepreneur. This shows that Saudi females are willing to start a business as much as males. Nevertheless, the results also indicate that when the income is low, it becomes a highly significant factor. On the other hand, if the income is average or high, then it does not play any role. This does not go with other empirical evidence in other countries. However, this might be due to easier access to funding in Saudi Arabia, which does not make the income of the individual a deciding factor. The overall model is significant, with a p-value less or equal to 0.001 and Log-likelihood equal to -1171.0827, and the model predicts 90.5 % of the responses correctly.

Variable	category	Involvement in TEA		Total Observation
		No	Yes	
Education Prsn chi2(3) = 1.435 Pr = 0.697	Some Secondary	1,527	184	1,711
	Secondary degree	777	97	874
	Post-secondary	1,011	115	1,126
	Graduate	97	8	105
	Total Observation	3,412	404	3,816
Income Prsn chi2(2)= 10.07 Pr = 0.006	Lowest 33%tile	292	3	295
	Middle 33%tile	84	0	84
	Upper 33%tile	3,024	401	3,425
	Total Observation	3,400	404	3,804

Table 3.3 Pearson chi2 test

In model 2, we analyze the independent variables and the control variables at the same time. The whole model is significant, with a p-value less or equal to 0.001 and Log-likelihood equal to -1115.2465. The model predicts 82.2 % of the responses correctly, which is lower than the first model but still a high percentage. For the control variables in model 2, age and work status remain to play the same significant impact in model 1 with the value of p less or equal to 0.001. On the other hand, gender still shows now significance, and the work status also remains the same as in model 1.

		Model 1		Model 2	
		df/dx	SE	df/dx	SE
Dependent variables	Entrepreneur (TEA)				
Independent variables	Education (Edu)				
	Secondary degree			0.0036	0.01081
	Post-secondary			-0.0075	0.01011
	Graduate			- 0.036*	0.02006
	Fear of failure (FoF)			0.0362***	0.00952
	Role Model (RM)			0.0728***	0.00842
Control variables	Age	-0.00123***	0.00047	- 0.0012***	0.00045
	Income (Inc)				
	Lowest 33%tile	- 0.0278***	0.00959	- 0.0239***	0.0091
	Middle 33%tile	0.0087	0.0138	0.012	0.01335
	Gender	-0.006	0.00931	-0.0034	0.00903
	Work status (WS)	0.0987***	0.00793	0.0909***	0.00731
	Number of obs	3917		3822	
	Pseudo R-squared	0.0288		0.0672	
	Log pseudo-likelihood	-1279.3788		-1199.0926	

Table 3.4 Logit results in predicting entrepreneurial activity

Going back to our hypothesis, our first one suggests that higher education level

will increase the probability of Saudi individuals to create a new venture. As it is shown in table 2, the result shows a correlation between education and entrepreneurship entry. However, in model 2, the logit regression result does not support the hypothesis, as the result shows no impact from the education on the decision of becoming an entrepreneur except for a small impact when someone has a graduate degree. On the other hand, our second hypothesis suggests that the existence of a role model will increase the probability of Saudi individuals creating a new venture. In model 2, table 3, we found that the presence of a role model will increase the likelihood of starting a new business that supports our hypothesis. The variable RM has a p-value less or equal to 0.001 and df/dx equal to 0.0728. These results support our second hypothesis. Finally, our last hypothesis suggests that fear of failure has a negative relationship with the rate of Saudi individuals who wants to create a new venture. The results show it is highly significant, with a p-value less or equal to 0.001. However, the sign is in the opposite direction of what we suggested in our hypothesis with df/dx equal to 0.0362. We found that fear of failure motivates people to start a new business; thus, this also goes against our hypothesis.

As hypothesized, our results of analyzing the role model effect go exactly with literature (Krueger et al., 2000; Van Auken et al., 2005; Carroll & Mosakowski, 1987, etc.). The result shows a highly significant variable. Studies suggested that people will always imagine themselves in their role model or idol's places, and this imagination leads to starting a business if the role model was an entrepreneur. Moreover, Liu looked even more in-depth on the impact of Role models' stories and found that a role model can be an idol like Steve Jobs or can be a peer, and both affect the entrepreneurial intentions positively (Liu, 2019). Not only that, but they looked at successful role models and unsuccessful ones and found that both of them impact the decision positively regardless of their success (Liu, 2019). In our study of the Saudi environment, we found that people who have someone in their life who is involved in the entrepreneurial activity are more likely to start a business one day.

On the other hand, fear of failure is also found to be a highly significant variable; however, it seems to be going in the opposite direction of what is in the vast majority of the literature (Cacciotti & Hayton, 2015; Wagner & Stenberg, 2004; etc.). The results suggest that the more fear of failure the person has, the more likely he will get involved in entrepreneurial activity. This result goes against the literature that analyzes

entrepreneurship entry; however, some researchers have observed a positive influence of fear of failure on entrepreneurship such as deCharms and Dave (1965). Other scholars have argued that fear of failure could stimulate a higher motive because achieving success can be the best way to escape failing (Cacciotti & Hayton, 2014). Moreover, some schoolers have argued that there could be another factor that moderates the effect of fear of failure and makes it has a positive relation to entrepreneurial activity. For example, Morgan and Sisak (2015), when examining the impact of fear of failure on the level of investment or probability of success, they found that the level of competition in the country moderates the effect of fear of failure (Morgan & Sisak, 2015). They found out that when the competition level is high, fear of failure may negatively affect the outcome, and the opposite is true. This may be the case in a developing country like Saudi Arabia, where the market still has more space for new businesses to fill, which makes the competition less, which might influence fear of failure to motivate people to start a new business. Another way to explain the results might be the age. Moreover, when studying the impact of fear of failure in Greece and Germany, Tubadji et al. (2019) found that age plays an important role where young individuals between 15 and 24 years of age are less entrepreneurial when it comes to the impact of fear of failure (Tubadji et al., 2019). This also could explain our results as age here was only a control variable. Moreover, looking into the moderation effect of age on the relationship between fear of failure and entrepreneurial activity might give a better explanation of this result. Nevertheless, another explanation to this result can be concluded with the statistics Mor et al. (2020) provided in their study. They looked at fear of failure from a country's point of view and found that it differs very much between countries. More specifically, the risk-aversion rates were 61.6% in Greece, followed by Poland (51.1%), Belgium (49.4%) and Italy (49.1%), whereas in the Asian and Oceania group of economies, the highest risk-aversion of 54.5% was noticed in Japan followed by Vietnam (50.1%). The United States recorded a fear factor of 29.7%, much lower than Australia, which turned out to be 39.2%. According to GEM (2018) report, risk-aversion rate in India is recorded to be 50.6% which is higher than that of the global average rate (36.3%), the entrepreneurship intention rate is 20.6% is lower than that of the global average (23.7), and the total early-stage Entrepreneurial Activities (TEA) is 11.4% relatively lower than that of the world average (12.63%). These gaps between the countries' risk

aversion can be caused because of other factors that indirectly impact the perceiving of risk. As most of the available studies of fear of failure and entrepreneurial activity were done in developed countries, developing countries have different social and economic systems, which might explain the opposite impact of fear of failure.

Finally, education showed to be not a significant variable except for graduate individuals who show a minimal impact. Putting in mind that we found the relationship between education and entrepreneurial activity complicated, the majority of the literature has stated that the higher the education level, the higher is the probability of starting a new business (Arenius & Minniti, 2005; Robinson & Sexton, 1994; Davidsson, 1995; etc.). Moreover, other scholars have argued that education is vital to success when having a business; however, it doesn't have anything to do with being involved in business creations (Lofstrom, 2019). Others have gone to question the definition of education and how skills might take the place of educations if the person is skilled. Those high skills could replace educations and makes it of no importance in the decision to become an entrepreneur (Lofstrom, 2019). Finally, some scholars such as Davidsson (1995) and Sluis et al. (2005) have suggested that a higher level of education might give individuals better chances by being an employee rather than an entrepreneur.

3.6 Conclusions

This chapter aims to analyze the influence of formal and informal institutions on entrepreneurial activity in Saudi Arabia. The chapter used the institutional approach to analyze the entrepreneurial activity in the country. A significant result that can be drawn from this chapter is that informal variables influence the decision to become an entrepreneur more than formal ones. This goes with the literature collected, where scholars found the informal institutions are highly relevant to entrepreneurial activity (Aparicioa et al., 2016). We found education, the formal variable, to have almost no impact on the decision to be involved in entrepreneurial activity; however, fear of failure highly impacts entrepreneurial activity. The role model's existence also has a positive relationship with entrepreneurial activity.

The research contributes to the literature by giving a better understanding of Saudi Arabia's institutional environment and how it can help entrepreneurs to grow their businesses and help improve the economy of the whole country. The research will contribute to the Saudi market by giving empirical evidence that might support

developing better policies and regulations to help entrepreneurs. Moreover, by studying the Saudi institutional environment and its effect on entrepreneurial activity, the research is expected to help determine what needs to be changed in the institutional environment and push it towards being more useful for entrepreneurs. One of the policy implications that can be drawn from the results is that a higher degree slightly influences entrepreneurship. As a result, policymakers should push for more programs to educate people as education will, somehow, lead to more involvement in entrepreneurial activity.

The first limitation this study has faced is the lack of published papers that analyze the entrepreneurial system in Saudi Arabia. Another one of the apparent limitations this research had is data. To measure such an impact of such variables, more data should evolve. The only available data were secondary data that was gathered by the GEM. Even the GEM data lacks many proxies, especially when it comes to the governmental role. For example, the GEM report has no proxy for financial spending or costs to start a business. Another limitation of the study is that it only analyzed one formal factor (i.e., education), keeping in mind that including other formal factors might generate different results; however, the data limited us to only one variable. In addition, the study was limited only to the individual level due to the available data too. Studying the institutional environment at other levels than the individual level could be complementary to this study. Finally, the language of most of the publicly available governmental reports is in Arabic, which limits the use of such data.

Regarding the future research lines, this study found education to be insignificant except with individuals who are graduate degree holders. A forthcoming study of only individuals with a graduate degree could lead to more insightful findings. In addition, now universities are opening business accelerators and incubators to educate entrepreneurs; with more available data on the outputs of those entries, new research could find new results for the relationship between entrepreneurship and education. Moreover, since the regression showed a rare result in the relationship between fear of failure and entrepreneurial activity in Saudi Arabia, a paper dedicated to studying the matter could lead to ground-breaking findings. Research on what moderates the relationship between fear of failure and entrepreneurial activity in Saudi Arabia could explain more about this rare relationship.

Chapter 4

The impact of culture on entrepreneurial activity: a study in the Saudi context

4. The impact of culture on entrepreneurial activity: a study in the Saudi context.

4.1 Introduction

Entrepreneurship is an essential part of any economic development because it's part of creating jobs, encouraging innovations, and affecting welfare (Acs et al., 2008). This role of entrepreneurship in economic growth was established very early. Schumpeter (1911) argued that entrepreneurs play a big part in driving economic growth. Since then, scholars such as Minniti (2008) and others have kept showing more evidence of how entrepreneurship helps to increase the development and the growth of any economy. Additionally, some studies found out that entrepreneurship—as new firms and start-ups—are responsible for most new jobs created (Wong et al., 2005). Not only that, but Kirzner (1973) went as far as to argue that entrepreneurship drives the market process by its competitive behavior. Other studies, such as Carree and Thurik's (2003) research on entrepreneurship, argued that it brings innovations and creates change, companions and rivalry, which add to the economic performance.

Scholars have used different approaches to study entrepreneurship. North (1990) introduced the concept of the institutional theory, which is one of the approaches used to study this phenomenon. Since then, scholars have used the theory to study the effect of institutions on several aspects. The institutional theory states that institutions are “the humanly devised constraints that structure political, economic, and social interaction” (North, 1991). North divided institutions into formal and informal institutions, where formal institutions are the written rules and laws (Tonoyan et al., 2010), and informal institutions are the unwritten rules and values that were set by the society (Baumol, 1990; North, 1991).

As we found out in Chapter 2, more than 47% of the scholars in our literature have studied the impact of informal institutions on the decisions to become an entrepreneur. Nevertheless, our study of both institutions in Chapter 3 showed how important is the informal institution. This led us to focus this chapter on studying informal institutions. Scholars have looked at different informal factors in their studies, and authors have even looked at how those factors influence different types of entrepreneurs. For example, Basu (1998) analyzed the factors that motivate Asians (i.e., Indians, Pakistanis, and Bangladeshis) in Britain to become entrepreneurs. The results of Basu's study showed that most Asians in Britain start a business because

they want independency and financial prosperity and not because of any other reasons. Other scholars who studied informal factors are Giannetti and Simonov (2009), who studied the effect of “peer effects” and how it influences the decision to become an entrepreneur. In their study, they found that peer effect plays a huge role in the decision of individuals to start a new business.

Sepulveda and Bonilla (2010) investigated the informal factors that influence individuals in Chile to start a business despite the risk that comes with it. They found that gender and educations influence the decision to become an entrepreneur. Another article by Harms and Groen (2016) analyzed how cultural factors affect new business ownership (i.e., tightness, individualism, and uncertainty avoidance), or affect high-growth entrepreneurship, or even its effect on social entrepreneurship. Results showed that tightness has no impact on entrepreneurial activity; however, individualism and uncertainty avoidance influence new business ownership. To add to that, Muralidharan and Pathak (2017) studied the impact of three informal factors (self-expression, performance orientation, and social desirability) on the extent of internationalization by entrepreneurial firms at an early stage. They found that high-performance orientation and self-expression increase the probability of internationalization. At the same time, the low social desirability of entrepreneurship will increase the possibility of internationalization. Furthermore, Pathak et al. (2016) analyzed how informal institutions influence entrepreneurs to enter the technology sector. One of the exciting results they found was that cultural diversity positively affects the latest technological uses in entrepreneurship. Building on this, and keeping in mind that most of those studies focused on North America or Europe with a small number for developing countries (Bruton et al., 2008), in Saudi Arabia, where there is a lack of studies about entrepreneurship, such a study would benefit the field. A better understanding of different cultures than North Americans and European culture might different results that will help in understanding the phenomenon of entrepreneurship better.

After studying formal and informal factors in Chapter 3, in this chapter, we will use an institutional approach, focusing on informal institutions. The objective of the chapter is to explore the influence of culture on entrepreneurial activity in Saudi Arabia. We will study and analyze the effect of informal institutions on entrepreneurial activity in Saudi Arabia and analyze the impact of culture as an informal factor on

entrepreneurial activity. To be specific, the chapter will investigate two types of culture: socially supportive and performance-based. The chapter will introduce a new aspect of the Saudi context to give a better idea of the variables we are using in the Saudi context. After we provide the literature on informal institutions and on the variables that will be used in this study, and then hypotheses will be introduced. Then, the methodology and analysis will follow. After that, we will present the results and discussions. Finally, we will finish with the conclusion, where we highlight the limitations of the study and the policy implications.

4.2 The Saudi Context

The culture of the Kingdom of Saudi Arabia revolves mainly around some old tribes' traditions and some Islamic rules. There has been, however, a great deal of change in the culture in the last ten years for many reasons, which we will summarize in three points that follow:

(a) The internet: The internet became a big thing in Saudi Arabia, where people spend hours reading and watching other people's views from around the world. Books and films that had been banned in the country were one click away for anyone to read and watch. The internet became a massive influencer to the point that Saudi Arabians became the world's most frequent YouTube visitor. Moreover, YouTube is just an example of how much Saudis use the internet; Saudis run all other social media websites and have accounted for a lot of the activity on those sites.

(b) Young population: As we mentioned in chapter 2, the population of Saudi Arabia is 31.7 million people, 58% of them are under age 35. Moreover, 49% of the population is under the age of 29, which illustrates how young is the population of the country. Those young people, who are using the internet to see the rest of the world and connect with it, experience significant changes in their mentality.

(c) The scholarship program: Saudi Arabia started a scholarship program in 2005, whereby thousands of young people were sent to many countries worldwide to pursue their education. One of the goals of this program is for students to obtain good aspects and ways of thinking in those countries and bring them back to Saudi Arabia.

Those three factors, with some other minor ones, were able to change so much in the informal institutions in Saudi Arabia. As a result of the change in the culture of the country, the formal sectors and rules started to change. Before we talk about those changes in the informal sector, it is better to get a glance at the formal Saudi

institutions and what changes are happening there. To understand formal institutions in Saudi Arabia, we need to understand the governing system and the source of laws in the country. The country is ruled by the king, and the laws are taken from the Holy Book. On the one hand, the country of Saudi Arabia is governed by a monarchy and ruled by the monarch, "the king." As in any other monarchy system, only a member of the royal family can become a king (i.e., the Al Saud family). Since the country was founded by King Abdulaziz, who was the first king of the country, all kings who came after him are his sons. Moreover, for someone to be appointed as a king, he should first be chosen as a crown prince by the current king. Then, whenever a king steps down or dies, the crown prince will rule as the new king. Moreover, the country's laws are taken from the Qur'an (the Holy Book). It was received by Prophet Mohammed more than 1,440 years ago, and it has some rules on how the law should be. Moreover, as the Holy Book has some unclear rules, religious figures were the ones responsible for interpreting those rules.

Before introducing the changes happening in the formal institutions, we need to look at the previous Saudi kings. In the last 30 years, only two kings have ruled the country. The first was King Fahad, who became a king at the age of 61 and ruled for 23 years. After he passed away, the second was King Abdullah, who became a king at the age of 80. As it is clear, the previous kings became kings at a very old age. Now, the king of the country is King Salman who is also a son of the founding king and who became the monarch at the age of 80. The new king has appointed his son, Mohammed bin Salman, as the crown prince, and for the first time, the crown prince is not a son of the founding king. In addition, for the first time, the crown prince is young; his age when he became crown prince was 30 years old, contrary to all previous crown princes who were at a late age when they got appointed.

As a young person is ruling the country, the old laws that were interpreted from the Holy Book hundreds of years ago have also started to change. As a result of a new young mind in a ruling position, many rules have changed in a very short time. For example, the country's religious police were shut down as a sign that religion is not the law of the country anymore. Another example of the changes is how Saudi Arabia is becoming more open to the world. This can be seen in the tourist industry; before, if you were not Muslim, you could not visit the country for tourism. Nowadays, anyone from any religion can visit the country.

Additionally, other changes can be seen in women's lives; previously, women were not allowed to drive cars in Saudi Arabia, but now they can drive cars as women can in any other country. Many other changes have occurred since Prince Mohammed became a crown prince, such as in the educational system, which has had some remarkable changes, the entertainment sector too, where many previously forbidden things became allowed (e.g., cinemas and famous DJs' concerts).

4.3 Conceptual framework

Cultural influence has been investigated through different aspects of science, from psychology to sociology, business, and even political science (Lebrón, 2013). Moreover, scholars have come up with a couple of definitions of culture. Schein (1990) defined culture as the way that people feel about "the organization, the authority system, and the degree of employee involvement and commitment" (Schein, 1990). Nevertheless, one of the most used definitions of culture is Hofstede's definition where he defined culture as "the collective programming of the mind which distinguishes the members of one group or category of people from another" (Hofstede, 1991). Kluckkohn, who studied culture, argued that the core of culture is traditional ideas that have been established through years of history (Kluckkohn, 1951). Culture can be described by looking at individuals who grew up and lived in different nations, where they developed shared assumptions that are unique to their nation (Gannon, 1994). Measuring culture, however, is complicated, as culture is an intangible aspect (Verheul et al., 2001). Scholars have tried to measure culture by measuring variables that represent it.

Moreover, to understand the culture, it is crucial to keep in mind the differences between culture and personality. Personality is something unique to each individual and is a combination of personal traits and values that have been shaped mostly by culture (Verheul et al., 2001). On the other hand, culture is collective rather than personal. Nevertheless, the argument of whether culture and personality are independent variables is an ongoing debate among psychologists. For example, some scholars such as Church (2000) argued that mind programming is, in part, unique to every person and is, in part, shared by people who share the same culture.

Those studies have shown the importance and the influence of culture. Scholars have studied different culture types and how they influence entrepreneurial activities. For example, Kreiser et al. (2010) studied the influence of uncertainty avoidance and

power distance in cultures on the risk-taking of entrepreneurs. Their results showed the influence of culture on entrepreneurial activities, where they found that the two variables have a significant negative impact on risk-taking. Other scholars looked at different variables to compare cultures' influences on entrepreneurial activities. Two of the most-used variables that represent cultures are individualism and collectivism. For example, Peterson (1980) argued that a country with a high level of individualism would have a greater level of entrepreneurial activities than another with a lower level of individualism. Moreover, culture is recognized as an influencing factor over the rate and quality of entrepreneurial activity (Wennberg, Pathak & Autio, 2013).

The first culture we will look at in this chapter is a socially-supportive culture and whether it will impact entrepreneurial activity. First, Demaray and Malecki (2002) defined social support as either general or specific supportive behavior from others that influences individuals' actions by encouraging or discouraging them. Moreover, it is important to mention that social capital can also be called social support because a socially supportive culture "is arguably a direct measurement of social capital" (Stephan & Uhlaner, 2010). People in a socially supportive culture have a collective identity and depend on informal networks and public morality (Semrau et al., 2016). Nevertheless, it is assumed that individuals in a socially supportive culture are more likely to find help, which will positively impact their decision to become entrepreneurs (Stephan & Uhlaner, 2010). Adler and Kwon (2002) said that the core intuition that influences social capital is the goodwill that others have for us, and it is considered a valuable resource.

Scholars such as Stephan and Uhlaner (2010) examined the relationship between entrepreneurship rate and culture and tried to provide a better understanding of how culture is defined in international business and cross-cultural management research. One of the exciting results they found was that a socially supportive culture is the aspect of culture that influences the level and quality of national entrepreneurship. Moreover, in a highly socially supportive culture, individuals are not afraid to try and fail until they become successful (Hopp & Stephan, 2012). This quality (i.e., not being afraid to try and fail because of a highly socially supportive culture) is very important for creating an enterprise as entrepreneurs will be trying until they find the best option. In another paper, Hopp and Stephan (2012) studied the effect of a socially supportive culture on nascent entrepreneurs. They

found the same, expected results: a highly socially supportive culture will motivate nascent entrepreneurs.

Other scholars have mentioned several ways where a socially supportive culture can encourage venture creation. For example, Fukuyama (2001) found that one of the reasons that a socially supportive culture encourages venture creation is the reduced cost of transactions and the high probability of individuals cooperating voluntarily (Fukuyama, 2001). Other scholars studied some micro aspects of a socially supportive culture, such as O'Donnell et al. (2001), when they studied networking, which is an essential aspect of a socially supportive culture, and how it affects the establishment of a firm. On the individual level, studies have suggested that resources (e.g., money, emotional support, and or even shared information), which are available through networking, are significant for the successful creation of a new business (Stephan & Uhlaner, 2010). Others, including Adler and Kwon (2002), found that sharing information is one of the criteria in such a culture that helps influence entrepreneurial activity positively. Moreover, on the organizational level, researchers such as Choi et al. (2003) found that socially supportive cultures are associated with self-efficacy beliefs that allow a person to try and experiment with new things without the fear of being evaluated. Such a culture makes it easier for experimentation and entrepreneurial behavior (Stephan & Uhlaner, 2010). Scholars have also studied the relationship between entrepreneurial activity and collectivist culture, which shares the same characteristics of a socially supportive culture. Moreover, Erez and Earley (1993) studied the entrepreneurial activity in Israel and found that, in such a collective culture, entrepreneurs have the desire for affiliation, which they can achieve by creating firms. All this leads us to the first hypothesis:

Hypothesis 1: *A favorable socially supportive culture will increase the probability of Saudi individuals creating a new venture.*

The other view of culture that will be analyzed here is the effect of a performance-based culture on entrepreneurial activity. A performance-based culture is a culture that rewards and expands individual achievements and high performance (House et al., 2004; Stephan & Uhlaner, 2010). In these cultures, individuals are given values based on their achievements. In a society where there is a performance-based culture, individuals will find that becoming an entrepreneur is a legitimate and desirable action (Wennberg, Pathak & Autio, 2013). Moreover, since our questioner on

the matter is based on the Globe Project survey, it is essential to include their definition of performance orientation, where they defined it as “the degree to which a collective encourages and rewards group members for performance improvement and excellence.” People in a high performance-based culture has many common characteristics with entrepreneurs’ characteristics, such as taking the initiative, believing that success can come with hard work, and looking for improvement (Davidsson, 1995).

Entrepreneurship is an activity that is oriented around performance and achievement; entrepreneurs make an effort to get financial and nonfinancial rewards (Rauch & Frese, 2007). In a highly performance-based society, individuals will be motivated to perform and will recognize the potential to excel and to be recognized as successful, which comes with becoming an entrepreneur rather than being an employee (Baker, Gedajlovic & Lubatkin, 2005). In a performance-based culture that supports any type of performance behavior like taking the initiative, entrepreneurship activities should flourish (Rauch & Frese, 2007). Studies such as that by Brinckmann et al. (2008) have found that achievement orientation relates to entrepreneurship and firm creations. Delmar and Shane (2003) came up with the same findings that this orientation correlates with entrepreneurship entry. Moreover, one of the studies on this matter was done by Stephan and Uhlaner (2010), where they assumed that a performance-based culture would increase the entrepreneurship rate. They built their assumptions on previous studies, such as those by Delmar and Shane (2003) and Collins, Hanges and Locke (2004), which found that a higher performance-based culture is related to entrepreneurship entry. Their assumption was valid until they added GDP as a control, which led to no impact (Stephan & Uhlaner, 2010).

Nevertheless, some scholars argue that a results-focused orientation is essential for any industrial or regional policy, including entrepreneurship policy, and has been considered necessary for any kind of growth (McCann & Ortega-Argiles, 2016). Other studies have also found that performance orientations have an indirect effect on entrepreneurship entry by moderating the effect of self-efficiency (Wennberg et al., 2013). Moreover, they have found that performance orientations stimulate the overall quality of the entrepreneur (Rauch, Frese & Sonnentag, 2000). As a result, we could conclude that a person with a high level of performance orientation will do better in a culture that is performance-based and can use this performance orientation

to start a new business. In this chapter, we will follow these assumptions which lead to the next hypothesis:

***Hypothesis 2:** A favorable performance-based culture will increase the probability of Saudi individuals creating a new venture.*

4.4 Data and methods

In this study, a stratified sampling method was used to collect primary data from Saudi Arabia. A literature review on papers that studied the same variables as we are using resulted in creating a survey that captures and measures the variables scientifically. The original survey was constructed in the English language and then has been translated into Arabic to be easier to understand to the participants. The process of translation went through 4 scholars who speaks Arabic and English fluently to ensure the perfections of the translations. The survey is targeting entrepreneurs and non-entrepreneurs.

The data gathering process was conducted in three different ways: by email, by the phone and in person. The email distribution was conducted through organizations that have a big contact list. Those organizations are located in 16 different cities in Saudi. King Abdulaziz University, Badir, and Small and Medium Enterprise General Authority University of Business and Technology were at the top of the list because of their involvement in the entrepreneurship area or in the research area. Phone calls came after the email distribution as the responding rate was low, and a phone call was needed to encourage participants to fill up the survey. Finally, two events that were held at the same time as the data collecting phase were targeted because of the large numbers of attendance, both entrepreneurs or non-entrepreneurs. Those two events are Basta Market and Entrepreneurs Forum. The survey was conducted in the time between the first week of February 2019 to the first week of March 2019. The final sample was a sum of 466 participants. 228 of the participants were female, and 238 were males. Moreover, 277 were not entrepreneurs, and 189 are entrepreneurs.

4.4.1 Dependent variable:

The dependent variable in this study is the entrepreneurial activity in the last 36 months (EA). The dependent variable (EA) is a dummy variable where it is equal to 1 or zero. Such variable with such questions has been used in other studies such as Alvarez and Urbano 2013. Other such as Wong et al. (2005) also used the same

variable to study entrepreneurial activity.

4.4.2 Independent variables:

We have two independent variables in this study: socially-supportive culture and Performance-based culture. To capture those two variables, we used a set of questions that will be factored in the analysis to measure the variable.

(A) socially-supportive culture (SSC): we used five statements of a Likert scale where participants were asked to choose between 1 to 5 scale, where five means they totally agree and one totally disagree. Those statements have also been obtained from GLOBE studies. Scholars such as Schlossberg (2006) used those statements to measure human orientations of the society where he defined it as “the degree to which members of a society are fair, altruistic, friendly, generous, caring and kind to others” (Schlossberg, 2006).

(B) Performance-based culture: On the other hand, for the other variable “Performance-based culture,” 3 statements were used to capture the variable with the same scale as the first variable. Those statements have also been obtained from the GLOBE studies, and it is responsible for measuring the “extent to which a community encourages and rewards innovation, high standards, excellence, and performance improvement” (House et al., 2004, Muralidharan & Pathak, 2017).

4.4.3 Control variables:

As the literature shows the importance of sociodemographic variables to clarify entrepreneurial behavior (Alvarez & Urbano, 2014), we chose gender, age, education level, and occupation to be our control variables.

Gender: Studies have shown that there dependency relationship between age and the intention of starting a new company (Urbano, 2006).

Age: previous studies showed that there is a relationship between age and entrepreneurial activity where it takes the form of a U shape (Alvarez & Urbano, 2013). Participants were asked to state their age as a number.

Education: the relationship between education and entrepreneurship is complicated, as Davidsson (1995) and Van der Sluis et al. (2005) have suggested. Not only that, but as we are studying culture in this chapter, the level of education can also affect culture (Alwakid et al., 2020).

	Variable	Description	Possible values
Dependent variables	Entrepreneur Activity (EA)	Dummy variable equal to 1 if the participant is starting a new business or owning and managing a start-up in the last 36 months; equal to zero otherwise.	Entr = 1
			In other cases, = 0
Independent variables	Performance-Based Culture (PBC)	5 statements of a Likert scale where participants were asked to choose between 1 to 5 scale where 5 means they totally agree and 1 totally disagree -In this society, people are generally concerned about others. In this society, people are generally sensitive toward others. -In this society, people are generally friendly. -In this society, people are generally tolerant of mistakes -In this society, people are generally very generous.	1,2,3,4,5
	Socially-Supportive Culture (SSC)	3 statements of a Likert scale where participants were asked to choose between 1 to 5 scale where 5 means they totally agree and 1 totally disagree -In this society, teen-aged students are encouraged to strive for continuously improved performance. -In this society, major rewards are based on only performance Effectiveness. -In this society, being innovative to improve performance is generally substantially rewarded.	1,2,3,4,5
Control variables	Age	Participants were asked to state their age.	
	Gender	Participants were asked to state their gender.	1. Male 0. Female
	Education (Edu)	Participants were asked to state their highest education level that they have attained. They have been categorized into 6 levels.	Up to the eighth grade
			High school degree
			Community college
			A bachelor's degree
A master's degree			
		Doctorate degree	

Table 4.1 Description of variables

4.5 Results and discussion

Table 2 shows the means, standard deviations and the correlation coefficients for all the variables that are used in this research. We found no correlations between any of the variables. This means none of the variables will collide during the running of the regression, which will give better results and understanding. Most notably are

the correlation between our two independent variables, which, as seen in table 2, doesn't exist.

	Mean	Std. Dev	EA	PBC	Sci	Age	Gender	Edu
Entrepreneur Activity (EA)			1					
Performance-based culture (PBC)	1.9017	0.9187	0.1101	1				
Socially-supportive culture (SSC)	0.4195	0.4935	-0.0045	-0.2306	1			
Age	0.7130	0.4524	-0.0728	0.0307	-0.0286	1		
Gender	34.7539	10.4196	0.0420	-0.0160	-0.0145	0.0496	1	
Education (Edu)	0.6794	0.7125	0.0332	-0.0137	0.0243	0.03649	0.0249	1

Table 4.2 Correlation matrix

Moreover, Table 3 shows the logit regression model that was used to analyze the effect of culture on entrepreneurial activity, and it is divided into two different models. Model 1 shows the logit regression results for the control variables Only (age, gender and education). However, in model 2, we included all the variables (performance-based culture, socially supportive culture, age, gender and education). In model 1, age is the only control variable that is highly significant. The model shows that the younger the person, the more likely to start a business. This result goes with the literature, which suggests that the younger the person, the more likely he will create a business (Levesque & Minniti, 2006).

Moreover, the model also showed no impact of gender on the decision to become an entrepreneur. On the other hand, we found that education does not affect becoming an entrepreneur. The relationship between education and entrepreneurship is complicated, as Davidsson (1995) and Van der Sluis et al. (2005) suggested, for example, that the higher the person's education, the higher his chances of getting a job somewhere instead of starting a business.

In model number 2, we analyzed all the variables, including the independent variables. Model 2 shows that a performance-based culture is highly significant. On the other hand, a socially supportive culture shows no impact on the decision to become an entrepreneur. Moreover, all the control variables showed the same results as in model 1, where age is the only variable that showed a high significance. The overall model has a p-value equal to 0.0258 and a log-likelihood equal to -343.32564, and the model predicts more than 68% of the responses correctly.

		Model 1		Model 2	
		df/dx	SE	df/dx	SE
Dependent variables	Entrepreneur (TA)				
Independent variables	Performance-based culture			0.0584***	0.0206
	Socially-supportive culture			0.01055	0.02049
Control variables	Age	- 0.00535***	0.0379	-0.00671***	0.0255
	Gender	0.04022	0.024	0.03653	0.03969
		-0.17861	0.20897	-0.10218	0.2586
		-0.140852	0.22817	-0.12453	0.02486
		-0.1547	0.22148	-0.0891	0.03068
		-0.01389	0.30052	-0.001892	0.03102
		-0.04779	0.29021	-0.03983	0.3047
	Number of obs	562		-	
	Pseudo R-squared	0.0258		-	
	Log pseudo-likelihood	-343.32564		-	

Table 4.3 Logit results in predicting entrepreneurial activity

Our first hypothesis states the following: A favorable socially supportive culture will increase the probability of Saudi individuals creating a new venture. However, our regression shows the opposite of that, and our first hypothesis was rejected. We found that a socially supportive culture has no impact on the decision to become an entrepreneur. Moreover, this goes against our literature, which concluded that socially supportive cultures increase entrepreneurial activity (Stephan & Uhlaner, 2010; Hopp & Stephan 2012; Fukuyama, 2001; Adler & Kwon, 2002). To explain this, we looked deeper into Saudi culture and other similar cultures when it comes to social support. The first study we found looked into Mexican-American society, which has identical strong family support as the Saudi culture. The results of the study showed similar results to ours, where it has been found that a supportive social culture had no impact on Mexican-Americans' decisions to become an entrepreneur (Abebe et al., 2014). The authors argued that the results were non-significant because the proxy used to determine a socially supportive environment only looked into financial support. In a study on female entrepreneurs in the UAE, a country that shares the same Islamic/Arabic culture, it has been found that females in the UAE engage less in formal networking than males (Goby & Eroglu, 2011). The reason behind this lack of female networking goes back to Islamic culture, which lacks women's gathering spaces and

which leads to less networking not only with men but also with women themselves (Al-Dabbagh, 2008). Keeping in mind the importance of networking in socially supportive cultures and that almost 50% of our sample are females, we can explain our result by the lack of networking from Saudi females due to Islamic culture. Moreover, if we look at the literature on collectivist cultures, which is a culture that has the same characteristics of socially supportive cultures, we find some sort of explanation. For example, Hui and Triandis (1986) argued that in collective countries with low levels of economic development, the individuals will be looking for entrepreneurial opportunities to improve the whole group while still satisfying their need for affiliation. On the other hand, in collective developed countries, entrepreneurial activity is connected to personal achievements, keeping in mind that entrepreneurial spirit can be found in big companies with no need to start new ones (Pinillos & Reyes, 2011). This might explain our case, as Saudi Arabia is not one of the countries with low levels of economic development. It is a country with many big international companies that can acquire potential entrepreneurs and give them the personal achievements they are looking for. Another explanation can be extracted from what some scholars, such as Early (1989) or Jones (1984), found when studying an extreme collective culture. Here, Morris, Davis and Allen (1993) explain those findings as follows: "At the other extreme, a strongly collectivist environment may actually give rise to an anti-entrepreneurial bias. Group performance and reward systems can encourage "free-rider" or "social loafing" syndromes on the part of specific individuals" (Morris Davis & Allen, 1993). This could also be the case here in the collective culture in Saudi Arabia. The collective environment might have raised the anti-entrepreneurial bias level. Nevertheless, another explanation of the lack of impact of the socially supportive culture can be drawn from the results of Sedeh et al. (2019) study, where they found that in countries with strong formal institutions, there is no impact on the socially supportive culture (Sedeh et al., 2019). On the other hand, they found that in countries with well-established informal culture, the socially supportive culture will have an impact on entrepreneurial activity (Sedeh et al., 2019). Not only that, but they found it only affect social entrepreneurs, not commercial ones. They also looked at it from what type of entrepreneurs, and it varies by type. In our study, we looked at the general entrepreneurship level, and looking into specific types of entrepreneurship might give us different results. Those reasons might explain why

our first hypothesis about the influence of a socially supportive culture on entrepreneurial activity was rejected.

Moreover, our second hypothesis states the following: A favorable performance-based culture will increase the probability of Saudi individuals creating a new venture. Our analysis shows that performance-based culture is highly significant and that our hypothesis is supported. The results suggest that the more the culture is performance-based, the more the likelihood of the individual in this culture to become an entrepreneur. This result goes with the literature that we gathered. For instance, Wennberg, Pathak and Autio (2013) found that in performance-based cultures, becoming an entrepreneur is a desirable option. That could be explained by knowing that performance-based cultures reward achievement and encourage it (House et al., 2004). Moreover, performance-based cultures motivate individuals to perform well and aim for better options and encourage behaviors such as taking initiatives and entrepreneurship (Rauch & Frese, 2007). Scholars also found that a country with developed institutions with a high level of performance orientation can offer valuable support for entrepreneurial activities (Luu & Ngo, 2019). Along with that, Baker et al. (2005) suggested that individuals in performance-based cultures will aim to perform well and look for success, and with that, they will be able to recognize the success that might come with being an entrepreneur instead of taking a job somewhere else. Nevertheless, Stephan and Uhlaner (2010) suggested that in such a culture as a performance-based culture, the prerequisites for successful entrepreneurship are already there, and that is what makes it a good culture for entrepreneurial activity to grow. Individuals with performance orientation will thrive in cultures such as performance-based ones, where they can utilize their performance in creating a new firm or engaging in entrepreneurial activity.

4.6 Conclusions

This chapter aims to explore the influence of culture on entrepreneurial activity in Saudi Arabia. We used the institutional approach that was introduced by North, who divided institutions into formal and informal institutions. The chapter analyzed informal institutions and, more specifically, considered culture as an informal factor. Data were collected through a stratified sampling method. To this end, we chose two cultures to analyze: performance-based and socially supportive. One of the important results of this study is that a performance-based culture has a high impact on the

probability of becoming an entrepreneur in Saudi Arabia. This aligns with all the literature we gathered. Another interesting result is the impact of age on entrepreneurial activity. The study found that the younger the person, the higher the probability of becoming an entrepreneur in Saudi Arabia. In contrast, we found that a socially supportive culture does not affect the likelihood of becoming an entrepreneur in Saudi Arabia.

For future studies, we see that there is a big gap in understanding the connection of culture in Saudi with entrepreneurial activity. We suggest that a culture such as a socially supportive culture could be deeply studied. Nevertheless, such a study could reveal the reasons behind why a socially supportive culture has no impact on entrepreneurial activity in Saudi, which is the opposite of other countries. Moreover, a study that separates the cultures of urban cities and rural areas could also reveal a lot. Furthermore, other moderating effects that might indirectly affect the relationship between cultures and entrepreneurship should be investigated. For example, Wennberg et al. (2013) looked at the relationship between fear of failure and entrepreneurial activity and how it gets affected by culture depending on if the culture was a collectivist culture or if it was performance-oriented. The results of the study were only significant in performance-based cultures. Studying such an institutional moderating effect on the relationship between culture and entrepreneurship might unveil many exciting results.

Through this study, we have faced a couple of limitations. One of the limitations we faced is the translations of the survey. We spent a lot of time making sure every question was translated the right way. Moreover, other limitations we faced was the lack of other studies on Saudi or even Arabic culture and how it affects entrepreneurial activity. Nevertheless, when such a study is found, most of the time, it is in Arabic, which is a limitation when it is needed to be used. Another limitation that we faced was the time limitations to collect the data. We were limited to a short time frame where we were able to conduct the survey.

As for policy implications, the results could help policymakers in different ways. The fact that a performance-based culture influences entrepreneurship positively means that putting policies that reward people with high performance might help entrepreneurial activity to rise and flourish in the country. Nevertheless, encouraging schools and universities to emphasize the importance of performance

might indirectly boost entrepreneurial activity. Moreover, findings showed that the younger the person, the higher the likelihood to start a business and could suggest that younger people should be targeted. Schools, universities, and governmental organizations should offer students and young people some help to create new business and transform their ideas into a business. This could be done by starting more business accelerators and incubator programs or making it easier for them to get loans from banks.

Chapter 5

The effect of fear of failure on entrepreneurial activity: an empirical study in the Saudi context.

5. The effect of fear of failure on entrepreneurial activity: an empirical study in the Saudi context.

5.1 Introduction

In recent years, there has been more investigation into the phenomenon of entrepreneurship as it has been recognized as an essential element for not only economic but also social development (Álvarez & Urbano, 2011). Furthermore, economists have found entrepreneurs and entrepreneurial activity to be fundamental agents that are part of the economic analysis (Urbano & Aparicio, 2019). Researchers in the field of entrepreneurship have followed several theories or approaches to investigate the matter. One of the theories that have been recognized to give a better analysis of entrepreneurial activity is the institutional theory, where institutions are the “rule of the game” in any society, where both formal and informal institutions influence the entrepreneurial activity (Denzau & North, 1994). Formal institutions are the economic and legal written rules and laws (Tonoyan et al., 2010). On the other hand, informal institutions are the unwritten rules of the society that evolved from cultures or traditions (Baumol, 1990; North, 1990). Moreover, factors from both institutions have been analyzed and studied by researchers to better understand the phenomenon. In Chapter 3, we stumbled upon an informal variable that yielded different results than the usual cases. That factor was fear of failure, and we found that Saudis are affected differently by this factor, which affects entrepreneurship activity. Considering the fact that a significant percentage of businesses fail, fear of failure becomes a vital factor to look at (Knott & Posen, 2005). This fact led to interest by researchers in the field of entrepreneurship to study fear of failure (Mitchell & Shepherd, 2011).

Fear is one of the strongest emotions in humans and other species, playing a fundamental role in survival by activating relevant behaviors such as avoidance and escape. People who are prone to fear of failure are more likely to focus their efforts on preventing failure as opposed to achieving success (Cacciotti et al., 2016). Moreover, fear of failure has cognitive, emotional, and behavioral components (Wyrwich et al., 2016). Fear of failure affects humans in several ways. For example, it affects the nature of goals that a person will set. People who suffer from this kind of fear will always set shallow goals that they are confident they will achieve. Such people cannot risk being overambitious with their goals as they fear they will not attain them. This fear of

failure has a significant impact on people's achievement motivation and occupational choices. (Burnstein, 1963). Nevertheless, it sounds like fear of failure is a motive for avoidance; however, few scholars have found that it could also lead to a behavioral approach (Birney et al., 1969; Elliot, 1999). This means actions might be taken to obtain the positive outcome of success due to fear of failure (Cacciotti et al., 2016).

This chapter aims to analyze the effect of fear of failure on entrepreneurial activity in the Saudi context and to discover the factors that moderate the relationship between fear of failure and entrepreneurial activity. Moreover, the chapter looks into the moderating effect of role models and media on the relationship between fear of failure and entrepreneurship. The chapter will explore if fear of failure leads to a behavioral approach in Saudi Arabia, where it pushes individuals to start new firms looking to succeed, or it leads to an avoidance approach, where it prevents them from engaging in entrepreneurial activity. We will also determine if there is any moderating effect of role models or media on fear of failure and its relationship to entrepreneurship activity. The chapter will start as the previous chapters by introducing the Saudi context to better relate the variable to the context. After that, we present the theoretical framework, including the literature and the hypotheses. Following that, the methodology will be explained, where we introduce the variables and the data. Nevertheless, we will provide the results followed by discussions of the findings. Finally, policy implications and future research lines will be discussed.

5.2 Conceptual framework

As in the rest of this study, the institutional approach will be used. The institutional approach, which was introduced by North (1990), refers to “the humanly devised constraints that structure political, economic and social interaction” (North, 1991). North divided institutions into formal institutions and informal institutions and called them the “rule of the game” in any society that role the entrepreneurial activity (Denzau & North, 1994). North argued that institutions, both formal and informal, build the structure of the economy, and they make the shape of the economy clearer; they even indicate the direction of the economy and if it is going to grow, stagnate, or even decline (North, 1991). The formal institutions are written regulations and laws, and they are enforced by government s and organizations. (Tonoyan et al., 2010). On the other hand, informal institutions are the unwritten rules of a society and can be

formed from traditions, culture, and social norms (Baumol, 1990; North, 1990). Informal institutions' practices evolved unintentionally between humans through time (Denzau & North, 1994). Researchers have looked at many factors that represent the informal institutions; one of those factors is fear of failure. In this chapter, we will look at the effect of fear of failure on the entrepreneurial activity as an informal institutional factor.

Researches in entrepreneurial motivation suggest that behaviors toward venture development are motivated by variables such as the need for achievement, optimism, self-efficacy, and passion. Aversion to business and lack of confidence, on the other hand, is inversely correlated with venture emergence (Boudreaux, Nikolaev & Klein, 2019). One of those factors whose relationship to entrepreneurship has been analyzed is fear of failure. Fear of failure, when related to entrepreneurship, can be seen as Arenius and Minniti (2005) described it: "the risk perceived of experiencing failure and consequences that comes by engaging in entrepreneurial activity" (Arenius & Minniti, 2005). Mainly, researchers found out that lack of confidence and aversion to business risk fear of starting a business and failing found as a barrier and found to inhibit the entrepreneurial actions; however, some evidence showed that it could also have a motivational effect besides the inhibiting effect (Cacciotti et al., 2016).

Fear of failure was found mainly as a barrier to entrepreneurship and had a negative effect on entry-level entrepreneurs. For example, Shinnar et al. (2012) have studied the influence of fear of failure on entrepreneurial activity in the United States, China, and Belgium, and they found that fear of failure has a negative effect on one's probability of becoming involved in any entrepreneurial activity. Another study found that cultures with higher tolerance or acceptance of failure tend to have more individuals engaging in entrepreneurial activity (Lafuente & Vaillant, 2007). Moreover, scholars such as Stuetzer et al. (2014) found that fear of failure and individual entrepreneurship have a negative correlation and high impact (Stuetzer et al., 2014). Additionally, Clark et al. (1956) concluded that fear of failure reduces the probability of an individual putting themselves in situations where they might have a risk of failure. Keeping in mind the high chance of failure when starting a business leads to the adverse effect most of the studies talk about. Moreover, Arenius and Minniti (2005) examined nascent entrepreneurship and found out that fear of failure is highly significant and has an inhibiting effect. Additionally, Arenius and Minniti, after

analyzing 28 countries, found that the relationship between fear of failure and entrepreneurship is the negative relation despite the culture it occurs in (Arenius & Minniti, 2006).

On the other hand, some researchers found that fear of failure might have a behavioral effect on entrepreneurship. For example, Cacciotti et al. (2016) found that experiencing fear of failure increases the intensity and persistence of behavior that leads to idea, opportunity, or venture. This behavior was found to lead to actions that support entrepreneurial behavior. They found that some entrepreneurs still face some fearful ideas and thoughts; however, they continue despite—or even because of—those fearful thoughts. Moreover, deCharms and Dave (1965) also found a positive effect of fear of failure on entrepreneurial activity. According to Mitchell and Shepherd (2011), fear of failure could stimulate more effort from the individual towards being an entrepreneur. In this chapter, we will follow the main finding that fear of failure will have a negative effect on entrepreneurial activity in Saudi Arabia. This led us to our first hypothesis:

Hypothesis 1: A Fear of failure will decrease the probability of Saudi individuals creating a new venture.

Looking at factors that might impact the relationship between fear of failure and entrepreneurial activity, we found out that knowing an entrepreneur might just do that. Bosma and Schutjens (2010), after studying six years of GEM data, suggested that knowing an entrepreneur would decrease fear of failure (Donyo, 2017). While individuals can have many reasons why they decide to become entrepreneurs, an important variable that has been shown to affect this decision is having an entrepreneurial role model (Lindquist, Sol & Van Praag, 2015). Studies show that observing entrepreneurs in a familiar environment (e.g., family, workplace, university, or community) provides the chance to learn about entrepreneurship in general and entrepreneurship activities in particular (Wyrwich et al., 2016). This effect happens at the local level through social interaction and personal contact (Bosma et al., 2012). Given that fear of failure negatively correlates with entrepreneurial activity (Han & Lee, 2016; Stroe, Shepherd & Wincent, 2018), factors that reduce the fear of failure are likely to enhance the probability of individuals starting a venture. As such, having a role model can increase entrepreneurial activity by decreasing the level of ambiguity, which is one cause of fear of failure (Wyrwich et al., 2016). Some scholars have argued

that watching an entrepreneur will teach someone entrepreneurial skills and will help them acquire some of the entrepreneurial capabilities which will reduce the fear of failure. The fear of failure impact, therefore, could be reduced by looking at being an entrepreneur as a desirable career choice; that impact happens because of the existence of an entrepreneurial role model (Wyrwich et al., 2016). As a result of knowing about entrepreneurial activity by observing a role model, the fear of engaging in entrepreneurship would be lessened. Those findings came after studies of the entrepreneurial activity in Germany, and the results showed that having an entrepreneur as a role model in western Germany reduced the fear of failure (Wyrwich et al., 2016). Not only that, but Wyrwich et al. (2016) found that there were differences in the level of fear of failure between the western and the eastern parts of Germany, and they explained that it had happened due to the differences in the effect of role models on fear of failure. This finding leads us to our next hypothesis:

Hypothesis 2: The existence of an entrepreneurial role model has a positive moderating effect on the relationship between fear of failure and entrepreneurial activity.

Media also has a significant impact on the entrepreneurial activity as it promotes it by creating a discourse that transmits the values and images of entrepreneurship to viewers (Hang & Weezel, 2007). Media also can encourage the spirit of entrepreneurship in society. For example, when studying the entrepreneurial activity in Mexico, Salo (1992) concluded that the media has helped promote and foster an entrepreneurial spirit. In addition, Hindle and Klyver (2007) found that there is a correlation between media coverage and opportunity-searching activity, which leads to entrepreneurial results. Henderson and Robertson (1999) determined that media coverage influences people's perceptions of entrepreneurship and motivates them to start their businesses. Not only that, but some scholars such as Lundström and Stevenson (2005) argue that the government should push mass media to promote entrepreneurship as the media has a strong influence. From what we established before about how the change of perception about entrepreneurship to a positive one will moderate the effect of fear of failure. Knowing more about entrepreneurial activity through mass media will reduce the fear of failure as individuals will perceive a positive image of entrepreneurship as a career choice. Talking in the media and

promoting entrepreneurial activity will reduce the level of ambiguity for individuals who have never been involved in entrepreneurial activity. Ambiguity is one of the causes of fear of failure (Wyrwich et al., 2016), and reducing it by using the media will reduce the effect of fear of failure on entrepreneurship. As this effect of media on entrepreneurship is well established, we argue that media also indirectly impacts entrepreneurship activity by directly affecting the level of fear of failure. This leads us to our new hypothesis:

Hypothesis 3: Media has a positive moderating effect on the relationship between fear of failure and entrepreneurial activity.

5.3 Data and methods

5.3.1 Data:

This research will use primary data that was collected through stratified sampling in the country of Saudi Arabia in a way that represents all the country's regions. The sample of participants contains any Saudi individuals with any education level or age from different regions of the country. However, before conducting the survey itself, a literature review was conducted to find the best survey questions that represent the variables that have been chosen for this study. The literature review resulted in several questions that can be found in Table 1. After collecting the questions, a Double Translation Protocol was conducted (Welsh et al., 2014). The survey was translated from the original English version to an Arabic one then back to English. The translation has been done by four entrepreneurship researchers who speak both languages fluently.

After that, the data collection phase started from the beginning of July to the beginning of August of 2019 and targeted the biggest three regions in the country. The survey was collected through three types of collections. First, the classic face-to-face method, where participants were asked to fill it online. This type of survey was conducted at big malls, universities, and large entrepreneurial events. The second way was through emails, where an online survey was sent to participants. To do that, we used the help of some organizations that work with entrepreneurs or whoever is interested in entrepreneurial activities such as Badir, King Abdulaziz University, Small and Medium Enterprise General Authority, and others. Those organizations provided us with email lists that our survey was sent to. Finally, the last type of conducting our

survey was through phones, where people were asked and encouraged to fill the survey online. The survey has captured 602 participants, where 60% of them were male participants, and almost 40% were females. Moreover, the percentage of entrepreneurs in the survey was 20%.

5.3.2 Dependent variable:

The dependent variable in this study is the involvement in entrepreneurial activity. The dependent variable (EA) is a dummy variable where it is equal to 1 if one of the participants answers one of the following questions by yes: (Have you ever started your own business? Did you start your own business in the past 36 months? Are you currently involved in setting up your own business? Are you currently owning and managing a young firm that is less than 3.5 years old?) On the other hand, the dummy variable is equal to 0 if the participants answered all questions by no. These questions have been used by many researchers to capture entrepreneurial activities such as Vaillant and Lafuente (2007), and many others.

5.3.3 Independent variables:

The independent variable in this study is the fear of failure (FoF). To measure fear of failure, we used the performance failure appraisal inventory (PFAI), which was introduced by Conroy, Poczwardowski, and Henschen (2001). PFAI is a multidimensional measure of cognitive-motivational-relational appraisals that are associated with fear of failure (Conroy et al., 2001). In this chapter, we will use five items from the PFAI of Likert scale 1 to 5 (items 12, 13, 19, 33, and 40 as they can be used to generate a short-form to measure general fear of failure (Conroy et al., 2001)). PFAI was used to measure fear of failure by researchers such as Chua and Bedford (2016) and others.

- Moderator Variables: Moreover, we look also at the existence of a role model (RM) as a moderator factor that influences the relationship between fear of failure and entrepreneurial activity. RM is a dummy variable equal to 1 if the participant agrees with the statement: "You know someone personally who started a business in the past two years" otherwise equal to 0. This question has been used through several studies such as Noguera, Alvarez, and Urbano (2013), Fernández et al. (2009), and others.

Finally, we count media (MD) as another variable that does what role models do in the relationship between entrepreneurial activity and fear of failure. We measure the effect of media with a dummy variable that equals 1 if the answers to the question “In your country, do the public media often have stories about successful new businesses?” is “yes” and 0 if the answer is “no.” This question has been used to measure the effect of media by scholars as Hindle and Klyver (2007) and others.

5.3.4 Control variables:

we control our set by a few important control variables. We chose education level, age, gender for that. Participants were asked to select their gender, their level of education, and finally were asked about their age.

In this chapter, we study the relationship between fear of failure on entrepreneurial activity and how other variables, such as role model and media, will affect this relationship. To start our analysis, we need first to factor analyzing the fear of failure’s five items. Then, because of the binary characteristics of our dependent variable (EA), we will use a logit regression to analyze the equation. Logit regression analysis is becoming a popular tool used in sophisticated journals to analyze data with a dichotomous dependent variable as ours (Walsh, 1987). Table 5.1 has a description of the variables used in this study.

	Variable	Description and database	Possible values
Dependent variables	Entrepreneurial Activity	Dummy variable equal to 1 if the participant is starting a new business or owning and managing a new startup; equal to zero otherwise.	Entrepreneur = 1 In other cases = 0
Independent variables	Fear of Failure	5 items from the PFAI of Likert scale 1 to 5. The 5 items' statements are: - When I am failing, I am afraid that I might not have enough talent. - When I am failing, it upsets my "plan" for the future. - When I am not succeeding, people are less interested in me - When I am failing, important others are disappointed. - When I am failing, I worry about what others think about me.	Likert scale 1 to 5.
Moderator Variable	Role Model	Dummy Variable that equal to 1 if the participant agrees with the statement: 'You know someone personally who started a business in the past 2 years'. Equal to 0 if not.	Yes = 1 No = 0
	Media	Participants were asked, "In your country, do the public media often have stories about successful new businesses?"	Yes = 1 No = 0
Control Variables	Gender	Participants were asked to state their gender.	Male = 1 Female = 0
	Age	Participants were asked to state their age	Numeric
	Education	Participants were asked to state their highest education level that they have attained.	1. Some secondary 2. Secondary degree 3. Post-secondary 4. Graduate degree

Table 5.1 Description of variables

5.4 Results and discussion

First, we test the variables to identify whether the variables had significant differences when EA is equal to 1 and when it is equal to 0. As we can see from table 5.3 that fear of failure and media have substantial differences in means, with positive orientation media and a negative one for fear of failure. On the other hand, gender also shows some significance with a negative orientation. Moreover, we tested our data to make sure it is not to be categorized as rare event data. Nevertheless, the percentage of participants who are entrepreneurs (20%), even though it is low, it is still above the

percentage of the rare data event.

	Mean	Std. Dev	ENT	FOF	RM	MD	Gender	age	Edu
Entrepreneur (TEA)			1						
Fear of failure (FoF)	6.37e-10	1	-0.630***	1					
Role Model (RM)	.6428571	.4795559	0.0538	0.0378	1				
Media	.2740864	.4464237	0.2865***	-0.1754***	-0.0550	1			
Gender	.6079734	.4886086	-0.0897	0.0720	-0.0446	0.0205	1		
Age	32.03488	12.32885	-0.0182	0.0893	-0.0319	0.0091	0.0175	1	
Education (Edu)	2.704319	.7775647	-0.0599	0.1108	-0.0606	0.0134	0.0272	0.3472	1

Table 5.2 Correlation matrix.

Afterward, we test the correlation coefficients of the entire variables in this research. Table 5.2 shows the standard deviations and the correlation coefficients of the variables. From the Correlation matrix, we can see that two variables are correlated with the dependent variable (EA). The first variable is fear of failure, which is highly correlated with the entrepreneurial activity with a negative coefficient of -0.630. The second variable is media (MD), where media is highly correlated with entrepreneurial activity with a positive coefficient of 0.286. Moreover, it is worth mentioning that media and fear of failure are highly correlated with a negative coefficient of -0.175. Besides that, other variables showed no correlation at all.

After conducting the correlation test, we ran a Logit regression analysis. The regression has three models, where in the first one, we take a look at the control variables' effect. In the second one, we look at the relationship between the dependent variable (EA), the independent variable (FOF), and all the control variables (Gender, Age, and Edu). The third model includes all the previous variables plus the two moderator variables (RM and MD) to see how they affect the relationship between FOF and EA. Table 5.4 shows the results of the Logit regression. From table 5.4, in model 1, we can see that all the control variables have no significant impact. On the other hand, in model 2, we observe that fear of failure has a high significance with entrepreneurial activity in the opposite way (-2.154), where fear of failure motivates individuals to start a business.

Variable	EA = 1 (N=121)				EA = 0 (N=481)				Different. in means (N=602)	
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max		
	-				0.					
FOF	1.256	.7247	-1.698	1.210	315	0.7892	-1.698	1.210	-1.57***	[0.079]
RM	.6942	.4626	0	1	0.629	0.4833	0	1	0.064	[0.049]
MD	.5289	.5012	0	1	0.209	0.407	0	1	0.319***	[0.044]
Gender	.5206	.5016	0	1	0.629	0.483	0	1	-0.109**	[0.050]
Age	31.58	12.50	17	64	32.14	12.29	17	71	-0.561	[1.255]
Edu	2.611	0.7997	1	4	2.727	.770	1	4	-0.116	[0.079]

Significance levels: * p<0.05, ** p<0.01, *** p<0.001
Standard errors in brackets

Table 5.3 Means and Std dev. for entrepreneurs and not entrepreneurs

Moreover, also in model 2, we see that our two moderator variables have a significant impact on entrepreneurial activity with a coefficient of (1.089076) for RM and a coefficient of (1.577) for MD. The overall model is significant, with a p-value less or equal to 0.000 and Log-likelihood equal to -154.41245.

On the other hand, in model 3, where we introduced the moderation effect of RM and MD on the relationship between EA and FOF, we see that FOF is still highly significant with a negative coefficient (-5.37). Nevertheless, the moderation effect of the role model is also highly significant, with a moderation coefficient being positive significant (3.737). Regarding the moderating impact of media, we found that it has no significance at all. This might be explained by the high correlation that was found between those two variables. The overall model is significant, with a p-value less or equal to 0.000 and Log-likelihood equal to -144.08251. Nevertheless, it is worth mentioning that all control variables showed no significant impact on the entrepreneurial activity at all in both models. Yet, the role model effect as a dependent variable in this model was significant. However, Media had no significant impact as an independent variable, unlike in model two.

Going back to our first hypothesis, which suggests that fear of failure has a negative relationship with the rate of Saudi who wants to create a new venture. The results show it is highly significant. However, the sign is in the opposite direction of what we suggested in our hypothesis, which means that fear of failure motivates people to start a new business; as a result, this goes against our hypothesis. This means the first hypothesis is not supported. Regarding the second hypothesis, which suggests that the existence of a role model will moderate the relationship between fear of

failure and entrepreneurial activity, we found that the role model does show a highly significant positive impact when interacting with fear of failure. This means our second hypothesis is supported. Finally, our last hypothesis states that media will also moderate the relationship between fear of failure and entrepreneurial activity; however, we found that to be not true. The media showed no significant impact on the relationship between entrepreneurial activity and fear of failure. This means that our third hypothesis is not supported.

According to the objectives of this investigation, this chapter investigates if fear of failure impacts the decision to become an entrepreneur. Additionally, if it impacts entrepreneurship, how and what would affect this relationship between fear of failure and entrepreneurship. Most studies that investigated the same topics found that fear of failure is a barrier when it comes to starting a new venture. Scholars such as Weber and Milliman (1997) supported this approach when they studied MBA students at the Graduate School of Business at the University of Chicago. Our data showed the opposite, where we found that fear of failure motivates entrepreneurial activity in Saudi Arabia. Even though this goes against the majority of the studies, still, some studies support these results. For example, it has been found by Cacciotti et al. (2016) that fear of failure increases the intensity and persistence of behavior that leads to idea, opportunity, or venture, which will lead to some entrepreneurial activity. This means that fear of failure could work as a trigger for a business idea. This means it will lead to being involved in entrepreneurial activities.

Another example is Mitchell and Shepherd (2011) where they suggest that fear not only can be a barrier variable but also it could produce actions from individual to become an entrepreneur. Those scholars and others found fear could work as a motivator not to fail. Those results of studying fear of failure in Saudi Arabia are consistent with the results we found in chapter 3. One of the ways we explained this in chapter 3, was by suggesting a better look at the age impact on the fear of failure. Here we looked at the age of the participants, and the results were not significant. Moreover, we explained the results also in chapter 3 by suggesting that the whole country's culture might affect the degree of fear of the impact of failure as other studies found. To investigate this, we need to have a comparison study with other countries that has similar christianistic like Saudi Arabia.

		Model 1		Model 2		Model 3	
		df/dx	SE	df/dx	SE	df/dx	SE
Dependent variables	EA						
Independent variables	Fear Of failure			-2.154***	0.233906	- 5.37***	1.018887
Moderator variables	Role model			1.089076***	0.281888	5.673***	1.383
	Media			1.577***	0.300982	1.228	0.523
	FOF#RM					3.737***	1.018214
	FOF#MD					-0.681638	0.448584
Control variables	Gender	-0.0731	0.07313	-0.46352	0.286545	-0.325332	0.303662
	Age	0.00023	0.0014	0.018041	0.012761	0.020656	0.013133
	Edu:						
	Some secondary	-0.0051	0.0644	0.710491	0.49517	0.550296	0.473224
	Secondary	-0.0562	0.064	0.334649	0.505297	0.088605	0.4777
	Graduate	-0.0576	0.0634	0.263305	0.605242	-0.026789	0.649331
	Number of obs			602		602	
	Pseudo R-squared			0.4888		0.523	
	Log pseudo-likelihood			-154.41245		-144.08251	

Table 5.4 Logit results in predicting entrepreneurial activity

Moreover, before we looked at the impact of media and role models as moderators, we looked at their impact on entrepreneurial activity. We found that both have a significant impact on entrepreneurial activity. This goes with the majority of the literature. The results showed that having an entrepreneurial role model has a high impact on the decision to become an entrepreneur. Nevertheless, the media, as its empirically proven to impact individual decisions, here too, we found it highly impact the decision of becoming an entrepreneur. Both impacts, the media's impact and role model's impact, are positive impacts. This means that the more exposed to positive entrepreneurs' stories in the media and the more exposed to entrepreneurial role models, the more the probability of becoming an entrepreneur increases.

Previous studies investigated the impact of fear of failure on the entrepreneurial activity but did not look at if there was a factor that impacts the relationship between fear of failure and entrepreneurship. This study, on the other hand, besides studying the relationship between fear of failure and entrepreneurship, it looked at factors that might affect this relationship. As our results show, the role model is found to have a significant effect on the relationship between fear of failure and entrepreneurship. Even though we found that fear of failure motivates the entrepreneurial activity, we found that having an entrepreneur as a role model will decrease the fear of failure effect, which increases the probability of becoming an

entrepreneur more. This has been established in the literature as, for example, what Bosma and Schutjens suggested that knowing an entrepreneur will decrease fear of failure (Donyo, 2017). Nevertheless, another example of the same case is a study that was conducted in Germany by that found if the person has an entrepreneur as a role model, then his fear of failure will be reduced (Wyrwich et al., 2016). As they explained, observing an entrepreneur will teach entrepreneurial skills and will help to acquire some entrepreneurial capabilities, and this, as a result, will reduce the fear an individual has toward failing. This finding makes a lot of sense when we look at it from a psychological point of view, where knowing someone who is involved in any type of activity will reduce the ambiguity that comes with it, and that leads to overcoming the fear of failure when getting involved in this activity. In a country like Saudi Arabia, we found that having a role model is something common, and it is more normal if this role model was the father or another family member. This close relation might be why the impact of the role model is highly significant in this study. Nevertheless, when overlooking the business environment in Saudi Arabia in the past 30 years, we find that the biggest companies in the country are family-owned businesses that have been managed by different generations of the same family. Those who came after the founders chose to follow the same career as their parents. This shows how much having an entrepreneurial role model could change the point of view toward being involved in entrepreneurial activity.

Finally, this chapter also studied the media effect on the relationship between fear of failure and entrepreneurship. Even though our hypothesis has suggested that media will have an impact on the relationship between fear of failure and entrepreneurial activity, we found no such thing. A couple of reasons could justify this. First, the item we chose to measure media was about old fashion media such as TV, newspaper and radio. However, nowadays, people get their media content through the internet and mainly through social media. Social media is different from that old media in the sense that the user chooses what to watch himself, not unlike TV, for example, where the producers choose what to play on the TV. So asking them “if the media shows successful people’s stories in their country” is not enough to capture the impact of the new type of media. Another reason for these results could be the type of successful people the media is showing. For example, there is a claim that the successful people they show on TVs were born to a wealthy family, and for this reason,

they will never motivate an ordinary person to become an entrepreneur. This fact is true; many people who get out in the media as successful people come from well-established families and are born in the perfect environment to start a business. Nevertheless, Media and role models are two factors that can interact together in some way as that a lot of people know their role models only through media. For example, a person could get involved in entrepreneurial activity just to follow his role model, who is a big company CEO or founder, and he only knows to him through the media. For example, it has been found that watching stories of successful people on media lead to higher chances of getting involved in entrepreneurial activity (Farashah, 2015). However, it is not clear if this impact is due to the media itself, or to the person who is telling his story in the media as this person could be a role model. A study that looks into the interaction between role model impact and media will give a better understanding of this case. Another reason to justify this from a statistical point of view, as we reported earlier that media and fear of failure correlate together as two dependent variables. This correlation might explain why media doesn't have any moderating effect on the relationship between fear of failure and entrepreneurial activities.

5.5 Conclusions

This study aims to analyze the effect of fear of failure on entrepreneurial activity in the Saudi context and to discover the factors that moderate the relationship between fear of failure and entrepreneurial activity. Previous studies mainly found that fear of failure was a barrier to starting any activity. Some studies in the field of entrepreneurship, however, found that fear of failure could motivate entrepreneurial activity in certain places and situations. In our research, we found that fear of failure motivates the entrepreneurial activity in Saudi Arabia. Fear of failure was found to be highly significant with a negative sign. Moreover, the study looked at factors that might influence this relationship between fear of failure and entrepreneurship.

We first looked at the entrepreneurial role model as a moderator to this relationship and found it to be highly significant. In Saudi Arabia, knowing someone who has started a business in the last two years will reduce the effect of fear of failure more and will influence the individual to create their own new venture. We also looked at media as a moderator, but we found that there was no impact by media on the

relationship between fear of failure and entrepreneurship.

The study also looked at several control variables (e.g., age, gender, and education) and found no impact on the decision to become an entrepreneur. Those results are consistent with what we found from the GEM data in Chapter 3. Both sets of data showed that fear of failure has a motivational effect on Saudi individuals when it comes to starting a business.

This study contributes to the literature and to the few prior studies by adding more evidence that fear of failure could be a motivational factor towards entrepreneurial activity. Moreover, the study also contributes to the literature by examining other institutional factors that can be used to reduce the effect of fear of failure. Hence, having an entrepreneur to look up to as a role model. This study also has some practical implications. It gives the educators in a university or school an idea to present or host some entrepreneurs as guests in their classes so the students will get to know them and can listen to how they overcame the challenges they faced. This could reduce the effect of fearing failure when it comes to entrepreneurial activity. This study also gives policymakers an idea of how much tolerance people have for fear in Saudi Arabia. This could be helpful for policymakers when enacting new laws since new regulations have been considered as one of the variables that might increase fear of failure. Knowing that people are more tolerant in Saudi Arabia gives policymakers more space to enforce new rules. Those findings also can increase the understanding of fear in general, as it is a significant force for human actions. In addition, as we saw the impact of role models on the relationship between fear of failure and entrepreneurial activity, we can suggest that more events where people get introduced to potential entrepreneurial role models should be conducted. Universities, for example, should have successful young entrepreneurs come to talk with the students.

Finally, we faced some limitations through this study. First of all, there was a lack of studies that looked into factors that moderate the relationship between fear of failure and entrepreneurial activity. Many papers talked about fear of failure and its relationship directly to entrepreneurial activity. Very few studies, however, looked into the other factors that impact this relationship between fear of failure and entrepreneurship. The second limitation we had was the instrument used to measure fear of failure, which was either the GEM data index measure or the PFAI. The first

consists of only one “yes or no” question, and the other has not been investigated enough in the entrepreneurship field.

For future studies, we recommend looking into the effect of media, including social media, on the relationship between fear of failure and entrepreneurship. We could also look at the reasons why the media’s impact on entrepreneurial activity had vanished when we looked at it as a moderator and, at the same time, as an independent variable. Another point that should be looked at is the role of religion in fear of failure as in Islam; many believe that fear is a bad habit and that the Muslims should put their trust in God and go on. Due to the lack of research, we did not consider it, but in the future, it might be possible to access more studies about it. Future studies could look into education and how it might affect the understanding of fear in a country like Saudi Arabia, where the majority of people are educated. This could lead to a better understanding of how education might shape the decisions we make when it comes to being involved in any entrepreneurial activity. Finally, a qualitative study that looks into fear of failure and entrepreneurial activity is something missing in the previous studies. Study of entrepreneurs over a period of time to try to understand their behavior towards failure is needed.

Chapter 6

How giving women the right to drive can impact entrepreneurial activity: A Study in the Saudi context

6. How giving women the right to drive can impact entrepreneurial activity: A Study in the Saudi context

6.1 Introduction

The importance of entrepreneurship activity to economic development by increased employment, welfare effect, and innovations have been investigated and proven to play a big part in any economy (Acs, Desai & Hessels, 2008). Some economists have even argued that in any economic analysis, entrepreneurs and entrepreneurship should be considered fundamental agents in the analysis (Urbano & Aparicio, 2019). Due to this importance, scholars have investigated entrepreneurship activity more and have used different theories. One of the theories, institutional theory, was introduced by North (1990) as a theory to be used to study a variety of topics. North defined the institutions as “the humanly devised constraints that structure political, economic, and social interaction” (North, 1991). Institutions are divided into either formal or informal institutions. The formal institutions are the written rules and laws (Tonoyan et al., 2010); on the other hand, the informal institutions are the unwritten rules and values set by the society (Baumol, 1990; North, 1990). Any country’s mix of formal and informal institutions forms the basis of its economic and social system (Williamson, 2000). Both institutions have been studied by scholars to understand the phenomena of entrepreneurship. As a result of these studies, scholars found that formal and informal institutions can affect entrepreneurial activity in any country. For example, formal institutions have been found to affect entrepreneurial activity positively or negatively by reducing or even enhancing the risk of starting a new venture and by facilitating the efforts of individuals in their journey to acquire capital or resources (Veciana & Urbano, 2008). On the other hand, many informal factors have been analyzed by scholars (e.g., fear of failure, role models and culture). For instance, values are one of the informal factors that scholars argued gave a better understanding of how attitudes have formed and played a moderating role in the entrepreneurial intention (Ostapenko, 2017). In this chapter, we will use the institutional theory to study the impact of the formal institutions on entrepreneurial activity in Saudi Arabia.

Looking into the process of new business creation, we find it works on multiple levels (Brown et al., 2001). New business creation is influenced by micro-level factors (Bhagavatula et al., 2010) and macro-level institutions (Autio & Acs,

2010). Thus, the interaction between the individual micro-level variables and the institutions at the macro-level makes it essential to understand the process of business creation without studying the individual variables in context (Shane & Venkataraman, 2000). It is vital to understand that the context of this study could contribute to the literature, which lacks an explanation of the entrepreneurial activity in the context of emerging economies. A better understanding of the context would give us a better explanation of the results, mostly if it were different than other studies that were conducted in developed countries. That has been said, this chapter will start by introducing the Saudi context that relates to the variables in this study. Then the conceptual framework will follow with the hypothesis of the research. After that, the data will be explained. Nevertheless, the results will be discussed. In the end, the implications of the results will be talked about, combined with some promising future research lines.

6.2 The Saudi Context

The Saudi informal institutions have had massive changes in the past decade and due to their enormous impact on entrepreneurial activity, we have focused on studying them in our previous two chapters. These changes in the informal institutions have occurred due to many reasons we discussed previously (e.g., the young generation, internet accessibility, the scholarship program, and the young government). We studied a couple of variables and factors that affected the entrepreneurial activity from an informal institution's perspective and found them to have a significant impact, consistent with the vast majority of the literature. In the last two years, however, the formal institution has had its own share of change. New laws have been officially implemented for the first time in the history of the country. Those changes have been applied in many sectors of the Saudi environment. Changes have been made in religious laws, financial laws and regulations, family laws, business laws, immigration and work laws, tourism laws, traffic laws, and even some small laws (e.g., clothing laws). Those changes have touched millions of Saudi individuals around the country.

Even though those changes in the formal laws of the country affected the whole country, women were affected by them more than men. One of the rules that have been changed and that affected women is the lifting of the ban on Saudi women from driving. Since the Kingdom of Saudi Arabia was founded, and for decades after that, women in

Saudi Arabia were not allowed to drive cars. In 2018, however, the new leader of the country, Mohammed bin Salman, by the authorization of the King, reversed the law, and women are now allowed to drive (Amnesty International, 2018). On the night the driving ban was lifted, families around the country gathered in front of the TV to listen to a reading of the royal decree made on national TV (Al-Ghalib et al., 2019). Many of those families were happy about the ban's reversal and considered it as a step towards the modernization of the country and towards women's freedom and independence (Al-Ghalib et al., 2018). However, not all families were happy about the change in the law. As Athoug (2017) concluded when he examined the opinion of Saudis on women driving, much of the resistance to women driving is because driving is considered to be a male role in the Saudi traditions. This leads us to think that even if the written law has changed, the traditions or the culture still might impact the ability of women to drive because those traditions actually take a longer time to change.

The ban on women driving had affected women in many negative ways. The lack of the ability to drive a car, besides being an inconvenience, cost the female extra money by paying for a driver or using taxis (Minkus-McKenna, 2009). As a result, this ban on women driving was a significant transportation barrier that inhibited their mobility from conducting business (Welsh et al., 2014). Their entrepreneurial activity was one of the things impacted by the ban. To run her business, a female had to hire a driver to take care of all transportations needed for the business or its female employees. This led Fattah (2018) of Bloomberg Economics to write that the ban's reversal will add almost 90\$ billion to the Saudi economy by 2030 (Aldroubi, 2018). Such a new law is expected to impact the entrepreneurial activity in Saudi Arabia significantly.

Other laws that affect females also have been implemented. One example is the guardianship rules. A year ago, if a woman wanted to travel outside of Saudi Arabia, she needed to have her male guardian's permission. Not only that but if she wanted to apply for or renew her passport, it could not be done without her male guardian's consent. Today, however, women do not need any male's approval for anything because a new law has given women the same rights as men when dealing with governmental entities. Moreover, the man previously had more power over the children's custody cases if the husband and wife got separated. New laws have now been implemented that give women the same rights in family courts as men.

Officially, many laws were changed or implemented in the past few years. Those changes in the formal institutions will have an impact on the entrepreneurial activity in the country. Those changes also give us an excellent opportunity to study the effect of formal institutions on entrepreneurial activity. In this chapter, we chose to focus on the change in female laws—mainly driving laws. The chapter's objective is to study how the new women-related laws and regulations affect female entrepreneurial activity in Saudi Arabia. We will also then look at the moderating effect of culture on the relationship between the new law and entrepreneurial activity. This analysis will be looked at from a regional perspective, as to how rural and urban areas will moderate the effect of culture. The new driving law will be considered as a formal institutional factor; on the other hand, the culture will be looked at as an informal institutional factor. The study will give us a better understanding of the relationship between formal and informal institutions when it comes to entrepreneurial activity.

6.3 Conceptual framework

In this chapter, we will use the institutional approach to look at the changes in Saudi Arabia. The institutional approach was introduced by North (1990), and he has defined institutions as “the humanly devised constraints that structure political, economic, and social interaction” (North, 1991). Institutions, according to North, are divided into two main types: formal institutions and informal institutions; they are the “rule of the game” in any society, which rules and impacts the entrepreneurial activity (Denzau & North, 1994). In this chapter, we will look only at the effect of the formal institutions on the entrepreneurial activity in Saudi Arabia.

The formal institutions are the formally written rules and regulations; those rules were enacted usually to put things in order and to rule society legally and economically (Tonoyan et al., 2010). Moreover, statutory law, property rights, regulations, and laws all are examples of some of the formal institutions (Denzau & North, 1994; North, 1991). The impact of the formal institutions on entrepreneurial activity has been studied by many scholars around the world to the point that some scholars, such as Stephen et al. (2005), found it to be a critical exogenous factor. Moreover, informal institutions are the unwritten rules of society and could emerge from traditions, culture, and social norms (Baumol, 1990; North, 1990). Informal institutions' practices are not formal rules, and they were put by humans through

time, such as codes of conduct and traditions (Denzau & North, 1994). By living in an institutional environment, unconsciously, humans formed those informal rules (Ostapenko, 2017).

As in the chapter, we will start by looking at a formal institution's factors that might impact entrepreneurial activity. Scholars have studied the impact of formal institutions and change in the law on female entrepreneurs. For example, Gimenez-Jimenez et al. (2020) examined the impact of formal rules on women getting involved in business creation. They found that the change, for example, in family policies, will affect the decision to become entrepreneurs between women (Gimenez-Jimenez et al., 2020). Moreover, other scholars also suggested that creating a favorable legal climate will help entrepreneurship flourish (Stephen et al., 2005). The reversal of the ban on women driving or, in other words, giving women more mobility freedom could consider a favorable legal climate. Scholars such as Elliott and Urry (2010) argued that the more a person can move around, the more they can be successful proficiently and personally. On the other hand, when limits are applied to the mobility of a particular group in society (i.e., women), there will be a social mobility exclusion which will prevent this group from participating in the economic, political, and social life of the community (Kenyon et al., 2002). Alshareef (2017) argued that the ban on women driving was considered a social mobility exclusion as Kenyon et al. (2002) talked about it, and the ban affected the women's involvement in entrepreneurial activity. Accordingly, when Alshareef (2017) studied the impact of limited mobility on women in Saudi Arabia, it was found that providing greater opportunities for women's mobility means that the women's ability to engage in business activity will be bigger. Conversely, such a ban meant that entrepreneurial opportunities for women were bounded and were not equal to the opportunities men have (Alkhaled & Berglund, 2018).

The acceptance of these new rules will be different, depending on each person's perspective. Here, the distinction between the region—whether it is an urban or rural area—also showed relevance when explaining the decision to become an entrepreneur. Some researchers, such as Capelleras et al. (2013), assumed that the context of being in urban or rural areas moderated the relationship between the individual's perspective and becoming an entrepreneur. We see that the acceptance of the new law will vary between rural and urban areas. Chitsike (2013) argued that

women in rural areas have barriers to becoming entrepreneurs as the culture of rural areas is different from that of urban areas. In rural areas, the culture might impact the acceptance of the new law of driving. Women might not start driving in rural areas as fast as women in urban ones. This difference in the approval of the rule might have an impact on the entrepreneurial activity in the country. We assume that the impact of the new law on entrepreneurial activity will be higher in urban areas than the rural areas. This leads us to our first hypothesis:

Hypothesis 1: Giving women the right to drive will increase the probability of Saudi females creating a new venture.

Hypothesis 1a: Giving women the right to drive increases the probability of Saudi women creating a new venture; however, this occurs more in urban areas than in rural areas.

On the other hand, for the informal institutions, we look into the culture, which is represented as a moderator of the relationship between contextual factors and entrepreneurial outcomes (Hayton et al., 2002). Moreover, Hayton et al. (2002) suggested that “the moderating role of cultural highlights that national culture acts as a catalyst rather than a causal agent of entrepreneurial outcomes.” The cultural influence on the economy has been studied by many researchers. Scholars have looked at culture from different levels and have mainly agreed that culture affects entrepreneurial activity. Moreover, culture, alone without another context such as economic or political, has relevance for economic behavior and entrepreneurship (Thornton et al., 2011). Landes (1998) and Lynn (1991) looked at the effect of culture from a macro level. Others, such as Casson (1991) and Hofstede (1991), looked at culture from the firm level. Still others, like Verheul et al. (2001), have looked at culture from the level of entrepreneurship and business ownership. Those studies showed the importance and the influence of culture on entrepreneurial activity.

Nevertheless, when we talked about the ban on women driving, we found that as Athoug (2017) found that women don't drive because driving is associated with males, not females in such a culture. This means even if the law was reserved, the city's—or even tribe's—culture might still affect the decision of the women to drive or not. Moreover, as we talked about how the new law will affect women's entrepreneurial activity, it worth looking at how the culture will influence this decision.

Other studies looked at the moderating effect of culture on some different entrepreneurship angles. For example, a study indicated that national culture moderates the relationship between entrepreneurial orientation and firm performance relationship (Saeed, Yousafzai & Engelen, 2014). Another point of view by Wennekers et al. (2007) found that culture has a moderating effect on the relationship between income and entrepreneurship. This shows how culture could moderate the relationship between entrepreneurial activity and other institutional factors.

In this chapter, we will look into the culture as either a social sportive culture (SSC) or a performance-based culture (PBC). In the previous chapter, we looked into the impact of those two cultures on entrepreneurial activity. In this chapter, however, we look into the moderating effect they have on the relationship between female entrepreneurial activity and the new laws about women driving in Saudi Arabia. This leads to our next hypothesis:

Hypothesis 2: Culture has a positive moderating effect on the relationship between new driving law and entrepreneurial activity.

Hypothesis 2a: Culture has a positive moderating effect on the relationship between new driving law and entrepreneurial activity in urban areas more than in urban are.

6.4 Data and Methods

In this study, a stratified sampling method was used to collect primary data from Saudi Arabia. The stratified sampling method captured a sample that represents all regions in the country. The survey targeted all entrepreneurs and non-entrepreneurs, Saudi females from any educational background and at any age. A literature review was conducted and resulted in the creation of a survey to scientifically measure the variables. The original survey was written in the English language and then has been translated into Arabic to be easier to understand to the participants. Then after that, translated to English again. The process of translation went through 4 scholars who speak Arabic and English fluently to ensure the perfections of the translations.

After that, the data collection phase started from the beginning of July to the beginning of August of 2019 and was gathered from the biggest three regions in the

country. The survey was collected through three channels. First was through emails where participants were asked to fill in a survey online. In this, we had the help of a few Saudi organizations such as King Abdulaziz emails University and Monshaat. Those organizations provided us with their lists. The second way was through telephone, where callers were asked to also sign in to the online survey to fill it. Finally, a classic face to face survey where participants were asked to fill it at the moment online. The survey was conducted at big malls, universities, and large mosques and some big events such as the Annual entrepreneurship forum. The three techniques have had different impacts. People who received an email mostly ignored it initially or even did not see it as it went to their spam folders. After sending the email for the second time, more participants answered the survey. On the other hand, people who received phone calls were more enthusiastic about the survey. However, not many of them started the survey but never finished it or returned to it again. Finally, the in-person method yielded the greatest number of participants, after explaining the importance of the survey for the study, were excited to participate. The benefit of the phone and email method is that it captures the other area of the country that is hard to reach. The survey has captured 387 participants, who were females. The percentage of entrepreneurs in the survey was 45%. In this survey, we will look at females as the study focuses on female entrepreneurship.

6.4.1 Dependent variable:

The dependent variable in this study is the female entrepreneurial activity (FEA). The dependent variable (FEA) is a dummy variable equal to 1 if the participant is starting a new business or owning and managing a new startup, equal to zero otherwise.

6.4.2 Independent variables:

The independent variable in this study is the new women driving law, and it is consisting of two items of Likert scale from 1 to 5. The 2 items' statements are:

- Is it correct that allowing women to drive encourages you to start and own your business?
- The coinvent of allowing women to drive, assess you to foster your business creation.

6.4.3 Moderator variables:

We moderate in this study by culture. The culture here is divided into two types. First, socially supportive culture and second, performance-based culture. Finally, we control our analysis by region, age and educations. We chose those variables such as education as other studies stated that, for example, that educated women with a higher degree are more likely to become self-employed than women with less education (de la O Cordero & Urbano, 2019). Table 6.1 shows all the variables and the questions used to capture them. It is worth mentioning that the region is either rural or urban in this study, as it is explained in table 6.1.

	Variable		Description and database	Possible values
Dependent variables	Female Entrepreneurial Activity		Dummy variable equal to 1 if the participant is starting a new business or owning and managing a new startup; equal to zero otherwise.	Entrepreneur = 1 In other cases = 0
Independent variables	Women Driving		2 items of Likert scale 1 to 5. The 2 items' statements are: - Is it correct that allowing women to drive encourages you to start and own your business? - The coinvent of allowing driving, assess you to foster your business creation.	
Moderator Variable	Culture	SSC	4 items of Likert scale 1 to 5. the 5. The 4 items' statements are: - In this society, people are generally concerned about others. - In this society, people are generally sensitive toward others. - In this society, people are generally friendly. - In this society, people are generally tolerant of mistakes	Likert scale 1 to 5.
		PBC	3 items of Likert scale 1 to 5. the 5. The 3 items' statements are: In this society, teen-aged students are encouraged to strive for continuously improved performance. - In this society, major rewards are based on only performance Effectiveness. - In this society, being innovative to improve performance is generally substantially rewarded.	
Control Variables	Region		Participants were asked to name their city and accordingly were divided to (Urban or rural)	Urban =1 Rural = 0
	Age		Participants were asked to state their age	Numeric
	Education		Participants were asked to state their highest education level that they have attained.	1. Some secondary 2. Secondary degree 3. Post-secondary 4. Graduate degree

Table 6.1 Description of variable

6.4.4. Method:

Based on the dependent variable binary nature, we choose to use a linear regression model. More specifically, we will use a logit regression. The logit regression analysis is a tool that became very popular to be used when analyzing data that has a dichotomous dependent variable (Walsh, 1987). According to our dependent variable, which is “the female entrepreneurial activity,” which is a dummy variable that goes with the logit regression. Moreover, we will study three models. The first model will include the dependent variable and the control variables only. The second model will include the control variables and the dependent variable, the independent variable, and the control variables. Finally, the third model will have the control variables and the dependent variable, the independent variable, the control variables and the moderators

6.5 Results and Discussion

Table 6.2 shows the correlation matrix. In the correlation matrix, we included all the variables, including the moderators and control variables. Tables 6.2 shows that driving law and performance-based culture are correlated with female entrepreneurial activity. Moreover, table 6.2 shows the means and the standard deviations of the variables as well.

	Mean	Std. Dev	FEA	DL	SCC	PBC	Region	age	Edu
Female Entrepreneur			1						
Driving law	-2.23e-09	1	0.1862***	1					
Performance based culture	2.31e-09	1	0.1411*	0.1589	1				
Social supportive culture	5.27e-10	1	-0.0621	-0.0158	-0.0098	1			
Region	.615	.487204	0.0554	0.0210	-0.0002	-0.0727	1		
Age	31.6545	10.40016	0.0197	0.0199	0.0261	0.0708	0.0300	1	
Education (Edu)	2.917275	.71769	0.1416	0.1376	0.0029	0.0250	0.2576	0.0001	1

Table 6.2 Correlation matrix

On the other hand, table 5.3 shows the three models used in the study. Model 1 includes the control variables of the study. The results of model 1 show that neither age nor education of the Saudi female has any impact on the probability of becoming an entrepreneur. Moreover, model 2 includes the dependent variable (TEA) with the independent variable (Driving law) and the control variables too. The results of model 2 show that driving law is highly significant, and it positively impacts the probability

of becoming an entrepreneur. Driving law had a p-value of 0.001 and dx/dy of .08923. This means our Hypothesis 1, which states that giving women the right to drive increases the probability of Saudi women creating a new venture is supported. Nevertheless, in model 3, we introduce the moderating effect of the culture (both supportive social culture and performance-based culture), and also, we introduce the moderating effect of the region (either urban or rural region) to the previous model. The results show when we introduce the moderating variables, the driving law by itself became nonsignificant. This impact can be explained by looking deeper into the culture. Saudi culture has some segregation rules or even norms. The segregation between males and females can hinder Saudi female entrepreneurs from an external encounter and might limit females from participating in organizations and groups (Kemppainen, 2019). However, the model shows that the new law is significant only when it is in a performance-based culture with a p-value of 0.009 and a dx/dy of .30894. The model shows that Hypothesis 2, which states that Culture positively moderates the effect of the new-driving-law on the probability of getting involved in entrepreneurial activity, is supported only when the culture is a performance-based culture. On the other hand, Hypothesis 1a and 2a are not supported as we found that the region doesn't have any impact on the relationship between being an entrepreneur and the new driving law. A lot of rules have changed in Saudi Arabia, and those laws impact individuals significantly. Women were the biggest group that felt this change, and in this study, we aimed to analyze the impact of the new driving law on the probability of a Saudi female becoming an entrepreneur. Our results show that the new law impacts the likelihood of becoming an entrepreneur significantly. This goes first with common sense as some scholars such as Elliott and Urry (2010) suggested that giving a person more freedom to move around will increase the probability of him/her becoming an entrepreneur. Besides common sense, and from the entrepreneurship field, our results go with the literature too.

		Model 1		Model 2		Model 3	
		df/dx	SE	df/dx	SE	df/dx	SE
Dependent variables	FEA						
Independent variables	Driving laws			.0892***	0.02661	0.169007	0.161840
Moderator variables	Culture:						
	DrivingLaw#SSC					-0.25134	0.10596
	DrivingLaw#PBC					.30894*	.117695
	DrivingLaw#Regions					0.153404	0.215877
Control variables	Age	-0.00103	0.0025	-0.00111	0.0025	0.001658	0.010070
	Edu:						
	Some secondary	-0.03471	0.1405	0.048108	0.15241	-0.37520	0.628548
	Secondary	0.10587	0.13073	0.072185	0.14444	0.135904	0.580941
	Graduate	0.21464	0.13411	0.173496	0.14965	0.578359	1.61926
	Number of obs			387		387	
	Pseudo R-squared			0.0373		0.0803	
	Log pseudo-likelihood			-257.58993		-241.76431	

Table 6.3 Logit results in predicting entrepreneurial activity

For example, some scholars such as Alshareef (2017) argued that not giving women the ability to drive considers a social mobility exclusion where she found that it affects the decision of a female to become an entrepreneur. Alshareef found out that the more the women can move in Saudi Arabia, the higher the chances that she will get involved in entrepreneurial activity. Nevertheless, another paper by Alkhaled and Berglund (2018) found that banning women from driving meaning unequal opportunities between women and men when it comes to starting a business which makes the women less probable to become an entrepreneur. Moreover, scholars found that more regulations will decrease the involvement in entrepreneurial activity (Urbano et al., 2019); this could be the opposite case here where elimination of some rules will lead to more participation in entrepreneurial activity.

Moreover, our analysis showed that culture only moderates the relationship between the new female driving law and entrepreneurial activity when it is a performance-based culture. This can be explained by looking at the criteria of this where society will care only about performances. As a result, and as we established about how more freedom of mobility will increase performance, people in this type of culture will encourage driving. On the other hand, in a supportive social culture, we found that there is no impact on the relationship. This could be explained as Athoug (2017) argued that the resistance of women driving comes from the traditionalist's expectations of what is considered normative gender roles. Looking at the criteria of

this type of culture, you will find the male still do the driving for the females in the family. This is considered his second job as he is showing support or by sticking to traditions. Both ways, this showed no impact on our results. Another way to explain the non-significant results when it comes to socially supportive culture is that we did not consider religion as a factor. As being a socially supportive man in an Islamic country, not only the culture encourages men to support females but also religion. If we look closely at some of the Islamic rules, we find that the man is always required to support the women financially if she is his daughter, wife, younger sister in some cases and more. These Islamic rules can easily intervene with the definition of a socially supportive culture, and it might even change the results. Moreover, another critical factor in a socially supportive culture is networking as people in such a culture receive the support usually from their network. However, females, as other studies suggested, have fewer diverse relationships than men (Noguera et al., 2015). This lack of networking in a culture that people give support to their network might explain our results. Females don't only lack networking, but also have fewer entrepreneurial opportunities than males, which is due to the entrepreneurial roles assigned to men usually (Noguera et al., 2013). Hence, in a very male-dominated culture like the Saudi culture, this can explain the non-significant results we found.

Finally, looking into rural and urban areas showed no impact on the relationship between the new female driving law and entrepreneurial activity. This can be explained by looking deeper into the meaning of rural and urban areas as people of today could live in a rural area; however, with the excess to the internet, the whole mindset change where the mindset of people in a rural area could be the same as in the urban area. The data, too, can explain the results as the number of participants from an urban area is higher than participants from rural areas in the data. A more balanced amount of participants from both regions can yield different results as the one that has been generated in this study. Nevertheless, neither age nor education of the female showed an impact as well.

6.7 Conclusions

This chapter aims to study how the new women-related laws and regulations affect female entrepreneurial activity in Saudi Arabia. This chapter uses the Saudi institutional theory to study the effect of the formal institutions on entrepreneurial

activity in Saudi Arabia and the moderating effect of the informal institutions on this relationship. For a formal institution, we chose to focus on the change in laws regarding females—specifically, driving laws. In this chapter, we study the impact of the new driving law on entrepreneurial activity in Saudi Arabia. The study showed that the new driving law highly and positively impacts females when it comes to being involved in entrepreneurial activity. Nevertheless, the study shows that it has a higher impact on the probability of becoming an entrepreneur in a performance-based culture.

The study has many implications for the theory and the policies. These results could help set new rules to foster female entrepreneurship in Saudi Arabia. For example, the study showed that giving women more freedom—or at least giving them equal rights to males—is better for entrepreneurship. This means that in the future, new laws should consider women and men the same. Also, the study shows the importance of caring about performance. This could be helpful to the education ministry, where they should start planting the importance of performance into kids from an early age to foster entrepreneurship when they grow up. Policies are set to help entrepreneurs directly; however, some rules could be set to help them indirectly. For example, the study showed that driving gives females the opportunity to run a business. Teaching women how to drive and making the process to get a driver's license easier for women who know how to drive, therefore, will help foster the entrepreneurial activity. By doing so, the government will indirectly help entrepreneurs to start businesses.

This study contributes to the literature in many ways. First, it gives a better understanding of how new regulations can affect entrepreneurial activity. Moreover, the study adds to the literature on female entrepreneurs and shows that giving more freedom to females will increase female entrepreneurs. In addition, this study adds to the literature about emerging economies by looking at the issue from a new point of view—where a new law has been set recently.

This study also has several limitations. The first limitation of this study is the lack of published papers that analyze the female entrepreneurial activity in Saudi Arabia. Moreover, only a few of the published papers looked into women and, from those few, only a couple have looked at the new driving law. Additionally, one of the apparent limitations this research had was data. In order to measure the impact of

such variables, more data should evolve. Another limitation was the sample size, as it was hard to get a bigger sample of female participants. As a result of limited networking between men and women, this made it harder for male researchers to acquire female participants.

Regarding future studies, the topic has unlimited potential due to the recent change in the laws of female driving. This could be a case to be studied throughout the years. Moreover, future studies could include other factors that we did not capture in this research, such as allowing women to travel without guardian permission or applying for a passport without a male guardian and how it could impact entrepreneurial activity. Finally, religion's impact on those laws is worthy of study as religion is considered to be the primary source of people believes in Saudi Arabia. Nevertheless, investigating the effects of networking on the effectiveness of socially supportive culture will generate results that might give a deeper understanding of the impact of social support on entrepreneurial activity.

Chapter 7

General Conclusions

7. General Conclusions

7.1 Conclusions

After conducting a literature review to investigate how scholars studied and used the institutional theory to analyze the entrepreneurial activity, we came up with the best methods and most important factors to efficiently analyze the Saudi entrepreneurial activity. The results of the literature showed a lack of studies that looked into the entrepreneurial environment in emerging economies. Moreover, to fill this gap and to add to the field theoretically and practically, we decided to use the methods we found to understand better the entrepreneurial environment in one of the emerging economic countries, Saudi Arabia.

To make our work relevant, we provided a separate section in every chapter to discuss the Saudi context of the chapter. Looking at the Saudi context gives a better understanding of this undiscovered environment and of a country that has so many unique written and unwritten rules. Moreover, it makes it easier to relate to the results and variables. Nevertheless, the country's formal and informal institutions are changing, and we tried to shed light on that change in every chapter. Those sections taking about the Saudi context can be a reference for future studies investigating the Saudi environment, either the formal one or the informal one. As a result of the literature, factors have been determined to study the Saudi institutional environment in Chapter 3. To be exact, we chose three different variables to look at: education, fear of failure, and role models. In this chapter, our analysis yielded significant and exciting results. First, we found that the existence of a role model will increase the probability of becoming an entrepreneur, and the result shows a highly significant variable. This goes with the majority of the studies which found that individuals will imagine themselves doing what their idols are doing, and as a result of this, it leads to starting a business if the role model was an entrepreneur (Krueger et al., 2000; Van Auken et al., 2005; Carroll & Mosakowski, 1987; etc.). Even more impressive were the results from analyzing the effect of fear of failure on entrepreneurial activity. The results showed that fear of failure has a significant positive effect on entrepreneurial activity in Saudi Arabia. This goes against the majority of the literature we found. However, we explained these results by the first looking at the few studies that we found which concluded similar results to ours. Scholars such as Cacciotti and Hayton (2014) found that fear of failure could give a higher motive for some individuals where fear of failure

will drive them to success to escape failing. Other scholars, such as Morgan and Sisak (2015) suggested that other factors might moderate the impact of fear of failure. This led us to focus on fear of failure in chapter 5. Moreover, it is worth mentioning that the analysis of the effect of education on entrepreneurial activity was found to be not significant. This could be due to the nature of the complicated relationship between education and entrepreneurship, as the literature suggested.

After studying the whole institutional environment, both informal and formal, and due to the significant results, we found in the informal institutions, we decided to focus on the informal institutions. We looked into the effect of culture on entrepreneurial activity in Saudi Arabia. To be exact, we looked into two different cultures. The first culture was the socially supportive culture. In this culture, people find the support they need from the people around them. The support could range from emotional to financial to even help with networking. Our results showed that this type of culture does not have any impact on entrepreneurial activity. This goes against the literature we found on the matter. This result was explained by looking at other cultures that have similar strong social characteristics as the Saudi culture. We looked into a study that analyzes the Mexican-American society which has strong social support as the Saudi culture. The study found similar results to our study where social supportive culture has no impact on entrepreneurial activity (Abebe et al., 2014). Moreover, we explained this also by suggesting that females in the Saudi culture, due to some cultural and religious reasons, don't indulge in networking as much as men. According to Goby and Eroglu (2011), women in the UAE engage less in formal networking than males, where the culture in the UAE is very similar to the Saudi culture. As a result of this lack of female networking, and as networking is a very important part of the social supportive culture, and as females count for almost 50% of our sample, we suggest that to be the reasons for these results. Finally, it can also be explained by looking at the strength of the formal institutions in the country as Sedeh et al. (2020) suggested that in a country with strong formal institutions, social supportive culture doesn't have an impact. On the other hand, we looked into the performance-based culture and how it might impact the entrepreneurial activity. In this culture, people are valued by their performance. In Saudi Arabia, our results showed that this culture encourages people in Saudi Arabia to start their businesses. The literature supports this result we collected where scholars such as Wennberg,

Pathak and Autio (2013) that in high performance-based culture, becoming an entrepreneur is a desirable goal. Individuals in such as culture recognize the reward that comes with being a successful entrepreneur and chose to get involved in entrepreneurial activity.

Based on the interesting results we found about fear of failure in Chapter 3, we decided to study fear of failure in chapter 5. We first focused on the effect of fear of failure on the entrepreneurial activity as an independent factor. We wanted to know if the data we collected would yield the same exciting, opposite results that we obtained in chapter 3. To do that, a new set of data was collected using different proxies than in chapter 3. Still, our data analysis concluded the same results of chapter 3, where fear of failure would encourage Saudis to start their business. Even though this still goes against the majority of other studies, scholars such as Cacciotti et al. (2016) who found out that fear of failure increases the intensity and persistence of behavior that leads to idea, opportunity, or venture and that by itself will lead to getting involved in entrepreneurial activity. Also, other scholars such as Mitchell and Shepherd (2011) found that fear of failure could work as a motivator to taking actions such as venture creations. Nevertheless, to understand these results, we looked into some moderating factors, including role models and media. We found when it comes to fear of failure, role models will increase the impact of fear of failure, and that will encourage people to start their own ventures. This goes with that other studies concluded, such as the study of Donyo (2017) where it has been found that knowing an entrepreneur will decrease the impact of fear failure as observing someone doing something will make the fear decrease. Moreover, Wyrwich et al. (2016) also found that knowing an entrepreneur will reduce the impact of fear of failure on entrepreneurial activity. On the other hand, we found that the media has no impact. This result goes against the literature. However, it could be explained as we suggested that the questions that captured the variable did not capture the influence of social media as it focused on old school media such as TV and newspapers. As the importance of social media raises those days as the source for information, people don't get influenced the same from TV and newspapers anymore. A new study that captures the impact of social media might yield different results when it comes to the impact of media on the relationship between fear of failure and entrepreneurial activity.

Finally, during this study, some of the formal rules in the country have changed.

One of the new rules is allowing women to drive. We wanted to be one of the first to study the impact of this new law. We looked into the impact of this change on the involvement of females in entrepreneurial activity. We found out that allowing women to drive will significantly increase the probability of Saudi females getting involved in some entrepreneurial activity. This goes with other studies such as Alshareef (2017) where it has been found that not giving women the ability to drive considered a social mobility exclusion will impact the decision of a female to get involved in entrepreneurial activity. Additionally, other studies such as the one done by Alkhaled and Berglund (2018) argue that not giving females the right to drive leads to fewer opportunities for women, which will lead to less involvement in entrepreneurial activity. Nevertheless, giving women the right to drive means that women will be exposed to more opportunities, which will lead to more participation in entrepreneurship. Moreover, we looked into if the culture will moderate this relationship as that culture is expected to be a primary factor that can affect the implementations of this new rule. We found that performance-based culture affects this relationship positively, where it increases the impact of driving on entrepreneurial activity. This can be explained by looking into the characteristics of performance-based culture which illustrates that more freedom of mobility will lead to better performance, and in a culture with a highly performance-based people will encourage driving. Studies such as Wennberg, Pathak and Autio (2013) also found such a culture as the performance-based culture will encourage individuals to get involved in entrepreneurial activity, and this also might explain the positive impact it has.

The aim of this investigation was to analyze the Saudi institutional environment. Moreover, the research has five main objectives. Those objectives were fulfilled by conducting a literature review followed by four separate studies. As a result, it is safe to say this investigation reached its goals and built on the existing literature by investigating an environment that barely has been investigated. The study also had some implications and future study suggestions to help future researchers navigate the entrepreneurial environment in other countries if needed. Nevertheless, it also suggests some policies for policymakers to help growing entrepreneurial activity. The next two sections will talk about that in detail.

7.2 Implications

This research contributes to the theoretical research on the institutional factors that impact the entrepreneurial activity, yet, it also contributes to the public policymaking process. Furthermore, the research adds to the existing knowledge of the field of entrepreneurship by giving some empirical evidence on how institutional factors influence entrepreneurial activity. The research findings empirically prove and support the importance of institutional factors on the individual's decision to be involved in entrepreneurial activity. The research demonstrates that the use of an interdisciplinary theoretical approach as institutional economics will provide a better understanding of entrepreneurial activity than other approaches, such as the economic-based approach.

Theoretically, our findings extend the literature of developing countries entrepreneurship by proving the effectiveness of the institutional context on the entrepreneurial activity in a developing country. Our investigation suggests that individuals' behaviors, including becoming an entrepreneur, can be better justified and interpreted when considering the institutional context (Giménez & Calabrò, 2018; Welter, 2011). Furthermore, the research shows that a better institutional environment is critical to the emergence of new opportunities for entrepreneurs (Mintrom & Norman, 2009). Our finding contributes to discussing the importance of the informal institutions as influencer factors to the entrepreneurial activity. The results, empirically, suggested that favorable informal institutions will positively impact entrepreneurship. Additionally, add to the existing knowledge on female entrepreneurship and highlight the critical role that formal institutions play in the decision of a female to become an entrepreneur. Nevertheless, as the current literature on entrepreneurship mostly uses the GEM proxy as an instrument to measure fear of failure, this study contributes to the field by testing and suggesting that performance failure appraisal inventory (PFAI) can be a useful instrument to capture the impact of fear of failure on entrepreneurship.

Practicality, this investigation contributes to the policymakers who are in need of better designing of governmental policies on entrepreneurship. The research provides a better understanding of the institutional factors that help promote entrepreneurial activities, which leads to better action and policies to support economic growth. On the one hand, the research acknowledges the importance of

informal factors when it comes to boosting entrepreneurial activity. Promoting entrepreneurs and publicly recognizing their importance will lead to creating an influence on people to get involved in entrepreneurial activity. This can be drawn from the results that showed the importance of role models. On the other hand, this research acknowledges the importance of formal factors in fostering female entrepreneurship. The research suggested policymakers to set equal laws for men and women if they wish to increase the number of women entrepreneurs. Besides equal laws, giving women more freedom, as our study suggests, will provide women with a motivation to be independent by creating a new venture. Nevertheless, the research proves to policymakers the significance of culture in promoting entrepreneurship. The research suggesting that policies and rules that reward performance will create a performance-based culture, a culture in which our results show that it helps boost entrepreneurial activities. Finally, we suggest that those policies to always be analyzed and updated depending on the context they occur in as our study shows the importance of context when it comes to entrepreneurship policies.

Besides that, every chapter in this investigation yielded specific theoretical and practical implications. For example, in chapter 3, the study contributes to the literature by giving a framework to look into the general institutional factors and how it influences entrepreneurship. Moreover, the research also provides some empirical evidence on the importance of informal institutional factors. For example, the results showed the importance of role media in affecting the decisions to become an entrepreneur. On the other hand, the results of analyzing the Saudi institutional environment can give the government and policymakers a chance to help more individuals to become entrepreneurs. One of the recommendations to policymakers that has emerged from the results of the study is to support current successful entrepreneurs to appear more in public outlets and media and tell their stories to inspire others. Other recommendations also can be taken from this study, such as the importance of holding a higher educational degree when it comes to starting a new business. This suggests to policymakers that giving easy access to education might help foster entrepreneurial activity. Those results help to advance the existing knowledge concerning environmental factors that impact entrepreneurial activity.

In chapter 4, our results contributed to the field by exploring a unique culture that has not had its fair share of studying in the literature. This study of culture and its

impact on entrepreneurial activity emphasize the importance of performance orientation on driving people to become entrepreneurs. This adds more evidence to the literature that studies different cultures and how they impact entrepreneurial activity. On the other hand, the chapter also gives some important policy implications. Hence, the positive impact means that policies that reward people with good performance might help entrepreneurial activity to rise and flourish in the country. This gives policymakers some empirical evidence that laws, rules and even the education system that encourage better performance will lead to more involvement in entrepreneurial activity. Nevertheless, the results show that the younger the Saudi individuals, the more probably he will start a business. This gives policymakers a reason to target younger people when promoting entrepreneurship or when providing some support services to potential entrepreneurs. Moreover, this also could help in convincing national banks to give more loans to young people who usually find it hard to get a loan with almost no credit to back it up.

In chapter 5, due to the lack of paper focusing on the relationship between fear of failure and entrepreneurship and what might impact this relationship, our study adds to the field by looking into some other factors. Moreover, our results contribute to the literature by supporting the few studies that found a positive impact of fear of failure. The study gives a better understanding of fear, and it discusses the reasons behind the fact that fear is not always a barrier. Moreover, the study also built on the literature by analyzing the factors that might moderate the relationship between fear of failure and entrepreneurship, such as role model and media. Regarding policymakers, the results give them some evidence of how to deal with the fear of failure and what other factors might change the impact of it if it was a negative impact. The study suggested that the existing role model will decrease the effect of fear of failure. This gives the policymaker a way to eliminate fear of failure whenever it is existed by putting more role models for the public who take risks against their fear of failure.

Finally, chapter 6 contributes to the theory of females and entrepreneurship by studying how formal institutions can affect female entrepreneurs. Moreover, the chapter adds to the literature on female entrepreneurship by examining the moderating impact of culture on the relationship between formal institutions (driving laws) and entrepreneurial activity. The study looked into the new laws of driving and

how it affected women. This study is different and unique because it measures the impact of a new rule which just got implemented. Regarding the implications of the study to policymakers, the study gives policymakers an idea about how giving women more freedom will help the economy. Recommendations to policymakers to set equal laws and rules for both genders to encourage more females to get involved in some kind of entrepreneurial activity. These equal rights should be considered and implemented to help women in general and to help the economy and the entrepreneurial activity to grow.

It also contributes to the literature by developing a complete questioner that can be used to measure some of the formal and informal institutional factors. Moreover, the study also contributes to the theory by applying and explaining some quantitative methods that have been used to analyze the environment, and it can also be used in the future.

7.3 Limitations and future studies

During the journey of conducting this study, we faced some limitations that were hard to overcome. In general, the lack of published papers studying the Islamic and Arabic environment was the first limitations we faced. Moreover, the reports and data that we were able to collect from governmental entities were all in Arabic, and that limited the use of them. Going through every chapter, we faced specific limitations. In chapter 1, the first limitations we faced was the lack of data on the variables we studied. The GEM database was the only option we could work with. Moreover, the GEM data lack many formal intuitions proxies, which was a limitation when studying the formal institutions. Furthermore, the data we have only overlook the induvial level and doesn't consider other levels. Nevertheless, the available data is not up to date and mostly was collected a few years ago. We overcame this by collecting primary data for the next three chapters.

In chapter 4, we decided to collect our own data to eliminate the limitations we faced in chapter 3. However, this process had its own limitations too. First of all, the translation process from the beginning to the end had some limitations due to the difficulty of finding translators who talked both languages fluently and were involved in the field of entrepreneurship. Moreover, the lack of researches that studies the unique Saudi culture was another limitation we faced during the investigation.

In chapter 5, we talked about fear of failure and the moderating effect of role models and media on the relationship of it with entrepreneurial activity. The limitations we faced is that most of the published paper about fear of failure and entrepreneurial activity studied the direct effect without the moderating effect. Another limitation we faced was the lack of instruments to measure fear failure in the literature. All previous researches used the proxies from GEM or PFAI. The GEM proxy is a (yes and no) proxy, and on the other hand, the PFAI proxy has not been used a lot when it comes to entrepreneurship and fear of failure. Nevertheless, other studies found out that risk-taking is one of the factors that encourage individuals to get involved in entrepreneurial activity (Knörr et al., 2013), a more in-depth investigation of the relationship between fear and risk-taking could yield a better understanding of the phenomena.

In chapter 6, we talked about female entrepreneurs and the new driving laws that affected women. As the laws are new in the country, data should evolve and mature after a couple of years; however, now the data capture only the impact of one year. Moreover, the law was changed a couple of years ago, and to grasp the impact, more years need to pass. Furthermore, one of the limitations was collecting data from females in this stage. As the Saudi culture doesn't contain many male/female activities, collecting data from females as a male researcher was a limitation.

Regarding future studies, as the institutional approach has proved to give a better understanding of the entrepreneurial activity at one place and time, gathering more data about the changes happening in Saudi Arabia, the same approach could be used to study the institutional change and how it impacts entrepreneurship. Conducting longitudinal studies that capture that use institutional economics to analyze the phenomena could extend our understanding of the entrepreneurial environment. Moreover, we suggest that a more in-depth analysis of the characterization of entrepreneurial activity should be considered. Future studies should consider comparing the results of emerging economies, such as our results, to the existing literature on emerged economies. Moreover, as our results showed the importance of formal and informal institutions independently, future studies should not only consider the independent impact of them but should examine how the interaction between them impact entrepreneurship. Additionally, as the country is

opening new business accelerators and incubators, new studies to look into the effect of them should give exciting results. Moreover, more data on the impact of the new rules in the country on entrepreneurship should yield a better understanding of the environment. Additionally, in chapter 3, looking into the relationship between education and entrepreneurial activity is one of the main lines that should be considered.

Besides that, every chapter has implied specific future studies suggestions. For example, from chapter 3, we concluded that fear of failure, which has an opposite impact than the usual, should be considered for more studying. The relationship between fear of failure and entrepreneurship should be studied using different measures of fear of failure. As mentioned before, there only two ways that have been used to measure fear of failure in the literature. Developing new ways to measure fear of failure will contribute a lot to the understanding of fear and how it influences entrepreneurial activity. A collaboration with researchers in the field of psychology would give a new framework to study fear of failure. Moreover, it is expected that studying some other independent variables could help in improving the findings.

Moving to chapter 4, we investigated the culture of Saudi Arabia. From the chapter, we suggested that a more in-depth look into the socially supportive culture will give a better understanding of a culture like the Saudi. Those recommending comes after we found that the socially supportive culture has no impact on the Saudi environment. Nevertheless, a study to distinguish between the specific types of social support will add to the literature a more detailed image of what kind of social support is essential to encourage entrepreneurship activity. Nevertheless, the Islamic culture and its relationship to entrepreneurship have been barely investigated and investigating the impact of religion on the culture will give a better understanding of what drives the culture in a very religious country.

From the results we got in chapter 3, we decided to give fear of failure a closer look due to the opposite impact we found. This led us to discover what might impact fear of failure when it comes to entrepreneurial activity. However, there is a lack of studies on the impact of other moderating factors on fear of failure, which leads us to believe it is a significant potential for a new research line. We also find that future researches on the impact of social media on the preservation of fear of failure will open a new door on the way to understanding the fear of failure. Moreover, we talked about

looking into religion; however, looking into religion and fear of failure will be a better idea. This is due to the Islamic culture, where it advises people to put their faith in God and take risks. Education again should be a point some should consider in future fear of failure's studies. As in Saudi Arabia, a lot of people are educated, and this might be different than in other countries.

In chapter 6, we looked into the female entrepreneurship and the new driving laws. Collecting more data through the next few years on how women respond to this change will give a better understanding of how giving women more choices will help them to start their own business. The collection of new data through the next few years will be very beneficial for studies that will look into Saudi or even the Islamic environment. Moreover, studies that looked into female entrepreneurship usually ignored males as a factor in the study. As a result, there is a lack of studies analyzing dimensions such as masculinity vs. femininity (Urbano et al., 2019). Future studies that compare the impact on this change in the driving law on females and males at the same time will contribute to the literature in many different ways. Moreover, future studies of the indirect impact of regions on the female entrepreneurship will help to understand the impact of the context on the entrepreneurial activity.

Finally, this study analyzed the individual entrepreneurship and yielded some interesting results; however, using the same framework to study other types of entrepreneurship will be a very worthwhile endeavor. For instance, using this framework to study corporate entrepreneurship will give a better understanding of entrepreneurial activity as a whole. Institutional factors such as education that provide the needed skills to improve corporate entrepreneurship will provide a better understanding of how to improve the corporate entrepreneurship environment (Urbano et al., 2020). Nevertheless, studies found that employees with higher education are more likely to be involved in intrapreneurial activities and investigating this in the Saudi intrapreneurial environment might result in a better understanding of the relationship between education and entrepreneurship. Moreover, the literature suggested that fear of failure will also have a negative impact on corporate entrepreneurship (Urbano & Turro, 2013). It will be interesting to see if the impact of fear of failure in the corporate entrepreneurship in Saudi Arabia will be the same as its impact on Saudi individuals to start a business.

8. References

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9. Appendix

Appendix 1. List of papers dealing with institutions and entrepreneurship from the literature review.

Paper name	Authors (year)	Approach	Methodology	Result	Dvariable	Ivariable	Type pf paper
Loosen up? Cultural tightness and national entrepreneurial activity	Harms & Groen (2017)	Institutional approach (Informal)	Stepwise moderated regression	Cultural factors such as individualism and uncertainty avoidance have an influence over new business ownership.	new business ownership, high-growth entrepreneurship, and social entrepreneurship	Tightness, individualism and uncertainty avoidance and masculinity	Empirical
A configurational approach to understanding gender differences in entrepreneurial activity: a fuzzy set analysis of 40 countries	Lewellyn & Muller-Kahle (2016)	Configurational approach	Fuzzy-set analysis	social cognitive and institutional factors reinforce and substitute for each other to influence entrepreneurial activity.	Entrepreneurial activity	Gender, individual cognitive and national institutional mechanisms.	Empirical
Informal institutions and international entrepreneurship	Muralidharan & Pathak (2017)	Institutional approach (Informal)	Multiple regression model	Performance orientation, low social desirability of entrepreneurship and self-expression will increase the probability of internationalization.	The extent of internationalization by early stage entrepreneurial firms	Performance orientation, self-expression and social desirability	Empirical
Informal institutions and technology use by entrepreneurs An empirical study across 18 emerging markets	Pathak, Saurav, Andre, Laplume, & Xavier-Oliveira. (2016)	Institutional approach (Informal)	Hierarchical linear modeling methods and random-effect logistic regressions.	Cultural diversity positively affects the latest technological uses in entrepreneurship.	Entry level in technology entrepreneurship	The size of the shadow economy, ethnic diversity and ethnic polarization	Empirical

Paper name	Authors (year)	Approach	Methodology	Key Result	Dvariable	Ivariable	Type pf paper
How different formal institutions affect opportunity and necessity entrepreneurship	Fuentelsaz, González, Maicas & Montero (2015)	Institutional approach (Informal)	logit	Formal institutions influence only opportunity entrepreneurship but not necessity entrepreneurship.	entrepreneurship opportunity and necessity	Property rights, business freedom, fiscal freedom, labor freedom, financial capital and educational capital.	Empirical
Cultural Diversity and Entrepreneurial Activity	Alvarez & Urbano (2013)	approach (Informal Institutional)	linear regressions	Ethnicity and linguistic are more important than religious fragmentation as conditioning factors for entrepreneurship.	Entrepreneurial activity	Ethnic, religious and linguistic fragmentation	Empirical
Informal Institutions and Their Comparative Influences on Social and Commercial Entrepreneurship: The Role of In-Group Collectivism and Interpersonal Trust	Pathak & Muralidharan (2016)	Institutional approach (Informal)	multilevel estimation methods	Collectivism increases the probability of social entrepreneurship orientations	Social entrepreneurship (SE) and commercial entrepreneurship (CE).	Interpersonal trust and In-group collectivism	Empirical
GENDER DIFFERENCES IN ENTREPRENEURIAL EDUCATION AND ENTREPRENEURIAL ACTIVITY IN PART OF THE DANUBE REGION	Tominc & Rebernik (2012)	Institutional approach (Formal & Informal)		- Formal or informal training or education in the field of entrepreneurship Increases the likelihood of engaging in entrepreneurship. - Females have more fear of failure and receive less education than men.	Entrepreneurial attitudes	Gender as a main independent variable among others	Empirical

Paper name	Authors (year)	Approach	Methodology	Key Results	Dvariable	Ivariable	Type pf paper
Cross-national differences in entrepreneurial activity: role of culture and institutional factors	Dheer (2016)	Institutional approach (Formal & Informal)		Culture, especially individualism moderates the relationship between formal factors and entrepreneurial activity	The rate of entrepreneurial activity in nations	Individualism, collectivism, Political freedom, Corruption, Education and Culture	Empirical
The role of informal institutions in corporate governance: Brazil, Russia, India, and China compared	Estrin & Prevezer (2010)	Institutional approach (Formal & Informal)	-	Informal institutions either substitute formal one and enforce the law or enhance corruption in transitioning economies.	The interaction between formal and informal institutions		Theoretical
YOU SAY ILLEGAL, I SAY LEGITIMATE: ENTREPRENEURSHIP IN THE INFORMAL ECONOMY	WEBB et al. (2009)	Entrepreneurship theory (microlevel) with institutional (macrolevel) and collective identity (mesolevel) theories	-	In an informal economy, a group' collective's identity will strengthens the relationship between entrepreneurial alertness and opportunity recognition	The recognition and exploitation of opportunities	Institutions and collective identity	Theoretical
THE ATTITUDE TOWARD THE RISK OF ENTREPRENEURIAL ACTIVITY: EVIDENCE FROM CHILE	Sepulveda & Bonilla (2011)	Institutional approach (Informal)	Probit	Gender, education and skill have a significant impact on the decision to become an entrepreneur.	The propensity to become an entrepreneur	The attitude toward risk	Empirical

Paper name	Authors (year)	Approach	Methodology	Key Result	Dvariable	Ivariable	Type pf paper
Institutional asymmetry: How formal and informal institutions affect entrepreneurship in Bulgaria	Williams & Vorley (2015)	Institutional approach (Formal & Informal)	-	Changing formal institutions will lead to empowering informal institutions to take over as enforced rules.	-	-	Theoretical
Effects of formal institutions on the performance of the tourism sector in the Philippines: The mediating role of entrepreneurial orientation	Roxas & Chadee (2013)	Institutional approach (Formal)	structural equation modelling	Formal factors have a substantial impact on entrepreneurial orientation.	EO of firms and firm performance	Regulatory quality and government policies	Empirical
Environmental factors and entrepreneurial activity in Latin America	Álvarez & Urbano (2011)	Institutional approach (Formal & Informal)	Panel data	- Informal institutions have a significant impact on entrepreneurial activity in the Latin American countries. - The results also showed that role model has a significant impact on entrepreneurial.	Entrepreneurial activity	Environmental formal and informal factors	Empirical
Entrepreneurial growth aspirations in challenging environment: The role of institutional quality, human and social capital*	Lajqi & Krasniqi (2017)	Institutional approach (Formal & Informal)	logit	Formal institutions' barriers lead to informal institutions take over.	Growth aspiration of entrepreneur	Institutional quality and Human capital	Empirical

Paper name	Authors (year)	Approach	Methodology	Key Results	Dvariable	Ivariable	Type pf paper
Socio-cognitive traits and entrepreneurship: The moderating role of economic institutions	Boudreaux, Nikolaev, & Klein (2019)	social cognitive theory (SCT) with institutional theory	multi-level fixed-effects model	self-efficacy and alertness to new opportunities encourages opportunity entrepreneurship. On the other hand, fear of failure discourages opportunity entrepreneurship .	opportunity entrepreneurship	self-efficacy and alertness to new opportunities and fear of failure.	Empirical
Fear-of-failure and cultural persistence in youth entrepreneurship: Comparative analysis: Greece versus Germany.	Tubadjia et al. (2019)		Probit	Age play a significant role in the relationship between fear of failure and entrepreneurial activity.	Individual Propensity to Business Ownership	Fear of failure, age, gender etc.	Empirical
Perceptual versus institutional determinants of entrepreneurial entry	Sedeh and Bajestani (2020)		hierarchical linear modeling	Impact of informal factors as in socially supportive culture or Individuals' perceptual characteristics are more on commercial entrepreneurs than commercial entrepreneurs .	Social entrepreneurship and commercial entrepreneurship.	perceived self-efficacy, opportunity perception, and fear of failure, socially supportive culture, etc.	Empirical
Twenty-five years of research on institutions, entrepreneurship, and economic growth: What has been learned?	Urbano et al. (2019)	Systematic literature		informal institutions to have higher and more positive impact on entrepreneurial activity than formal ones	-	-	Literature

Paper name	Authors (year)	Approach	Methodology	Key Results	Dvariable	Ivariable	Type pf paper
The neglected role of formal and informal institutions in women's entrepreneurship: a multi-level analysis	Gimenez-Jimenez D. et al. (2020)	Institutional approach	hierarchical linear modeling	high masculinity or low individualism or other society characteristics increase the relationship between the public expenditure on childcare and probability of female becoming entrepreneurs.	Entrepreneurship	public expenditure on childcare and the length of parental leave for each country and moderating for s masculinity vs. femininity, power distance, etc.	Empirical
ENTREPRENEURSHIP EDUCATION AND ENTREPRENEURIAL INTENTION: PERSPECTIVES ON INSTITUTIONAL THEORY	Wannamakok & Liang (2019)	Institutional approach	multiple linear regression	Entrepreneurship education is significant when it comes to university students deciding to get involve in entrepreneurial activity. .	Entrepreneurial intention	Entrepreneurship education, Regulatory institutional environments, Normative institutional environments and Cognitive institutional environments.	Empirical
Entrepreneurial activities in a developing country: an institutional theory perspective	Eijdenberg et al. (2019)	Institutional approach	-	The result of the study showed that most in Tanzania entrepreneurship get impacted by bureaucracy and arbitrary enforcement, access to capital, competition and consumer spending, but also by language barriers, negative media portrayals and gender disparity	Entrepreneurship	culture, politics or economic institutions	Theoretical
Social Interactions and Entrepreneurial Activity	Arabiyat et al.(2019)	Institutional approach	structural equation modeling	The study found a high and positive impact of regulatory variables on innovative entrepreneurship rate.	Innovative entrepreneurship	Regulatory, Normative, Cognitive and supportive variables	Empirical

Paper name	Authors (year)	Approach	Methodology	Key Results	Dvariable	Ivariable	Type pf paper
Entrepreneurs' age, institutions, and social value creation goals: A multi-country study	Brieger et al. (2020)	Institutional approach	Quantile regression	The relationship between age and entrepreneurship entry and the social value creation is moderated by the country's formal environment.	Social value creation	Age, gender, household income, education, etc.	Theoretical
Motivations and challenges of women entrepreneurs: Experiences of small businesses in Jaipur city of Rajasthan	Shastri et al (2019)	Institutional approach	semi-structured, in-depth, exploratory interviews	Informal factors have a high impact on the decision on female to become entrepreneurs in Rajasthan	-	-	Theoretical
Corruption and Entrepreneurship: How Formal and Informal Institutions Shape Small Firm Behavior in Transition and Mature Market Economies	Tonoyan,, Strohmeyer, Habib & Perlitz,(2010)	Institutional approach (Formal & Informal)	Multi-level analysis	Informal institutions influence entrepreneurs more than formal ones to be a part of corruption.	Entrepreneurs involvement in corruption	Economic Environment, Legal Environment, Business Ethics and Social Norms and Trustworthiness of National Bureaucrat	Empirical
The role of informal institutions in corporate governance: Brazil, Russia, India, and China compared	Estrin & Prevezer (2010)	Institutional approach (Formal & Informal)		Informal institutions govern entrepreneurial activity more than formal institutions.	-	-	Theoretical