

Moderating relationship of institutions for opportunity entrepreneurship and economic development

Literature review and proposed conceptual framework

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Abstract

Purpose – The purpose of this paper is to develop a conceptual framework that illustrates how resource-based countries, such as those in the Gulf Cooperation Council, can move their economies towards a more sustainable diversified model, through creating and fostering institutions that are conducive for opportunity entrepreneurship.

Design/methodology/approach – Several key variables pertaining to formal and informal institutions which impact opportunity entrepreneurship are presented in a conceptual framework based on a comprehensive, non-systematic literature review.

Findings – Findings from the comprehensive literature review suggest that institutions play a moderating role between opportunity entrepreneurship and economic development. Institutions can stimulate entrepreneur's behaviour leading to economic growth and subsequently development. Proposals worth pursuing in empirical studies in the future are presented based on the review of the literature.

Practical implications – This framework offers a model for oil-based countries in resolving structural problems in fostering entrepreneurship when responding to economic challenges.

Originality/value – The proposed framework in this study takes into consideration a comprehensive set of formal and informal institutional factors, rarely discussed in the existing literature, that link opportunity entrepreneurship and economic growth and development. Insights offered by this study have implications for government policy changes in developing effective institutions.

Keywords Economic development, Knowledge-based economy, Institutional economics, Economic growth, Oil-based countries, Opportunity entrepreneurship

Paper type Conceptual paper

Introduction

In the history of development economics, the availability of natural resources such as oil and gas, copper and gold has been thought of as key drivers in economic growth (Schwab and Sala-i-Martin, 2013). In this realm, over several decades, Gulf Cooperation Council (GCC) countries that are driven by non-renewable resources, mainly oil and gas, have experienced a rapid increase in economic growth (i.e. GDP per capita) and standards of living due to the high demand on mineral resources (Callen *et al.*, 2014). However, these countries risk lower levels of productivity in other economic activities such as manufacturing and services industries, because of overreliance on non-renewable resources. Moreover, these countries



will be more susceptible to variations in oil and gas prices in the global market (i.e. the Dutch disease) (Sachs and Warner, 1995; Schwab and Sala-i-Martin, 2013). Therefore, the abundance of natural resources may not necessarily be directly associated with economic growth that lead for sustainable development (Al-Roubaie, 2013).

The GCC countries have made several attempts to diversify their economies towards a more sustainable model. However, their efforts have not proven effective across the board (Callen *et al.*, 2014). Recently, Qatar, Bahrain and UAE are among GCC countries that have managed to move forward in the stages of economic development to reach the innovation-driven stage (knowledge-based economy) by depending less on oil revenues and focusing more on export diversification (Schwab and Sala-i-Martin, 2016).

There is a growing body of literature that has recognised the importance of entrepreneurship in economic growth and development (Acs and Szerb, 2010; Acs *et al.*, 2014b). In line with efforts to move towards a more developed and sustainable economic model, the GCC countries have vested much time and emphasis on entrepreneurship in recent years (Al-Obaidy, 2012; Al-Roubaie, 2013; Callen *et al.*, 2014). In the same realm, there has been renewed interest in institutional economics to provide a better understanding for entrepreneurship research (Bruton *et al.*, 2010), which is of particular importance to GCC countries in moving towards a more sustainable economic development. The preliminary evidence suggested that institutional environment is among the most important factors for the variations of entrepreneurship activity in different stages of economic development (Busenitz *et al.*, 2000; Acs *et al.*, 2014b). As shown above, researchers agree that institutions play an important role in entrepreneurship activity. However, despite this knowledge, little is known about which institutional factors are the most important to productive (i.e. opportunity) entrepreneurship (Levie and Autio, 2011; Urbano and Alvarez, 2014). In addition, much of the research to date has tended to restrict the concept of institutions into formal factors (e.g. laws and regulations), while informal factors (e.g. culture and social norms) have not been considered at length (Carlos Díaz Casero *et al.*, 2013; Castaño-Martínez *et al.*, 2015; Fuentelsaz *et al.*, 2015). In this respect, in spite of the importance of the constant interaction between formal and informal institutions, very little attention has been paid to the effects of such interaction on entrepreneurship (Williamson, 2000; Bruton *et al.*, 2008; Carlsson *et al.*, 2013; Ahlstrom and Ding, 2014; Smallbone *et al.*, 2013; Chowdhury *et al.*, 2015; Aparicio *et al.*, 2016).

To this end, there is a need to have a better understanding on the interaction between formal and informal institutions that strengthen the relationship between productive (i.e. opportunity) entrepreneurship and economic development (Bruton *et al.*, 2008; Al-Roubaie, 2013; Carlsson *et al.*, 2013; Smallbone *et al.*, 2013; Ahlstrom and Ding, 2014; Chowdhury *et al.*, 2015). As a result, this study attempts to fill the gap in the literature by proposing a conceptual framework of institutional factors (formal and informal) that moderate the relationship between opportunity entrepreneurship and economic development in the context of oil-based countries (e.g. GCC countries) (Bjørnskov and Foss, 2013).

In this study, the authors conducted a traditional narrative review (non-systematic review) in relation to opportunity entrepreneurship, institutions and economic growth/development literature. Although the systematic review has its strengths by being more structured and explicit in the selection of the studies (Denyer and Tranfield, 2008), the subject of entrepreneurship and economic development, however, has been widely studied in different fields such as international business, general management, regional studies, entrepreneurial economics and institutional economics in which systematic methodology becomes limited to specific keywords and academic journals (Aliaga-Isla and Rialp, 2013). As a result, a non-systematic review will better enhance our understanding of the subject of interest for this study.

The findings will contribute to the field of entrepreneurship and institutional economics theory. The research question is:

RQ1. What are the factors of formal and informal institutions that encourage opportunity entrepreneurship in the context of oil-based countries (e.g. GCC countries) to reach the innovation-driven stage?

By answering this critical question, this study sheds more light on understanding the link between opportunity entrepreneurship, institutions and economic growth/development.

In addressing our research question, the study developed a conceptual framework that underscores the main issues related to opportunity entrepreneurship and economic growth/development. The study's conceptual framework encapsulates institutional factors that are effective for opportunity entrepreneurship and economic growth/development, based on recent research from the aforementioned fields. Finally, the study offers recommendations for future empirical research in the above fields based on the proposed framework. Moreover, the study serves as a guideline for researchers and policy makers in developing an entrepreneurial climate in the GCC context.

Opportunity entrepreneurship and economic growth/development

Research into economic development has a long history. Since the seminal work of Adam Smith's (2003) (original work published in 1776) *The Wealth of Nations*, several theories have contributed to the explanation of economic development. In the literature, economic development is considered a complex and multifaceted process that includes interactions among different designed goals and policies over time in a specific country (Dang and Pheng, 2015). This process of economic development may require structural changes leading to an overall higher growth trajectory on different cultural, social, political systems and institutional levels. Therefore, the concept of economic development goes beyond the definition of economic growth (GDP, GNP or GNI) per capita as the latent is considered one of the dimensions of development (Naudé, 2010; Dang and Pheng, 2015). However, Dang and Pheng (2015) argued that economic development objectives cannot be achieved without understanding the sources of economic growth as the country needs resources to achieve other long-term goals. To this end, for the purpose of this study, we are going to discuss the role of entrepreneurship in both economic growth and economic development, as growth underlies an important requirement for development.

While development theories abound, many of the theories to date have not considered the role of entrepreneurship in economic growth and development (Dang and Pheng, 2015). Solow (1956), in his neoclassical growth model, contended that the nuances and dynamics of economic growth among countries come to higher productivity in a population; therefore, rich countries have better factors of production. While Solow (1956) considered physical and human capital as driving forces in achieving economic growth, Romer (1990) developed Solow's (1956) model by emphasising the importance of knowledge capital as an endogenous factor, whereby human capital and technological innovations are the key drivers to economic growth. Romer (1990) further argued that new ideas and most research and development (R&D) are produced by well-educated entrepreneurs who create and exploit new technological advances and ultimately drive economic growth. Although Romer's (1990) economic growth model helped to explain the divergence in growth rates among countries, Acemoglu *et al.* (2014) contended that institutions could play a pivotal role in producing and organising the factors of production (i.e. physical capital, human capital, and technological innovations), where these institutions create appropriate incentives for entrepreneurs to be more productive and eventually contribute to economic growth.

In line with this argument, different studies developed theoretical models by offering possible explanations of how entrepreneurship can contribute to economic growth

(Minniti and Lévesque, 2010; Sautet, 2013). Furthermore, a considerable amount of empirical studies has analysed the role of entrepreneurship on economic growth (e.g. Audretsch and Keilbach, 2004a, b, 2005, 2008; Minniti and Lévesque, 2010; Bjørnskov and Foss, 2013; Liñán and Fernandez-Serrano, 2014). These studies suggested that Solow's model should be amended to include entrepreneurship as a factor for economic growth.

Historically, Schumpeter (1942) first introduced the significant role of entrepreneurship in economic growth. He contended that innovative entrepreneurs are described as “agents of creative destruction”. These “agents” destroy the value of existing markets by creating new markets with new products, services and technological innovations that offer a higher rate of return than that offered by existing firms. Contrary to previous growth models, Schumpeter (1942) concluded that creative destruction is the ultimate source of economic growth.

In general, entrepreneurship is considered a key driver to economic growth in which “entrepreneurs create new businesses, and new businesses in turn create jobs, intensify competition, and may even increase productivity through technological change. High measured levels of entrepreneurship will thus translate directly into high levels of economic growth” (Acs, 2006, p. 97). However, this treatment on the relationship between entrepreneurship and economic growth is more complicated in reality. Particularly, if the relationship includes the measurement of entrepreneurship activity such as informal self-employment, which occurs due to high levels of bureaucratic barriers that complicate the process of formal business creation, then entrepreneurship may be seen negatively correlated with economic growth (Acs, 2006).

Therefore, with the economic growth and development in mind, it would be best to focus on productive entrepreneurship that can lead to economic growth (Acs, 2006; Ayyagari *et al.*, 2014). Recent studies have clearly indicated that entrepreneurship based on knowledge makes a greater contribution to economic growth in comparison with other types of entrepreneurship such as necessity entrepreneurship (individuals who feel obliged to start their own business because all other work alternatives are either absent or insufficient) (Audretsch and Keilbach, 2004a, b, 2005, 2007, 2008; Audretsch, 2007; Audretsch *et al.*, 2008; Acs *et al.*, 2012). In particular, Reynolds *et al.* (2005) argued that entrepreneurship based on knowledge could be positively related to transforming an opportunity into a real start-up that has an added value to the market. This entrepreneurial behaviour process is known in academia as opportunity entrepreneurship (Reynolds *et al.*, 2005; Naudé, 2011; Acs *et al.*, 2014a). While the definition of entrepreneurship has been a matter of on-going discussion among researchers (Davis, 2008; Avanzini, 2011), there appears to be some agreement in the last decade that opportunity entrepreneurship refers to “opportunity-driven agents who drive economic change through innovative new firms” (Hart, 2003; Reynolds *et al.*, 2005; Naudé, 2011, p. 7; Acs *et al.*, 2014a). This definition coincides with Gartner (1985, p. 697) who defined entrepreneurship as “new venture creation” and Hart (2003, p. 3) who described entrepreneurship as a “process of starting and continuing to expand new businesses”. Naudé's (2011) definition leads to more specific explanation on how “discovery and exploitation of profitable opportunities” (Shane and Venkataraman, 2000, p. 217) impact economic development by exploiting opportunities through creation of new business firms. Similarly, this argument is supported by Levie and Autio (2011) who argued that strategic (in our terminology, opportunity) entrepreneurs who are simultaneously motivated by opportunity and the creation of competitive advantage tend to register their enterprises in order to grow their businesses.

In this regard, Reynolds *et al.* (2005) contended that opportunity entrepreneurship could be considered the result of an individual's decision to create a new business opportunity based on knowledge. However, questions have been raised about the usefulness of opportunity entrepreneurship in economic growth (Wong *et al.*, 2005). Specifically, Acs *et al.* (2012) recommended that opportunity entrepreneurship be examined in relation to its capacity to

initiate new start-ups and stimulate knowledge in the country simultaneously. Together, some studies suggested that entrepreneurship serves as conduit to transfer knowledge capacity and, consequently, produce spill over dynamics that contribute to economic growth for a specific society (Audretsch and Keilbach, 2008; Acs *et al.*, 2012).

In the same vein, Acs *et al.* (2012) challenged Romer's (1990) conclusions, arguing that knowledge may not automatically be associated with economic growth as presumed in models of endogenous growth. Thus, there has been an increasing amount of literature that has investigated the effects of opportunity entrepreneurship as a conduit of knowledge (Audretsch, 2007; Audretsch and Keilbach, 2008; Noseleit, 2013; Aparicio *et al.*, 2016). In this sense, previous research has considered the importance of entrepreneurs' abilities and motivation to innovate and grow businesses that contribute to economic growth (Audretsch, 2007; Aparicio *et al.*, 2016). In particular, Audretsch *et al.* (2008) contended that innovative entrepreneurs who are motivated by business opportunity bring the benefit of new knowledge to economic growth by creating new products and services that lead to a continuous increment of knowledge spill overs. Therefore, opportunity entrepreneurship is considered a key driver in transforming the new knowledge into economic growth (Audretsch *et al.*, 2008). Several studies supported Audretsch *et al.*'s (2008) conclusion, arguing that opportunity entrepreneurship rates are positively linked to the creation of knowledge and technology that could contribute to economic growth (Wong *et al.*, 2005; Valliere and Peterson, 2009; Acs *et al.*, 2012; Noseleit, 2013; Aparicio *et al.*, 2016).

However, previously published studies on the effects of opportunity entrepreneurship on economic growth are not consistent among countries. While this relationship was assessed by some studies in the context of developed or developing countries, the empirical findings were divergent. In particular, some studies found that there is a U-shaped relationship between opportunity entrepreneurship and the level of economic development (Wennekers *et al.*, 2005; Wong *et al.*, 2005; Valliere and Peterson, 2009). Chowdhury *et al.* (2015) analysed the data from 44 countries and concluded that economic development has consistent negative relationship with entrepreneurial activities such as nascent/new firm ownership, self-employment and new firm start-up.

While previous studies have highlighted the relevance of entrepreneurship to economic growth, the academic literature pertaining to entrepreneurship and its possible determinants has seen the emergence of several key research themes such as the role of institutions in addressing the discrepancies in the literature. Carlsson *et al.* (2013) found that future research should focus on exploring the interaction between entrepreneurship and different types of institutions and policies that contribute to economic development. Sautet (2013) suggested that entrepreneurship could play an important role in economic growth if institutions provide sufficient incentives that enable entrepreneurs to create the types of firms that are able to generate economies of scale and faster growing economies. In addition, Acs *et al.* (2014a) contended that the current data sets of measuring entrepreneurship are rather controversial and the vast majority of researchers have not considered the interaction effects of entrepreneurship and institutions. They further argued that entrepreneurs tend to be more productive in terms of employment and economic development when operating under an appropriate institutional environment.

In this regard, Acs *et al.* (2017) provided evidence in the Global Entrepreneurship Index (GEI) that some oil-based countries, such as the UAE and Qatar, could have an effective national system of entrepreneurship (i.e. institutional environment) where entrepreneurship plays an important role in economic development. According to the GEI measure, these oil-based countries are in the first 21 out of the 137 countries who lead the world of entrepreneurship (Acs *et al.*, 2017). In addition, GEI results are consistent with other studies in relation to the impact of opportunity entrepreneurship on economic growth (Wennekers *et al.*, 2005; Sternberg and Wennekers, 2005).

Entrepreneurship and stages of economic development

Currently, developing and developed countries in the global economy face different challenges in aspiring for and sustaining economic development. This being said, there is not a set formula for countries to use in their developmental endeavours. For example, what Algeria needs to increase its competitiveness is not the same as what Norway needs to do so. This divergence is due to Algeria and Norway being in different stages of development (Schwab and Sala-i-Martin, 2014). Competitiveness can be defined in this context as “the set of institutions, policies, and factors that determine the level of productivity of an economy, which in turn sets the level of prosperity that the country can achieve” (Schwab and Sala-i-Martin, 2016, p. 4).

In his classical handbook on economic development, Syrquin (1988) suggested that countries go through three stages. The first stage of economy relied mainly on agricultural products and small-scale manufacturing. In the next stage, the economy moved from small-scale production to manufacturing. In the last stage, and due to increase in wealth among developed countries, the economy starts to shift from manufacturing towards services.

Another well-known study that is often cited in research on understanding the stages of economic development and its effects is that of Rostow (1959). In his historical study, Rostow (1959, p. 1) suggested that countries go through five stages of economic development: “(1) the traditional society (2) the preconditions for take-off (3) the take-off (4) the drive to maturity and (5) the age of high mass-consumption”. While these stages identified important historical events in the development of modern economies, they could not explain other critical events and discrepancies. One such discrepancy is the failure of Soviet Union to reach the mass consumption stage, partly due to lack of total factor productivity. Consequently, Rostow’s (1959) theory regarding stages of economic development was deemed inadequate in describing economic development preconditions and stages (Acs and Szerb, 2010).

In line with the economic theory of stages of development, Porter *et al.* (2001) made a valuable contribution to Rostow’s (1959) and Syrquin’s (1988) study. Porter *et al.* (2001) argued that country’s development is distinguished by three stages of economic development: a factor-driven stage, an efficiency-driven stage and an innovation-driven stage. Countries are allocated into stages of development based on two criteria which are GDP per capita at market exchange rates and the extent to which countries are factor driven by measuring “the share of exports of mineral goods in total exports (goods and services), assuming that countries that export more than 70 per cent of mineral resources (measured using a five-year average) are to a large extent factor driven”. In addition, countries in transition stage fall between two of the three stages. For transitioning countries, “the weights change smoothly as a country develops, reflecting the smooth transition from one stage of development to another” (Schwab and Sala-i-Martin, 2011, p. 10).

Whilst Rostow (1959) was more concerned with the age of high mass consumption, Porter *et al.* (2001) focused on the innovation-driven stage. In particular, Porter *et al.* (2001) contended that countries must embrace technology and innovation to produce higher levels of income and eventually be more competitive.

In accordance with Schumpeter’s (1942) historical view that entrepreneurship is a key drive for economic growth, entrepreneurship is increasingly considered a driving force for development through creating “new combinations” of economic activity such as physical, biological and digital systems for the innovation-driven stage of development (Acs and Szerb, 2010, Schwab and Sala-i-Martin, 2016). Economists have contended that entrepreneurship activities serve in the capacity of “input-completing” and “gap-filling” in their contribution to innovation and economic development (Leibenstein, 1968; Audretsch, 2007; Levie and Autio, 2008).

While most developed countries are in the innovation-driven stage, most oil-based countries, including Saudi Arabia, Kuwait, Venezuela, Iran, Algeria and Nigeria, are in the

transition to efficiency-driven stage (Schwab and Sala-i-Martin, 2014). In addition, developed countries most likely have higher rates of export-oriented entrepreneurship than developing countries (De Clercq *et al.*, 2008). Therefore, it is critical for resource-based economies to promote innovation in order to reach technological frontier and consequently become a knowledge-based economy that is particular of the innovation-driven stage (Acs and Amorós, 2008).

In describing entrepreneurship in different stages of economic development, factor-driven stage is highlighted by high rates of agricultural self-employment. Countries in this stage compete based on their factor endowments (i.e. primarily natural resources and unskilled labour). Type of business is commonly marked by sole proprietorships (i.e. self-employed) in which they compete on the basis of price and sell basic products. Therefore, these countries at this stage are not able to create knowledge for innovation or exporting. There are preconditions requirements that countries must adopt in order to transfer to the second stage (i.e. efficiency-driven stage). These requirements include increase production efficiency and educate the workforce in order to adapt to the subsequent technological development phase. In addition, the first transition from factor-driven to efficiency-driven is characterised by improving the quality of institutions (Porter *et al.*, 2001; Acs *et al.*, 2008; Acs and Szerb, 2010).

Yet as countries become more competitive, they move into the efficiency-driven stage. Countries in this stage compete on efficient production processes and increase product quality in large markets, which allow firms to exploit economies of scale opportunities. In addition, industries in this stage primarily produce basic services (Syrquin, 1988). The rates of self-employment in these developing countries decline as individuals tend to prefer working for larger firms (e.g. government ownership, private enterprise or foreign direct investment) over managing small businesses due to higher returns. The second transition is marked by increasing the activity of individual agents (Acs *et al.*, 2008; Acs and Szerb, 2010).

Finally, as countries move into the innovation-driven stage, there is an increase in knowledge spill over (Romer, 1990). At this stage, knowledge is a key input (i.e. endogenous) for these countries to increase total productivity. In particular, individual agents tend to compete with firms by producing new knowledge in this stage (Acs *et al.*, 2009).

Acs *et al.* (2008) contended that entrepreneurship activity increases in the innovation-driven stage due to the expansion of services sector over manufacturing sector. The expansion of services sector allows more opportunities for individuals to start new businesses (e.g. USA, Germany and Sweden). In addition, Acs *et al.* (2008) argued that improvements in information technologies (e.g. telecommunications, photocopying services, express mail services, personal computers, the internet, mobile phones services and web services) may incentivize individuals to start a new business due to potential for higher returns (e.g. better exchange information, less expenses and less time consuming). Therefore, the innovation-driven stage is marked by high value-added services industries in which entrepreneurial activity is significant (Acs *et al.*, 2008).

This understanding of entrepreneurship in relation to stages of economic development is different from the previous notion that most entrepreneurial countries in the world are those who have higher number of entrepreneurs. In particular, developing countries such as Zambia and Nigeria have the highest rates of self-employment. However, these countries lack the human capital and infrastructure needed to create innovative high-growth start-ups as many individuals sell soft drinks and fruit on street corners. Therefore, quality entrepreneurship matters more than quantity. Entrepreneurial countries need to have more productive entrepreneurs, not necessarily more number of entrepreneurs (Acs *et al.*, 2016).

In the same vein, Acs *et al.* (2014b) found that there is an S-shaped relationship between entrepreneurship activity and economic development. In addition, Acs *et al.* (2014b) yielded that countries in the factor-driven stage are marked by low entrepreneurship activity and

the opportunity for increasing income or wealth is limited. On the other hand, entrepreneurship activity increasingly plays a more important role among countries in transition from efficiency to innovation-driven stage (the knowledge-driven stage) until it levels off. This argument was supported by Naudé (2010), who suggested that if the demand for opportunity entrepreneurship was established in the context of developing countries, entrepreneurship could make a better contribution in these countries. In line with Galindo and Méndez (2014), Castaño *et al.* (2015) empirically found that higher rates of economic growth create new opportunities for entrepreneurs and stimulate innovation.

This S-shaped relationship between entrepreneurship and economic development is consistent with Baumol's (1990) theory that entrepreneurship activity has existed in all countries but it is distributed among destructive, unproductive and productive entrepreneurship forms. Destructive entrepreneurship (e.g. drug business) tends to happen in developing countries with some degree of political instability albeit it happens in some form across most countries. Hence, these unstable countries depend mainly on basic industries and the chances for entrepreneurship activity to grow may not appear immediately.

Another type of entrepreneurship that is prevalent in both developing and developed countries is the unproductive entrepreneurship where wealth is transferred from one group to another. This form of unproductive entrepreneurship is known in academia as rent seeking (i.e. privilege seeking). When rent seeking by government and other groups exists, the opportunity for entrepreneurs to make strategies for long-term investment to sustain productive high-impact firms is limited. As a result, countries with extractive institutions at the expense of others do not have sustainable economic development (Baumol, 1990).

Therefore, destructive and unproductive entrepreneurship could be removed by improving the quality of institutions and changing society's incentive structure. This requires good government and governance that support innovative and high-growth firms (i.e. productive entrepreneurship) through strengthening institutions which are related to better technology, importing skilled employees, building well-functioning infrastructure, offering specialized advice and support, building business premises, availability of venture capital and supportive regulatory framework in order to contribute mainly to economic development (Acs *et al.*, 2016).

This previous argument was supported by Schwab and Sala-i-Martin (2014), who contended that the first two stages of development are controlled by institutions to support productive entrepreneurship. In particular, innovation has a limited contribution to economic activity by 5 per cent in factor-driven stage and increases to 10 per cent in the efficiency-driven economies while it has a larger contribution to economic development by 30 per cent in the innovation-driven stage. In addition, economic development involves change and entrepreneurs become the best agents for this change (Acs and Szerb, 2010).

Therefore, entrepreneurship matters for oil-based countries in which entrepreneurs can allocate resources more efficiently than governments and that market is necessary to respond to these changes through consistent adjustments to "separate actions of different people" and "the conditions of supply of various factors of production" (Acs and Amorós, 2008, p. 310). As a result, many countries have recognised the importance of the markets where entrepreneurs operate by focusing on improving their business environment, private sector development and small and medium enterprise policies (Djankov *et al.*, 2002; Klapper *et al.*, 2006; Acs and Amorós, 2008).

To this end, it is necessary for oil-based countries that need to move into the innovation-driven stage to develop favourable environmental conditions to increase productive (i.e. opportunity) entrepreneurship and consequently contribute to economic growth and development. Few oil-based countries have achieved this in the past decade, including UAE,

Qatar and Norway (Schwab and Sala-i-Martin, 2015). As a result of the review of literature and based on our framework, we propose the following:

- P1. Opportunity entrepreneurship has a positive correlation with economic growth/development in the context of GCC countries that are working towards becoming a knowledge-based economy.

Opportunity entrepreneurship, institutions and economic growth/development

As discussed in the previous section, scholars have highlighted the importance of opportunity entrepreneurship in economic growth and development. However, this relationship is contingent upon the institutional environment. Where institutions are effective, entrepreneurs are more likely to undertake new ventures and focus their energies towards productive activities (Baumol, 1990). To date, our understanding of how these framework conditions, national culture and supporting institutions create a fertile environment for opportunity entrepreneurship remains relatively understudied (Aidis *et al.*, 2012; Stenholm *et al.*, 2013). Therefore, this study attempts to shed light on an entrepreneurial environment (i.e. institutional environment) that is conducive to opportunity entrepreneurship by reviewing recent research into the institutional factors that strengthen the relationship between opportunity entrepreneurship and economic growth/development. In broad terms, entrepreneurial environment refers to the “combination of factors that play a role in the development of entrepreneurship” (Gnyawali and Fogel, 1994, p. 44).

The pioneering work of Douglass North (1990, 2005) remains crucial to our understanding of the pivotal role of institutional structures for entrepreneurship and economic development and forms the foundation of this section. North (1990, 2005) stressed that entrepreneurs are the main agents of change. He further argued that many incentives that drive the entrepreneurial behaviour are based on the quality of institutions. Therefore, institutions can be defined as the “rules of the game in a society, or more formally, the constraints that shape human interaction” (North, 1990, p. 3). This definition has been widely recognised and used in several studies related to entrepreneurship research (Acs *et al.*, 2014b; Aparicio *et al.*, 2016). In addition, entrepreneurs, who set up organisations, adjust their activities and strategies to fit the market opportunities and limitations provided by the institutional environment (Gnyawali and Fogel, 1994; Manolova *et al.*, 2008). Hence, improving opportunity entrepreneurship in a certain country depends on the business environment that provides positive or negative incentives for entrepreneurs (North, 1990).

Despite the importance of institutional environment, there has been little understanding of the role that institutional environment plays in influencing opportunity entrepreneurship (Boettke and Coyne, 2009). Specifically, questions have been raised about the role of institutions in increasing opportunity entrepreneurship and the institutional dimensions that are most important for explaining entrepreneurship activity rates (Bruton *et al.*, 2010; Levie and Autio, 2011).

In this perspective, North (1990) classified institutions into formal factors such as laws, contracts and regulations, etc., and informal factors such as values, culture or social norms of a specific country. North (2005) contended that formal institutions exist to decrease the transactions costs caused by laws, while informal institutions intend to reduce the uncertainties involved in human interaction. In addition, North (1990) argued that informal institutions that are culturally derived may constrain the changes and the improvements of formal institutions and vice versa. Thus, the interactions between formal and informal institutions produce outcomes that have important implications on opportunity entrepreneurship and economic growth.

One outcome from the interaction between formal and informal institutions on entrepreneurship was found by the seminal work of Baumol (1990) who described the

development of entrepreneurship as a continuous process. He suggested that entrepreneurship comes in three different forms: productive entrepreneurship that generates economic prosperity through innovation and exploiting opportunities in the market, non-productive entrepreneurship where entrepreneurial talent is not efficiently used by pursuing rents from government agencies such as preferential monopolistic positions, special tax or regulatory exemptions and destructive entrepreneurship such as illegal drug business or prostitution.

Baumol (1990) further contended that the combination of incentives that is provided by different institutional structures, formal and informal, direct the behaviour of individuals to use their entrepreneurial talents to choose among different types of entrepreneurship in which they contribute to economic growth. Incentives that encourage productive entrepreneurship (i.e. opportunity entrepreneurship) have a positive influence on economic growth, while unproductive and destructive entrepreneurship have neutral or negative influence on economic growth (Baumol, 1990). An example of Baumol's (1990) study can be seen when a productive entrepreneurship creates a new technology innovation in Silicon Valley. On the other hand, unproductive entrepreneurship is viewed when authoritarian government starts yet another bureaucratic regulation in order to increase its wealth (Acs *et al.*, 2014b).

Another outcome from the interaction between formal and informal institutions on entrepreneurship was discussed by North (1990) who argued that both formal and informal rules may survive for long period of time even if they are inefficient. In particular, Williamson (2000) contended that formal institutions take relatively a short period of time to change, while informal institutions take longer to change than formal ones. Williamson (2000) further argued that informal institutions may constrain or foster the changes of formal institutions and vice versa.

Hence, the efficiency of formal institutions such as new laws and regulations could depend on the cultural values in a certain society. An example of this interaction could be seen in the case of enforcing traffic laws in a specific country. Although traffic laws are generally standard across countries, the effectiveness of these formal laws depends on to what extent large numbers of drivers voluntarily adopt and accept such rules through prolonged self-commitment. Therefore, if the informal norms align with the formal rules, the cost of enforcing the formal laws will be relatively low as the violations of traffic laws are rare (Boettke and Coyne, 2009).

Acs *et al.* (2014b) found that there are several possible explanations for inefficient institutional outcomes stemmed from the interaction between formal and informal institutions in a certain society. First, informal rules (i.e. culture) may persist resistant when they clash with formal rules as informal institutions provide a sense of stability (Aidis *et al.*, 2012).

Second, the changes of informal institutions may take longer because of the impact of historical conditions. While the past cannot be used to precisely expect the future, existing incentive framework may help to understand the future role of institutions in economic development. This happens due to institutional changes are usually incremental and rarely discontinuous (North, 1990). In that sense, history is important when unproductive pathways may continue.

Third, organisations that have improved during the presence of the existing institutions are obliged to continue working with the current institutions due to the supportive incentive structure. In particular, when the formal rules change, organisations that benefited from existing informal rules would lose their benefits if they adopt the new informal practices that complement formal rules changes. Therefore, these organisations continue to practice out-dated informal rules in order to keep their positions of power in the market (Aidis *et al.*, 2012).

Finally, when there is clash of institutions between new formal rules and existed informal rules, the prevalence of non-compliant behaviours increases and may result in the formation of informal economy (Aidis *et al.*, 2012).

As discussed above, the changes of the entrepreneurial process can lead to different outcomes based on the incentive structure within a specific country. In particular, when institutions are functioning effectively, entrepreneurial activities increase towards productive entrepreneurship and ultimately contribute to the economic growth and development. Hence, it is important to consider the interaction effects between incentives and institutions as the rules of the game such as quality of governance, access to capital and other resources in order to show how entrepreneurs recognise the opportunity in different stages of economic development (Aidis *et al.*, 2012).

In line with the previous literature, some attempts have been proposed to operationalise the institutional dimensions in the field of entrepreneurship for a certain country. In this regard, Gnyawali and Fogel (1994) suggested an institutional framework which includes five dimensions of the entrepreneurial environment: government policies and procedures, social and economic factors, entrepreneurial and business skills, financial assistance to businesses and non-financial assistance.

Recent empirical studies used Gnyawali and Fogel's (1994) institutional framework to examine the influence of institutional dimensions on entrepreneurship activity (Álvarez and Urbano, 2011; Fuentelsaz *et al.*, 2015; Aparicio *et al.*, 2016). However, the research in the field of entrepreneurship to date has tended to focus on formal institutions rather than informal institutions (Carlos Díaz Casero *et al.*, 2013; Castaño-Martínez *et al.*, 2015; Fuentelsaz *et al.*, 2015). In addition, much uncertainty still exists about the interactions outcomes between formal and informal institutions on entrepreneurship (Bruton *et al.*, 2008; Carlsson *et al.*, 2013; Smallbone *et al.*, 2013; Ahlstrom and Ding, 2014; Chowdhury *et al.*, 2015; Aparicio *et al.*, 2016). Hence, despite the importance of the constant interaction between formal and informal institutions, there remains a paucity of evidence on such interaction effects that could be relevant to the theoretical discussion (Williamson, 2000).

As a result, this study is closely guided by Gnyawali and Fogel's (1994) entrepreneurial framework and in accordance with North's (1990, 2005) propositions on institutional dynamics. In this respect, government policies and procedures, entrepreneurial and business skills, and financial and non-financial assistance are considered as formal factors, whereas social conditions are considered as informal factors as shown in Figure 1. In the same way, economic conditions are related to the economic development of a specific country, as discussed in the previous section (Álvarez and Urbano, 2011; Álvarez *et al.*, 2014). This institutional framework is clearly distinguishing between formal

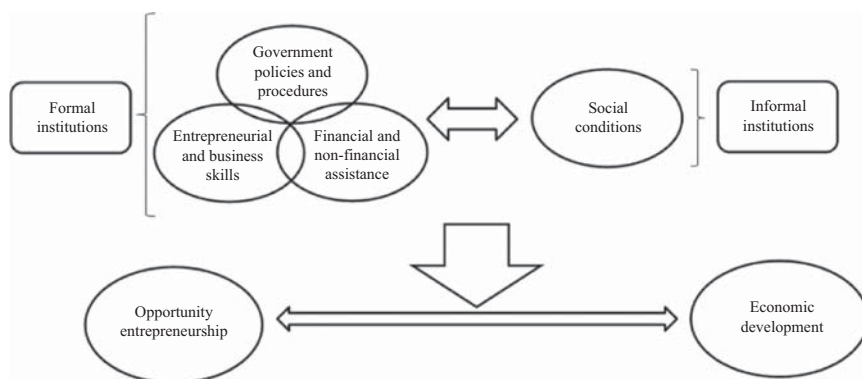


Figure 1.
A developed
framework for
entrepreneurial
environment

Sources: Gnyawali and Fogel (1994), North (1990, 2005) and Author's own work

and informal institutions. In addition, a wider range of political and economic perspectives had been acknowledged and explored in order to offer more in depth analysis of institutional framework (Bruton *et al.*, 2010).

Conceptual framework development

Understanding the entrepreneurial framework conditions that support opportunity entrepreneurship is an important issue to academic researchers and policy makers alike (Stenholm *et al.*, 2013). Public policy that focuses only on increasing the entrepreneurship activity levels without considering its type (e.g. opportunity entrepreneurship) may lead to unexpected and undesired results (Stenholm *et al.*, 2013). Therefore, the purpose of this study is to offer an entrepreneurial (institutional) environment that directs entrepreneurs towards productive activities in order to contribute significantly to economic growth and development (Baumol, 1990).

The criteria for developing the framework of an entrepreneurial environment are as follows: first, the authors attempted to include a comprehensive set of formal and informal factors that are empirically studied in the existing literature. Second, the interaction between formal and informal institutions was presented in the framework. Finally, this framework attempted to develop propositions worth pursuing in future empirical studies.

In the government policies and procedures dimension, this study identified six relevant formal institutions: protection of property rights, business freedom, labour freedom, fiscal freedom, openness to trade and scale of government activity. With regard to the entrepreneurial and business skills dimension, technical and business education, and entrepreneurial training programmes, these can be approached through society's educational capital. As regards financial assistance, access to credit in an economy is discussed in this part. In addition, non-financial assistance is identified through government support for R&D, university-industry collaboration, and modern communications facilities. Finally, social conditions are explained through an entrepreneurs' status in the society, social networks, power distance and level of corruption of a certain country.

Government policies and procedures

Government policies and procedures consist of governmental proceedings that can affect market mechanisms. These policies and procedures can encourage the market to function more efficiently throughout the life of the business by minimising market barriers and rigid administrative regulations (Gnyawali and Fogel, 1994; Álvarez *et al.*, 2014).

The literature on governmental policies and procedures has highlighted several aspects related to entrepreneurial activity. One of these aspects is the effects of business regulations on opportunity entrepreneurship. A variety of empirical research found that simpler procedures and regulations to start a business increase the creation of new firms, especially those based on opportunity (Urbano and Alvarez, 2014; Castaño-Martínez *et al.*, 2015; Chowdhury *et al.*, 2015; Fuentelsaz *et al.*, 2015; Aparicio *et al.*, 2016). In addition, Levie and Autio (2011) found that lighter burden of regulation is associated with a higher rate and relative prevalence of strategic (i.e. opportunity) entrepreneurship by analysing a six-year panel data of 54 countries. In contrast, Djankov *et al.* (2002) found that countries with strict entry regulations have more corruption and larger informal economies as many businesses prefer to function without registering to avoid costly regulations. The previous findings were consistent with Gnyawali and Fogel's (1994) conceptual framework which argued that inefficient government regulations may be associated negatively with innovative entrepreneurs who seek opportunities in the market.

In a study investigating labour freedom regulations, Fuentelsaz *et al.* (2015) found that lower restrictions in labour legislation, such as salary determination, working conditions or compensation in case of dismissal, have a positive impact on opportunity entrepreneurship

as the opportunity costs associated with allocations of valuable resources such as human, social and financial capital encourage individuals to leave their jobs and seek higher returns (Levie and Autio, 2011). In addition, more labour freedom may support opportunity entrepreneurs, who have more growth aspirations, to hire more people in the market and subsequently decreases unemployment rates (Fuentelsaz *et al.*, 2015).

In the same vein, Estrin *et al.* (2013) made an interesting contribution with regard to the impact of government activity (measured by the ratio of government expense to GDP) on opportunity entrepreneurship. Although greater government spending may help to improve institutional quality and thereby reduce barriers to entrepreneurial entry such as better legal and judicial system, it may also create new barriers to opportunity entrepreneurship (Aidis *et al.*, 2012). For example, when government policies become more active in terms of expenditures on social security and welfare schemes (e.g. generous unemployment benefits), individuals tend to be less motivated and ambitious to exploit opportunities in the market and start a business as “higher levels of welfare support provide alternative sources of income and, by increasing the alternative wage, may therefore reduce the net expected return” (Aidis *et al.*, 2012; Estrin *et al.*, 2013, pp. 568-569). Estrin *et al.* (2013) further argued that a greater scale of government activity may compete with the private sector for the supply prices of key resources needed by individuals to start a business and, therefore, opportunity entrepreneurs are likely to be demotivated by higher costs of finance (e.g. taxes) and human capital. As discussed earlier, a large public sector is generally associated with higher tax rates (Estrin *et al.*, 2013). However, previous research findings into tax rates have been inconsistent and contradictory. While Carlos Díaz Casero *et al.* (2013) and Chowdhury *et al.* (2015) argued that a lower level of tax rates would increase the level of opportunity entrepreneurship, Fuentelsaz *et al.* (2015) found that more fiscal freedom (i.e. a lower tax level) negatively affects opportunity entrepreneurship. These rather contradictory results may be due to using different data sets to measure entrepreneurship and tax rates. Another possible explanation for this is that higher tax rates would allow the government to invest more in developing education, infrastructure, judicial system or protection of property rights that encourage entrepreneurs to find better opportunities in the market (Chowdhury *et al.*, 2015; Fuentelsaz *et al.*, 2015).

Data from several sources have identified that a higher level of protection of property rights has a positive effect on opportunity entrepreneurship through decreased risk and uncertainty (Estrin *et al.*, 2013; Stenholm *et al.*, 2013; Castaño *et al.*, 2015; Chowdhury *et al.*, 2015; Fuentelsaz *et al.*, 2015). In particular, Carlos Díaz Casero *et al.* (2013) contended that the priority for factor- and efficiency-driven economies is to improve the legal structure, safety of property rights and openness to trade. However, Sambharya and Musteen (2014) found little evidence that the latter would stimulate opportunity entrepreneurship. Conversely, Chowdhury *et al.* (2015) argued that government policies that include increasing the level of FDI and international trade have a positive effect on entrepreneurs to export and seek opportunities in foreign markets. As a result, this allows entrepreneurs in turn to have better access to knowledge and technologies in foreign markets (Castaño *et al.*, 2015).

To this end, Klapper *et al.* (2010, p. 132) contended that “because of burdensome regulations, high marginal tax rates, the absence of monitoring and compliance (of both registration and tax regulations), and other weaknesses in the business environment, many firms might find it optimal to evade regulations and operate in the informal sector”. However, “Firms that choose to stay small and informal might be unable to realise their full growth potential” and benefit from the potential advantages of participating in the formal sector, such as “police and judicial protection (and less vulnerability to corruption and the demand for bribes), access to formal credit institutions, the ability to use formal labour contracts, and greater access to foreign markets”.

Hence, in relation to informal institutions, social networks (e.g. trade fairs, informal loans, associations and clubs) with other entrepreneurs may reduce the negative impact of inefficient government institutions (e.g. weak property rights) and encourage individuals to exploit opportunities in the market (Estrin *et al.*, 2013; Urbano and Alvarez, 2014). This view was supported by De Clercq *et al.* (2010), who argued that entrepreneurs tend to be more involved in social networks when there are complex administrative procedures in the context of emerging economies. Based on the above discussion of the recent literature, the study proposes the following:

- P2a.* A higher level of protection of property rights has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.
- P2b.* A higher level of business freedom (fewer procedures and regulations) has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.
- P2c.* A higher level of labour freedom has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.
- P2d.* A higher level of fiscal freedom (lower tax rates) has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.
- P2e.* A higher level of openness to trade (FDI and international trade) has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.
- P2f.* A lower level of government activity in terms of social security and welfare schemes has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.
- P2g.* In the case of inefficient government policies in terms of complex procedures and labour regulations, high tax rates, weak property rights and lower access to foreign markets, a higher level of social networks has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.

Social conditions

Social conditions or culture can broadly be defined as how positively a given country's residents encourage entrepreneurship and value innovation (Gnyawali and Fogel, 1994; Busenitz *et al.*, 2000; Acs *et al.*, 2014a). It encompasses the general status and attitude of society towards entrepreneurship behaviour, such as close social networks (family, relatives, and spouses) and appreciating successful role models to motivate individuals to start a new business (Gnyawali and Fogel, 1994; Hayton and Cacciotti, 2013; Stenholm *et al.*, 2013; Álvarez *et al.*, 2014; Urbano and Alvarez, 2014). Hence, it is critical to understand the influence of the institutional environment that could encourage (or not) the conditions in which a particular culture effectively motivates the individuals towards opportunity entrepreneurship (Fernández-Serrano and Romero, 2014).

In the literature of national cultural dimension, findings provided evidence that culture plays a significant role as a moderator factor between entrepreneurship and economic growth. However, results showed that culture is a complex phenomenon that cannot be explained by focussing on cultural values without interaction with other variables, such as

institutions and government policies. Moreover, culture should be considered at the regional level (e.g. GCC countries), as previous studies used larger samples that led to uncertain findings (Hayton and Cacciotti, 2013; Liñán and Fernandez-Serrano, 2014). In this respect, Sambharya and Musteen (2014) found some evidence that lower power distance encourages opportunity entrepreneurship among other cultural dimensions (i.e. uncertainty avoidance and institutional collectivism) by analysing data from 43 countries to examine the role of institutional environment on opportunity entrepreneurship.

In the same vein, using the Global Entrepreneurship Monitor data set, some cross-sectional studies on the effect of the normative dimension on entrepreneurship were inconsistent. Stenholm *et al.* (2013) contended that normative institutional arrangements (measured as high status and media attention) do not have a significant impact on opportunity entrepreneurship. However, other studies concluded that social recognition on entrepreneurial achievements are associated with the rate of entrepreneurial activity in a specific country (Urbano and Alvarez, 2014; Castaño-Martínez *et al.*, 2015). These findings may be somewhat limited by focussing on different samples of developed countries where institutional changes are relatively stable over time. It can thus be suggested that future studies should focus on developing countries by considering longitudinal changes of institutional dimensions over time (Stenholm *et al.*, 2013).

Based on the previous discussion, the extent to which specific cultural variables can be linked to opportunity entrepreneurship in a particular economy is not fully understood (Fernández-Serrano and Romero, 2014). However, a number of studies have postulated a convergence between social conditions and entrepreneurship. In particular, corruption is an example of a social norm that could undermine confidence in institutions required to start a business (Anokhin and Schulze, 2009; Aidis *et al.*, 2012).

Traditionally, corruption is defined as the abuse of public office or authority for private benefit. Because corruption becomes institutionally embedded, it has subscribed to the belief that it can play an important role in addressing the issue of institutional quality (Aidis *et al.*, 2012). In other words, it is considered as an informal institution that reflects the multidimensional impact of poor institutions in a certain country such as high taxes, high level of government spending, complex regulations and inefficient rule of law (Tanzi, 1998; Payne *et al.*, 2013).

When corruption is prevalent, it is turned into a consistent expectation from people and a social norm of behaviour in that more entrepreneurs undermine confidence in formal institutions that are necessary to start a new venture. In addition, corruption responds slowly to formal institutional reforms and becomes difficult to change in which it may discourage individuals to take advantage of entrepreneurial opportunity and start their own business as they suffer from additional costs and time to complete business activities (Anokhin and Schulze, 2009; Aidis *et al.*, 2012). Therefore, control of corruption is necessary to reduce uncertainty from human interaction and motivate higher levels of opportunity entrepreneurship (Chowdhury *et al.*, 2015; Aparicio *et al.*, 2016).

There is a growing body of literature that recognised the negative effect of corruption on productive entrepreneurship (i.e. opportunity entrepreneurship) and innovation. Avnimelech *et al.* (2014) explored the link between corruption and productive entrepreneurship by using data from 176 countries collected from professional websites. The findings showed that countries with higher level of corruption have lower level of productive entrepreneurship. In addition, Anokhin and Schulze (2009) used data from 64 countries to examine the relationship between corruption, innovation and entrepreneurship. The authors found that a better control of corruption contributes to the increase of innovation and entrepreneurship. Similarly, El Harbi and Anderson (2010) found that when the perceived corruption index is higher (which means that when entrepreneurs and experts perceive that the business environment becomes cleaner and more free from

corruption), it is positively related to patented innovation (i.e. opportunity entrepreneurship) and negatively related to self-employment (i.e. necessity entrepreneurship).

In relation to the context of oil-based countries, Sachs and Warner (1995, p. 21) contended that “high natural resource abundance leads to increased rent seeking, corruption, and poorer overall government efficiency”. In addition, Baumol *et al.* (2007) argued that corruption and informal economy (i.e. unproductive entrepreneurship) could be more pervasive in countries that depend on a single natural resource. However, Farzanegan (2014) found that oil-rich countries can minimise the effect of corruption and rent seeking on formal firm birth rate by improving government effectiveness (e.g. legal system). This view was recently supported by Majbouri (2016) who provided empirical evidence that the less the corruption is, the larger the impact of opportunity entrepreneurship on economic growth in the context of oil-based countries.

In short, a corrupt environment may distort entrepreneurial opportunities and appropriate returns by acting as a barrier that hinders the entry or growth of businesses while it becomes a fertile environment for entrepreneurs to engage in self-employment (necessity entrepreneurship) or corrupt practices. In contrast, countries with more corrupt free environment often support entrepreneurs with a variety of achievable, merit-based business opportunities and international growth potentials (Terjesen and Hessels, 2009; El Harbi and Anderson, 2010; Aidis *et al.*, 2012; Estrin *et al.*, 2013; Chowdhury *et al.*, 2015). Moreover, there is some evidence to suggest that control of corruption could be associated with increasing of government budget on improving education and training as well as R&D in which these factors encourage opportunity entrepreneurship in the context of developing countries (Castaño *et al.*, 2015; Aparicio *et al.*, 2016). Accordingly, this study proposes the following:

P3a. A lower level of corruption has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.

P3b. In the case of lower levels of corruption, a higher level of education and R&D has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.

Entrepreneurial and business skills

Education and training for entrepreneurship have been widely recognised and studied to enhance entrepreneurship activity (Gnyawali and Fogel, 1994; Levie and Autio, 2008; Fuentelsaz *et al.*, 2015). Leibenstein (1968, pp. 82-83) highlighted the importance of education to opportunity entrepreneurship, stating that: “[...] training can do something to increase the supply of entrepreneurship”. He further contended that “[...] since entrepreneurship requires a combination of capacities, some of which may be vital gaps in carrying out the input-completing aspect of the entrepreneurial role, training can eliminate some of these gaps. For example, it may be difficult to train people to spot economic opportunities, but it is possible to train them to assess such opportunities once perceived”.

In the same vein, Levie and Autio (2008) argued that entrepreneurship specific training and education are likely to encourage the supply of entrepreneurship through two main mechanisms. First, through enhancing the cognitive ability of individuals and, therefore, enabling them to better recognise and exploit the opportunities in the market. In addition, Shane and Venkataraman (2000) contended that individual's ability to recognise opportunities can be determined through the possession of the necessary experience and the cognitive ability to analyse information in which they are originated from the social interactions in the market. In particular, entrepreneurs with higher level of education are more capable to identify the opportunities in the market as they have the ability to understand and analyse the information received from the social and economic interactions

in order to create new products and services that add a value or fill a gap in the economy (Levie and Autio, 2008).

The second mechanism to increase entrepreneurship activity is through providing entrepreneurs with the necessary skills and competencies required to start up and grow a new firm (Levie and Autio, 2008). Historically, Schumpeter (1947) contended that inventors create new ideas, while entrepreneurs “get things done”. To get things done, entrepreneurs need to be sufficiently skilled not only in their own specific domain, but also in a number of business areas such as management and leadership skills in order to bring and combine together the resources necessary for starting and growing a successful business. Therefore, entrepreneurs who “jack all trades” tend to have more balanced talents that span a number of different skill sets (Lazear, 2005).

Based on the previous argument, some studies have highlighted the importance of focusing on specific education which includes entrepreneurial skills rather than general education in order to operate the venture (Bowen and De Clercq, 2008; Jiménez *et al.*, 2015). Therefore, an educational system with entrepreneurship focused is more likely to teach opportunity entrepreneurs the necessary skills for their businesses such as the ability to design international growth strategies (Levie and Autio, 2008). As a result, the positive impact of this broad skill set will increase individuals’ self-confidence and reduce perceived risk to better seek and exploit entrepreneurial opportunities in the market (Levie and Autio, 2008; Jiménez *et al.*, 2015).

Several empirical studies have proposed a convergence between education and training with opportunity entrepreneurship (Castaño-Martínez *et al.*, 2015; Chowdhury *et al.*, 2015; Fuentelsaz *et al.*, 2015; Aparicio *et al.*, 2016). Individuals with a higher level of education and business skills have a greater sense of self-confidence, as well as the entrepreneurial skills required to exploit market opportunities and create a new venture (Castaño-Martínez *et al.*, 2015; Fuentelsaz *et al.*, 2015; Aparicio *et al.*, 2016). Hence, education and training services that focus on entrepreneurial skills are particularly important in developing countries to ensure manpower efficiency and encourage firms to design growth strategies in their businesses (Gnyawali and Fogel, 1994; Carlos Diaz Casero *et al.*, 2013; Castaño-Martínez *et al.*, 2015; Fuentelsaz *et al.*, 2015).

While the previous view was not supported by Stenholm *et al.* (2013), who argued that cultural-cognitive dimensions of institutional arrangements that focus on opportunity recognition, social networks and business skills are not associated with the rate of opportunity entrepreneurship, other studies found that successful entrepreneurs with a higher educational background are appreciated by society and media attention where they have a positive effect on promoting the entrepreneurial culture (Urbano and Alvarez, 2014; Castaño-Martínez *et al.*, 2015). In addition, Castaño *et al.* (2015) also found that there is a significant relationship between higher levels of education and less corruption, as discussed in the previous section. This discussion leads us to propose the following:

- P4a.* A higher level of education and training has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.
- P4b.* In the case of higher levels of education and training, a higher level of social recognition on entrepreneurial achievements has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.

Financial and non-financial support to businesses

Financial support is among the most important factors for entrepreneurs to start and grow their ventures (Gnyawali and Fogel, 1994). In the beginning, entrepreneurs tend to obtain

financial resources from family and friends, but soon need additional resources such as venture capital funds, angel investors and corporate investors to finance the growth of their businesses (Denis, 2004; Bowen and De Clercq, 2008). Whereas venture capital funds refer to “limited partnerships in which the managing partners invest on behalf of the limited partners”, angel investors refer to “high net worth individuals that invest their own funds in a small set of companies”. In addition, the term corporation investors refer to “corporations invest on behalf of their shareholders, for financial and/or strategic reasons” (Denis, 2004, p. 304).

Therefore, the availability of financial resources could be a priority for opportunity entrepreneurs with higher growth aspirations to expand their businesses or seek opportunities in the foreign markets (Bowen and De Clercq, 2008; Fuentelsaz *et al.*, 2015; Aparicio *et al.*, 2016). For example, Beck *et al.* (2005) found that entrepreneurs who face financial constraints such as bank paperwork and bureaucracies, collateral requirements, high interest rates, lack of money in the banking system and the need for special bank connections are less likely to have significant growth rates. Moreover, Beck *et al.* (2008) found that small firms that obtain formal financing have better performance on several metrics in comparison with similar firms that depend on informal financing.

Corporate finance theory suggested that countries that are characterised by underdeveloped financial and legal systems may constrain entrepreneurs’ ability to fund their growth-oriented businesses (Beck *et al.*, 2005). For example, the availability of financial resources is limited in the context of developing countries due to the lack infrastructure of formal financial institutions (Chowdhury *et al.*, 2015). Hence, opportunity entrepreneurs in these countries rely mainly on social networks and family connections as the existed financial institutions are less likely to support their start-ups (Leibenstein, 1968; Chowdhury *et al.*, 2015).

This issue of funding distinguishes established firms from start-ups because of the high risk associated with entrepreneurs such as lack of credit history and of credible reputation as well as less information about the potential value of new innovation (Denis, 2004; Bowen and De Clercq, 2008; Korosteleva and Mickiewicz, 2011; Fuentelsaz *et al.*, 2015). In addition, financial institutions such as bankers may hesitate to finance new start-ups as they find it costly to monitor small businesses in spite of improvements in technology (e.g. credit scoring and risk-rating tools) that can handle entrepreneurial finance better than in the past (Gnyawali and Fogel, 1994; De la Torre *et al.*, 2010).

Therefore, in order to promote entrepreneurship, several studies have shown that policies for increasing access to bank credit should focus on decreasing capital requirements, creating investment companies, promoting low-interest loans and loan guarantee systems for small business financing (Gnyawali and Fogel, 1994; Castaño-Martínez *et al.*, 2015; Fuentelsaz *et al.*, 2015; Aparicio *et al.*, 2016). In particular, access to credit could be a priority for opportunity entrepreneurs with higher growth aspirations to expand their businesses or seek opportunities in foreign markets (Fuentelsaz *et al.*, 2015; Aparicio *et al.*, 2016).

Based on the previous discussion, it is more likely that countries with more developed financial system aimed at entrepreneurship can provide greater availability of financial resources for opportunity entrepreneurs to pursue their ambitions and, thus, entrepreneurial activities are more likely to be directed towards high-growth firms (Bowen and De Clercq, 2008). In contrast, the availability of financial resources is limited in the context of developing countries due to the lack of formal financial institutions (Chowdhury *et al.*, 2015). Hence, opportunity entrepreneurs who are associated with higher risk levels rely mainly on social networks and family connections as existing financial institutions are less likely to

support their ventures (Chowdhury *et al.*, 2015; Fuentelsaz *et al.*, 2015). As a result, this study proposes the following:

- P5a.* A higher level of financial support has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.
- P5b.* In the case of lower levels of financial support, a higher level of social networks has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.

In addition to financial assistance, entrepreneurs need specific services such as incubator facilities, government support for R&D, modern transport and communication facilities to support their businesses (Gnyawali and Fogel, 1994). A seminal study in this area is the work of Stenholm *et al.* (2013), who introduced a new conducive dimension that measures a country's capability of encouraging high-impact entrepreneurship (i.e. opportunity entrepreneurship). Stenholm *et al.* (2013) found that availability of venture capital and access to the latest technology and university-industry collaboration is likely to increase opportunity entrepreneurship levels in a country; it does this by providing a fertile environment for new innovations and knowledge-based growth. Other studies have highlighted the relevance of specific infrastructural elements, such as ICT infrastructure, government R&D policies, and spending on R&D investment by universities that make substantial impact on opportunity entrepreneurship (Gnyawali and Fogel, 1994; Al-Obaidy, 2012; Castaño *et al.*, 2015; Castaño-Martínez *et al.*, 2015). Accordingly, this reasoning leads to propose the following hypothesis:

- P6.* A higher level of R&D spending, ICT infrastructure, university-industry collaboration and technology readiness has a positive impact on the relationship between opportunity entrepreneurship and economic development in the context of GCC countries.

Conclusions

The aim of this study is to develop a conceptual framework to show that oil-based countries (such as GCC countries) can diversify and sustain their economies towards knowledge-based growth, while appropriate institutions can encourage higher levels of opportunity entrepreneurship.

Although there is no clear recipe for oil-based economies to reach the innovation-driven stage (knowledge-based economy), the implementation of appropriate policies stemmed from the developed framework is worth pursuing. There are number of common themes to create a favourable institutional environment in which opportunity entrepreneurship can be seen as a conduit for GCC countries to diversify their economies away from oil revenues. GCC governments can invest and redirect their spending toward improving the quality of institutions that are related to protection of property rights, business freedom, labour freedom, fiscal freedom, openness to trade, social recognition on entrepreneurial achievements, control of corruption, education and training, financial support, R&D spending, ICT infrastructure, university-industry collaboration and technology readiness, where these institutions impact positively on opportunity entrepreneurship.

These previous policies are consistent with the Global Competitiveness Report (GCR), which indicated that the most problematic factors for doing business in the context of GCC countries are inefficient government bureaucracy, restrictive labour regulations, corruption, poor work ethics in the national labour force, an inadequately educated workforce, inadequate supply of infrastructure, access to financing and insufficient capacity to innovate (Schwab and Sala-i-Martin, 2016). Our study makes several contributions to the

field of entrepreneurship and institutional economics. First, our review of literature complement previous studies emphasising the important relationship between opportunity entrepreneurship, institutions and economic development. Second, we extend Gnyawali and Fogel's (1994) framework by making a clear distinction between formal and informal institutions. This distinction is important because each dimension impacts opportunity entrepreneurship in a different way. Third, this study adopts a more holistic approach by providing new empirical insights into the environmental factors that affect opportunity entrepreneurship in the light of institutional economics. Finally, the study could be useful for the design of policies that encourage opportunity entrepreneurship in the context of oil-based economies by considering the relevance of formal and informal institutions in the creation of innovative new ventures.

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