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**Universitat Autònoma  
de Barcelona**

**LEADERSHIP AND ENTREPRENEURSHIP FROM A SOCIOCULTURAL PERSPECTIVE:  
AN INTERNATIONAL STUDY**

DOCTORAL THESIS

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## **PREFACE**

This PhD thesis investigates the relationship between leadership and entrepreneurship from a sociocultural approach.

The origin of this thesis dates back to 2010; however, the essence and interest in this subject has been with me all my life. Thanks to this investigation process, I have been able to validate my dream that the leadership and entrepreneurship that the world needs can be formed and molded on each of us. To explore, study and analyze these factors is a way of life I have begun to pursue with passion and conviction.

This thesis would not have been possible without the support of many others. Firstly, I thank my PhD supervisor, David Urbano, for his active support during the past six years. David was not just my advisor and thesis director, but a great teacher and friend. David was with me throughout the learning process, encouraging and inspiring me to give my best. David is an example of dedication, compromise and passion for investigation. Thanks to him, I discovered the world of research, scientific discipline, critical thought, big questions and reflections, the value of an idea and the theoretical frame, but overall I feel I discovered a new universe.

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We did it! Thank you all.

Claudia M. Félix Sandoval

Thank God for the opportunity to transform my life to transform others.  
That is my commitment.

## ABSTRACT

It is increasingly recognized that leadership and entrepreneurship play an essential role in economic and social development. Consequently, researchers, educators, policy makers, and practitioners have shown particular interest in understanding these phenomena. Leadership and entrepreneurship research has encompassed factors such as personality, traits, knowledge, skills, and behaviors. These elements are shaped by the sociocultural environment. While both disciplines leadership and entrepreneurship, have shown progress in identifying these factors, there has been far less focus on proposing their joint analysis and on integrating empirical research to increase the capacity and performance of leaders and entrepreneurs all over the world.

The main objective of this investigation is to analyze the relationship between leadership and entrepreneurial activity from a sociocultural perspective. Thus, the specific objectives are: 1) to explore the content and evolution of the research on the sociocultural factors (informal institutions) that influence entrepreneurship and leadership; 2) to analyze the informal institutions that influence entrepreneurial leadership; 3) to study the informal institutions that affect leadership behavior (considering the international context and also focusing on developing countries); and 4) to analyze the leadership dimensions that influence entrepreneurship.

This research is grounded in two theoretical frameworks. Institutional economics (North, 1990) will be used as the theoretical framework for the study of entrepreneurship. The theory of social and economic organization (Weber, 1947) will be introduced as the theoretical framework for the study of leadership. The main findings of the research reveal that the informal institutions, such as the beliefs, values, and attitudes of a society (independence, risk taking, religion, tolerance, creativity, power, responsibility, resilience, networking, and social capital) determine the behavior of that society's members, thereby affecting the decision to become a leader. It also shows that leadership has a strong effect on entrepreneurship, especially charismatic/transformational leadership behaviors. The methodology used is quantitative and is fundamentally based on international data from the World Values Survey (WVS), Global Leadership and Organizational Behavior Effectiveness (GLOBE), and Global Entrepreneurship Monitor (GEM), along with national data from the National Institute of Statistics and Geography (INEGI), Mexico. This data is complemented by other data sources of information such as the International Monetary Fund (IMF), the World Bank, and The Worldwide Governance Indicators (WGI) project. This thesis combines several research techniques: correspondence analysis, factor analysis, regression models, and data panel analysis.

Finally, this investigation suggests a series of implications at the academic level, as it positions institutional economics as an appropriate conceptual framework for integrating the analysis of the sociocultural factors that contribute to the promotion of leadership and entrepreneurship. From the practical perspective, this study may help managers and educators to generate training programs that promote and develop leadership and entrepreneurship that contribute to a better society. Equally, the results could be helpful to government policy that is meant to support entrepreneurial initiatives. Finally, research on leadership and entrepreneurship has the potential to reveal many new ways to improve business practice, education, and public policy in the twenty-first century.

**Keywords:** leadership, entrepreneurship, entrepreneurial leadership, institutional economics, informal institutions, informal factors, sociocultural perspective, theory of social and economic organization, international study, Mexico.

# CHAPTER 1

## INTRODUCTION



## **1.1 Problem Statement and Objectives of the Research**

The global economy is creating deep and rapid changes for organizations and industries all over the world. In recent decades, the answer to this fast-changing and competitive environment has been leadership (Gupta, MacMillan, & Surie, 2004) and entrepreneurship (Covin & Slevin, 1991; Lumpkin & Dess, 1996). Although research has identified leadership as one of the most important factors influencing entrepreneurship (Elenkov & Manev, 2005; Hornsby, Kuratko, & Zahra, 2002; Zhou, 2016), there is little research that specifically deals with the relationship between leadership and entrepreneurship (Cogliser & Brigham, 2004; Ensley, Pearce, & Hmieleski, 2006b; Gupta et al., 2004; Van Hemmen, Urbano, & Alvarez, 2013; Vecchio, 2003) and even less that approaches them from a sociocultural perspective. This scarcity of studies is surprising considering the coincidences between the traits of leaders and entrepreneurs (Van Hemmen et al., 2013) and their importance for economic development (Acs, 2006; Beer & Clower, 2014; Kasseeah, 2016). Gartner, Bird, and Starr (1992) suggested that an integration of entrepreneurship, leadership, and organizational behavior research has much promise for the entrepreneurship field.

Entrepreneurship and leadership have been approached from different perspectives. On the one hand, an increasing number of academics are demonstrating that a theoretical framework based on a sociocultural and institutional approach may be more appropriate for the study of entrepreneurship than conventional economic and psychological approaches (Gnyawali & Fogel, 1994; Granovetter, 1985; North, 1990; Uhlaner & Thurik, 2007). In this regard, the relationship between sociocultural factors and entrepreneurial activity has received increasing research attention (Davidsson, 1995; Hayton, George, & Zahra, 2002; Shapero & Sokol, 1982; Steyaert & Katz, 2004; Thornton, 1999). Entrepreneurship has been considered as embedded in a social context (Steyaert, 2007). On the other hand, the cross-cultural literature has also generally stressed a strong connection between culture and leadership (House, Wright, & Aditya, 1997). Many researches have argued for a direct impact of culture on leadership, maintaining that specific cultural traditions, values, and norms are “bound to differentiate as much or even more than structural factors between societies” (Lammers & Hickson, 1979, p. 10). Overall, there is agreement in the literature that both leadership and entrepreneurial behaviors have been influenced by the sociocultural context (Elenkov, 2002; Schneider & Barsoux, 2003).

The main objective of this investigation is to verify statistically the relationship between leadership and entrepreneurial activity from a sociocultural approach using institutional theory as the theoretical framework. This study provides insights into the understanding of entrepreneurship and leadership in a

global environment. Several studies have addressed the issues separately and the measurements are at the country level. We intend to fill this gap. The following are the specific objectives of the study.

- 1) To explore the content and evolution of research on the sociocultural factors (informal institutions) that influence entrepreneurship and leadership.
- 2) To analyze the informal institutions that influence entrepreneurial leadership.
- 3) To study the informal institutions that affect leadership behavior (considering the international context and focusing on developing countries).
- 4) To analyze the leadership dimensions that influence entrepreneurship.

The methodology used in this thesis is quantitative and fundamentally based on international data from the World Values Survey (WVS), Global Leadership and Organizational Behavior Effectiveness (GLOBE), and Global Entrepreneurship Monitor (GEM), along with national data from INEGI, Mexico. These data are complemented by other sources of information, such as the International Monetary Fund, the World Bank, and The Worldwide Governance Indicators (WGI) project. Multivariable analysis is applied using descriptive and explanatory statistical techniques, including correspondence analysis, factor analysis, regression models, and data panel analysis. Finally, the research is grounded on two theoretical frameworks: institutional economics (North, 1990) and the theory of social and economic organization (Weber, 1947).

The main contribution of this research is the advancement, both theoretical and empirical, of the existing literature on the sociocultural factors (informal institutions) that influence leadership and entrepreneurship. The research covers an important gap in the literature addressing the relationship between these two concepts from a sociocultural perspective and providing institutional economics as an appropriate conceptual framework for the analysis of the conditions that foster or inhibit leadership and entrepreneurship. This research presents important contributions to the field of business, education, and public policy: in the field of business, by providing more information for managers regarding the dimensions of leadership that impact greater entrepreneurship in different contexts; in the field of education, by the training of future leaders and entrepreneurs; and finally in the area of public policy, where the profile of politicians should be in accordance with the community's context, therefore generating development that will be key to the future of new societies.

## 1.2 A Broad View of Leadership

Leadership development has taken on far greater importance in recent years (Day, 2000; Pearce, Waldman, & Csikszentmihalyi, 2006; Simsek, Jansen, Minichilli, & Escriba-Esteve, 2015). Leadership is one of the most comprehensively researched processes of social influence in the behavioral sciences. The literature review makes a distinction between leaders and leadership. The leader has often been the focus of leadership research, exploring traits and behaviors that distinguish an individual leader from a non-leader. Leadership, on the other hand, is the process of influence (Hunt, 2004) and reflects a more complex and dynamic phenomenon than that of an individual actor (Cogliser & Brigham, 2004). The complexity and multidimensionality of the very nature of leadership mitigate the possibility of a simple or unitary definition. Leadership cannot mean only one thing because it can and does take on multiple meanings and appearances, which have evolved over time (Day & Harrison, 2007).

Leadership theories attempt to explain and organize the complexity of the nature of leadership and its consequences (Bass & Bass, 2008). The theory of social and economic organization (Weber, 1947) lays the foundation for the development of leadership theories. This theory conceptualized ideas about legitimate rule in order to define charismatic leadership as a form of legitimate authority derived from ecclesiastic divinity. The sociologist Max Weber expanded the concept to include any authority that derives its legitimacy not from rules, positions, or traditions, but from a “devotion to the specific and exceptional sanctity, heroism, or exemplary character of an individual person, and on the normative patterns of order revealed or ordained by him” (Weber, 1968, p. 46). Weber proposed a theory of authority that included three types: traditional authority, legal-rational authority and charismatic authority. Traditional authority based on a system in which authority is legitimate because ‘it has always existed’. People in power usually enjoy it because they have inherited it. Legal-rational authority is based on a system of rules that are applied administratively and judicially in accordance with known principles. Charismatic authority is based on the charisma of the leaders, who shows that they possess the right to lead by virtue of magical powers, prophecies, heroism, etc. People who follow leaders respect them as a leader because of their unique characteristics (their charisma), not because of certain rules or traditions. The term ‘charisma’ often is used in political science and sociology to describe a subset of leadership who “by the force of their personal abilities are capable of having profound and extraordinary effects on followers” (House & Baetz, 1979, p. 399). Weber first integrated the concept of charisma in leadership (Weber, 1947), but it did not gain noteworthy attention in the organizational sciences until the work by Bass (1985), Burns (1978), and House (1977) drew attention to the construct.

Since the late 1980s, theories of transformational and charismatic leadership have been ascendant. Versions of charismatic leadership have been proposed by several theorists, including Bass (1985, 1996), Bennis and Nanus (1985), Burns (1978), Conger (1989), Conger and Kanungo (1987), House (1977), Shamir, House, and Arthur (1993), and Yukl (2013). Full-range leadership theory (FRLT; Avolio, 1999; Bass, 1985) presents leadership through three higher order factors: transformational leadership, developmental/transactional leadership, and corrective/avoidant leadership (Avolio, Bass, & Jung, 1999), which together comprise nine lower order factors (Antonakis, Avolio, & Sivasubramaniam, 2003). Transformational leadership encompasses four lower factors: idealized influence (attributed), referring to the degree to which the leader is perceived as being confident and powerful and focusing on higher order ideals, idealized influence (behavior) describing the leader's charismatic actions that convey a sense of values and mission; inspirational motivation; intellectual stimulation; and individual consideration. Developmental/transactional leadership consists of two components: individualized consideration and contingent reward leadership. Lastly, corrective/avoidant leadership encompasses three components: active management by exception, passive management by exception and laissez-faire leadership. Some authors suggest that people have beliefs, convictions, and assumptions about the attributes and behaviors that distinguish leaders from others, and effective leaders from ineffective ones (House, Hanges, Javidan, Dorfman, & Gupta, 2004; Lord & Maher, 1991).

In the light of these ideas, leadership research recognizes the importance of informal institutions. To understand the institutional grounding of leadership, Weber's ideas prove useful (Antonacopoulou, Bresnen, Burrell, Collinson, Corbett, Dale, & Swan, 2001). Although Weber did not use the term 'institution', his notion of cultural rules or systems is close to the present understanding of the concept of institution. The interpretive approach of Weber highlighted the idea that action is social because the actor attaches a subjective meaning. Therefore, the role of beliefs, perceptual variables, and cultural contexts provides a set of meanings required to interpret actions (Wolfgang, 2008). The emergence of leadership roles represents an additional stage of institutionalization (Smircich & Morgan, 1982). Most recent findings suggest small but significant relationships between informal institutions such as cognitive ability, values, attitudes, and leadership emergence and effectiveness (DeRue, Nahrgang, Wellmann, & Humphrey, 2011; Felfe & Schyns, 2014), and with organizational strategies (Koryak, Mole, Lockett, Hayton, Ucbasaran, & Hodgkinson, 2015).

### **1.3 A Broad View of Entrepreneurship**

Entrepreneurship has long been recognized as a leading driver of development in local, regional, and national economies (Schumpeter, 1934) and can equally be considered an important factor in the development of established firms increasingly beset by competition (Gupta et al., 2004). Shane and Venkataraman (2000) define the entrepreneur as one who discovers, evaluates, and exploits opportunities for creating goods and services. Gartner (1985) describes the phenomenon of new venture creation with a conceptual framework across four dimensions: characteristics of the individual(s) who starts the venture; the organization which they create; the environment surrounding the new venture; and the process by which the new venture is started.

Given the perceived importance of entrepreneurship, the business and academic communities have endeavored to produce a precise definition of what constitutes an entrepreneurial firm. Researchers have amassed a rich body of literature developing the construct of entrepreneurial orientation (EO). This construct has produced a set of widely accepted domains. Miller (1983) introduced a three-domain conceptualization that included new product-market innovation, the acceptance and engagement of risk-laden endeavors, and the penchant for proactive competitive action. Innovativeness refers to an organization's general support for the creation of and experimentation with new ideas (Covin & Slevin, 1991; Lumpkin & Dess, 1996). Drawing upon the classic notion of a lone entrepreneur, the risk-taking dimension of EO captures a firm's willingness to undertake actions that are strategically and financially uncertain (Covin & Slevin, 1991; Lyon, Lumpkin, & Dess, 2000); and proactiveness refers to the capacity to act in anticipation of future problems and market changes (Covin & Slevin, 1991; Lumpkin & Dess, 1996). These three domains were utilized and built upon by subsequent empirical and theoretical research (Rauch, Wiklund, Lumpkin, & Frese, 2009). Entrepreneurship is also documented as a multi-faceted phenomenon (Verheul, Wennekers, Audretsch, & Thurik, 2002) and is based on four approaches: psychological, economic, resource-based theory, and sociological or institutional.

Institutional theory has proved to be a popular theoretical foundation for exploring a wide variety of topics in different domains, ranging from institutional economics and political science to organization theory (DiMaggio & Powell, 1991). The application of institutional theory has proved to be especially helpful in entrepreneurial research (Bruton, Ahlstrom, & Li, 2010). Scholars are developing institutional approaches to explain various topics of entrepreneurship and SMEs (Aidis, 2005; Anderson, 2000; Busenitz, Gómez, & Spencer, 2000; Kalantaridis, 2007; Stephen, Urbano, & van Hemmen, 2009; Urbano, 2006; Veciana & Urbano, 2008, among others).

Institutional economics develops a very wide concept of ‘institution’. North (1990, p. 3) proposes that “institutions are the rules of the game in a society, or more formally, institutions are the constraints that shape human interaction”. Institutions can be either formal—such as political rules, economic rules, and contracts—or informal, such as codes of conduct, attitudes, values, norms of behavior, and conventions, or rather the culture of a determined society. Since the main function of institutions in a society is to reduce uncertainty by establishing a stable structure for human interaction, North (1990) attempts to explain how institutions and the institutional framework affect economic and social development. Institutional theory is traditionally concerned with how various groups and organizations better secure their positions and legitimacy by conforming to the rules and norms of the institutional environment (Meyer & Rowan, 1991; Scott, 2007).

Institutional forces are identified in multiple works from sociology (DiMaggio & Powell, 1983, 1991), organizational theory (Meyer & Rowan, 1991), and economics (North, 1990). These are collected and summarized by Scott (2001) in his well-known formulation of three categories of institutional forces. According to Scott (2001, p. 48), “Institutions are social structures that have gained a high degree of resilience”. Scott (2001) identified three different systems or ‘pillars’ that support social institutions, namely the regulatory, normative, and cognitive systems. Neo-institutionalists have focused on cognitive elements of institutions rather than readily accepting the notion that there is some objectively understood notion of institutions (Wicks, 2001). From this perspective, institutions function to “constitute the nature of reality and the frames through which meaning is made” (Scott, 1995, p. 40), forming part of social identity that defines what one ought to do in any given situation (Wicks, 2001).

Formal institutions are subordinate to informal ones in that they are deliberate means used to structure the interactions of a society in line with the cultural guidelines that constitute its informal institutions (Urbano, Toledano, & Ribeiro-Soriano, 2011). In this sense, “informal institutions come from socially transmitted information and are a part of the heritage that we call culture” (North, 1990, p. 37). In the context of entrepreneurship, it is suggested that informal institutions from North’s perspective (1990, 2005) are highly important.

#### **1.4 Intersection between Leadership and Entrepreneurship**

The fields of leadership and entrepreneurship have undergone similar development in many ways (Cogliser & Brigham, 2004; Ensley et al., 2006b). For example, several of the initial studies of leadership examined the individual attributes of leaders (Jenkins, 1947); similarly, much of the initial research in the field of entrepreneurship focused on identifying characteristics that differentiate entrepreneurs from

non-entrepreneurs (Carland, Hoy, Boulton, & Carland, 1984; McClelland, 1961). However, the existing research largely analyzes leadership and entrepreneurship separately. As mentioned above, few authors have studied the relationship between leadership and entrepreneurship (Ensley, Pearson, & Pearce, 2003; Ensley et al., 2006b; Fernald, Solomon, & Tarabishy, 2005; Koryak et al., 2015; Van Hemmen, Alvarez, Peris-Ortiz, & Urbano, 2015; Vecchio, 2003). In the Chief Executive Officer (CEO) leadership literature, CEO types are usually configured in terms of leadership characteristics rather than entrepreneurial orientation (Lumpkin & Dess, 1996). In only a very minor part of the CEO research literature do studies identify CEO behavior as entrepreneurial, although various studies identify the construct of entrepreneurial orientation (Dess, Ireland, Zahra, Floyd, Janney, & Lane, 2003; Hoskisson, Hitt, Johnson, & Grossman, 2002; Lumpkin & Dess, 1996). Ireland, Hitt, & Sirmon (2003) point out that advantage-seeking and strategic management behaviors are therefore necessary for wealth creation, yet neither is sufficient alone (Hitt & Ireland, 2000; McGrath & MacMillan, 2000). Thus, Shane and Venkataraman's (2000) opposition notwithstanding, the integration of knowledge about entrepreneurship and strategic management is important for advancing our understanding of how wealth is created in new ventures and established firms (Ireland et al., 2003).

It is in the light of these ideas that entrepreneurial leadership has relevance for both fields. The entrepreneurial leadership literature reflects a focus that is, in essence, a fusion of three concepts: entrepreneurship, entrepreneurial orientation, and entrepreneurial management (Gupta et al., 2004). Therefore, leadership is considered a core component of entrepreneurial processes (Czarniawska-Joerges & Wolff, 1991; Gupta et al., 2004; Vecchio, 2003). Along the same lines, McGrath and MacMillan (2000) recommend incorporating an 'entrepreneurial mind-set' as a core element of strategic management. Moreover, entrepreneurial leadership has much in common with transformational leadership in that the leader evokes superordinate performance by appeals to the higher needs of followers. The entrepreneurial leader's ability to evoke such a performance is founded in the context (Gupta et al., 2004). In this same vein, the importance of the sociocultural context to entrepreneurial leadership has been highlighted as providing opportunities or constraining the actions of individuals through institutional norms (e.g., Harrison, Leitch, & McAdam, 2015).

Even though 20 years have passed since commentators first advocated integrating the two domains of entrepreneurship and leadership (Gartner et al., 1992; Harrison & Leitch, 1994), entrepreneurial leadership as an emerging field remains theoretical, lacking definitional clarity and the appropriate tools to assess its characteristics and behaviors (Harrison et al., 2015; Renko, Tarabishy, Carsrud, &

Brännback, 2015). Consequently, a focus on the concept of entrepreneurial leadership is an important step in this direction.

### **1.5 Leadership and Entrepreneurship from a Sociocultural Perspective**

A number of recent studies suggest that sociocultural variables could greatly influence the leadership process (Ardichvili & Kuchinke, 2002; Brodbeck, Frese, Akerblom, Audia, Bakacsi, & Bendova, 2000; Elenkov, 2002; Elenkov & Manev, 2005; Trompenaars & Hampden-Turner, 2002). Different leadership prototypes would be expected to occur in societies that have different sociocultural profiles (Hofstede, 2001). The evaluation and meaning of leader behaviors and characteristics may also greatly vary in different sociocultural contexts (Jung & Avolio, 1999; Stephan & Pathak, 2016; Trompenaars & Hampden-Turner, 2002). Research has suggested that leadership factors should be consistent with the dominant sociocultural values in order to be effective. Supporters of this view argue firstly that people from different cultures may have different ideas and expectations about the nature of leaders and leadership; secondly, individuals are perceived as leaders to the extent to which their behaviors match the behavior expected of a prototypical leader; and thirdly, meeting followers' higher perceptions of leadership behavior is likely to result in higher leadership effectiveness (Thomas & Ravlin, 1995). In brief, the culture-specific leadership view posits that differences in the sociocultural context influence who is likely to be perceived as a leader and what leadership behavior is most likely to be effective.

Furthermore, as mentioned above, research has long pointed out the importance of sociocultural factors in the decision to create new businesses (Hofstede, 2001). Entrepreneurial variations are better understood by considering the social environment in which the firm is created because, in addition to economic activity, entrepreneurship is a social phenomenon (Shapero & Sokol, 1982; Steyaert, 2007). In this same vein, Drakopoulou Dodd, and Anderson (2007) argue that while the economic environment may explain some of the variation, any convincing explanation must take account of the social and cultural aspects of entrepreneurial activity. Therefore, sociocultural values are a major aspect of the entrepreneurial environment (Shapero & Sokol, 1982).

In general, researchers from various perspectives have recognized that societies have evolved into groups of people with distinguishable characteristics that set them apart from other groups of people (House et al., 2004; House, Javidan, Hanges, & Dorfman, 2002). Each of these distinct groups of people represents a different social culture. A social culture can be defined as a system of values, norms, attitudes, rituals, and elements of mental programming that are common to members of a social group (Hofstede, 2001; Schneider & Barsoux, 2003). Social cultures vary along identifiable dimensions that reflect value



orientations (e.g., Hofstede, 2001). Similarly, the norms for behavior in society differ from one culture to another.

However, culture is a highly complex phenomenon, including both deeply embedded values and manifestations that are more at the surface and consequently more observable (Hofstede, 1991). Values are the most deeply embedded manifestations. Hofstede (1980, p. 18) defines values as “a broad tendency to prefer certain states of affairs over others”. The culture can only be indirectly inferred from its manifestations: rituals, symbols, heroes, and values. Values are often studied through surveys in which individual people are interviewed about their preferences and opinions (Verheul, Wennekers, Audretsch, & Thurik, 2002). The most famous systematic attempt to measure cultural differences between nations was made by Hofstede (1980), who analyzed the empirical data of an exceptionally large survey of IBM subsidiaries in 40 countries in 1968 and 1972. A factor analysis of the mean scores per country regarding work-related values produced four dimensions of national culture: uncertainty avoidance, individualism, power distance, and masculinity. Later, Hofstede and his colleagues added two new dimensions to their cultural model: the long-term orientation and indulgence vs. restraint dimensions (Hofstede, 1991; Hofstede, Hofstede, & Minkov, 2010). Uncertainty avoidance represents a preference for certainty and discomfort with unstructured or ambiguous situations. Individualism signifies a preference for acting in the interest of one’s self and one’s immediate family, as distinct from the dimension of collectivism, which signifies acting in the interest of a larger group in exchange for their loyalty and support. Power distance represents an acceptance of inequality in position and authority among people. Masculinity is a belief in materialism and decisiveness rather than service and intuition. Long-term dimension describes how society sees its own past while dealing with the challenges of the present and future, and Indulgence vs. restraint dimension refers to the extent to which people try to control their desires and impulses. Using Hofstede’s (1980) concept of culture, researchers have in general hypothesized that entrepreneurship is facilitated by cultures that are high in individualism, low in uncertainty avoidance, low in power distance and high in masculinity (Hayton et al., 2002).

A further group of informal factors defined as perceptual variables have been shown to exercise universal influence on entrepreneurship. An increasing number of scholars agree that opportunity recognition, self-confidence, fear of failure, social capital, and independence are among the most important drivers of entrepreneurial behavior (Arenius & Minniti, 2005; Koellinger, Minniti, & Schade, 2007), as well as networking (Casson & Giusta, 2007; De Carolis, Litzky, & Eddleston, 2009; De Clercq, Danis, & Dakhli, 2010; Miller & Le Breton-Miller, 2016; Zhao, Frese, & Giardini, 2010). Among the perceptual variables, opportunity recognition represents the most distinctive and fundamental expression of entrepreneurial

behavior. Entrepreneurs are individuals who are more likely than others to be alert to the existence of profit opportunities (Venkataraman, 1997). Self-confidence plays a crucial role in the decision to start a business. An internal locus of control increases entrepreneurial alertness and leads to the creation of newer firms (Gartner, 1985). Since individuals are risk averse, the perceived (rather than objective) possibility of failure is an important component of an individual's decision to start a business. What matters is not the respondents' fear of failure, but rather the degree to which fear of failure affects the behavior of individuals. Landier (2004) concludes that the stigma associated with failure is an important determinant of entrepreneurial activity, conditioning not only the decision to become an entrepreneur, but also the character of the venture to be launched and the decision to terminate an entrepreneurial project. Networks are increasingly perceived as a key element of entrepreneurship (Stuart & Sorenson, 2007). Social skills developed by the physically and cognitively challenged may also be useful as a venture evolves to build and bridge networks of relationships that allow a business to grow (Miller & Le Breton-Miller, 2016). Independence is defined as a preference for decision-making control, to serve one's own objectives rather than follow another's orders, to choose one's own path to that objective and have confidence in one's own abilities, which allows independent decision making rather than frequent recourse to advisors (Douglas & Shepherd, 1999). Literature has also recognized the importance of creativity and innovation in leadership (Li, Zhao, & Begley, 2015) and entrepreneurship (Ireland et al., 2003). Recent empirical literature suggests, surprisingly, that a critical driver of entrepreneurship is resilience. Resilience comes in the form of serious life challenges rather than personal advantages and strengths, or favorable contexts (Miller & Le Breton-Miller, 2016). Along the same lines, leadership literature shows the importance of dealing with high stress tolerance to make better decisions and to provide confidence (Yukl, 2013).

In summary, although the institutional approach provides an overall theoretical framework for integrating and understanding the contributions of sociocultural factors in entrepreneurship research, there is still a long way to go in terms of research from this perspective. Also, leadership literature and strategic management research have recognized that the concurrent investigation of factors at environmental/institutional, organizational, and managerial levels is a critical prerequisite of understanding the innate nature of strategic choices and, by extension, leadership (Cannella & Monroe, 1997). However, the influence of social-cultural factors on the effects of leadership behaviors has rarely been explored and, when it has, there have been contradictory results (Elenkov, 1998; Schneider & Barsoux, 2003). Specifically in the organizational context, the components of charismatic and transformational leadership that are relevant for entrepreneurial leadership are those that enable the leader

to mobilize the capacity to meet the entrepreneurial challenge. Considerable evidence supports that leaders differ across cultures in their views of rules and procedures, deference to authority, levels of dependence and independence, use of objectivity versus intuition, willingness to compromise, and other interpersonal tactics. Even transformational and transactional tactics used by leaders may vary in their levels of success in differing cultures (Jung & Avolio, 1999; Walumbwa, Lawler, Avolio, Wang, & Shi, 2005). As mentioned above, research indicates that both leadership behaviors and entrepreneurial behaviors are affected by the sociocultural context (Elenkov, 2002).

With this as a reference, this investigation specifically suggests that sociocultural contexts are expressed as informal institutions, such as patterns or repetitions of common behaviors, and what institutional theorists refer to as practiced codes of conduct that structure societal interactions (Hatch & Cunliffe, 2006). In this sense, to qualify as an institution, constraints need to be persistent over time and show depth and durability (Williamson, 2009). Therefore, we rely on a previously established measure of culture and values (e.g., Hofstede, 1980; Schwartz, 2012) to proxy for informal institutions as they are persistent and do not change quickly. National culture as a form of informal institution is firmly established in the international business literature (Peng, Wang, & Jiang, 2008; Stephan & Uhlaner, 2010); furthermore, several authors have conceptualized institutions as macro-level variables (Bruton et al., 2010). In this thesis, we suggest that the institutional perspective could also be a micro-level variable impacting individual behavior (Wicks, 2001). Since leadership and entrepreneurship always occur in a cultural context, understanding informal institutions is critical to fostering entrepreneurial activity (Williams & McGuire, 2010). Whereas informal institutions within a society are not well understood, institutional reforms will have a limited overall impact on fostering entrepreneurial activity (Williams & Vorley, 2015).

## **1.6 Structure of the Study**

In the previous section, we reviewed the relationship between leadership and entrepreneurship from a sociocultural approach. This section gives a more detailed overview of the contents of this thesis, which is divided into two phases and five chapters (plus the introduction and conclusion), highlighting the objectives and methodology used. Complementing this introduction, the first phase is about theoretical issues and the second about empirical issues.

### ***Phase 1: Literature review.***

In this phase, specifically in the chapter 2, we explore the content and evolution of the research on sociocultural factors (informal institutions) that influence entrepreneurship and leadership, identifying the topics, units of analysis, statistical techniques, authors, and articles with the most impact. More specifically, the issues related to the study of the sociocultural factors that condition leadership and entrepreneurship will be explored. We conducted a rigorous search of published articles within the Social Sciences Citation Index (SSCI) in the Web of Science. This chapter also used correspondence analysis, an inductive statistical technique that is suitable for exploring relations among categorical variables (Clausen, 1998).

The chapter's main findings reveal that, of the 100 percent of the articles found according to the search criteria, the articles generated by journals of greater impact dealing with the relationship between entrepreneurship and sociocultural factors represents 44 percent, the relationship between leadership and sociocultural issues represents 15 percent, the relationship between leadership and entrepreneurship represent 39 percent and only three percent of the articles specifically handled the relationship between all three concepts. Based on the review and analysis of the earlier research, we propose the study of leadership and entrepreneurship through informal factors that affect both. The informal factors determined to be of primary importance to leadership and entrepreneurship are personality or individual identity, the cognitive dimension, needs and motives, beliefs and behavior, attitudes to task and performance, social characteristics, and cultural values.

### ***Phase 2: Analyzing informal institutions-leadership-entrepreneurship.***

In the second phase, we empirically analyze the informal institutions that influence entrepreneurial leadership. Furthermore, we study the informal institutions that affect leadership behavior (considering the international context and focusing on developing countries); finally, we analyze the leadership dimensions that influence entrepreneurship. In order to perform these analyses, multivariable analysis is applied. This methodology allows to determine the relative contributions of different causes to a single event or outcome. In this phase, several techniques analysis are performed, including descriptive techniques such as factor analysis and explanatory techniques such as regressions models and data panel analysis.

In Chapter 3, we empirically analyze the informal institutions that influence entrepreneurial leadership. Empirical research employs a model for binary response that estimates the probability of entrepreneurial leadership. Data are obtained from the World Values Survey (WVS). By using a sample of individuals

from 50 countries, it is statistically demonstrated through logistic regression analysis that informal institutions increase the probability of being an entrepreneurial leader. Institutions such as independence, risk taking, religious faith, and networking are related to entrepreneurial leadership. This study advances the literature by providing new information about contextual factors to predict entrepreneurial leadership. Moreover, we found an interaction between informal dimensions (the relationship between independence and entrepreneurial leadership is moderated by cognitive, and normative contexts such as networking and religious faith).

In Chapter 4, we empirically study, from an institutional perspective, the influence of informal institutions on leadership behavior, considering the international context. This study used longitudinal dataset in which the behavior of entities is observed across time. Data are obtained from the World Values Survey (WVS). By using a sample of individuals from 35 countries, it is statistically demonstrated through data panel models that informal institutions such as tolerance, social capital, creativity, and responsibility have a positive effect on leadership behavior, and other such power have a negative effect. The study shows that a favorable personal mindset has an influence on leadership.

In Chapter 5, we study, from an institutional perspective, the informal institutions that affect leadership behavior, focusing on developing countries. The empirical research employs factor analysis and logistic regression models using data obtained from INEGI, Mexico. Factor analysis is used to confirm the underlying structure among a set of leadership variables to validate some a priori hypothesized structure among the items (Nunnally & Bernstein, 1994), and the logistic regression model is executed given the binary nature of the dependent variable to analyze the effect of informal institutions on leadership behavior. The main findings highlight that transformational attitudes, social capital, and resilience are important informal institutions for the probability of exhibiting leadership behavior. It is found that there are differences between people living in rural and urban contexts. The main contributions of this study indicate that differences between leadership behaviors in Mexico are in part explained by the presence of informal institutions. This study is among the first to empirically examine the relationship between informal institutions and leadership in a Latin American country at an individual level.

In Chapter 6, we analyze the leadership dimensions that influence entrepreneurship, in particular the influence of cultural leadership dimensions (charismatic/value-based, team-oriented, participative, humane, autonomous, and self-protective) on the level of entrepreneurship (opportunity and necessity entrepreneurship). Empirical research employs a multiple regression model to estimate the relationship among leadership variables and entrepreneurship variable. Data are obtained from Global Leadership

and Organizational Behavior Effectiveness (GLOBE), and Global Entrepreneurship Monitor (GEM), using a sample over 34 countries. This study suggests that cultural leadership dimensions have a strong effect on entrepreneurship. Of all the dimensions of leadership, the charismatic dimension has the greatest effect on entrepreneurship, especially on opportunity entrepreneurship.

# **CHAPTER 2**

LEADERSHIP AND ENTREPRENEURSHIP RESEARCH FROM A SOCIOCULTURAL  
APPROACH: A LITERATURE REVIEW

## 2.1 Introduction

As mentioned above, leadership is a complex and dynamic phenomenon (Cogliser & Brigham, 2004; Day & Harrison, 2007). Researchers usually define leadership according to their individual perspectives and the aspects of the phenomenon of most interest to them. At its most general level, the vast literature on leadership focuses on the determinants of leadership effectiveness through influence (Bass & Bass, 2008; Kaiser, Hogan, & Craig, 2008). Leadership research emphasizes the relationships among three key factors: the leader, the followers, and the landscape (Gupta et al., 2004). As mentioned in chapter 1, the foundation of the development of leadership theories lies in the theory of social and economic organization (Weber, 1947), and most leadership theories and empirical research can be classified under five approaches: the trait approach, the behavior approach, the power-influence approach, the situational approach, and the integrative approach (Yukl, 2013). In this vein, social scientists have attempted to discover which traits, abilities, values, behaviors, sources of power, contexts, and situations determine how a leader is able to influence followers and accomplish objectives (Yukl, 2013). There are compelling reasons for considering the role of socio cultural factors in leadership (House et al., 2004). On the other hand, entrepreneurship is also a multidimensional concept (Verheul et al., 2002). Entrepreneurship is usually defined according to the focus of the research being undertaken. Hébert and Link (1989, p. 213) defined an entrepreneur as “someone who specializes in taking responsibility for and making judgmental decisions that affect the locations, form, and the use of goods, resources or institutions.” As discussed previously, entrepreneurship research is based on psychological, economic, resource-based theory, and a sociological or institutional approach, and the relationship between entrepreneurial activity and sociocultural factors has received increasing research attention (Castaño, Méndez, & Galindo, 2015a; Simón-Moya, Revuelto-Taboada, & Fernández, 2014; Urbano & Alvarez, 2014). Along these lines, the application of institutional theory (North, 1990) has proved to be helpful in entrepreneurial research (Bruton et al., 2010) and, above all, the role of informal institutions (Hopp & Stephan, 2012).

In summary, the disciplines of leadership and entrepreneurship have recognized the importance of sociocultural factors; however, the two disciplines have done it separately (Van Hemmen et al., 2013). As mentioned earlier, although for more than 20 years various authors have made a call to integrate research in these disciplines (Gartner et al., 1992; Harrison & Leitch, 1994), there are still very few authors that have analyzed this intersection. Moreover, some of these studies are theoretical or fragmented research (e.g., Galloway, Kapasi, & Sang, 2015; Huang, Ding, & Chen, 2014; Ireland et al., 2003) and very few provide a broad perspective (Gupta et al., 2004) that allows the integration of studies from a sociocultural perspective. In fact, systematic reviews focusing specifically on this topic are non-



existent. Therefore, both fields are missing this knowledge and the opportunity to progress together. This research will cover this gap by presenting one of the first reviews to our knowledge that addressed the intersection of leadership, entrepreneurship, and sociocultural factors. This investigation identified an opportunity to close the gap between these fields and take a step toward the integration of the leadership and entrepreneurship domains by using an institutional perspective. A review of relevant literature is an essential feature of any academic field to create a firm foundation for advancing knowledge. A systematic literature review deals with a mature topic where an accumulated body of research exists that needs synthesis and can also tackle any emerging issues that would benefit from exposure to potential theoretical foundations (Webster & Watson, 2002). To our knowledge, our specific topic of interest has not yet been addressed in a literature review.

Considering the importance of the sociocultural environment for leadership (Byrne & Bradley, 2007) and entrepreneurship (Aidis, Estrin, & Mickiewicz, 2008; Bruton et al., 2010), institutional theory offers a suitable theoretical framework for this chapter. Earlier we presented the principal theoretical approaches to the study of leadership and entrepreneurship.

The purpose of this chapter is to explore the content and evolution of research on the sociocultural factors (informal institutions) that influence entrepreneurship and leadership. In this chapter, we identify the topic of our study along with the techniques and conceptual frameworks used. As mentioned above, various studies have been conducted separately in the field of entrepreneurship and in the field of leadership; however, few studies have analyzed the relationship between these concepts in an institutional environment. In order to achieve this objective, our search focuses on the articles that explored this topic found in the Social Sciences Citation Index (SSCI) following a methodologic research. The systematic literature review analyses a total of 200 published papers in the top journals in the management, entrepreneurship, and leadership fields. As mentioned above, we detect an absence of literature reviews on the subject of our interest.

After this brief introduction, this study is structured as follows. Initially, the methodology used in this literature review is detailed. Next, the research on leadership and entrepreneurship from a sociocultural approach is presented. Finally, conclusions are presented.

## 2.2 Methodology

The methodology applied in this research was based on an exploratory analysis. Current literature, from 1995 to date, was consulted in order to comprehend the relationships among these three concepts. The papers included in the literature review were selected due to their inclusion in the SSCI Web of Knowledge. The SSCI is an interdisciplinary citation index, a product of Thomson Reuters Web of Knowledge, and is a platform for information in the sciences, social sciences, arts, and humanities. The search only applied to articles that address the relationship between leadership (L), entrepreneurship (E), and sociocultural factors (SC).

Firstly, a broad search was performed via the electronic search engine Web of Science employing the following keywords for article, title, or abstract: leader, leadership, entrepreneur, entrepreneurship, sociocultural, informal factors, informal institutions, and institutional economics. The intention of this chapter was not to conduct an exhaustive review of every article on entrepreneurship and leadership ever published, but rather to approach the principal topics of study, thereby rejecting those articles that merely cited the concept or those in which leadership and entrepreneurs were not the principal object of study. As mentioned before, only those articles that addressed the relationship between these topics were considered.

After that, the top ten main academic journals included in Journal Citation Reports (JCR) from the area of business and management were identified. The journals with the greatest impact factor according to the JCR 2015 in the business subject category are the following: *Academy of Management Review* (7.288); *Academy of Management Journal* (6.233); *Journal of Management* (6.051); *Administrative Science Quarterly* (5.316); *International Journal of Management Reviews* (4.854); *Journal of Business Venturing* (4.204); *Family Business Review* (4.147); *Journal of Management Studies* (4.131); *Academy of Management Perspective* (3.940); and *Journal of Marketing* (3.885). Then, the top journals in the index of the highest impact journals in the management subject category were specifically searched. These journals are: *Academy of Management Annals* (9.741); *Academy of Management Review* (7.288); *Academy of Management Journal* (6.233); *Journal of Management* (6.051); *MIS Quarterly* (5.384); *Administrative Science Quarterly* (5.316); *International Journal of Management Reviews* (4.854); *Journal of Information Technology* (4.775); *Organizational Research Methods* (4.727); and *Journal of Supply Chain Management* (4.571). Next, the journals in the index of highest impact journals on entrepreneurship and small business management in the business and management subject category were specifically searched. The following results were obtained: *Entrepreneurship: Theory and Practice*

(3.414); *International Small Business Journal* (2.215); *Journal of Small Business Management* (1.937); *Strategic Entrepreneurship Journal* (1.800); *Small Business Economics* (1.795); *Entrepreneurship and Regional Development* (1.629); *Journal of Family Business Strategy* (1.088); *International Entrepreneurship and Management Journal* (.659); and *Entrepreneurship Research Journal* (.515). The top ten journal according to the index of highest impact factor journals related to leadership, human resources, and organizational behavior were located in the management and business subject category. The following results were obtained: *Annual Review of Organizational Psychology and Organizational Behavior* (4.478); *Journal of Organizational Behavior* (2.986); *The Leadership Quarterly* (2.938); *Organizational Behavior and Human Decision Processes* (2.805); *Organizational Studies* (2.798); *Management and Organization Review* (2.731); *Human Relations* (2.619); *Human Resource Management Review* (2.236); *Human Resource Management Journal* (1.845); and *Organization* (1.777).

A total of 200 articles were classified, most of which were of an empirical nature (118 articles), the remainder being of a theoretical nature (See Appendix 1). An exploratory analysis of a descriptive nature was carried out in which the journals containing the articles were determined, along with the year of publication, countries that had participated or countries with which the authors were affiliated according to the referenced university, and the methodologies employed. This review contributes to the concept of intersection by showing the theoretical and empirical relationship between leadership and entrepreneurship from a sociocultural approach. Striking parallels can be seen in both the past development and future directions of both fields.

### **2.3 Research on Leadership and Entrepreneurship from a Sociocultural Approach**

The results obtained from the analysis of the specific journals on business, management, entrepreneurship, and leadership with a greater JCR 2015 impact factor addressing the relationship between leadership, entrepreneurship, and sociocultural factors are concentrated essentially in seven journals: *Entrepreneurship Theory and Practice* (11%), *Journal of Business Venturing* (10%), *International Entrepreneurship and Management Journal* (6%), *Journal of Business Research* (6%), *Journal of International Business Studies* (6%), *Journal of Management* (6%), and *Journal of Small Business Management* (6%). It should be noted that most articles address the relationship between entrepreneurship and sociocultural factors or informal factors/institutions or institution economics (44%), as well as articles addressing the relationship between leadership and entrepreneurship (39%); few articles study the relationship between leadership and sociocultural factors or informal factors/institutions (15%), and even fewer articles link the three concepts (3%). This gap points out the

need for more studies that address the interaction of these dimensions. Table 2.1 shows this information and Table 2.2 presents the articles and the authors that have researched the topics above.

To identify the impact of the most important articles studying the relationship between leadership and entrepreneurship and the relationship between leadership, entrepreneurship, and sociocultural factors, the total number of citations according to the SSCI was used. This review was updated on October 8, 2016. Table 2.3 presents the most cited authors by topic. It is important to note that after having been published for several years, the articles have a higher chance of being cited compared with more recently published articles.

For the study of leadership and sociocultural context, House and Aditya (1997) is the most cited research. This study reviews the history of the social scientific study of leadership and the prevailing theories of leadership that enjoy empirical support. This research identifies the contribution of traits, behaviors, contingency, and neocharismatic paradigms on prevailing theories. This authors point out that the culture in which leaders function has been largely ignored in leadership studies.

Where the relationship between entrepreneurship and sociocultural or informal factors is concerned, Davidsson and Honing (2003) have the highest number of citations. They examined the comparative importance of various contributions and factors—such as personal networks, business networks, and human capital—on the likelihood of successful entrepreneurship activity. Social capital variables were found to be very strong and consistent predictors. The findings from this study suggest that entrepreneurs would be well advised to develop and promote networks. Finally, for the study of leadership and entrepreneurship, Ireland et al. (2003) pointed out that an entrepreneurial mindset, an entrepreneurial culture, entrepreneurial leadership, the strategic management of resources, and the application of creativity to develop innovations are important dimensions of strategic entrepreneurship

Table 2.1. Journals and published articles concerning the relationship between entrepreneurship leadership and sociocultural factors.

Journal	L-SC	E-SC	L-E	L-E-SC	Total	%
Academy of Management Journal	2	2	4		8	4%
Academy of Management Perspectives			1		1	1%
Administrative Science Quarterly		2	1		3	2%
British Journal of Management			1		1	1%
Business Horizons			1		1	1%
Creativity and Innovation Management			1		1	1%
Cybernetics and Systems:			1		1	1%
Entrepreneurship and Regional Development		9	1		10	5%
Entrepreneurship Management			1		1	1%
Entrepreneurship Theory and Practice		19	2		21	11%
European Journal of Social Psychology			1		1	1%
Family Business Review		2	1		3	2%
Human Relations			1		1	1%
Human Resource Management			1		1	1%
Human Resource Management Review			2		2	1%
International Business Review		1			1	1%
International Entrepreneurship and Management Journal		5	6		11	6%
International Journal of Management Reviews			2		2	1%
International Small Business Journal		4	2		6	3%
Journal of Applied Psychology		1	1		2	1%
Journal of Business Ethics			1		1	1%
Journal of Business Research	4	2	3	2	11	6%
Journal of Business Venturing	2	12	6		20	10%
Journal of International Business Studies	6	5		1	12	6%
Journal of Leadership and Organizational Studies			4		4	2%
Journal of Management	2	6	3		11	6%
Journal of Management Studies	1		7		8	4%
Journal of Organizational Behavior	1		1		2	1%
Journal of Product Innovation Management			1		1	1%
Journal of Small Business Management		2	7	2	11	6%
Journal of the Academy of Marketing Science	1				1	1%
Journal of Vocational Behavior			1		1	1%
Journal of World Business	7	1			8	4%
Leadership			2		2	1%
Management Decision			1		1	1%
Organization Science		2			2	1%
Personality and Individual Differences			1		1	1%
Public Administration			1		1	1%
Regional Studies		1			1	1%
Small Business Economics		9			9	5%
Social Behavior and Personality			1		1	1%
South African Journal of Education			1		1	1%
Strategic Management Journal	1	2	1		4	2%
The Leadership Quarterly	3	1	4		8	4%
<b>Total</b>	<b>30</b>	<b>88</b>	<b>77</b>	<b>5</b>	<b>200</b>	<b>100%</b>
	<b>15%</b>	<b>44%</b>	<b>39%</b>	<b>3%</b>	<b>100%</b>	

Table 2.2. Most cited articles.

L-SC		E-SC		L-E	
Author	#Citations	Author	#Citations	Author	#Citations
House and Aditya (1997)	483	Davidsson and Honig (2003)	826	Ireland et al. (2003)	335
Den Hartog et al. (1999)	301	Lounsbury and Glynn (2001)	417	Jung et al. (2003)	270
House et al. (2002)	281	Baum and Locke (2004)	295	Barringer and Bluedorn (1999)	196
Javidan et al (2006)	195	Busenitz et al (2000)	264	Hornsby et al. (2002)	160
Egri and Herman (2000)	194	Arenius and Minniti (2005)	202	Baum et al. (1998)	139
Waldman et al. (2006)	137	Santos and Eisenhardt (2009)	191	Ling et al. (2008)	119
Elenkov et al. (2005)	103	Thomas and Mueller (2000)	183	Venkataraman (2004)	110
Elenkov and Manev (2005)	83	Mueller and Thomas (2001)	152	Gupta et al. (2004)	89
Spreitzer et al. (2005)	81	Steyaert and Katz (2004)	152	Ensley et al. (2006b)	67
Pellegrini and Scandura (2006)	73	Lee and Peterson (2000)	141	Cogliser and Brigham (2004)	52

A more recent approach that has emerged to study the intersection of leadership and entrepreneurship was identified: entrepreneurial leadership (Galloway et al., 2015; Gupta et al., 2004; Ireland et al., 2003; Huang et al., 2014; Leitch et al., 2013, among others). The concept of entrepreneurial leadership involves fusing the concepts of entrepreneurship (Schumpeter, 1934), entrepreneurial orientation (Covin & Slevin, 1988), and entrepreneurial management (Stevenson, 1983) with leadership.

Table 2.3 shows the publications founded under the criteria of this review. For the relationship between E-SC, the authors with the highest number of publications are De Clerk, Busenitz, and Urbano. On the other hand, Ensley is the author who has published most on the L-SC relationship and on the relationship between leadership and entrepreneurship. Finally, very few authors have related these three concepts in their studies. Autio, Pathak, and Wennberg (2013) found that societal institutional collectivism practices are related to entrepreneurship and leaders. García-Granero, Llopis, Fernandez-Mesa, and Alegre (2015) call attention from a managerial perspective to the notion that entrepreneurial orientation and leadership theories have been used to explain the positive relationship between managers' risk-taking and innovation. McGowan, Cooper, Durkin, and O'Kane (2015) explore the influence of social and human capital on defining the prospects of women business owners as emerging entrepreneurial leaders. In the same vein, Wei and Ling (2015) reflect the importance of human and relational capital for entrepreneurship in corporate leaders.

As mentioned earlier, this research is interested in knowing the theoretical approaches that have studied the relationship between E-SC, L-SC, and L-E-SC. Regarding the theoretical framework, the most used approaches in this literature review for the study of leadership and sociocultural factors were culturally endorsed implicit leadership theories (CLTs, ILT) and transformational leadership theory. On the other

hand, an institutional approach to studying the sociocultural factors affecting entrepreneurship was identified (See Appendix 2). Finally, as can be seen, there is no clarity in the theoretical framework used for the articles that relate leadership, entrepreneurship, and sociocultural factors.

As mentioned above, considering that research indicates that both leadership behaviors and entrepreneurial behaviors are affected by the sociocultural context (Elenkov, 2002), we believe that the approach of institutional theory can contribute to a better understanding of the integration of leadership and entrepreneurship (See Appendix 3). The sociocultural environment in broad terms consists of all elements, conditions, and influences which shape the personality of an individual and potentially affect his attitude, disposition, behavior, decisions, and activities such as leadership and entrepreneurship. This elements includes beliefs, values, attitudes, habits, forms of behavior, and lifestyles of persons as developed from cultural, religious, educational, and social conditioning (Adeleke, Oyenuga, & Ogundele, 2003). Considering that these elements could be learned to strengthen leadership and entrepreneurship, the institutional approach could be very relevant, in a more integrated way, to advancement in both fields.

The interest of the academic community in leadership and entrepreneurship from a sociocultural perspective is reflected in the number of articles published in the last 20 years. In Figure 2.1, it is noteworthy to observe that our subject has attracted more attention from researchers in recent years, highlighting the increase in empirical articles in particular.

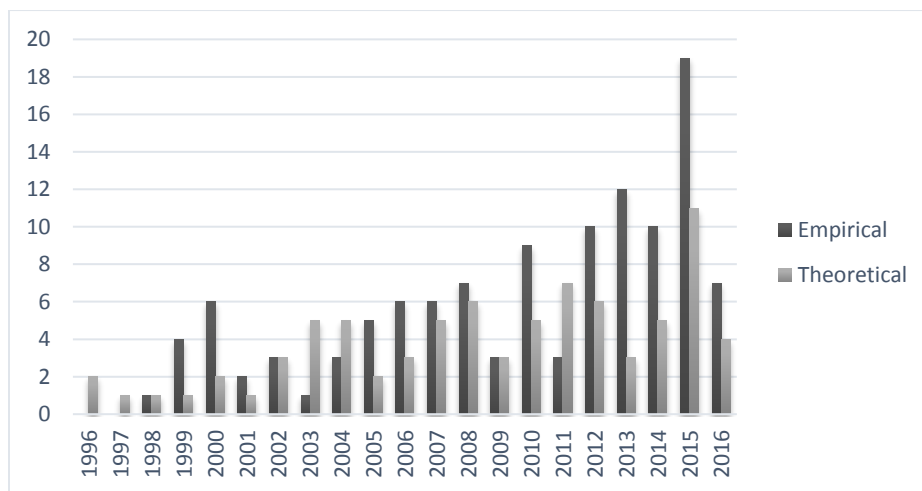


Figure 2.1. Evolution of published articles per year.

Table 2.3. Topic of the analysis articles.

Topic	Articles	Total	
		No	%
Leadership-Sociocultural	Agarwal et al (1999), Byrne and Bradley (2007), Castaño et al (2015b), Chen and Tjosvold (2006), Chen et al (2016a), Den Hartog et al (1999), Dickson et al (2012), Dorfman et al (2012), Egri and Herman (2000), Elenkov and Manev (2005), Elenkov et al (2005), Friedrich et al (2009), Hofstede (2010), House and Aditya (1997), House et al (2002), Howell et al (2007), Javidan et al (2006), Jung and Avolio (1999), Kabasakal et al (2012), Li et al (2015), Muethel et al (2011), Pellegrini and Scandura (2006), Shao and Webber (2006), Singh et al (2015), Spreitzer et al (2005), Stephan and Pathak (2016), Waldman et al (2006), Wallman (2009), Wang et al (2012), Yucel et al (2014).	30	15%
Entrepreneurship-Sociocultural	Aidis et al (2008), Álvarez et al (2014), Arenius and Minniti (2005), Audretsch et al (2013), Baron and Tang (2009), Baum and Locke (2004), Begley and Tan (2001), Berson et al (2006), Bowen and De Clercq (2008), Busenitz and Lau (1996), Busenitz et al (2000), Bygrave and Minniti (2000), Casson and Giusta (2007), Castaño et al (2015a), Chell and Baines (2000), Companys and McMullen (2007), Davidsson and Honing (2003), De Clercq et al (2014b), De Clercq et al (2010), De Clercq et al (2013), Dewald and Bowen (2010), Díaz-Casero et al (2012), Dickson and Weaver (2008), Edelman and Yli-Renko (2010), Estrin et al (2013), Estrin et al (2016) Frederking (2004), García and García (2008), Gemmel et al (2012), Hafer and Jones (2015), Hayton et al (2002), Hechavarría and Reynolds (2009), Hjorth (2008), Honig and Karlsson (2004), Hopp and Stephan (2012), Jennings et al (2013), Kalantaridis and Fletcher (2012), Knörr et al (2013), Koiranen (2003), Kreiser et al (2010), Kuratko et al (2005), Lafuente et al (2007), Laspita et al (2012), Lee and Peterson (2000), Levie and Autio (2008), Lim et al (2010), Liñan et al (2011), Lounsbury and Glynn (2001), Manolova et al (2008), Meek et al (2010), Miller and Le Breton-Miller (2016), Morris and Schindehutte (2005), Mueller and Thomas (2001), Nicholls-Nixon et al (2011), Pacheco et al (2010), Pistrui et al (2000), Sahut and Peris-Ortiz (2014), Santos and Eisenhardt (2009), Shane (1997), Simón-Moya et al (2014), Siu and Lo (2011), Smallbone and Welter (2012), Stephan and Uhlaner (2010), Stephan et al (2015), Steyaert and Katz (2004), Su et al (2016), Szerb et al (2007), Tan (2002), Terjesen et al (2016), Thai and Turkina (2014), Thébaud (2015) Thomas and Mueller (2000), Thornton et al (2011), Tolbert et al (2011), Tonoyan et al (2010), Tracey et al (2011), Urbano and Álvarez (2014), Urbano et al (2011), Vaillant and Lafuente (2007), Valdez and Richardson (2013), Veciana and Urbano (2008), Walter and Block (2016), Weber (2012) Welter and Smallbone (2011), Williams and Vorley (2015), Yong and Zahra (2012), York and Venkataraman (2010), York and Lenox (2014).	88	44%
Leadership-Entrepreneurship	Abdelgawad et al (2013), Bamiatzi et al (2015), Barringer and Bluedorn (1999), Batjargal et al (2013), Baum et al (1998), Breugst et al (2012), Bullough and De Luque (2015), Bullough et al (2015) Chakravarthy and Gargiulo (1998), Chan et al (2012), Chan et al (2015), Chang and Chen (2015), Chen and Nadkarni (2016), Chen et al (2014), Chen et al (2015), Cogliser and Brigham (2004), Cope et al (2011), Currie et al (2008), D'Intino et al (2007), Dencker et al (2009), Dess et al (1999), DiPietro et al (2008), Eggers and Song (2015), Engelen et al (2015), Ensley et al (2000), Ensley et al (2003), Ensley et al (2006b), Felício et al (2013), Friedman et al (2016), Fuller-Love (2006), Galloway et al (2015), Gupta et al (2004), Harrison et al (2015), Harvey et al (2002), Haynes et al (2015), Henry et al (2015), Hmieleski and Ensley (2007), Hmieleski et al (2012), Hornsby et al (2002), Huang et al (2014), Hung (2004), Ireland et al (2003), Jung et al (2003), Kang et al (2015), Koryak et al (2015), Kuratko (2007), Lee and Tan (2001), Leitch et al (2013), Lewis (2015), Li et al (2013), Ling et al (2008), McEnany and Strutton (2015), Murnieks et al (2016), Nissan et al (2012), Pihie et al (2014), Renko et al (2015), Ribeiro and Comeche (2007), Rodríguez et al (2010), Ruvio et al (2010), Sarros et al (2008), Simsek et al (2015), Steffens et al (2013), Steffens et al (2014), Strubler and Redekop (2010), Surie and Ashley (2008), Van Assche (2005), van Hemmen et al (2015), Vecchio (2003), Venkataraman (2004), Verheul et al (2002), Wales et al (2013), Welbourne (2006), Wennberg et al (2013), Wu et al (2008), Yan et al (2014), Zhou (2016), Zhou et al (2015).	77	39%
Leadership-Entrepreneurship-Sociocultural	Autio et al (2013), García-Granero et al (2015), McGowan et al (2015), Wei and Ling (2015), Yousafzai et al (2015).	5	2%
<b>Total</b>		<b>200</b>	<b>100%</b>



The level of analysis of the research articles was established at three levels: micro (referring to individuals), meso (referring to regions), and macro (referring to countries). We found that most of the investigations conducted were at the micro level (41%) and macro level (40%), with others at the meso level (12%) and multilevel (7%). Even though it is interesting to note growing interest in multilevel studies recently, there is a need for more integrative multilevel modelling to address the issue of unobserved heterogeneity with the context of a cross-country, cross-organization, and cross-individual research (See Appendix 4). Although multilevel studies are necessarily complex, they may illuminate the steps that organizational actors take, individually and collectively, to yield organizational benefits (Klein, Tosi, & Cannella, 1999). In this regard, statistical issues associated with multilevel data are becoming increasingly important to leadership studies (e.g., Dyer, Hanges, & Hall, 2005; Markham, Yammarino, Murry, & Palanski, 2010) and entrepreneurial research (e.g., Davidsson & Wiklund, 2001). In this study, the techniques of analysis applied are shown in Figure 2.2. Multiple lineal regressions and logistic regression models were employed by half of the practical articles (See also Appendix 5).

In order to locate the principal countries that have conducted research on this subject, the articles were classified according to the countries participating in the research. The countries in which the main research activity was carried out are the United States (6%), China (3%), the United Kingdom (3%), Germany (3%), and Spain (3%) (See Appendix 6).

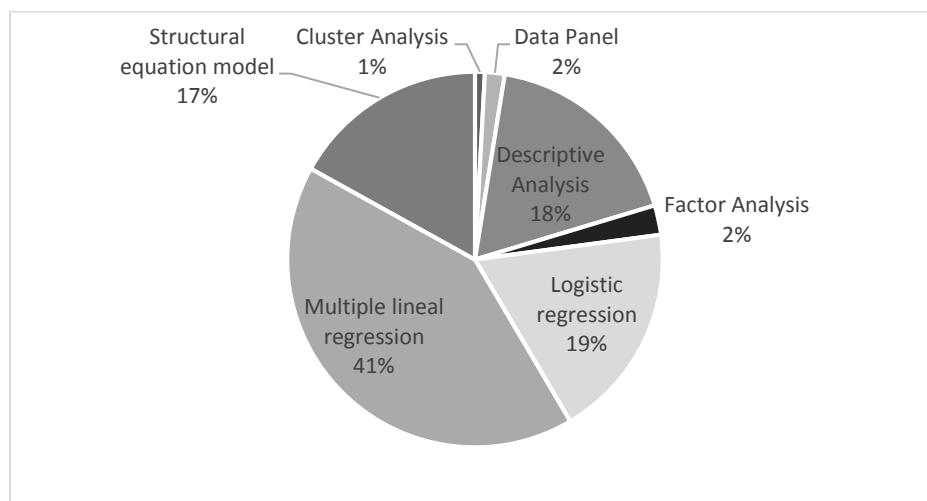


Fig. 2.2. Main statistic technique.

This study shows that although much of the research has been conducted in a large number of countries (104 countries), most of them are cross-sectional studies. There are very few international and longitudinal studies, highlighting the Global Leadership and Organizational Behavior Effectiveness (GLOBE), World Values Survey (WVS), and Global Entrepreneurship Monitor (GEM). We also found very few studies in developed countries, especially in Latin America.

As mentioned above, the review of 200 journals allowed to identify sociocultural and informal factors and informal institutions that have been addressed in literature directly and indirectly (proxies variables). Table 2.4 shows the associations (positive, negative, and significant) found in this empirical literature for those articles related to L-SC. The most important and frequent sociocultural factors found in this literature review reference Hofstede (1980) related to uncertainty avoidance, power distance, masculinity, individualism, and long-term orientation. With regard to group collectivism and institutional collectivism, mainly the factors proposed by House et al. (2004) are highlighted.

Furthermore, it is found that the leadership dimensions that have been studied during the period designated for this review are charismatic leadership, transformational leadership, and participative leadership. It is also found that some leadership behaviors are universally effective, such as charismatic leadership; others are much more culturally sensitive, such as participative leadership (Dorfman, Javidan, Hanges, Dastmalchian, & House, 2012); this study also shows that self-identity is positively associated with transformational leadership behavior in the North American context but is not evident in other environments (Shao & Webber, 2006). Leadership research should advance by means of a continued focus on how leadership behaviors operate in widely different cultures and through identifying optimal leadership profiles specific to particular cultures (Brodbeck et al., 2000). This review identifies that the leadership literature has mainly studied the effects of informal factors on leadership styles, leaders' organization type, and leaders' efficiency.

Table 2.4. Sociocultural factors related to leadership.

Sociocultural factors related to Leadership	Articles	Findings	Impact of sociocultural value on Leadership
Achievement motivations	Egri and Herman (2000)	+	Leader's organization type/ Leader's age/ Leader's gender
	Dorfman et al. (2012)	+	Humane orientation
Assertiveness	Dorfman et al. (2012)	-	Participative
	Kabasakal et al. (2012)	* -	Status conscious
	Kabasakal et al. (2012)	-	Conflict induced leadership attribute
Competitive	Chen and Tjosvold (2006)	-	LMX/ Supervisor-subordinate guanxi
	Egri and Herman (2000)	+	Leader's organization type/ Leader's age/ Leader's gender
Conservatism	Byrne and Bradley (2007)	+	Leader's efficiency
Cooperative	Chen and Tjosvold (2006)	*+	LMX/ Supervisor-subordinate guanxi
Creativity/Innovation	Li et al. (2015)	+	Transformational leadership
Emotional maturity	Egri and Herman (2000)	*+	Leader's type
	Egri and Herman (2000)	+	Leader's organizational type/Leader's gender
	Dorfman et al. (2012)	+	Charismatic /humane /team- leadership
Future orientation	Kabasakal et al. (2012)	-	Participative leadership
	Kabasakal et al. (2012)	*-	Self sacrifice leadership attribute
	Kabasakal et al. (2012)	* -	Integrity leadership attribute
	Kabasakal et al. (2012)	* -	Inspirational leadership attribute
Gender egalitarianism	Dorfman et al. (2012)	+	Charismatic leadership/ Participative leadership
	Dorfman et al. (2012)	-	Self protective leadership
	Kabasakal et al. (2012)	* -	Malevolent leadership attribute
	Kabasakal et al. (2012)	* +	Visionary leadership attribute
Hedonism	Egri and Herman (2000)	*+	Leader's age
	Egri and Herman (2000)	+	Leader's organization type/Leader's gender
Humane orientation	Dorfman et al. (2012)	+	Charismatic /humane /team- leadership
	Dorfman et al. (2012)	-	Autonomous Leadership
In group collectivism	Dorfman et al. (2012)	+	Charismatic leadership/Team oriented
	Dorfman et al. (2012)	-	Self protective leadership
Independence	Chen and Tjosvold (2006)	*-	LMX/Supervisor-subordinate guanxi
	Elenkov and Manev (2005)	-	Corrective-avoidant leadership
Individualism	Elenkov and Manev (2005)	*+	Transactional leadership
	Elenkov and Manev (2005)	*+	Transformational leadership
	Dorfman et al. (2012)	-	Autonomous leadership
Institutional collectivism	Kabasakal et al. (2012)	* +	Conflict induced leadership attribute
	Kabasakal et al. (2012)	* -	Participative
Masculinity	Egri and Herman (2000)	*+	Leader's organization type
	Egri and Herman (2000)	+	Leader's age/Leader's gender
	Elenkov and Manev (2005)	-	Corrective-avoidant leadership
	Elenkov and Manev (2005)	*-	Transactional leadership
	Elenkov and Manev (2005)	-	Transformational leadership
Openness to change	Byrne and Bradley (2007)	+	Leader's efficiency
	Egri and Herman (2000)	*+	Leader's organization type
	Egri and Herman (2000)	+	Leader's age/Leader's gender
Performance orientation	Dorfman et al. (2012)	+	Charismatic /humane/team-leadership
	Dorfman et al. (2012)	-	Self protective leadership
	Kabasakal et al. (2012)	* +	Face saver leadership attribute
	Kabasakal et al. (2012)	* +	Humane leadership attribute
Power	Egri and Herman (2000)	*+	Leader's organization type
	Egri and Herman (2000)	+	Leader's age/ Leader's gender
	Dorfman et al. (2012)	+	Self protective leadership
	Dorfman et al. (2012)	-	Charismatic leadership/Participative leadership
Power distance	Elenkov and Manev (2005)	* +	Corrective-avoidant leadership
	Elenkov and Manev (2005)	* +	Transactional Leadership
	Elenkov and Manev (2005)	* +	Transformational leadership
	Kabasakal et al. (2012)	* +	Participative leadership

Sociocultural factors related to Leadership	Articles	Findings	Impact of sociocultural value on Leadership
Prosocial values	Kabasakal et al. (2012)	* +	Participative leadership attribute
	Kabasakal et al. (2012)	+	Malevolent leadership attribute
Self- enhancement	Muethel et al. (2011)	*+	Transformational leadership
	Byrne and Bradley (2007)	+	Leader´s efficiency
Self transcendence	Byrne and Bradley (2007)	+	Leader´s efficiency
	Egri and Herman (2000)	*+	Leader´s organization type
Stimulation	Egri and Herman (2000)	+	Leader´s age/Leader´s gender
	Egri and Herman (2000)	*+	Leader´s age
Tradition	Egri and Herman (2000)	+	Leader´s organization type/ Leader´s age/ Leader´s gender
	Spreitzer et al. (2005)	*+	Leader´s effectiveness
Uncertainty avoidance	Dorfman et al. (2012)	* +	Humane orientation leadership/ Team oriented leadership
	Dorfman et al. (2012)	* -	Participative
	Elenkov and Manev (2005)	* +	Corrective-avoidant leadership
	Elenkov and Manev (2005)	* +	Transactional leadership
	Elenkov and Manev (2005)	*-	Transformational leadership
Universalism	Kabasakal et al. (2012)	* +	Conflict induced leadership attribute
	Egri and Herman (2000)	*+	Leader´s organization type
	Egri and Herman (2000)	+	Leader´s age/ Leader´s gender
	Egri and Herman (2000)	+	Leader´s organization type/Leader´s gender

\*+ positive significant finding. \*- negative significant finding. + positive finding. -negative finding.

Table 2.4. Self-devised.

As discussed previously, the environment has also played an important structural role in entrepreneurial development (Luthans, Stajkovic, & Ibrayeva, 2000). Identifying the nature of the relationship between culture and entrepreneurship can provide information for targeted programs intended to motivate new venture creation, but motivational differences across cultures can be striking (Thomas & Mueller, 2000). Table 2.5 shows the associations (positive, significant, negative) related to E-SC in the empirical literature. As we can see, the most studied factors are Hofstede's (1980) cultural values and other variables such as human capital, social capital, and perceptual values. Concerning human capital, Estrin, Mickiewicz, and Stephan (2016) recently pointed out the importance of this variable in relation to entrepreneurship. Specifically, entrepreneurial human capital is relatively more important in commercial entrepreneurship, and general human capital in social entrepreneurship. Regarding social capital, the importance of this informal institution for entrepreneurship is evident (e.g., Estrin, Mickiewicz, & Stephan, 2013). In this vein, social capital is typically referred to as the ability to access resources through social relationships (e.g., Payne, Moore, Griffis, & Autry, 2011). Two types of social capital are commonly differentiated. Firstly, bonding/strong-tie social capital refers to cohesion within small groups. Secondly, bridging/weak-tie social capital enables contact and collaboration among members of diverse and previously unconnected groups. Perceptual variables such as creativity, role model, risk taking, and opportunity are also frequently associated with entrepreneurship. Moreover, the normative and cognitive dimensions collected and summarized by Scott (2001). On the other hand, the entrepreneurial dimensions

most identified in this review were entrepreneurial orientation, entrepreneurial activity, entrepreneurial motivation, and entrepreneurial behavior. This review supports that a positive and significant correlation exists between human capital, self-confidence, opportunity perception, social capital, role models, risk taking, and entrepreneurship in almost all the cases.

Table 2.5. Sociocultural factors related to entrepreneurship.

Sociocultural factors related to Entrepreneurship	Articles	Findings	Impact of sociocultural value on Entrepreneurship
Authority	Hechavarria and Reynolds (2009)	*-	Opportunity entrepreneurship
	Hechavarria and Reynolds (2009)	*-	Necessity entrepreneurship
Collectivism	Yong and Zahra (2012)	*-	Country level venture capital activity
Conformity norms	Meek et al. (2010)	-	Entrepreneurial action
Conservatism	De Clercq et al. (2013)	*+	New business activity
Corruption	Castaño et al. (2015a)	*-	Entrepreneurial activity
	Begley and Tan (2001)	*-	Feasibility for entrepreneurship
	Begley and Tan (2001)	*-	Desire for entrepreneurship
Creativity/Innovation	Knörr et al. (2013)	*+	Entrepreneur
	Thomas and Mueller (2000)	*+	Entrepreneurial motivation
	Honig and Karlsson (2004)	+	Survival
Family interdependence	Meek et al. (2010)	*+	Entrepreneurial action
	Arenius and Minniti (2005)	*-	Nascent entrepreneur
Fair of failure	Estrin et al. (2016)	*+	Social start-up
	Szerb et al. (2007)	*-	Business owners
Hierarchy	Vaillant and Lafuente (2007)	*-	Entrepreneurial activity
	De Clercq et al. (2013)	*+	New business activity
	Szerb et al. (2007)	*+	Business owners
	Bowen and De Clercq (2008)	*+	High-growth entrepreneurship
	Castaño et al. (2015a)	*+	Entrepreneurial activity
Human capital/start up experience/Schooling	Davidsson and Honig (2003)	*+	Nascent entrepreneurs
	Siu and Lo (2011)	*+	Entrepreneurial self-efficacy
	Simón-Moya et al. (2014)	*+	Innovation
	Siu and Lo (2011)	*+	Entrepreneurial self-efficacy
	Szerb et al. (2007)	*+	Business owners
In group collectivism	Laspita et al. (2012)	*+	Entrepreneurial intention
	Knörr et al. (2013)	*+	Entrepreneur
Independence	Pistruì et al. (2000)	*+	Entrepreneurial orientation
	García-Cabrera and García-Soto (2008)	*+	Entrepreneurial behaviour
Individualism	Kreiser et al. (2010)	*-	Proactiveness
	Mueller and Thomas (2001)	*+	Entrepreneurial orientation (Innovativeness and Internal Locus Of Control)
	Simón-Moya et al. (2014)	*-	Entrepreneurial behaviour
Institutional collectivism	Dickson and Weaver (2008)	*-	Entrepreneurial Orientation
Locus of control	García-Cabrera and García-Soto (2008)	*+	Entrepreneurial behaviour
Masculinity	García-Cabrera and García-Soto (2008)	-	Entrepreneurial behaviour
Motivation	Hopp and Stephan (2012)		Performance of nascent entrepreneurs
	De Clercq et al. (2010)	*+	New business activity
Normative approach	Valdez and Richardson (2013)	*+	Opportunity-motivated /necessity motivated entrepreneurial activity
	Szerb et al. (2007)	*+	Business owners
Opportunity perception	Arenius and Minniti (2005)	*+	Nascent entrepreneur
	Baum and Locke (2004)	+	Venture growth
Passion	Baum and Locke (2004)	+	Venture growth

Sociocultural factors related to Entrepreneurship	Articles	Findings	Impact of sociocultural value on Entrepreneurship
Perceived confidence in one's skills	Arenius and Minniti (2005)	*+	Nascent entrepreneur
	Valdez and Richardson (2013)	*+	Opportunity-motivated /necessity motivated entrepreneurial activity
Performance-based culture (PBC)	Stephan and Uhlaner (2010)	*-	New business owner rate
	Thai and Turkina (2014)	*+	Formal entrepreneurship
Power distance	Kreiser et al. (2010)	*-	Risk taking
	Simón-Moya et al. (2014)	*+	Entrepreneurial activity
Religion faith	Audretsch et al. (2013)	*-	Self-employed
Risk-taking	Knörr et al. (2013)	*-	Entrepreneur
Role models	Aidis et al. (2008)	*+	Entrepreneurial activity
	Arenius and Minniti (2005)	*+	Nascent entrepreneur
Security	Estrin et al. (2013)	*+	Commercial start up/Social start up
	Honig and Karlsson (2004)	*+	Survival/Profit
	Lafuente et al. (2007)	*+	Entrepreneurial activity
	Laspita et al. (2012)	*+	Entrepreneurial intention
	Szerb et al. (2007)	*+	Business owners
	Vaillant and Lafuente (2007)	+	Entrepreneurial activity
	Pistrui et al. (2000)	*+	Entrepreneurial orientation
	Baum and Locke (2004)	*+	Venture growth
	Hopp and Stephan (2012)	*+	Performance of nascent entrepreneurs
	Vaillant and Lafuente (2007)	*+	Entrepreneurial activity
Shame of failure	Begley and Tan (2001)	*-	Feasibility for entrepreneurship
	Begley and Tan (2001)	-	Desire for entrepreneurship
	Davidsson and Honig (2003)	*+	Nascent entrepreneurs
Social capital/Networking	De Clercq et al. (2010)	*+	New business activity
	Estrin et al. (2013)	*+	Commercial start up/ social start up
	Honig and Karlsson (2004)	*+	Survival and profit
Social Norms perceived	Siu and Lo (2011)	*+	Entrepreneurial intention
	Pistrui et al. (2000)	*+	Entrepreneurial orientation
Social recognition	Valdez and Richardson (2013)	*+	Opportunity-motivated /necessity motivated entrepreneurial activity
	Hopp and Stephan (2012)	*+	Startup motivation.
Socially supportive culture (SSC)	Stephan and Uhlaner (2010)	*+	New business owner rate/ Innovative new business owner rate
	Stephan et al. (2015)	*+	Individual engagement in social entrepreneurship
	Thai and Turkina (2014)	*+	Informal entrepreneurship
	Baum and Locke (2004)	+	Venture growth
	Bowen and De Clercq (2008)	*-	High-growth entrepreneurship
Tenacity	Dickson and Weaver (2008)	*-	Entrepreneurial orientation
	Kreiser et al. (2010)	*-	Risk taking
	Kreiser et al. (2010)	*-	Proactiveness
	Yong and Zahra (2012)	*-	Country level venture capital activity
	Mueller and Thomas (2001)	*-	Entrepreneurial orientation (Innovativeness and Internal Locus Of Control)
Vision	Simón-Moya et al. (2014)	*+	Entrepreneurial activity
	Baum and Locke (2004)	*+	Venture growth
Well-being	Hechavarria and Reynolds (2009)	*+	Opportunity entrepreneurship
	Hechavarria and Reynolds (2009)	+	Necessity entrepreneurship

\*+ positive significant finding. \*- negative significant finding. + positive finding. -negative finding.

Table 2.5. Self-devised.

As a result of this literature review, we found that the sociocultural factors that converge in both fields are related with uncertainty avoidance, institutional collectivism, social capital, networking and independence, among others. Uncertainty avoidance measures the ability of a society to deal with the inherent ambiguities and complexities of life (Kreiser, Marino, Dickson, & Weaver, 2010). Institutional collectivism is defined as “the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action” (House et al., 2004, p. 30), while social capital is defined as “the capitalized value of improvements in economic performance that can be attributed to high-trust social networks”. Emphasizing networks highlights the social aspect of social capital, while emphasizing the value of future improvements highlights the capital aspect (Casson & Giusta, 2007, p. 221). Finally, as a general rule, individuals require a strong need for independence and seek careers with more freedom, to set their own goals and develop their own plans of action (Wilson, Marlino, & Kickul, 2004).

As mentioned before, the sociocultural dimensions most commonly found for the study of entrepreneurship and leadership in this literature review are Hofstede’s (1980) cultural dimensions. Nevertheless, we can see that there is a close relationship between personal and sociocultural values (Byrne & Bradley, 2007) related to leadership. Recent research has considered the importance of individual self-concept, relational or interpersonal self-identity, and collective self-concept for leadership development (Day & Harrison, 2007). In this sense, the sociocultural context—and therefore the influence of those informal factors—is a determinant.

Finally, in order to complement the graphical representations of the above results, a correspondent analysis was developed. A statistically significant association of 0.01 ( $\chi^2 = 6$  with eight degrees of freedom) between topic and level of analysis was found. Figure 3 presents a scatter diagram showing the relationship between the level of analysis and the topics of this study. For each variable on the graph, the distance between the category points reflects the relationship between the items, with similar categories being closer to one another. Another association was examined between the different journals, the approaches and the levels of analysis; however, the significance level or  $\chi^2$  indicates that those relationships are not significant.

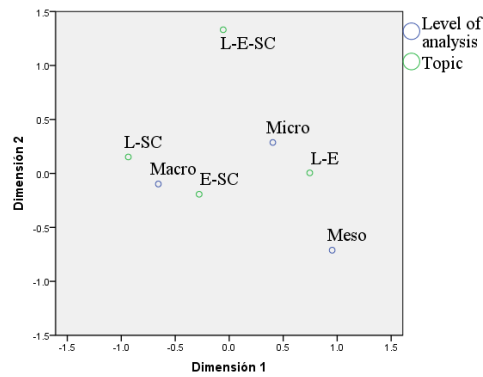


Figure 2.3. Level of analysis and topics.

## 2.4 Conclusion

The main purpose of this chapter was to explore the content and evolution of the research on the sociocultural factors (informal institutions) that influence entrepreneurship and leadership. This review analyzes the main literature that relates concepts of leadership, entrepreneurship, and sociocultural factors published in journals indexed by the SSCI in the last 20 years. Findings highlight that the topic of interest appears in almost all the main journals in the business and management categories. This review shows the growing interest of the academic community over the last few years. The recent development of the concept of entrepreneurial leadership indicates the need to combine these disciplines. However, entrepreneurial leadership is a concept that is far from being understood (Harrison et al., 2015), even more from a sociocultural approach. Therefore, through a systematic literature review, this chapter provides information on the content and evolution of the topics.

Developing individual leaders or entrepreneurs and developing effective leadership or effective entrepreneurial processes involves more than simply deciding which theories may be used to motivate development. This is so because human development involves a complex set of processes that need to be understood (Day, Harrison, & Halpin, 2009). In this respect, we suggest moving forward to an integrated conceptual perspective that encompasses each set of variables, including perceptual variables, behaviors, values, and the sociocultural context. Without a doubt, macro variables, attributable to the collective, culture, or community, are very important in the development of leadership and entrepreneurship, but other variables related to strengthening the identity of the individual within his own sociocultural context are taking on increasing relevance. Along the same lines, Walter and Scheibe (2013) developed a novel emotions-based framework to study leadership behaviors and leadership outcomes. To contribute to greater understanding of leadership and entrepreneurship, relevant theory and research should reflect



both longitudinal and multilevel analysis. This is in line with the integrative model proposed by Yukl (2013). Some promising avenues for future research are outlined in Table 2.6.

We can conclude from this systematic review that our topic of study has been and continues to be of concern to the international academic community. However, few authors have raised the importance of strengthening the two disciplines and integrating them under a sociocultural approach. The present study presents a review of the most important literature that attempts to fill this gap. Research suggests that entrepreneurship will flourish in cultures where cultural leadership ideals align with entrepreneurial behaviors (Stephan & Pathak, 2016). Future discussions should be developed, for instance, about the informal factors that converge in both fields and why some of them have a positive effect for some kind of leadership (Elenkov & Manev, 2005), but negative for entrepreneurship (Kreiser et al., 2010; Yong & Zahra, 2012). It is in the light of this that we suggest an institutional approach, with informal institutions especially linking these fields and advancing in a more comprehensive and integrative way toward the generation of knowledge.

Table 2.6. Directions for future research for leadership and entrepreneurship from a sociocultural perspective.

<b>Directions for future research</b>	
Conceptual framework	Advance theory about integrative model of entrepreneurial leadership (Harrison, Paul, Burnard, & 2016a) and models about how leaders' behaviors are related to the processes of influence to create entrepreneurship. The overall developmental process can be enriched and integrated by different theories and approaches, such as identity self-concept (Day & Harrison, 2007), self-awareness and emotional intelligence (Bratton, Dodd, & Brown, 2011), emotions-based (Walter & Scheibe, 2013), constructive-developmental theory (McCauley et al., 2006), authentic leadership (Gardner, Avolio, Luthans, May, & Walumbwa, 2005), and the charismatic and transformational model rooted in strong ethical values (Kanungo, 2001). Another interesting approach could be to analyze the relationships among normative and cognitive factors (Scott, 2007) in the light of institutional economics.
Integration of recent topics	Integrate the recent surge of research on gender and leadership (Eagly & Heilman, 2016; Hallinger, Dongyu, & Wang, 2016) with research on gender and entrepreneurship (Minniti & Nardone, 2007; Wilson, Kickul, & Marlino, 2007). As women have continued to enter the workforce or decided to become entrepreneurs, it has become clear that the social cultural context plays a crucial role in them achieving their aspirations.
Research contexts	Analyze leadership dimensions and entrepreneurship dynamics in their own cultural contexts, especially in emerging countries. Advance in cross-cultural research to help managers to deal with complex environments (Bass & Bass, 2008).
Process-oriented research	Contribute to greater understanding of how leadership processes and entrepreneurial processes develop and change over time: relevant theory and research should reflect both the multilevel and the longitudinal nature of development (Day, Fleenor, Atwater, Sturm, & McKee, 2014).
Practicing	Advance continuous practice through day-to-day leadership and entrepreneurial activities where the essence of development really resides rather than focusing on implementing better instructional programs or workshops.
Teaching	Teaching of leadership and entrepreneurship should address the dynamics of power, the influence of context, and the search for higher and transcendent development of individuals and societies. Conventional approaches to teaching leadership and entrepreneurship in schools have mostly been over-reliant on the role of individuals.

# CHAPTER 3

INFORMAL INSTITUTIONS AND ENTREPRENEURIAL LEADERSHIP: AN INTERNATIONAL STUDY

### **3.1 Introduction**

In the previous chapter, we identified the principal gap in leadership and entrepreneurship research about the influence of sociocultural factors in both fields, accomplishing the objective set in phase 1. The specific objective of this chapter, set in the second phase of this investigation, is to analyze empirically the informal institutions that influence entrepreneurial leadership. The importance of this research lies in the opportunity for leadership and entrepreneurship to integrate theoretical and empirical research to move forward faster. As discussed above, informal institutions are relevant to leadership and entrepreneurship, considering that values, norms, and beliefs can determine the social desirability to become a leader or entrepreneur. In this vein, entrepreneurial leadership takes into consideration that once entrepreneurship is generated, it will always be necessary to develop and exercise leadership.

Moreover, considering differences in sociocultural contexts may also play an important part in these fields. Addressing the phenomenon of entrepreneurial leadership from a sociocultural and institutional perspective, this research highlights the importance of informal institutions for leadership and entrepreneurship. The institutional perspective directs attention to the rules, norms, and beliefs that influence organizations and their members, which can vary widely across countries and cultures (Fang, 2010). In this approach, informal institutions assume relevance when the daily interactions with others, the codes of conduct, and the norms of behavior that define these interactions are considered (North, 1990). Although prior research has indicated that leadership and entrepreneurship are influenced by personal traits and characteristics, few empirical studies have provided concrete linkages between sociocultural context and entrepreneurial leadership, and even fewer have studied this link from an institutional perspective. This chapter seeks to address this gap by specifically investigating the role of sociocultural factors in shaping entrepreneurial leadership. Therefore, the present research attempts to examine quantitatively, from an institutional perspective, the relationship between informal institutions and entrepreneurial leadership. This chapter presents informal institutions that have been investigated separately in the literature on entrepreneurship and leadership, showing the effect of these informal institutions on entrepreneurial leadership. This chapter uses a logistic regression analysis and data from World Values Survey (WVS). The findings highlight that informal institutions such as independence, risk taking, religious faith, and networking are related to entrepreneurial leadership. Furthermore, this chapter presents implications for the fields of business, education, and public policy.

After this introduction, the study is structured as follows. Firstly, the theoretical framework is developed and then the methodology is described. Following this, the main empirical results are presented. The

subsequent sections discuss the findings and then present future research, implications, and a brief conclusion.

### **3.2 Conceptual Framework**

As mentioned in chapter 1, entrepreneurial leadership exists as a link of both fields. Entrepreneurial leadership is defined as “leadership that creates visionary scenarios that are used to assemble and mobilize a ‘supporting cast’ of participants who become committed by the vision to the discovery and exploitation of strategic value creation” (Gupta et al., 2004, p. 242). For Vecchio (2003), entrepreneurship is merely leadership in a special context. Renko et al. (2015) point out that the existing academic research on entrepreneurial leadership falls into three categories: entrepreneurial behaviors and attitudes (Covin & Slevin, 2002; Gupta et al., 2004), distinctions or similarities between leaders and entrepreneurs (Baumol, 1968; Ensley et al., 2006b), and new business owners that adopt leadership roles in order to grow (Ensley, Hmieleski, & Pearce, 2006a; Gupta et al., 2004; Hmieleski & Ensley, 2007). This study adopted an approach similar to the latter category.

#### **3.2.1 Entrepreneurial leadership from an institutional perspective**

Although many authors have used the institutional approach in the field of entrepreneurship (Gartner, 1985; Gnyawali & Fogel, 1994, among others), few scholars have explicitly linked institutional economics and entrepreneurial activity (Jennings, Greenwood, Lounsbury, & Suddaby, 2013; Thornton, Ribeiro-Soriano, & Urbano, 2011; Urbano et al., 2011; Van Hemmen et al., 2015, among others) and even fewer have linked the institutional perspective and entrepreneurial leadership (Yousafzai, Saeed, & Muffatto, 2015). As mentioned above, institutional economics (North, 1990) has proved to be one of the most suitable frameworks for the study of entrepreneurship. A typology based on the cognitive approach (Kirzner, 1979), and specifically the study of sociocultural factors (Liñan, Moriano, & Jaén, 2016; Noguera, Alvarez, & Urbano, 2013), has proved useful for entrepreneurial research (Aidis et al., 2008; Krueger, 2000).

On the other hand, leadership research recognizes the importance of personal, social, and cultural identity (Day, Fleenor, Atwater, Sturm, & McKee, 2014; Yukl, 2013) and its institutional bases (Antonacopoulou et al., 2001). We follow the approach that informal institutions influence entrepreneurial leadership (Swiercz & Lydon, 2002). Independence, risk taking, religious faith, and networking were used as informal institutions. These variables are in line with Schwartz’s theory of basic values (Schwartz, 2012) and have often been associated with both leadership (Byrne & Bradley, 2007; Chen & Tjosvold, 2006)

and entrepreneurship (Arenius & Minniti, 2005; Audretsch, Boente, & Tamvada, 2013; De Clercq et al., 2010).

### ***Independence***

Independence describes an individual's desire for freedom, control, and flexibility in the use of time (Carter, Gartner, Shaver, & Gatewood, 2003). Several authors use independence and autonomy as similar concepts (House et al., 2004; Lumpkin, Cogliser, & Schneider, 2009). Entrepreneurs value independence, individualism, and freedom (Kirby, 2004). Independence was found to be an important reason why an entrepreneur chooses to start an enterprise (Carter et al., 2003; Knörr, Alvarez, & Urbano, 2013). Furthermore, independence has also been associated with leadership. Bass and Bass (2008) point out that independence is a personal attribute of leadership and this is a subjective experience, such as being one's own boss. An important contribution to this topic was developed by House et al. (2004), creating a new dimension that refers to independent and individualistic leadership attributes. This dimension is measured by a single subscale labeled autonomous leadership, consisting of individualistic, independent, and autonomous behaviors. In education, there is a strong consensus that autonomy or independence is related to performance and leadership (Keddie, 2016). Leaders need autonomy to be creative, learn from mistakes, assume responsibilities, and handle difficult situations in their own way (Chiniara & Bentein, 2016). In summary, the greater the preference for independence, the greater the incentive to become an entrepreneurial leader. Therefore, it is hypothesized that:

*H1.* A high preference for independence increases the probability of becoming an entrepreneurial leader.

### ***Risk taking***

The debate about the role of an individual's risk attitude in the decision to become an entrepreneur and in entrepreneurial success has quite a long history in economics. From the definition of entrepreneurship, and through everyday observation, entrepreneurs are perceived as more risk prone than other people. As Wärneryd (1988, p. 407) puts it, "... there seems to be general agreement that risk bearing is a necessary [...] prerequisite for being called an entrepreneur". Since most individuals are risk averse, and since the perceived fear of failure is an important component of the risk attached to starting a new business, a reduced perception of the likelihood of failure should increase the probability that a company will start a new business (Arenius & Minniti, 2005; Boermans, 2010). Moreover, risk taking is also associated with leader behavior (Clark & Waldron, 2016), leader performance (Frost, Fiedler, & Anderson, 1983), and the creation of an innovative environment (Maladzhi, 2015). Founder managers are more likely to

invest considerable time and effort into building their firms and are therefore more willing to accept the risks (Mousa & Wales, 2012). Risk taking requires tolerance of ambiguity and making decisions with a degree of uncertainty (Isaksen & Lauer, 2002). Being the leader in a group often involves making risky decisions (Ertac & Gurdal, 2012). In general, entrepreneurs and leaders of organizations also, as would be expected, have higher risk-taking propensities than managers (Brockhaus, 1980), and they also have a higher tolerance of ambiguity than do managers in general (Schere, 1981). Therefore, the following hypothesis is derived:

*H2.* Favorable attitude toward risk taking increases the probability of becoming an entrepreneurial leader.

### ***Religious faith***

Religion can be defined as a particular institutionalized or personal system of beliefs, values, and practices relating to the divine—a level of reality or power that is regarded as the ‘source’ or ‘ultimate’, transcending yet immanent in the realm of human experience (Worden, 2005). Religiosity is the acceptance of a particular set of organized beliefs, rituals, and practices having to do with God, morality, the origins of life, and an afterlife (Bass & Bass, 2008). People with unlike cultural beliefs and religious values have looked at entrepreneurship with varying degrees of legitimacy. Woodrum (1985) found participation in religious activities to be a predictor of entrepreneurial success. Lumpkin and Dess (1996) advocated that a small firm’s orientation is grounded in the values of its entrepreneur. Additionally, religion has been found to have a significant influence on leadership behavior (Fernando & Jackson, 2006; Hage & Posner, 2015). Religious affiliation and values associated with particular faith traditions necessarily influence the way that people think and behave, and also play a major role in shaping individual traits (McCleary & Barro, 2006). Fernando and Jackson (2006) reported that religion had a significant effect on decision-making processes of leaders. In sum, religions are depositories of wisdom and values. Religious beliefs and cultural norms are often also seen as predecessors to leadership positions (House et al., 2004). This leads to the following hypothesis:

*H3.* Religious faith increases the probability of becoming an entrepreneurial leader.

### ***Networking***

In general terms, social networks are defined by a set of actors (individuals and organizations) and a set of linkages between those actors (Brass, 1992). Granovetter’s (1985) account of the role of personal relationships includes strong ties and weak ties (Shaw, 1997). People linked by strong ties trust each

other and are likely to share contacts and information, so reliance on strong ties militates against the generation of new information and fresh perspectives to create and exploit business opportunities for growth and development (Chell & Baines, 2000). Davidsson and Honig (2003) found that networking was very strong and a consistent predictor for nascent entrepreneurs. It has been found that entrepreneurs are often those with a wide range of casual contacts (Aldrich & Zimmer, 1986), suggesting that a variety of trusted social linkages is an important prerequisite to discovering an entrepreneurial idea (Shane, 2000), and for garnering the resources to start a new business (Shane & Cable, 2002). Furthermore, many scholars in leadership literature now view leadership as a property of the collective, not the individual (Cullen-Lester & Yammarino, 2016). Therefore, networks are important to leadership. The empirical support is strong, with social networks shown to contribute to managers' strategic influence (Floyd & Wooldridge, 1997), helping them to leverage organizational resources for innovation (Kelley, Peters, & O'Connor, 2009), increase or decrease new venture performance depending on contextual factors (Stam & Elfring, 2008), and strengthen the effects of entrepreneurial orientation on creative performance (Chen, Chang, & Chang, 2015). Thus, the following hypothesis is formulated:

*H4. Networking increases the probability of becoming an entrepreneurial leader.*

### **3.3 Methodology**

Data were taken from the World Values Survey (WVS) worldwide network of social scientists focused on the study of changing values. This database has been widely used by researchers to analyze different topics such as values and cultural change (Inglehart & Baker, 2000), and social capital and innovation (Dakhli & De Clercq, 2004). Among other issues, individuals are asked about their perceptions of life, which includes self-assessments, and also socio-demographic characteristics of each individual, including sex, income, employment, religious beliefs and social behaviors. Specifically, we used data from the 2005–2008 wave because this database contains the most suitable proxy variable for the dependent variable. The sample was composed of 67,268 individuals from 50 countries. (See Appendix 7).

*Dependent variable.* Dependent variable arises from the answers to the following question: "In which profession/occupation are you doing most of your work?" From the possible answers to profession/occupation status, we created our dependent variable, 'entrepreneurial leadership', taking a value of 1 if the individual is an employer or manager of an establishment with employees and 0 in other cases. This variable was seen as a proxy for entrepreneurial leadership, and it allows us to empirically understand the concept of entrepreneurial leadership to represent those who are entrepreneurs and who,

at the same time, become leaders by having subordinates. This proxy approaches the definition of entrepreneurial leadership as the leadership role performed in entrepreneurial ventures (Jensen & Luthans, 2006; Leitch, McMullan, & Harrison, 2009; Renko et al., 2015). In the same approach, Swiercz and Lydon (2002), define career entrepreneurial leaders as individuals who not only create new organizations but go on to lead these organizations to sustainable success. This is also in line with Lewin (2002), who suggests that, in practice, successful entrepreneurs are often managers coincidentally, combining these two functions in one person. As mentioned above, we consider that our variable is appropriate to refer to entrepreneurial leadership.

*Independent variables.* In this research, we present informal institutions as a set of perceptual, cognitive, and social variables. As mentioned above, the mental models (Kirzner, 1979) created by individuals that represent the cumulative experience, learning, feelings, and meanings about how the physical and social worlds work (Gaglio, 1997) are a distinctive set of perceptual and cognitive processing skills related to entrepreneurship (Gaglio & Katz, 2001). A Likert scale was used to indicate the degree of importance of the informal institution. Regarding ‘independence’, WVS respondents were asked about how much independence they had in performing tasks at work (1 = no independence at all to 10 = complete independence). Lu, Huang and Bond (2016) have used this same dimension to measure independence. For ‘risk taking’, respondents were asked about the importance of adventure and taking risks and having an exciting life (1 = not at all important to 6 = very important). Knörr et al. (2013) have used also this item to measure risk taking. In respect of ‘religious faith’, the respondents were asked whether they considered it especially important that religious faith is a quality that children are encouraged to learn at home (1 = not at all important to 6 = very important). In this regard, parents cultivate in their children values and behaviors that govern society. Societies vary as to which values are priorities in the socialization of children (Quinn, 2005). Regarding ‘networking’, WVS respondents were asked if they were an active member of a voluntary professional organization (1 = yes, 0 = no). Ghazinoory, Bitaab and Lohrasbi (2014) have measured social capital and networking with a very similar item from WVS.

*Control variables.* We controlled for gender and for gross domestic product based on purchasing power parity (PPP) per capita. In respect of gender, previous research has indicated that, independent of culture, there are differences in the profiles of male and female entrepreneurs (Fernald & Solomon, 1987). The decision to start a business is far more complex for women than it is for men (Begley & Tan, 2001; Bird & Brush, 2002). In fact, women’s participation rates in entrepreneurship are significantly lower than the rates for men (Langowitz & Minniti, 2007). A dummy for gender was included (0 = female, 1 = male).



For GDP-PPP, we included the gross domestic product (GDP) at purchasing power parity (PPP) as a control variable, given that the level of development of countries is a key factor in explaining entrepreneurial activity (Carree, Van Stel, Thurik, & Wennekers, 2007; Wennekers, van Wennekers, Thurik, & Reynolds, 2005). The data source used for the GDP-PPP variable is the International Monetary Fund World Economic Outlook database, and the average of the years 2005–2007 was used.

The nature and source of the variables that used are presented in Table 3.1.

Table 3.1. Definition of variables.

Variable		Description	Possible Values
Dependent variable	Entrepreneurial leadership	The respondents were asked, "In which profession/occupation are you doing most of your work? If you do not work currently, characterize your major work in the past." This is a dummy variable equal to 1 if an individual is an employer/manager of an establishment with employees.	1 = Entrepreneurial leadership; 0 in other cases.
	Independence	The respondents were asked, "How much independence do you have in performing your tasks at work? If you do not work currently, characterize your major work in the past." A 10-point Likert scale was used to indicate degree of independence.	1 = No independence at all – 10 = Complete independence.
Independent variables	Risk taking	The respondents were asked about the importance them of having adventures and taking risks. A 6-point Likert scale was used to indicate risk taking.	1 = Not at all important – 6 = Very important.
	Religious faith	The respondents were asked "Do you consider it is especially important that religious faith is a quality that children are encouraged to learn at home?"	1 = Yes 0 = No
	Networking	The respondents were asked "Are you an active member of a voluntary professional organization?"	1 = Yes 0 = No
Control variables	Gender	Respondents were asked to indicate their gender.	1 = Male 0 = Female
	GDP-PPP	Gross domestic product based on purchasing power party (PPP) per capita GDP.	GDPP-PPP 2005–2007

Given the binary nature of the dependent variable, we analyzed the effect of informal dimensions on entrepreneurial activity through models for binary response, often known as probability models. Similar to regression analysis, models for binary response extend the principles of generalized linear models to better treat the case of a dichotomous dependent variable. In fact, models for binary response are extensions of the standard log-linear model and allow the study of a mixture of categorical and continuous independent variables with respect to a categorical dependent variable (Knörr et al., 2013). The binomial logistic model estimates the probability of an event happening. The logistic probability function takes the following basic form:

$$p=1/\{1+e^{-(a+bx')}\}$$

where p is the likelihood of undertaking entrepreneurial leadership and x' represents the linear combinations of explanatory variables (independence, risk taking, religious faith, and networking).

### 3.4 Results

Descriptive statistics and the correlation matrix of the variables used in this analysis are reported in Table 3.2. As can be seen, all variables considered are significantly correlated with entrepreneurial leadership. Given the correlations among independent and control variables, a test for the problem of multicollinearity was performed, showing that multicollinearity is not a major problem in the models. The variance inflation-factors (VIF) are lower than 3, which is far from 5 (Studenmund, 1997).

Table 3.2. Descriptive statistics and the correlation matrix.

Variable	Mean	Std.	1	2	3	4	5	6
1. Entrepreneurial leadership	0.051	0.220	1					
2. Independence	6.579	2.832	0.142***	1				
3. Risk taking	3.137	1.589	0.018***	0.008	1			
4. Religious faith	0.406	0.491	-0.039***	-0.052***	0.028***	1		
5. Networking	0.069	0.252	0.045***	0.075***	0.059***	-0.010***	1	
6. Gender	0.479	0.500	0.084***	0.0300***	0.130***	-0.047***	0.047***	1
7. GDP-PPP	1473	1365	0.095***	0.108***	-0.096***	-0.295***	0.036***	-0.012***

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.10

Table 3.3 presents five logit models testing the informal factors that determine entrepreneurial leadership. Model 1 presents the logistic regression results with only control variables; Model 2 introduces only informal factors; Model 3 presents all informal dimensions and control variables. Finally, in Models 4 and 5, we include an interaction term. Consistent with existing literature, the results suggest that sociodemographic characteristics are quite important for understanding the likelihood of becoming an entrepreneurial leader (Begley & Tan, 2001; Davidsson & Honig, 2003). In Model 1, the overall model is significant and all coefficients are significant with a p value  $\leq 0.001$ , and they have the expected sign. According to the gender coefficient, being male increases the probability of becoming an entrepreneurial leader by 3.6 percent. These results are in line with Arenius and Minniti (2005). On the other hand, the

coefficient of GDP-PPP indicates that higher income increases the probability of becoming an entrepreneurial leader.

Table 3.3. Logit results predicting entrepreneurial leadership.

	Model 1		Model 2		Model 3		Model 4		Model 5	
	dF/dx	Std. Err	dF/dx	Std. Err	dF/dx	Std. Err	dF/dx	Std. Err	dF/dx	Std. Err
<b>Informal institutions</b>										
Independence			0.014***	0.000	0.013***	0.000	0.015***	0.000	0.013***	0.000
Risk taking			0.003***	0.000	0.003***	0.000				
Religious faith			-0.003	0.002	0.006**	0.003	0.057***	0.010		
Networking			0.016***	0.004	0.012***	0.004			0.061***	0.022
<b>Interactions</b>										
Independence x religious faith							-0.006***	0.000		
Independence x networking									-0.004***	0.001
<b>Control variables</b>										
Gender	0.035***	0.002			0.030***	0.002	0.031***	0.002	0.031	0.002
GDP-PPP	0.000***	0.000			0.000***	0.000	0.000***	0.000	0.000***	0.000
Number of obs	67222		42484		42463		43488		43488	
LR chi-squared statistic	1041.63		1012.7		1339.42		1371.34		1350.28	
Pseudo R-squared	0.038		0.043		0.057		0.058		0.057	
Log pseudo-likelihood	-13043.444		-11064.49		-10896.961		-11097.299		-11107.829	
Percent correctly predicted	94.89%		92.26%		92.26%		92.32%		92.32%	
AIC	26092.89		22138.98		21807.92		22206.61		22227.66	

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.10

In Model 2, the overall model is significant. The independence, risk taking, and networking coefficients are significant with a p value  $\leq 0.001$ , and they have the expected sign. Religious faith is not significant. In Model 3, the overall model is also significant. Similarly, all coefficients of variables are statistically significant ( $p \leq 0.0001$ ). In this case, pseudo R-squared increases in relation to Model 1 and Model 2, and the Akaike criterion (AIC) is lower than in the previous model. Lower AIC value indicates a preferable model (Greene, 2004). Likewise, hypothesis 1 predicts a positive relationship between independence and the likelihood of becoming an entrepreneurial leader. In Model 3, the results show that hypothesis 1 is supported according to theory (Carter et al., 2003). Hypothesis 2 predicts a positive relationship between risk taking and the likelihood of becoming an entrepreneurial leader. The results support hypothesis 2 according to theory (Douglas & Shepherd, 1999). Hypothesis 3 predicts a positive

relationship between religious faith and the likelihood of becoming an entrepreneurial leader. The results show that religious faith is positive and significant. These results are consistent with the approach of Weber (1905). On the other hand, hypothesis 4 predicts a positive relationship between networking and the likelihood of becoming an entrepreneurial leader. Our data support this hypothesis. Some studies tend to support this positive statistical relationship between networking and new business activity (De Clercq et al., 2010) and social capital the of early-stage entrepreneurs (Lans, Blok, & Gulikers, 2015).

Finally, Models 4 and 5 explore the effect of informal institutions, showing changes depending on the presence of other informal institutions. In Model 4, the interaction between independence and religious faith was included. Overall, Model 4 is significant. The interaction term is negative and statistically significant. This negative interaction term between independence and religion indicates that the relationship between independence and entrepreneurial leadership is stronger when there is a lower religious faith rather than higher. In Model 5, the interaction terms between independence and networking were included. The results show that the relationship between the level of independence and entrepreneurial leadership is stronger for lower than for higher levels of networking. The negative interaction term between independence and networking indicates that the relationship between independence and entrepreneurial leadership is weaker for those people who have networking than for those who have not. This model is negative and significant and all coefficients are statistically significant ( $p \leq 0.0001$ ).

### **3.5 Discussion**

As mentioned above, although entrepreneurship and leadership are essential to economic growth (Pinillos & Reyes, 2011; Simón-Moya et al., 2014), and leadership is a core element of the entrepreneurial process (Gupta et al., 2004; Vecchio, 2003), the study of entrepreneurs as leaders is a gap in both bodies of knowledge (Jensen & Luthans, 2006), particularly in studies from an institutional perspective. Entrepreneurial leadership exists at the nexus of entrepreneurship and leadership (Harrison et al., 2015). This research has explored informal institutions such as cognitive abilities, attitudes, and values. This chapter demonstrated that informal institutions increase the probability of being an entrepreneurial leader. Specifically, informal institutions such as independence, risk taking, and networking facilitate the birth of new ideas, processes, products, or services. Also, results show that religious faith is significantly associated with entrepreneurial leaders and this might be related to a transcendent life purpose.

Furthermore, we found an interaction between informal dimensions (the relationship between independence and entrepreneurial leadership is moderated by social, cognitive, and normative contexts

such as religious faith and networking). In this study, the negative interaction term between independence and religion could be explained by the diversity in philosophies and religions. While the institutional profiles of some religions restrict self-employment, others encourage self-employment activities. These findings underline the obvious fact that different religious traditions are not the same in their beliefs about human behavior and, therefore, do not have the same effect on the decision to be a leader or entrepreneur (Hage & Posner, 2015). Along the same lines, the negative interaction term between independence and networking can be understood by the influence exerted by social identity and personal identity (Day & Harrison, 2007).

Leadership development represents a dynamic process involving multiple interactions and multiple levels that persist over time. It involves the development of skills and is shaped by factors such as personality and relationships with others (Day et al., 2014). These similar findings of the moderating effect of religion and networking might be seen because faith is viewed as social capital (Candland, 2000). As mentioned above, even though most leadership theory implicitly suggests that leadership behaviors are different depending on environmental circumstances (Pearce, 2004), little empirical research has examined informal institutions as moderators of leadership and entrepreneurship. Findings in this research indicate that informal factors have a direct and moderate effect on leadership and entrepreneurship. In this sense, informal institutions such as independence, networking, and religious faith appear to exert complementary rather than substitutive influence on entrepreneurial leadership. Support was found for the beneficial effect of informal dimensions on entrepreneurial leadership, as well as for the substitution effect between independence and networking.

Entrepreneurial leadership is universally endorsed, and that there are societal differences in its effectiveness suggests several promising areas of inquiry. Most importantly, institutional support for entrepreneurial leadership may be lacking in some societies, especially in terms of encouraging the development of cognitive and normative dimensions as informal institutions. In addition, it is possible that more strategic effort is needed for enacting entrepreneurial leadership in stable environments with limited competition than in situations where hyper competition and turbulence are the norm, because the perceived need for entrepreneurial leadership in stable environments may be lower (Brown & Eisenhardt, 1998). Entrepreneurial leadership is becoming a global requirement and the more we can understand the elements that reinforce this concept, the more we can advance the concept itself. Advancing the understanding of the interaction of these sociocultural dimensions to achieve higher levels of entrepreneurship and leadership is a challenge for scholars, leaders, and entrepreneurs.

### **3.6 Conclusion**

The aim of this chapter was to analyze the informal institutions that influence entrepreneurial leadership. This study provides insights into the phenomenon of leadership, entrepreneurship, and informal institutions.

The present research offers insights into the understanding of entrepreneurship and leadership, linking these two concepts by providing an institutional perspective. In doing so, we contribute to the dialogue around the need for alignment. The future looks more challenging, and future leaders will need to be more multifaceted and able to move flexibly from one mental schema to another (Zhang, Waldman, Han, & Li, 2015). Leadership perceptions, social perceptions, and social context in general are part of this process (Stam, Lord, van Knippenberg, & Wisse, 2014). For this reason, the identification of informal factors might strengthen the leadership and entrepreneurial profile. This chapter has made a preliminary step that attempts to initiate further research to contribute to ongoing efforts to integrate the fields of social behaviors, strategy, leadership, and entrepreneurship. In doing so, this study contributes to the dialogue around the need to create individual and collective factors that fortify entrepreneurial leadership.

There are several implications arising from this chapter. In terms of business, managers can benefit from this research by adopting and developing informal institutions to revitalize organizations and energize followers. Furthermore, this study responds to the call of economic and societal challenges for more entrepreneurial attitudes and behaviors, even in areas previously thought of as anti-entrepreneurial, such as government, military, and education (Renko et al., 2015). This study adds elements and suggests that public policy makers, managers, and teachers should deliberately work on training programs that encourage leadership skills, such as degree of independence, ability to make decisions, capacity to pursue major purposes according to faith or belief, relational capital, and risk taking.

We acknowledge that our findings are subject to various limitations that suggest avenues for additional research. Our entrepreneurial leadership variable may not capture the broader concept of leadership and entrepreneurship (Gupta et al., 2004). On the other hand, the moderating effect presented in this study raises challenges for future research. We also encourage future research which examines leadership as a multilevel process, where the first level is the leader, the second takes into account relationships with followers, peers, and superiors, and the third constitutes the organizational climate and culture (Day & Harrison, 2007). There is an increasing need to understand how leadership might be more collectively (Day & Harrison, 2007) and integratively (Yukl, 2013) constructed. Therefore, additional research could explore which dimensions can most effectively substitute for (or complement) unfavorable institutional

conditions. Another fruitful direction for further research could be analyzing entrepreneurial leadership and the role of gender (Bullough, De Luque, Abdelzaher, & Heim, 2015). Clearly, there is much more to learn in the area of entrepreneurship and leadership.

# **CHAPTER 4**

## **INFORMAL INSTITUTIONS AND LEADERSHIP BEHAVIOR: A CROSS-COUNTRY ANALYSIS**



## **4.1 Introduction**

The previous chapter studied the influence of informal factors on entrepreneurial leadership. In this vein, leadership is recognized as a decisive factor for growth, considering leadership as the capacity to lead ourselves and others (Kuratko & Morris, 2013). Recent years have seen a growing interest in self-concept or identity in leadership (Day & Harrison, 2007). Identity is defined as the culmination of an individual's values, experiences, and self-perceptions (Baltes & Carstensen, 1991). Leadership research has noted the importance of individual identity in developing leadership skills and expertise as part of the leader development process (Lord & Hall, 2005). Identity is important for leaders because it grounds them in understanding who they are, their major goals and objectives, and their personal strengths and limitations (Day et al., 2009). In the same vein, other research approaches have examined the cognitive and metacognitive skills at the core of leadership potential (Marshall-Mies, Fleishman, Martin, Zaccaro, Baughman, & McGee, 2000), as well as patterns of leadership skills (Mumford, Campion, & Morgeson, 2007b). All of these approaches involving skills, experience, learning, and personality are central to the notion of developing the expert leader (Day et al., 2009). Despite its importance, very few empirical studies have combined the effects of individual's values, experiences, and attitudes on the ability to lead, and even fewer studies have attempted to address the effect in different development contexts (Gagnon & Collinson, 2014; House et al., 2004).

This chapter focuses on the sociocultural approach (North, 1990, 2005), which enhances the influence of attitudes, values, and norms on human behavior. Furthermore, as mentioned above, we analyze this research from institutional economics (North, 1990, 2005). In particular, the objective of this chapter is to study the informal institutions that affect leadership behavior (considering the international context). In this study, our approach to leadership focuses on self-leadership. Using a panel data model, the impact of this relationship in different countries is evaluated. This chapter shows that informal institutions such as tolerance, social capital, creativity and responsibility have a positive effect on leadership and other informal institutions, such as power, have a negative effect.

After this introduction, the study is structured as follows. Firstly, the conceptual framework is developed and then the methodology is explained. Following this, the most relevant results of the study are presented and discussed. Finally, the chapter ends with the main conclusions and implications for future research.

## 4.2 Conceptual Framework

One way of thinking about leader development is thinking about self-concept or identity in leadership (Bryant & Kazan, 2012; Lord, Gatti, & Chui, 2016). This idea has great potential because identity transcends one-dimensional approaches such as behavioral or trait theories (Day & Harrison, 2007). Self-concept or identity has also been associated with self-management (Yukl, 2013) and self-leadership. Self-leadership is defined as “a process through which individuals control their own behavior, influencing and leading themselves through the use of specific sets of behavioral and cognitive strategies” (Neck & Houghton, 2006, p. 270). This approach emphasizes attributes of leaders such as personality, motives, values, and skills (Yukl, 2013). People who possess good self-leadership qualities know how to achieve high levels of self-direction and self-motivation (Houghton, Neck, & Manz, 2003). Furthermore, the literature gives broad consideration to how cultures and values influence leadership (Byrne & Bradley, 2007). Schumpeter (1991) predicted that leadership styles are dependent on managers' adherence to certain values. Acknowledgement of the role of personal and cultural values is essential to understand the effectiveness and influences of management leadership style, particularly in cross-cultural settings (House et al., 2004). A great number of studies have shown that a country's culture helps to explain perceptions of leadership (e.g., Hofstede, 2001; House, Hanges, Ruiz-Quintanilla, Dorfman, Falkus, & Ashkanasy, 1999), leader behavior (e.g., Shao & Webber, 2006), relationships between leader behavior and behavioral consequences (e.g., Hofstede, 2001), and so forth. Moreover, evidence indicates that leadership is also associated with cultures, clusters, and countries in unique combinations (House et al., 2004). Alvesson and Willmott (2002) argue that identity is actively created by the environment. The importance of context in the construction of identity is of great significance for leadership (Gagnon & Collinson, 2014).

Various theories and methods of institutional analysis are used in the different branches of the social sciences (Scott, 2008). A basic premise in research on international management is that organizations and professions are embedded in country-specific institutional arrangements that differ from country to country (Bruton, Ahlstrom, & Puky, 2009). However, leadership and management have been little associated with institutional approach, although some of their roots are related to this perspective (Wallman, 2009). Drucker's earliest managerial work discusses the emergence and importance of management as an institution (Drucker, 1954). Drucker recognizes the role of informal institutions such as culture, practices, and values. As discussed above, it is in the light of this literature that we consider it appropriate to address this research from an institutional perspective. The values to which a person is committed are deeply rooted in his or her social and sociocultural background (Schnebel, 2000). Given

the importance of culture in defining identity and the aspiration of be a leader, the focus of this study, in accordance with North (1990, 2005), is on the informal institutions that affect leadership across countries.

#### **4.2.1 Informal institutions and leadership**

As mentioned in the previous chapter, values, attitudes, and cognitive ability are related to leadership (DeRue et al., 2011; Felfe & Schyns, 2014; Judge, Bono, Ilies, & Gerhardt, 2002; Strang & Kuhnert, 2009) and to leadership styles (deVries, 2012). In this chapter, we focus on tolerance, social capital, creativity, power, and responsibility as informal institutions which influence the determination to be a leader. These informal institutions have been included in important leadership studies and culture studies such as the World Values Survey and Schwartz Value Survey, and are also related to the Big Five personality model (Hough, 1992), which provides an adequate structure for the socioemotional roots of leadership (Egri & Herman, 2000; Judge et al., 2002).

##### ***Tolerance and leadership***

Literature shows that tolerance is associated with managerial effectiveness (Bass & Bass, 2008). Effective problem solving requires an ability to remain calm and stay focused on a problem. In addition to making better decisions, a leader with high tolerance is more likely to stay calm and provide confident leadership (Yukl, 2013). In the Big Five personality traits, the opposite of this variable is neuroticism, and this has been positively correlated with anxiety and negatively correlated with leadership effectiveness (Judge et al., 2002). Tolerance is important for executives who must deal with adverse situations. Kajs and McCollum (2009) summarized the relationship between tolerance for ambiguity and positive leadership behaviors. The major characteristics displayed by leaders who tend to be better at tolerating ambiguity include collaboration and receptiveness to working in a cross-cultural environment, having a tolerance for failure, taking risks, and self-monitoring. The ability to identify and regulate the emotions of oneself and others is a critical skill for leadership (Dorfman et al., 2012; Linenberger & Schmidt, 2016). Tomkins and Simpson (2015) argue that the idea of caring leadership is related to tolerance. This involves taking responsibility, balancing the urge for certainty of outcome and visibility of contribution with the desire to encourage and enable others. It involves tolerance of complexity and ambivalence. Yao, Fan, Guo, and Li (2014) related complex situations and levels of stress to transformational leadership. Based on theory, the following hypothesis is presented:

*H1. Favorable attitude toward tolerance has a positive impact on leadership*

### ***Social capital and leadership***

Leadership could be understood as “social capital that collects around certain individuals” (Balkundi & Kilduff, 2006, p. 421). Leadership development is based on the development of social capital by “expanding the collective capacity of organizational members to engage effectively in leadership roles and processes” (Day, 2000, p. 582). Social capital involves the relationships between individuals and organizations that facilitate action and create value (Adler & Kwon, 2002; Monaghi, 2015). Leaders usually belong to more groups than do followers, and the effects of leaders’ outside connections are well known (Bass & Bass, 2008). McGowan et al. (2015) explore the influence of social capital on entrepreneurial business leaders. There is strong empirical evidence to support the notions that social networks contribute to managers’ strategic influence (Floyd & Wooldridge, 1997) and help them to leverage organizational resources for innovation (Kelley et al., 2009) and work engagement (De Clercq, Bouckennooghe, Raja, & Matsyborska, 2014). Other studies have suggested that social capital is related to transformational leadership (e.g., Chen, Zheng, Yang, & Bai, 2016). In a wide range of literature, social capital has been regarded as one of the key factors of leadership development (Day, 2000). Thus, the following hypothesis is formulated:

*H2. Higher social capital has a positive influence on leadership.*

### ***Creativity and leadership***

Creativity, the generation of new ideas, and innovation, the translation of these ideas into new products or services (Mumford & Gustafson, 1988), have become of critical concern in most organizations (Dess & Pickens, 2000). Creative thinking skills have been associated with leadership in generating ideas (Mumford, Connelly, & Gaddys, 2003), and with leader performance (Mumford, Hunter, Eubanks, Bedell, & Murphy, 2007a). Phelan and Young (2003) specifically highlight creative self-leadership, which refers to a reflective internal process by which an individual consciously and constructively navigates her or his thoughts and intentions toward the creation of desired changes and innovations. Creativity has shown a significant relationship with self-leadership (Phelan & Young, 2003), transformational leadership (Gumusluoglu & Ilsev, 2009), and authentic leadership (Semedo, Coelho, & Ribeiro, 2016). Creativity has also been widely investigated in different contexts. Recent studies have reported a significant relationship between leadership and creativity in China (e.g., Sun, Zhang, Qi, & Chen, 2012), India (e.g. Mittal & Dhar, 2015), Norway (e.g., Amundsen & Martinsen, 2015), and South Korea (Wang, Kim, & Lee, 2016). Thus, we formulate the following hypothesis:

*H3. Favorable attitude toward creativity has a positive influence on leadership.*

### ***Power and leadership***

Podsakoff and Schriesheim (1985) have pointed out that the French and Raven taxonomy is the most widely accepted conceptualization of power. This taxonomy includes coercive power—threat of punishment; reward power—promise of monetary or non-monetary compensation; legitimate power—drawing on one’s right to influence; expert power—relying on one’s superior knowledge; and, referent power—based on the target’s identification with the influencing agent (Mittal & Elias, 2016). Power can be associated with social power, social status, prestige authority, wealth, and preserving public image (Schwartz, 2012). Many definitions of power involve the ability of one actor to overcome resistance in achieving a desired result. The ability to control others is important and power will be actively sought through dominance of others and control over resources (Schwartz, 1992). However, there is considerable agreement in the psychotherapy literature that values related to power can be detrimental. For example, Strupp (1980) referred to power, conformity, tradition, and security as often being considered unhealthy values (Sagiv & Schwartz, 2000). In contrast, values such as autonomy, responsibility, and fairness to others are considered healthy values in leadership. Schwartz (2012) found that power values correlated negatively with life satisfaction. In fact, servant-leadership theory (Sendjaya & Sarros, 2002) rejects power as a genuine value of leadership. According to this research, the following hypothesis is posed:

*H4. Higher power has a negative influence on leadership.*

### ***Responsibility and leadership***

Various studies have found responsibility to be related to leadership. Leadership is seen to rate somewhat higher than followers with regard to dependability, trustworthiness, and reliability in carrying out responsibilities. Significant correlation has been found between conscientiousness and leadership (Bass & Bass, 2008). Generally, leaders perceive their responsibilities to be broader and more far-reaching than other group members (Winter, 1991). Individuals high in personal initiative and responsibility have a need to develop their own goals and to proactively shape the future, even in the face of substantial resistance (Felfe & Schyns, 2014). One approach related to this concept is internal locus of control. People with a strong internal locus of control orientation believe that events in their lives are determined more by their own actions than by chance or uncontrollable forces. Research suggests that a strong internal locus of control is positively associated with managerial effectiveness (Yukl, 2013). Voegtlin

(2016) considers responsibility an important dimension of leadership. Based on theory, the following hypothesis is presented:

*H5.* Favorable attitude toward responsibility has a positive influence on leadership.

#### **4.2.2 The moderating role of level of development on the relationship between informal institutions and leadership**

Hofstede (2001) consistently tested for the moderating effect of wealth or economic development in relation to his cultural dimensions and many types of outcome (House et al., 2004). National wealth has been related as an integral part of a country's culture (Smith, 2002). Many studies take the view that gross national product per capita is a reflection of a society's natural resources as well as its effectiveness in managing its external adaptation and internal integration challenges (Schein, 1992). National wealth has a reinforcing effect that can help facilitate the relationship between culture or informal institutions and other national features. In this vein, signals can be seen for successful and failed nations. Peters (1998) suggested determinants that signal nations that will fail. These determinants are related to the informal factors analyzed in this study: subjugation of women (related to tolerance); restriction on the free flow of information (related to social capital); low valuation of education and innovation (related to creativity); domination by a restrictive religion, family, or clan (related to power), and inability to accept responsibility and low prestige attached to work (related to responsibility). Leadership development is handicapped by these same national signs (Bass & Bass, 2008). Growing development and increasing complexity tend to propel societies in the direction of higher income, better education, and more political and economic participation (United Nations Development Programme, 2001), as well as smaller power distances in organizations (Hofstede, 2001). These elements of more developed and advanced societies tend to empower subordinates and thereby make top-down decision making and close supervision in their organizations less important and less effective (Gerstner & Day, 1994; Hofstede, 2001). It has been suggested that some kinds of leadership, such as autocratic, will be perceived as less effective or attractive in richer countries (Van De Vliert, 2006). Hofstede (2001) consistently tested the effect of economic and social conditions on the structure and functioning of a country's institutions or identity. However, there have been few studies considering the moderating role of contextual factors in leadership (Conger, 1999). Thus, the following hypothesis is formulated:

*H6.* The level of development of countries will positively moderate the relationship between informal institutions and leadership behavior.

### 4.3 Methodology

Data for this study were taken from the World Values Survey (WVS) worldwide. WVS are large-scale, cross-national, and multiple-wave surveys available for download by the public and social scientists. The WVS is a representative survey on human attitudes toward a variety of topics. Six waves of the WVS have been published that enquire into individuals' basic values and attitudes. Thus, this database is an excellent proxy for informal institutions. Following the line of Inglehart and Baker (2000), who analyzed aggregated nation levels and carried out three waves of representative national surveys, we used data from the most recent WVS data bases, wave 5 (2005–2008) and wave 6 (2010–2012). Also, these databases contain the greatest number of countries with data in two or more periods of time. Our final sample consists of a balanced panel with data on 67 observations and 35 countries (See Appendix 8).

*Dependent variable.* This variable was measured with an item in the WVS that represents leadership. This variable collects the degree of self-control and freedom, an important prerequisite for self-leadership (Bass & Bass, 2008). Freedom and autonomy are related to identity and leadership (Robert, 2014), considering that the freedom or autonomy of the actor is the origin and the destination of his action (Moreno, 2004). This variable measures the scale by country using a Likert scale (1 = 'none at all' to 10 = 'a great deal of choice').

*Independent variables.* Five independent variables are considered in this study. These variables are in line with Schwartz's dimensions to study informal institutions. Schwartz (1992) used the Schwartz Value Inventory (SVI) with a wide survey of over 60,000 people to identify common values that acted as guiding principles for life. Informal institutions were operationalized through tolerance, social capital, creativity, power, and responsibility. Tolerance is measured by the percentage of individuals in a country who agree that tolerance is an important quality. Social capital is measured by the percentage of respondents who belong to a professional organization by country. For creativity, the respondents were questioned about the importance of coming up with new ideas and being creative, and doing things one's own way. This variable measures the scale by country using a Likert scale (1 = 'not like me' to 10 = 'very much like me'). With regard to power, the respondents were asked about the importance of being rich, having a lot of money and expensive things. This variable measured the scale by country using a Likert scale (1 = 'not like me' to 10 = 'very much like me'). Responsibility is measured by the percentage of individuals who define that hard work is an important quality by country. Several authors have measured these variables with the same instruments and data from WVS (e.g., Álvarez & Urbano, 2012; Bagchi, Udo, Kirs, & Choden, 2015; Bomhoff & Gu, 2012).

*Control variables.* Although we were interested in developing an institutional model, other factors may also influence leadership behaviors. Control variables were included to ensure that the results were not unjustifiably influenced by such factors as education level, the gross domestic product (GDP) at purchasing power parity (PPP), labor force, and control of corruption. Data were obtained from WVS. In relation to education, while level of education and leadership have been associated positively (Pellegrini & Scandura, 2006), there are few studies using education as a demographic variable in their examination of leadership. Vecchio and Boatwright (2002) found that persons with higher levels of education and greater job tenure expressed less preference for leader structuring (task-oriented behaviors). This control variable was obtained from WVS and was controlled through elementary education. Gross domestic product (GDP) at purchasing power parity (PPP) per capita acts as a measure of the development of countries. Leadership is strongly correlated with wealth and other indices of socioeconomic status (Van Vugt, 2006). The data source used for the GDP-PPP variable is the International Monetary Fund World Economic Outlook database. Labor force participation rate is the proportion of the population aged 15–64 that is economically active—all people who supply labor for the production of goods and services during a specified period. The source of this variable is the International Labor Organization, Key Indicators of the Labor Market Database. The control of corruption indicator captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as ‘capture’ of the state by elites and private interests. The values are between -2.5 and 2.5, with higher scores corresponding to better outcomes for institutions (Kaufmann, Kraay, & Mastruzzi, 2009).

The dependent and independent variables used in this study are presented in Table 4.1.



Table 4.1. Definition of variables.

	Variable	Description	Source
Dependent variable	Leadership	Percentage of respondents who answered about "How much freedom of choice and control over own life". This variable measures the scale by country using a Likert scale where 1 means "none at all" and 10 means "a great deal of choice".	WVS Wave 5 and 6
	Tolerance	Percentage of individuals who define that tolerance is an important quality.	WVS Wave 5 and 6
Independent variables	Social capital	The respondents were asked "could you tell me whether you are an active member, an inactive member or not a member of a voluntary professional organization? This variable measures the percentage of respondent who belong a professional organization by country.	WVS Wave 5 and 6
	Creativity	The respondents were asked "It is important to this person to think up new ideas and be creative; to do things one's own way". This variable measures the scale by country using a Likert scale where 1 means "not like me" and 10 means "very much like me".	WVS Wave 5 and 6
	Power value	The respondents were asked about "It is important to this person to be rich; to have a lot of money and expensive things". This variable measures the scale by country using a Likert scale where 1 means "not like me" and 10 means "very much like me".	WVS Wave 5 and 6
	Responsibility	Percentage of individuals who define that hard work is important quality.	WVS Wave 5 and 6
Control variables	Education	Percentage of individuals with no formal education or primary education.	WVS Wave 5 and 6
	Ln GDPPPP	Natural logarithm of gross domestic product at purchasing power parity per capita (U.S. dollar).	IMF
	Labor force	Labor force participation rate, total (% of total population ages 15-64)	World Bank
	Corruption	Control of Corruption – capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. The values are between -2.5 and 2.5 with higher scores corresponding to better outcomes of institutions (Kaufmann et al., 2009).	Worldwide Governance Indicators

In this study, given the availability of data, we started with the simplest approach to analyzing panel data, a pooled regression, which omits the dimensions of space and time of the data, calculating an ordinary least squares regression. Specifically, we estimated random- and fixed-effects models and used the Hausman specification test [ $\chi^2(7) = 30.73$ , Prob  $>\chi^2 = 0.0003$ ] in order to verify the choice of the fixed- or random-effects model. The test suggested the use of the fixed-effects specification. We have corrected heteroscedasticity estimating with feasible generalized least squares (FGLS). Therefore, we propose the following general model:

$$Leadership_{it} = \alpha + \beta_1 Ii_{t-1} + \beta_2 CVi_{t-1} + \epsilon_{it}$$

where  $i$  is county and  $t$  is time;  $Ii_{t-1}$  represents the matrix of informal institutions in country  $i$  in year  $t$ , while  $CVi_{t-1}$  is the matrix of the control variable in country  $i$  in year  $t$

#### 4.4 Results

Table 4.2 presents the descriptive and summary statistics for our measures. Some variables proved to be highly correlated. Therefore, we also conducted a diagnostic test of multicollinearity, examining the variance inflation factors (VIFs) of all variables in the analyses, and we found that it was not likely to be a problem in this dataset. The VIFs are lower than 2.6, which is far from 5, value 5 indicating that a multicollinearity problem may arise (Studenmund, 1997).

In Table 4.3 the results of linear regressions with FGLS are presented. Model 1 includes all informal institutions, while Models 2 to 6 include interactions between informal institutions and the income of the counties. The Wald chi-squared tests suggest that all the models are significant ( $p < 0.001$ ) and have high explanatory power, explaining well over 60 percent of the variance of leadership. As expected, all informal factors are related to leadership behavior. Hypothesis 1 suggests that level of tolerance has a positive and significant effect on leadership behavior. Findings support hypothesis 1. Hypothesis 2 suggests that social capital has a significant and positive influence on leadership, and our results support hypothesis 2. Creativity shows a positive and significant relationship with leadership, supporting hypothesis 3. On the other hand, as we expected, power value has a negative impact on leadership, supporting hypothesis 4, and finally, responsibility has a significant and positive influence on leadership behavior, supporting hypothesis 5. Control variables such as low education have a significant negative impact on the dependent variable. Many studies have proved that education makes a difference in leadership (Egri & Herman, 2000; Pellegrini & Scandura, 2006) and, finally, GDP-PPP has a significant positive impact on leadership. Past scholars have typically argued that economic factors play a causal role in personal behavior (Moore & Schackman, 1996). Labor force participation has a positive effect on the dependent variable. On the other hand, control of corruption shows a counterintuitive result.

Model 2 shows the interaction effect between development and tolerance. Hypotheses 6 proposed that the level of development of a country positively moderates the relationships of informal institutions and their influence on leadership behavior. The coefficient is positive and statistically significant for tolerance, social capital, creativity, and responsibility as we expected; the coefficient of power was negative and significant. Although the main effect of tolerance was positive, the interaction of tolerance and level of development on leadership was negative and statistically significant ( $p < 0.001$ ). The interaction term shows that while the level of development decreases, leadership behavior is more sensitive to informal institutions such as tolerance. In other words, this negative interaction term indicates that the relationship between tolerance and leadership is stronger when there is a lower, rather than

higher, level of development. This is in line with leadership literature that emphasizes the importance of tolerance and stress management in leadership, especially in times of crisis or ambiguity (House et al., 2004). Although not fully synonymous, intolerance of ambiguity (an individual cognitive state) and uncertainty avoidance (a behavioral phenomenon) are concepts that are likely to be positively related (Furnham & Ribchester, 1995). In Model 3, we presented a model with interaction terms between social capital and development. In this model, the coefficients are positive and statistically significant for tolerance, creativity, and responsibility; conversely, they are negative and statistically significant for power and not significant for social capital. The interaction of social capital and development on leadership was not significant. In Model 4, tolerance, social capital, and responsibility are positive and significant while power is negative and significant. Contrary to expectations, the direct effect and interaction term for creativity and level of development are not significant. Similar results have been found in some studies. For example, Dubinsky, Yammarino, and Jolson (1995) argue that contradictory results could be explained by creativity intelligence seeming vague or unformulated. In the same vein, in Model 5, the interaction term between power and development was presented. Although the main effect of power was negative and significant, the interaction of power and development on leadership was not significant. Finally, in Model 6 we can see the interaction terms between responsibility and development in leadership. Although the main effect of responsibility was negative and significant, the interaction effect of power was positive and significant. This interaction means that countries with high levels of development experienced a stronger positive impact of responsibility on leadership. As we can see, all models confirm the importance of informal institutions, especially when these institutions are moderated by the development of countries. In Model 6,  $R^2$  increases with respect to Model 1, indicating that in terms of  $R^2$  it is a better model, and it explains 70 percent of the total variation of leadership. Our results do not support hypothesis 6, since not all informal institutions were significant when moderated with level of development.

Table 4.2. Descriptive statistic and correlation matrix.

Variable	Mean	Std.	1	2	3	4	5	6	7	8	9
1. Leadership	7.136	0.721	1								
2. Tolerance	0.706	0.128	0.388***	1							
3. Social Capital	0.054	0.046	0.275**	0.214*	1						
4. Creativity	4.232	0.392	0.361***	0.181	0.115	1					
5. Power	2.963	0.671	-0.380***	-0.359***	-0.124	0.3958***	1				
6. Responsibility	0.527	0.225	-0.200***	-0.377***	-0.056	-0.051	0.439***	1			
7. Education	0.277	0.187	-0.171	-0.172	-0.063	0.278*	0.318***	0.086	1		
8. Ln GDPPPP	9.634	0.864	0.259*	0.301*	-0.067*	-0.239*	-0.595***	-0.427***	-0.502***	1	
9. Labor Force	68.252	10.099	0.246**	0.015	0.261**	-0.163	-0.320***	-0.098	-0.196*	0.119	1
10. Control of Corruption	0.379	0.996	0.213*	0.311**	0.293**	0.032	-0.400***	-0.484***	-0.351***	0.576***	0.341***

\*\*\* p < 0.01; \*\* p < 0.05; \* < 0.1

Table 4.3. Linear regressions with Feasible Generalized Least Squares (FGLS).

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
<b>Informal Institutions</b>												
Tolerance	1.234***	0.337	13.140***	2.930	1.349***	0.345	1.268***	0.351	1.604***	0.368	1.754***	0.330
Social Capital	3.146***	0.712	3.239***	0.645	-10.215	10.007	3.035***	0.814	4.007***	0.685	2.590***	0.647
Creativity	1.102***	0.096	1.068***	0.088	1.078***	0.090	1.376	0.952	1.046***	0.093	1.006***	0.091
Power	-0.344***	0.050	-0.367***	0.048	-0.319***	0.053	-0.354***	0.060	-1.409**	0.720	-0.324***	0.046
Responsibility	0.302*	0.160	0.318**	0.147	0.287*	0.157	0.331**	0.161	0.286*	0.146	-5.174***	1.474
<b>Interactions</b>												
LnGDPPPP X Tolerance			-1.173***	0.282								
LnGDPPPP X Social Capital					1.366	1.001						
LnGDPPPP X Creativity							-0.027	0.096				
LnGDPPPP X Power									0.118	0.078		
LnGDPPPP X Responsibility											0.557***	0.156
<b>Control variables</b>												
Education	-0.450*	0.184	-0.628***	0.177	-0.340*	0.188	-0.481**	0.205	-0.346*	0.188	-0.440**	0.201
LnGDPPPP	0.244***	0.047	0.991***	0.187	0.123	0.085	0.349	0.400	-0.175	0.251	-0.193*	0.114
Labor Force	0.008**	0.004	0.012**	0.004	0.011***	0.004	0.008*	0.004	0.008*	0.004	0.0127***	0.004
Corruption	-0.235***	0.032	-0.221***	0.027	-0.221***	0.032	-0.229***	0.031	-0.207***	0.025	-0.182***	0.030
_cons	-0.363	0.690	-8.012***	2.179	0.517	0.842	-1.436	3.906	3.407	2.214	3.606***	1.082
Wald Chi(2)	697.83		2046.39		513.49		605.84		850.27		1041.08	
Observations	67		67		67		67		67		67	
Countries	35		35		35		35		35		35	
R square	0.613		0.614		0.646		0.633		0.613		0.696	

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1

## 4.5 Discussion

The results of this chapter confirm the importance of sociocultural factors in the decision to become a leader (House et al., 2004). In recent times, leadership research has adopted the term ‘VUCA’, an acronym that stands for the volatile, unpredictable, complex, and ambiguous demands faced by organizations (Brendel, Hankerson, Byun, & Cunningham, 2016). Therefore, our study provides insights regarding the informal factors that may strengthen leadership in such a complex environment. Although informal factors such as tolerance, creativity, social capital, power, and responsibility were found to be important predictors of the decision to be a leader, their effects are somewhat complex. Our results demonstrated that the level of development of countries exercised a complex pattern of effects on the relationship of informal institutions with leadership behavior. This is one of the few studies that aims to integrate the study of leadership under an institutional approach.

Moreover, this study emphasizes that one of the most important approaches to understanding leadership is self-leadership (Bryant & Kazan, 2012) under a sociocultural perspective. Before a person can lead others, this person must be able to lead and navigate himself to attain the desired behaviors (Carmeli, Meitar, & Weisberg, 2006). More recent approaches have found similarity between self-leadership and authentic leadership (Gardner, Cogliser, Davis, & Dickens, 2011), reflecting the notion that an individual is the master of his or her own domain (Kernis & Goldman, 2006).

Furthermore, these results encourage us to learn more about leadership as a social process. Similar ideas are found in studies about emotional intelligence. This idea highlights self-management skills, empathy, and social skills. In this approach, social skill is the culmination of emotional intelligence. People tend to be very effective at managing relationships when they can understand and control their own emotions and also can empathize with the feelings of others (Goleman & Boyatzis, 2008). Another recent approach, in line with this idea, is mindfulness in leadership (Brendel et al., 2016). This approach suggests that leaders who navigate multiple demands develop and display certain personal and social qualities, such as tolerance (Hambrick, Finkelstein, & Mooney, 2005) and creativity (Amabile & Khaire, 2008; Choi, 2012). The intention of the current chapter is to expand upon the leadership development concepts and ideas that make groups and organizations more psychologically safe (Linenberger & Schmidt, 2016). In sum, personal and social qualities are related to leadership (Zaccaro & Klimoski, 2001). Our results can be understood in light of these ideas.

## 4.6 Conclusion

The objective of this chapter was to study the informal institutions that affect leadership behavior, considering the international context. Findings suggest that informal institutions influence leadership. The present research integrates insights from leadership literature and proposes institutional economics or a sociocultural approach as a fresh perspective to advance leadership research, especially when we link leadership with the construction of an individual and collective identity.

Implications for education and business can be drawn about the informal factors that will be promoted to facilitate more developed societies. Schools and organizations should prepare new generations of leaders through strategies to encourage and promote rationally thinking leaders, responsibility, social capital, acceptance, and tolerance of diversity and complex situations; it is also important to understand how power can be exercised and how leadership is endorsed in various contexts.

This study should be interpreted in light of its key limitations. This analysis was conducted at country level; future research should integrate multilevel analysis (Autio et al., 2013) and a multilevel approach which includes individual, relational, and collective levels (Brewer & Gardner, 1996; Sedikides & Brewer, 2001). An individual self-concept might focus on traits that distinguish people from others in the social environment. Relational or interpersonal self-identities are based on relationships between the individual and important others. Finally, collective self-concepts are those in which an individual defines the self in terms of membership of important groups or organizations (Day & Harrison, 2007). Future research can take lessons from the sociocultural approach, specifically the cultural-cognitive dimension. This dimension considers that internal interpretive processes are shaped by external or environmental cultural frameworks and that individuals' behavior depends on the interpretation of their contexts and the consensus within the group of reference (Knörr et al., 2013). Therefore, future research needs to examine this topic in a longitudinal study. Another future approach would be through qualitative methods (Bryman, 1984). Moreover, future studies may provide more knowledge by exploring the effect of context on leadership, incorporating the role of informal institutions and not only trying to identify attributes that may (or may not) be universally endorsed or effective in different environments. The leadership literature considers national cultural contexts (defined more by geography or by cultural traits), and few authors address topics related to micro cultures or individual identity obtained through his or her way of seeing the world and the context in which it was developed.

# CHAPTER 5

INFORMAL INSTITUTIONS AND LEADERSHIP BEHAVIOR IN MÉXICO: DOES THE  
CONTEXT MATTER?



## 5.1 Introduction

In this chapter, we study the informal institutions that affect leadership behavior, focusing on developing countries. This topic is especially important because, despite efforts made to reduce the gap between regions, an uneven distribution of regional success and development can be observed. The main disparities arise in developing countries, especially in rural areas (ECLAC: Economic Commission for Latin America and the Caribbean, 2010, 2014). Mexico is among those countries with the highest rates of inequality in the world.

Moreover, as previously discussed, although literature has recognized the importance of informal institutions in relation to the individuals' decisions to be and act like leaders (Bass & Bass 2008; Yukl, 2009) and relevant differences have been identified according to the context where leadership is developed (House, Shane, & Herold, 1996), there are very few studies in Latin America (e.g., Howell, DelaCerde, Martínez, Prieto, Bautista, Ortíz, Dorman, & Méndez, 2007) and even fewer studies analyzing differences between rural and urban communities. In this sense, researchers working in regional studies and regional science have turned their attention to the contribution of leadership to the growth at the regional or local scale (Beer & Clower, 2014) and to the prosperity of places (Avant, Rich-Rice, & Copeland, 2013; Collinge, Gibney, & Mabey, 2010; McCann, 2013). Therefore, this chapter analyzes empirically the relationship between informal institutions and leadership behavior in a Latin American country (Mexico), considering the importance of the regional context in urban and rural areas and using institutional economics as a theoretical framework. The empirical research employs factor analysis and logistic regression models using data obtained from INEGI, Mexico 2014. As mentioned above, institutional economics suggests that human behavior is influenced by the institutional environment (North, 1990, 2005). Accordingly, literature has suggested the importance of informal factors as key ingredients for developing countries (Bandeira, 2009; Bryden & Hart, 2005), specifically when there is excessive fragmentation (Alesina, Devleeschauwer, Easterly, Kurlat, & Wacziarg, 2003) and differences in human and cultural characteristics are transmitted across generations (Spolaore & Wacziarg, 2009).

This chapter focuses on those informal institutions that literature has considered highly relevant in leadership research in recent years: transformational behaviors, social capital, and resilience (Egri & Herman, 2000). Using factor analysis and logistic regression models, and utilizing data obtained from INEGI, Mexico 2014, we provide empirical evidence of the influence of informal institutions on

leadership. This work provides elements that can contribute to the strengthening of skills that encourage the gradual closure of social and economic gaps in Mexico. Therefore, this study helps to strengthen this field through analyzing leadership in different regional contexts.

The remainder of the study presents the theoretical foundations, methodology, results, discussion, and conclusion of the research.

## **5.2 Conceptual Framework**

As discussed previously, cognitive traits, abilities, attitudes, and interpersonal and socioemotional competence are consistently correlated with the emergence of leadership (Bass & Bass, 2008; Judge et al., 2002). However, there are very few studies that specifically deal with these relationships in different contexts and environments (Bullough, Kroeck, Newburry, Kundu, & Lowe, 2012; Zhang et al., 2015). The current chapter bridges this gap by addressing this research from an institutional perspective (North, 1990, 2005) specifically via informal institutions. People function within institutions according to normative expectations, social values (March & Olsen, 1989), rules, and incentives, and consider their own priorities while simultaneously operating within the parameters of the institution (Peters, 2000). The principles of social order that Weber (1978) described establish parameters with regard to which organizational forces are conceivable (Biggart & Hamilton, 1987).

In this regard, although Mexico is a country with strong unifying socioeconomic, political, and important cultural features shared by members of the Mexican society, is also a country with distinct regional cultures (Howell et al., 2007). In this regard, context and cultural values influence the development of leadership (Yukl, 2009). Researchers such as Collinge et al. (2010) make a very explicit distinction between leadership styles in different regional contexts, specifically in cities and in rural environments. Rodríguez-Pose (2013) suggests that leadership is, perhaps, the ‘missing variable’ in understanding why some places grow and others languish. In general, there is a strong consensus that place-based leadership is important for development (Beer & Clower, 2014). It is argued that communities need to enhance their opportunities for leadership if they are to maximize their prospects for development. Numerous studies have been conducted on communities and their effectiveness: primarily, the literature focuses on improving the lives of people in urban areas (Avant et al., 2013).

In 2010, 50.5 percent of the world’s population was living in urban areas. In the next four decades, all of the world’s population growth is expected to take place in urban areas. For example, in 1950, less than

43 percent of the population in Mexico lived in urban locations; in 1990 it was 71 percent, and by 2015, this figure had reached 79 percent (INEGI, 2010; United Nations, 2011; World Bank, 2016). However, the level of urbanization varies significantly across regions and countries. In Latin America, the rural population is around 110 to 130 million (United Nations, 2014). The main problem is that people in rural areas face large inequalities in basic services, education, health, connectivity, communication, opportunities for work, and poverty (ECLAC, 2012). ECLAC (2012) highlighted the importance of sociocultural factors for sustainable development, including individual capacity for social development, confidence in others, codes of conduct that facilitate peaceful, creative, and enriching personal interaction, as well as civic heritage, whose foundations lie in institutional mechanisms for social equality in order to ensure human rights compliance. As mentioned above, we focus on informal institutions through transformational behaviors, social capital, and resilience.

### ***Transformational leadership behavior***

Much of the thinking about transformational leadership was influenced by James McGregor Burns (1978). Since then, transformational leadership has emerged as a popular theoretical lens to examine the linkages between leadership behaviors and leadership effectiveness (Hiller, DeChurch, Murase, & Doty, 2011), specifically between transformational leadership behaviors and the performance of individuals and organizations (DeRue et al., 2011; Dust, Resick, & Mawritz, 2014; Judge & Piccolo, 2004). Transformational leadership is generally conceptualized as a set of interrelated behaviors, including idealized influence, inspirational motivation, intellectual stimulation, and individual consideration (Bass, 1985). Transformational leaders demonstrate some features and behaviors that also characterize entrepreneurial leaders (Renko et al., 2015). This leadership behavior has been considered the most desirable in most cultures and regions (Bamiatzi, Jones, Mitchelmore, & Nikolopoulos, 2015; Bass & Bass, 2008). Geier (2016) indicated that leader behavior tended to change or adapt between normal and extreme contexts, showing that transformational leadership is dominant in more normal and stable environments. Some studies have found that transformational leadership behaviors are related to the overall success of rural communities, especially when considering that the root of this leadership is the human concept of community (Avant et al., 2013). Transformational leadership creates an atmosphere in which all individuals feel included and appreciated, which motivates them to enhance their own satisfaction while working to promote the community wellbeing (Barling, Weber, & Kelloway, 1996) and to advance sustainable development in rural communities (Lobo, Velez, & Puerto, 2016).

Transformational leadership promotes decision making and fosters local leadership; it is also a model that provides the type of leadership necessary to deal with the complexity of issues facing rural communities (Avant et al., 2013). Egri and Herman (2000) analyzed the efficiency of transformational leadership and the context which is governed. Transformational leadership seems to be most effective for communities governed as a clan and less effective for those governed under market mode. Pawar and Eastman (1997) proposed that organizations with a clan mode of governance are more receptive to transformational leadership than organizations using either market or bureaucratic modes of governance. In the clan mode of governance, members are socialized to see their self-interest as based on their organization's interests. In this regard, considering that individual and collective interests are aligned with transformational leadership, it is believed that the relationship between transformational behavior and leader behavior will be different depending on the regional context. Based on this reasoning, it is hypothesized that:

*H1.* Transformational behaviors increase the probability of becoming a leader; however, the impact is greater in rural areas.

### ***Social capital***

Given the recognized importance of social capital for individuals' performance and success, researchers have argued that individuals should be proactive in developing social capital (Adler & Kwon, 2002) through the ability to both develop and use diverse networks of people (Ferris et al., 2005). Social networks are composed of connections between individuals that vary in a number of dimensions—formal vs. informal, strong ties vs. weak ties, homogeneity vs. heterogeneity, instrumental vs. psychosocial, and status, to name a few. An emerging stream of literature has begun to research the relationships between leadership and social capital (e.g., Anderson & Sun, 2015; Balkundi & Kilduff, 2005). Although much of the leadership literature focuses on the relationship between leaders and subordinates, the descriptive research has found that a leader typically spends considerable time with other individuals inside and outside the organization. Leaders need to build effective personal relationships (Heifetz & Linsky, 2002; White, Currie, & Lockett, 2016). Studies have shown that personal networks affect leadership (Zald & Berger, 1978), influence other people (Bono & Anderson, 2005), and are linked to higher levels of career success (Seibert, Kraimer, & Liden, 2001). On the other hand, the literature has focused on how contextual factors shape the usefulness of information obtained from social ties (Han, 2015; Sharone,

2014). Studies have focused on the variations arising from the nature of the information transmitted by social ties. Burt (1992) argues that, since information in local network neighborhoods or communities tends to be redundant, diverse contacts that reach across structural holes should provide channels through which novel information flows. Access to novel information should increase the breadth of individuals' absorptive capacity, strengthen the ability to communicate ideas across a broader range of topics to a broader audience, and improve persuasion and performance (Aral & Van Alstyne, 2011). Along the same lines, in contexts with more 'information turbulence', strong ties may be more valuable than weak ties (Reagans & McEvily, 2003). Therefore, the context might determine the degree of value of social capital. The role of networks has been considered in leading regions (Sotarauta, 2010) and communities (Jung, 2010; Sotarauta, 2010). According to this logic, and reflecting the previously discussed research, it is expected that the effect of social capital on leadership depends on regional context as a result of having different levels of information. Therefore, it is hypothesized that:

*H2.* Social capital increases the probability of becoming a leader; however, the impact is lower in rural areas.

### ***Resilience***

People differ in their ability to restore their balance after an event or period of stressful adversity (Bonanno, 2004). Resilience refers to the maintenance of positive adjustment under challenging conditions. Researchers have defined resilience as a personal characteristic of the individual or as a set of traits encompassing general sturdiness and resourcefulness and flexible functioning in the face of challenges (Herrman et al., 2011; Luthar, Cicchetti, & Becker, 2000). Scientifically representing resilience as a personal attribute is risky because it paves the way for the perception that some individuals simply do not 'have what it takes' to overcome adversity, thus curtailing our understanding of the underlying processes (Sutcliffe & Vogus, 2003). This perspective is consistent with psychological studies which focus on the ability of individuals to adapt and grow in the face of adversity (Masten & Reed, 2002). Other perspectives consider resilience as a social and cognitive process and not just as a personal skill (Rothstein & Burke, 2010). Evidence suggests that resilience should be analyzed within the socioeconomic situation as well as in sociocultural contexts (Liu & Mishna, 2014). Studies show that the leader must possess resilience to overcome adversity (Avey, Avolio, & Luthans, 2011; Malott, 2016; Tushman & O'Reilly, 1996). Leadership can build resilience at the individual, group, and community

level. Leadership can be formal, such as local government, or informal, through individual or small group action (Hegney et al., 2008). It is evident that individuals living in rural communities face life circumstances and unique ecologies which differ significantly from populations living in urban centers. Therefore, the following hypothesis is formulated:

*H3.* Resilience increases the probability of becoming a leader; however, the impact is higher in rural areas.

### **5.3 Methodology**

As previously noted, this research analyzes the relationship between informal institutions and leadership. These factors are operationalized through transformational behavior, social capital, and resilience. The source of data to measure the dependent and independent variables is the module of self-reported well-being (BIARE), conducted by the National Institute of Statistics and Geography (INEGI) 2015 Mexico. INEGI is the agency of Mexican Government dedicated to coordinating the National System of Statistical information of this country. The module gathered, for the first time in Mexico, official statistics on life satisfaction. This survey captures the key aspect of subjective well-being that the Organization for Economic Cooperation and Development (OECD) recommends. This study provides elements not only for economic welfare, but also for social, psychological, and sociological well-being. The original database used in this research contains 39,274 observations from Mexican individuals, including 31,252 (80%) from urban areas and 8,022 (20%) from the rural areas. We considered that the statistical information that provides INEGI constitutes a viable alternative to reach the objective of this chapter. Several authors have used data submitted by INEGI for economic and social research (e.g., Salazar, & Arenas, 2016; Torre & Colunga, 2015).

*Dependent variable.* The dependent variable was measured with an item that represents a proxy to leadership. This variable collects the degree of control for an individual to take important decisions freely through life. People who make decisions are usually leaders, and those whom we call leaders are always engaged in the decision-making process (Heller, 1992; Tatum, Eberlin, Kottraba, & Bradberry, 2003). Decision making is a primary leadership competence that has been widely studied in different models of leadership (Mintzberg, 1973; Papadakis, Lioukas, & Chambers, 1998). This is a binary variable obtained from Biare 2015 that takes the value of 1 if the individual answered affirmatively to the question ‘Do

you consider that you have been able to take important decisions freely throughout your life?” and 0 otherwise.

*Independent variables.* The independent variables were operationalized through informal institutions (transformational behaviors, social capital, and resilience) and were obtained from the same survey. The transformational variable was obtained from factorial analysis. Factor studies from Bass (1985), Howell and Avolio (1993), and Avolio, Bass, & Jung (1997) identified the components of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. Taking these components into account, proxies were located to each, seeking to build a factor including these components and representing transformational leadership. The questions related to this factor were ‘Could you tell me if you agree or disagree this phrase?’ using a Likert scale where 0 means strongly disagree and 10 strongly agree: ‘I like to learn new things’ (proxy to intellectual stimulation); ‘I feel that I have a purpose or mission in life’ (proxy to idealized influence); and ‘My life depends mainly on me’ (proxy to individual consideration). Finally, the respondents were asked to rate their response to the statement ‘So far, I have reached the goals that are important in life for me’ (proxy to inspirational motivation). This last component was measured on a Likert scale where 1 means strongly disagree and 7 strongly agree. This factor analysis produced one factor with eigenvalues greater than one, which explained 68 percent of the cumulative variance. A reliability analysis was conducted to measure the internal consistency of the four items loaded onto one factor. The Cronbach’s  $\alpha$  values show an acceptable level of reliability for this factor (0.6648). According to Nunnally (1978), a value of  $\alpha$  greater than 0.50 ( $\alpha > .050$ ) meets the requirements for basic survey research. Regarding the other independent variables, ‘social capital’ represents affiliation and is measured as a dummy variable that takes the value of 1 if the individual belongs to a professional organization and 0 in other cases. Finally, ‘resilience’ is a dummy variable that also takes the value of 1 if the individual has had difficulties through life and 0 in other cases.

*Control variables.* This chapter uses some socioeconomic characteristics such as an individual’s gender, his/her educational level, and their regional context of living as control variables. Regarding gender, women and men may differ in general in their leadership potential as a consequence of genetics and social and situational circumstances. The differences may be affected by a diversity in skills, values, motives, sex-role identification, and self-confidence (Bass & Bass, 2008; Henry, Foss, Fayolle, Walker, & Duffy, 2015). Previous research has identified both education and gender as potential influences on

individuals' innovative behavior and performance (Mumford, Scott, Gaddis, & Strange, 2002). Finally, we control according to the regional context (rural or urban). The definition of rural is complex, since this area has changed considerably and there are no objective criteria for this definition. In Mexico, according to the INEGI, a community is considered rural when it has fewer than 2,500 inhabitants, while the urban area/community is one where more than 2,500 people live (INEGI, 2010).

The nature and source of the variables that were used are presented in Table 5.1.

Table 5.1. Description of the variables of the study.

	<b>Variable</b>	<b>Description</b>	<b>Source</b>
Dependent variable	Leader behavior	A binary variable that takes the value of 1 if the individual has taken important decisions freely through his or her life.	Biare 2015
Independent variables	Transformational Behavior	This factor was form of four questions that were consider proxies to the dimensions of transformational leadership: 1. new learning accomplishments (intellectual stimulation); individual responsibility of decision making (individual consideration); purpose of life (idealized influence) and important goals (inspirational motivation).	Biare 2015
	Social capital	A binary variable that takes the value of 1 if the individual belongs to professional organization and 0 otherwise.	Biare 2015
	Resilience	A binary variable that takes the value of 1 if the individual has had difficulties or adversities throughout his or her life.	Biare 2015
Control variables	Gender	A binary variable that takes the value of 1 if the individual is male and 0 otherwise.	Biare 2015
	Education	The respondents were asked "What is your highest degree" using a Likert scale where 0 mean "no degree" and 9 "maximum degree like PhD".	Biare 2015
	Regional Context	A binary variable that takes the value of 1 if the individual lives in a rural community and 0 if the individual lives in an urban community.	Biare 2015

Given to the binary nature of the dependent variable, we analyzed the effect of informal institution on leadership through models for binary responses, commonly known as probability models. Similar to regression analysis, models for binary responses extend the principles of generalized linear models to better treat the case of a dichotomous dependent variable. The binomial logistic model estimates the probability of an event happening. The logistic probability function takes the following basic form:

$$p=1/\{1+e^{-(a+bx')}\}$$

where p is the likelihood of undertaking leadership and x' represents the linear combinations of explanatory variables.



## 5.4 Results

Table 5.2 provides the means, standard deviations, and matrix correlation of coefficients. These results indicate relatively high correlations between some of our variables. Although it is common to interpret a very simple correlation as indicative of a potential collinearity problem, such an approach might be misleading (Bowen & De Clercq, 2008). An alternative and more accurate approach for detecting collinearity computes the condition number of the data matrix: when the condition number value exceeds 30, collinearity may be a problem (Belsley, Kuh, & Welsch, 1980). The condition number of our data matrix is 11.678, suggesting that collinearity is less of an issue than an inspection of the simple bivariate correlations would imply.

Table 5.2. Descriptive statistic and correlation matrix.

Variable	Mean	Sd.	1	2	3	4	5	6
1. Leadership behavior	0.925	0.263						
2. Transformation Leadership	0.000	0.801	0.161***					
3. Social Capital	0.044	0.206	0.041***	0.054***				
4. Resilience	0.579	0.494	0.012**	-0.067***	0.007			
5. Gender	0.735	0.441	0.015***	0.020***	0.006	-0.075***		
6. Education	3.301	2.013	0.128***	0.199***	0.179***	-0.015***	0.062***	
7. Regional context	0.204	0.403	-0.072***	-0.085***	-0.059***	-0.015***	0.049***	-0.236***

\*\*\* p<=.01; \*\*t p<=0.05; \* p<=.1

Table 5.3 provides the results of the logistic regression models for informal dimensions and leadership. In model 1 presents the logistic regression results with only the control variables, model 2 presents the full model with all variables, model 3 and 4 presents models for urban and rural subsample, and model 5, 6 and 7 include the interaction terms which capture the influence of regional context over the independent impact of our considered informal factors on leadership.

In order to explain the impact of informal factors on leadership, in Model 2 we added informal institution variables such as transformational leadership, social capital, and resilience to the control variables. The overall model is significant since the log pseudo-likelihood statistic is -9733.43 with a p value of 0.000, and it predicts 92.52 percent of the responses correctly; although the percentage is lower than that in Model 1, the pseudo R-squared increases to 0.066. We also assess the goodness of fit of the different models by calculating the Akaike information criterion (AIC). Grounded in the concept of entropy, this

index provides an operational means to trade off the complexity of an estimated model against the fit of the model with the data (Greene, 2004). It also adjusts for differences in the number of variables included in a model, such that a lower AIC value indicates a preferable model. The results show that the goodness of fit is better in Model 2 than in Model 1. Therefore, Model 2 is better than Model 1 for explaining the probability of an individual becoming a leader. Providing support for hypothesis 1, the coefficient of the transformational leadership variable is positive and statistically significant, suggesting that the individuals with transformational leadership behavior are, on average, 2.7 percent more likely to become leaders. Moreover, transformational leadership has a higher positive coefficient in rural communities than in urban communities. Aligned with this finding, previous research found evidence for improving team decision-making skills through the use of transformational leadership (Dionne, Yammarino, Atwater, & Spangler, 2004). In this vein, transformational and charismatic leadership reflects a historical leadership tradition in Mexico (Dorfman & Howell, 1997; Riding, 1989). Bass (1990) indicated that this leadership would be effective in collectivist cultures such as Mexico.

Consistent with the prediction of hypothesis 2, the coefficient of the social capital variable is positive and significant, suggesting that individuals with social capital are 2.9 percent more likely to be leaders. This result is consistent in leadership literature (Balkundi & Kilduff, 2005; Fredricks, 2003; Ibarra & Hunter, 2007). Also, the results are in line with Mexican society, where the personal network of family and friends is the primary source of support for Mexicans, as well as other Latin Americans. Mexicans develop intimate support systems through marriage, co-parenting, and patron-client relationships (Wolf & Hansen, 1972). Positive interpersonal relationships are a central element in the Mexican view of an effective leader (Howell et al., 2007). Hypotheses 2 also suggested that social capital has a higher influence on the probability of becoming a leader in an urban context than in a rural context. Social capital was positive and significant in an urban context but was not significant in a rural context. However, there is some evidence in Mexico about the role of social networks in distributing and managing knowledge in order to produce development at the local or regional level, especially in rural contexts (Nuñez-Espinoza, Figueroa, & Jiménez-Sánchez, 2014). Finally, we observe that the coefficient of resilience is small but positive and significant; also, the coefficient of resilience is higher in the rural context than in urban areas, providing support for hypothesis 3. In this vein, various authors have related positive emotions, character, and resilience to effective leadership (e.g., Luthans, Avolio, Avey, & Norman, 2007; Riggio & Lee, 2007). Accordingly, important differences in the nature of and response to stressors in rural as opposed to urban areas have been examined in a number of recent studies,

emphasizing that people show resilience according to contextual factors (Judd, Cooper, Fraser, & Davis, 2006). Countries such as Mexico, and Latin America in general, might explain the importance of this quality for leadership because their culture shows a high level of uncertainty avoidance and therefore a low preference for ambiguity and change (Hofstede, 1980, 2001).

In Models 5, 6, and 7, we analyzed whether regional context changes the relationship between our dependent variable and the independent variables by adding regional context as an interaction term. In Model 5, we added an interaction term for regional context to the transformational behavior variable. The interaction term, which takes the distinct effect of rurality on this informal institutional variable, does find transformational behavior to have a significant positive effect on leader behavior in rural areas. However, we observe how the interaction term relating the presence of transformational behavior and residing in a rural area decreases the probability of being a leader. In other words, regional context makes a significant difference to how people use their specific transformational behaviors (Beer & Clower, 2014). In Model 6, we added an interaction term for regional context to the social capital variable. The interaction term, which takes the distinct effect of rurality on this informal institutional variable, does find social capital to have a significant positive effect on leader behavior in rural areas. In this case, we observe how the interaction term relating the presence of social capital and residing in a rural area decreases the probability of being a leader. In other words, this interaction show that the association of social capital with leadership is weaker in rural contexts. Finally, in Model 7, we added an interaction term for regional context to the resilience variable. In this model, the interaction term is not statistically significant, which suggests that the relationship between the likelihood of becoming a leader and resilience does not depend on regional context.

## **5.5 Discussion**

Recognizing the complex relationship between leadership and sociocultural context (Ardichvili & Kuchinke, 2002; Hofstede, 2001; Judge, 2001) is an important step in understanding the success or failure of places (Beer & Clower, 2014).

Table 5. 3. Logit Models to predict leadership.

	<b>Model 1</b>		<b>Model 2</b>		<b>Model 3</b>		<b>Model 4</b>		<b>Model 5</b>		<b>Model 6</b>		<b>Model 7</b>	
	Control variables		General Model		General Model (Urban)		General Model (Rural)		General Model		General Model		General Model	
	dF/dx	Std. Err	dF/dx	Std. Err	dF/dx	Std. Err	dF/dx	Std. Err	dF/dx	Std. Err	dF/dx	Std. Err	dF/dx	Std. Err
<b>Informal Institutions</b>														
Transformation Leadership			0.027***	0.001	0.025***	0.001	0.037***	0.003	0.028***	0.0013				
Social capital			0.030***	0.005	0.031***	0.005	0.004	0.027			0.039***	0.005		
Resilience			0.010***	0.002	0.007***	0.002	0.021***	0.007					0.005	0.003
<b>Interactions</b>														
Transformation Leadership X regional context									-0.005*	0.002				
Social capital X regional context											-0.073***	0.042		
Resilience X regional context													0.0060	0.0049
<b>Control variables</b>														
Gender	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.008	0.002	0.003	0.004***	0.003	0.004	0.003
Education	0.017***	0.001	0.013***	0.001	0.011***	0.001	0.023***	0.002	0.013***	0.001	0.016***	0.001	0.017***	0.001
Regional context	-0.022***	0.003	-0.018***	0.003					-0.021***	0.003	-0.027***	0.003	-0.026***	0.005
Number of obs	39274		39274		31252		8022		39274		39274		39274	
LR Chi-Square statistic	785.52		1368.81		931.77		263.83		1332.05		817.39		793.66	
Pseudo R-squared	0.038		0.066		0.062		0.047		0.064		0.039		0.038	
Log pseudolikelihood	-10025.1		-9733.43		-7052.16		-2676.11		-9751.81		-10009.1		-10021	
Percentage correctly predicted	92.54%		92.52%		93.48%		88.83%		92.53%		92.54%		92.54%	
AIC	20058.15		19480.86		14116.31		5364.218		19515.62		20030.28		20054.01	

\*\*\* p<=.01; \*\* p<=0.05; \* at p<=.1

In this chapter, we used transformational leadership, social capital, and resilience as proxies for informal institutions and decision making as a proxy to leadership. This study shows that favorable attitudes toward transformational leadership, social capital, and resilience are linked to being a leader at the individual level. This research advances the field of self-development leadership and intrapersonal content issues; it also contributes to a greater understanding of the influence of context on leadership. Leadership is shaped differently according to various institutional and cultural contexts. In this sense, national (social) culture has been conceptualized as a contextual variable likely to moderate the effects of leadership (Antonakis et al., 2003; House et al., 2004; Yukl, 2009). Our results suggest that the addition of informal factors improves the statistical fit of the model. Furthermore, it is important to understand the effect of the regional context on the development of leaders.

Based on the literature, the issue of leadership is important for urban communities but critical to rural communities in the twenty-first century. Transformational leadership behaviors suggest some practical applications for addressing the problems in leadership facing rural communities (Yukl, 2006). Dawe and Bryden (1999) argue that rural development depends to a large extent on the structural and cultural make-up of the community, its history, and local leadership. Similarly, Friedman (2000) defends the understanding that rural culture is embedded in its own institutional framework of social organizations, maintaining that this is key to appropriate rural development strategy formulation. Transformational leadership appears to be a model that may benefit rural communities.

This work provides elements to differentiate the formation of leadership in rural and urban environments in Mexico. In this research, it can be suggested that, in general, in more developed contexts such as urban communities, informal institutions strengthen the development of leadership. However the individual effect of each of the informal institution factors on leadership can be different according to the context. Therefore, the need to find and promote models of skills, competences, and styles of behavior according to less and more developed contexts in Mexico and Latin America is evident.

## **5.6 Conclusion**

The objective of this chapter was to study those informal institutions that affect leadership behavior, focusing on developing countries. The main results confirm that all informal institutions are positively related to the probability of having leadership behavior. We found differences in rural and urban contexts.

Practical implications arise from this study. A lot has been written about how organizations may develop leaders by identifying strengths and performance gaps, offering developmental challenges, and providing support (e.g., Spreitzer, 2006). Organizations might provide a variety of interventions and programs, such as career planning, 360-degree feedback, and mentoring programs. Practitioners and researchers need to understand which development method might be most useful for what kind of challenge and competency, and what is most appropriate for which culture (Gentry, Eckert, Munusamy, Stawiski, & Martin, 2014). Furthermore, the development of leadership in Mexico should be professionalized. Mexico is a country where social inequality increases day by day. In this sense, the role of civic society organizations might contribute to an improvement in living conditions in rural areas of Mexico. Leadership and commitment are some of the most important capabilities for working in a close partnership with rural communities (Hernández, Herrera, & Chávez, 2015). Poverty in rural areas of Mexico is an unresolved problem. Experiences of civil society organizations in other countries show that they can be partners to the government to contribute to rural development. Therefore, as mentioned above, it is important to promote leadership and to reflect on the role of leadership in the Mexican context. Bandeira (2009) pointed out that informal institutions such as freedom and equality of all citizens are the most valuable institutional contributions. This chapter has attempted to highlight issues related to how leadership might contribute to the development of communities.

Regarding further research, we recognize there are limitations to our study, notably the empirical context being only one country, Mexico. The data are cross-sectional in nature, so causality is theoretically implied. It is clear that future research needs to examine this same relationship in a longitudinal study. As a consequence, we encourage further cross-cultural research. Furthermore, this research does not directly address the effectiveness of leaders. This is clearly the necessary next step in the research to produce more useful findings for managerial leadership. Considering the importance of institutions for leadership highlights, there is little research that has explored leadership from an institutional perspective (Wallman, 2009). Future studies might expand the cognitive-cultural and normative dimensions to advance comprehension of the science of human behavior and leadership. However, further research is needed to assist leaders in understanding the depth of this theory so that it may be used more effectively to bring about change in rural areas. Practitioners and other professionals must pay attention to a leadership model that is compatible with rural or urban lifestyles. Families living in rural communities experience a way of life uniquely different to the lives of families in urban communities. Therefore, governments have a role in creating the conditions under which leadership might emerge. Consequently,

an appropriate leadership model for rural and urban communities must consider these factors in order to be effective in bringing about change. On the other hand, it is important to promote and strengthen the quality of social capital—above all, the social capital that reinforces leadership, the ability to decide, think, and act. That is essential in life and in the social process of people. It is important that organizations and institutions encourage discussion, critical thinking, inclusion, and diversity to develop more leaders. In spite of the conditions of socioeconomic marginalization in Mexico and in other Latin American countries, social capital could help communities to improve their ability to invent and innovate the social construction of knowledge and, through this type of network of knowledge, its potential to promote rural development dynamics at both the community level and for entire regions (Nuñez et al., 2014). Finally, resilience represents a key element in the social development process and should be strengthened to confront adversity, even more so when the context is vulnerable, as it is in rural communities (OECD, 2012). In these contexts, it is important to promote equal opportunities for learning, reinforcing personal motivation to develop potential and thus develop leadership. It is vital for institutions like family, schools, and society to promote this ability to overcome obstacles and move forward. Throughout the world, it has become increasingly evident that those communities which have effective leadership and strategic thinking at all levels within their community, local businesses, and industries are those which are prospering, both economically and socially (Hegney et al., 2008).

The present research attempts to examine empirically, from the institutional perspective, the relationship between informal institutions and leadership behavior in Mexico with the use of logit regression models. Data from Biare 2015, INEGI, was used. Moreover, this study contributes to the leadership and regional development literature by examining the interplay between institutional factors and regional context in the decision to be a leader. We find general support for our main thesis that transformational leadership, social capital, and resilience increase the probability of being a leader. The best leaders know they must mediate, listen, and include the opinions of others before making a decision. Execution, team-building, and delegation are key, as is the ability to remain positive in the face of adversity (World Economic Forum, 2015). Moreover, we extend existing knowledge of whether regional context and institutional factors affect the decision to become a leader. This interaction effect is negative and statistically significant, which allows the relationship between leadership and informal institutions to be different for those people who live in rural contexts and those who do not.

# CHAPTER 6

LEADERSHIP AS A DRIVER OF ENTREPRENEURSHIP: AN INTERNATIONAL  
EXPLORATORY STUDY



## 6.1 Introduction

In the previous chapter, we presented theoretical and empirical evidence about the importance of sociocultural factors in leadership and entrepreneurship. We also earlier highlighted the importance of the intersection of the two fields to move forward. Leadership is important for entrepreneurship, and vice versa. Moreover, we found above that leadership is important for regional development (Beer & Clower, 2014), just as entrepreneurship is important for growth (Bowen & De Clercq, 2008). In this vein, several authors explain that cross-country differences in levels of entrepreneurship are persistent and cannot be explained by economic factors alone (Freytag & Thurik, 2010). Researchers and politicians alike have turned to national culture as a possible explanation (Stephan & Pathak, 2016); however, mixed results have been found (e.g., Hayton & Cacciotti, 2013). Stephan and Pathak (2016) suggest that these mixed results could be explained by the fact that cultural values are very broad and general concepts. Considering all the coincidences between leadership and entrepreneurship (Van Hemmen et al., 2013), this study linked these two concepts and introduced cultural leadership ideals (charismatic/value-based, team-oriented, participative, humane, autonomous, and self-protective dimensions) as a specific and more relevant proximal aspect of culture that explains cross-national differences in entrepreneurship (opportunity and necessity entrepreneurship).

Drawing from institutional theory and cultural leadership approach, we address this gap by examining the effect of cultural leadership dimensions on the level of new business activity. Therefore, this chapter examines empirically the relationship between the two fields. The purpose of this chapter is to analyze the leadership dimensions that influence entrepreneurship, specifically the influence of cultural leadership dimensions such as charismatic/value-based, team-oriented, participative, humane, autonomous, and self-protective on the level of entrepreneurship (opportunity and necessity entrepreneurship). This study integrates insights from institutional and cultural leadership theories to provide a fresh perspective to advance comparative entrepreneurship research. We conducted a multiple regression analysis over 34 countries. This research covers a gap in literature by presenting cross-cultural evidence and suggesting the integration of these two concepts.

As mentioned above, institutional economics (North, 1990) will be introduced in this research as a theoretical framework, considering that leadership emerges according to the institutional environment and entrepreneurship is affected by this context. The theory of social and economic organization (Weber, 1947) will also be drawn upon for the study of leadership. This investigation will be based on quantitative

methodology and fundamentally based on data from international databases such as the Global Entrepreneurship Monitor (GEM) and Global Leadership and Organizational Behavior Effectiveness (GLOBE), considering a sample of 34 countries.

The main findings of this research demonstrate that leadership has a strong effect on entrepreneurship. Of all the dimensions of leadership, the charismatic dimension has the greatest effect on entrepreneurship, especially on opportunity entrepreneurship. Moreover, the results show that the autonomous leadership dimension has a negative relationship with entrepreneurial activity; however, this relationship changes when it is moderated by the humane leadership dimension. Research contributions are expected to be both conceptual and practical. This chapter presents contributions to the field of business and education.

After this brief introduction, this study is structured as follows. Initially, the theoretical background to entrepreneurship and leadership and the hypothesis development are explained. Following this, the methodology is described. Subsequently, the results are presented, before a discussion, including contributions to theory and to practice, and directions for future research. Finally, our conclusions are presented.

## **6.2 Conceptual Framework**

As mentioned above, although new business start-up activity can be found in all countries, significant and stable differences over time exist in the levels of entrepreneurial activity (Uhlaner & Thurik, 2007). Researchers and politicians alike have turned to culture as a possible explanation for these differences (Stephan & Pathak, 2016). However, mixed findings have been presented. Stephan and Pathak (2016) suggest that one reason for these mixed findings is the fact that cultural values are rather distal drivers of specific behaviors such as entrepreneurship. In this sense, this study focuses on more specific cultural leadership dimensions which might be able to explain the differences in the levels and types of entrepreneurship, such as opportunity and necessity entrepreneurship (Reynolds, Bygrave, Autio, Cox, & Hay, 2002). Opportunity entrepreneurs are viewed as entrepreneurs who start a business in order to pursue an opportunity in the market, whilst necessity entrepreneurs are pushed by unemployment situations or dissatisfaction with their previous jobs.

Both leadership and entrepreneurship have ultimately been proven to be social processes (Lewis, 2015). On the one hand, the sociological or institutional approach argues that the role of the sociocultural context

in entrepreneurial activity is critical (Thornton et al., 2011) while, on the other, leadership is grounded according to institutional forces (Biggart & Hamilton, 1987). As mentioned above, Weber was the first to integrate the concept of charisma with leadership (Weber, 1947). The version of transformational leadership theory that has generated most research was formulated by Bass and his colleagues (Bass, 1985, 1996), wherein transformational leadership is defined primarily in terms of the leader's effect on followers, and the behavior used to achieve this effect.

On the other hand, it is considered that most individuals have their own ideas about the nature of leaders and leadership, and this approach has been studied under the rubric implicit leadership theory or social cognition theory applied to leadership (House et al., 2004). Implicit leadership theory (ILT) constrains, moderates, and guides the exercise of leadership, the acceptance of leaders, and the perception of leaders as influential, acceptable, and effective (House et al., 2004). ILT extends to the cultural level by arguing that the structure and content of belief systems will be shared among individuals in common cultures. This shared cultural level is analogous with individual implicit leadership theory as culturally endorsed implicit leadership theory (CLT).

One of the most relevant global leadership studies was proposed by House et al. (2004). This study identified six global leadership dimensions (House et al., 2004). The team-oriented dimension emphasizes effective team building and the implementation of a common purpose or goal among team members, while the participative dimension reflects the degree to which managers involve others in making and implementing decisions. The humane dimension stresses supportive and considerate leadership, and the autonomous dimension is characterized by an independent, individualistic, and autonomous approach to leadership. The self-protective dimension emphasizes procedural, status-conscious, and 'face-saving' behaviors, and focuses on the safety and security of the individual and the group; and, finally, the charismatic/value-based dimension reflects the ability to inspire, to motivate, and to expect high performance outcomes by firmly holding on to core values. Den Hartog, Deanne, House, Hanges, & Ruiz-Quintanilla (1999) support the hypothesis that specific aspects of charismatic/transformational leadership are strongly and universally endorsed across cultures. In this research, we focus specifically on charismatic and autonomous CLTs, considering that these CLTs are, conceptually, the most closely related to entrepreneurship (Stephan & Pathak, 2016).

### **6.2.1 Leadership and entrepreneurship**

Leadership and entrepreneurship have been conceived of as embodying a distinctive set of underpinning traits, behaviors, and competencies (Engelen, Gupta, Strenger, & Brettel, 2015). As previously stated, a small number of studies have analyzed the relationship between leadership and entrepreneurship. The underlying premise in entrepreneurship research is that it is the entrepreneur (that is, the leader) who makes the difference in new venture success, either through risk-taking propensity (e.g., Stewart & Roth, 2001, 2004), or the ability to recognize opportunities where others do not (e.g., Alvarez & Busenitz, 2001). Ensley et al. (2003) and Ensley et al. (2006b) focused on the impact of entrepreneurial leadership behavior on new venture performance. Researchers have provided a discourse on the importance of leadership by arguing that the effectiveness of a leader is a major determinant of the success or failure of a group, an organization, or even an entire country (Dunne, Aaron, McDowell, Urban, & Geho, 2016; Fiedler, 1996). In this regard, leadership and management do seem to have a substantial effect on some organizational outcomes (Bass & Bass, 2008) such as innovation processes (Kang, Solomon, & Choi, 2015; Norbom & Lopez, 2016), entrepreneurship (Elenkov & Manev, 2005; Ensley et al., 2006b; Simsek et al., 2015; Zhou, 2016), and community entrepreneurs (Lyons, Alter, Audretsch, & Augustine, 2012). In sum, it is claimed that leadership affects the way entrepreneurship is achieved. Accordingly, we formulate the following hypothesis:

*H1. Leadership is positively related to entrepreneurship.*

Leaders and managers differ in how they deal with the dilemma of autonomous leadership at one extreme and democratic or participative leadership at the other. The distribution of power can be measured indirectly by how much is delegated to the less powerful and by how much autonomy and freedom leaders have to choose how to operate in the work setting (Bass & Bass, 2008). Autonomous leadership means taking full and sole responsibility for decisions and exercising control over followers' performance. Although investigations use many terms whose meanings do not entirely overlap, correlation is generally high among descriptions of the various autonomous or authoritarian ways of organizing to get things done (Bass & Bass, 2008). This behavior has also been described as directive (Bass & Barrett, 1981). Autonomous or directive leadership implies that leaders are active in problem solving and decision making, and expect followers to be guided by their decisions. At the other extreme, the participative, democratic, or team leadership dimension refers to sharing the decision-making

process. In this sense, participative or team leadership appears to be commonly accepted as a viable way to encourage managers and employees in organizations to work together more productively (De Jong & van Witteloostuijn, 2004). Studies have suggested the potential of participative management (Eisenhardt, 1989), while further studies show that leaders who adopt democratic or participative styles are more successful than others (Ogbonna & Harris, 2000). Although evidence indicates that participation is associated with positive affect, job performance, and reduced turnover (Spector, 1986), findings are not uniformly supportive; however, it is expected that autonomous leadership has a lower effect on performance and subordinate satisfaction than participative or team-oriented leadership (Bass & Bass, 2008). Considering the above, we hypothesize that autonomous leadership does not contribute to a climate for the development of innovativeness, risk taking, and proactiveness—in a word, entrepreneurship. Based on this theory, we present the following hypothesis:

*H2.* Autonomous leadership has a negative effect on entrepreneurial activity.

*H2a.* Participative styles of leadership have a positive effect on entrepreneurial activity.

Of all the cultural leadership dimensions, in most cultures, charismatic leadership is considered the most desirable (House et al., 2004). The charismatic and neocharismatic—also called transformational leadership—perspective (Avolio, 1999; Bass, 1985, 1998) focuses on how leaders evoke superordinate performance from followers through a transcendence of self-interested behavior by appealing to higher needs for self-actualization, deeply held personal values, and implicit motivations of followers. In contrast to transactional leadership, transformational leaders appeal to the ideals and morals of their followers to inspire them to reach their highest levels of achievement and to take ownership of the goals of the group. Transformational leadership is related to charismatic leadership (Bass & Bass, 2008; Berson, Shamir, Avolio, & Popper, 2001; Den Hartog et al., 1999; House, 1971). As charisma is viewed as a factor of transformational leadership, some authors used the terms transformational leadership and charismatic leadership interchangeably (Van Hemmen et al., 2013). Transformational or charismatic leadership through inspiration, vision, and deeper meaning may promote incremental contributions (Burns, 1978) and is linked to organizational performance (e.g., Frese & Gielnik, 2014; House et al., 2004; Howell & Avolio, 1993), innovation (Kraft & Bausch, 2016), and team decision-making skills (Bass, 1994; Dionne et al., 2004). Chen, Tang, Jin, Xie, and Li (2014) recently found that transformational leadership's influence on product innovation is completely mediated by the creation of

corporate entrepreneurship. Transformational leadership behaviors have been shown to positively impact a wide range of individual and organizational outcomes in a variety of contexts, including military (Bass, Avolio, Jung, & Berson, 2003; Hardy et al., 2010), business (Barling et al., 1996; Ensley et al., 2006b; Jung, Chow, & Wu, 2003), public sector (Rafferty & Griffin, 2004), and education (Koh, Steers, & Terborg, 1995). Based on our historical analysis of the theoretical research bases of leadership, it seems likely that charismatic leadership will prove to have greater effects on entrepreneurial behavior. Based on this reasoning, it is hypothesized that:

*H3.* Charismatic leadership has a more strongly positive relationship on entrepreneurship than the other leadership dimensions.

Since 2001, the Global Entrepreneurship Monitor (GEM) has differentiated between two different types of entrepreneurship, necessity and opportunity entrepreneurship (e.g., Reynolds et al., 2002). The differentiation focuses on the motivation of the entrepreneur to start his or her venture. In line with Kirzner (1973), opportunity entrepreneurs are viewed as entrepreneurs who start a business in order to pursue an opportunity, whilst necessity entrepreneurship is due to a lack of alternatives (e.g., Reynolds et al., 2005) or because all other options for work are either absent or unsatisfactory (Acs, Arenius, Hay, & Minniti, 2005). Shane (2003) proposes differences in the discovery of opportunities that are related to better information and privileged access to information and resources that help to identify both more and better opportunities. Jung, Chow, and Wu (2003) support a direct and positive link between the style of leadership that has been labeled ‘transformational’ and one of the dimensions associated with opportunity entrepreneurship, innovation. Following the argument that transformational leadership provides charisma and vision (Howell & Avolio, 1993), intellectual stimulation, individual consideration, and inspirational motivation (Bass & Bass, 2008), stimulating followers to improve their capabilities and achieve personal and developmental objectives (Barling et al., 1996), it is hypothesized that this kind of leadership promotes an environment that generates entrepreneurship motivated by innovation, creativity, and perception of opportunities (Bass & Bass, 2008). According to this research, we pose the following hypothesis:

*H4.* Charismatic leadership has a more strongly positive relationship with opportunity entrepreneurship than with necessity entrepreneurship.

### **6.2.2 The interaction effect of transformational leadership on the relationship between autonomous leadership and entrepreneurship**

Accumulating evidence suggests that transformational leadership is positively associated with work attitudes and behaviors at both an individual and an organizational level (e.g., Dum Dum, Lowe, & Avolio, 2002). However, there is a need for greater attention to be paid to understanding the mechanisms and processes through which transformational leadership influences other leadership behaviors. In this sense, sharing, combining and strengthening the leadership among team members becomes a fundamental process to obtain the expected results. Pearce and Conger (2003, p. 1) defined this process as shared leadership, “a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both.” The benefit of utilizing different leaders is evidenced in a number of studies (e.g., Drazin, Glynn, & Kazanjian, 1999; Mumford et al., 2002). Hauschildt and Kirchmann (2001) pointed out that having multiple ‘champions’, or leaders, taking on different elements of a leadership role, will have a positive effect on the technical and financial success of a project. In a related study, Howell and Boies (2004) showed that performance is significantly influenced by the participation of multiple leaders that own unique skills. This study speaks directly not only of the importance of having multiple individuals in a leadership capacity, but of the importance of selectively utilizing their diverse skills and expertise (Friedrich, Vessey, Schuelke, Ruark, & Mumford, 2009). On the other hand, previous research found evidence that the effect of autonomous and transactional leader behavior was moderated by variation in situation or by differences in organizational characteristics (Podsakoff, Mackenzie, & Fetter, 1993). Elenkov, Judge, and Wright (2005) showed that a top management team’s tenure heterogeneity moderated the relationship between strategic leadership and important outcomes such as product and market innovations. However, not much has been discovered in respect of the specific effects of transformational leadership on the link between transactional leadership or autonomous leadership and outcomes like entrepreneurship. Therefore, considering the effects of moderation becomes important in understanding how transformational factors can moderate different behaviors. This leads to the following exploratory hypothesis.

*H5. Transformational leadership dimensions moderate the relationship between autonomous leadership and entrepreneurship.*

### 6.3 Methodology

As noted earlier, this chapter analyzes the relationship between leadership and entrepreneurship. The source of data to measure the dependent variable comes from the Global Entrepreneurship Monitor (GEM) database for the year 2013 and the independent variables comes from Global Leadership and Organizational Behavior Effectiveness (GLOBE). The purpose of the GEM project is to use empirical data to assess the level of entrepreneurial activity across countries, to understand how entrepreneurial activity varies over time, and to understand why some countries are more entrepreneurial than others (Álvarez, Urbano & Amorós, 2014). The GEM project began in 1999 with 10 participating countries, and the number of participants has generally increased year by year. On the other hand, the major goal of the GLOBE project was to develop societal and organizational measures of culture and leader attributes that were appropriate to use across cultures. One hundred and seventy researchers from 62 countries studying more than 17,000 mid-level managers in 951 organization (House et al., 2004). These international databases have been used for several research around the world (e.g., Levie & Autio, 2008; Stephan & Pathak, 2016)

*Dependent variable.* As mentioned above, the dependent variable comes from the GEM database for the year 2013. GEM provides an indicator of the country's entrepreneurial activity in the shape of total national entrepreneurial activity (TEA). TEA measures the percentage of the adult population of a country (18–64 years) that is either actively involved in starting a new venture or is the owner/manager of a business that is less than 42 months old (Reynolds et al., 2002). Reynolds et al. (2005) provide empirical support for the validity of the TEA index. We used data from the TEA index for the year 2013. GEM's classification differentiates between 'necessity' and 'opportunity' motivations (Reynolds et al., 2002). These subtypes of TEA rates will be used to assess the influence of different types of leadership on entrepreneurial business creation activities. Opportunity and necessity TEA rates differentiate between entrepreneurs who are motivated to pursue perceived business opportunities and those who are driven to become entrepreneurs as a last resort, when other options for economic activity are absent or unsatisfactory (Wong, Ho, & Autio, 2005).

*Independent variables.* Over time, GLOBE has developed an empirically-based theory to describe, understand, and predict the impact of cultural variables on leadership, organizational processes, and the effectiveness of the leader and the processes (House et al., 2002). This study revealed 21 dimensions of leadership; therefore, a second-order maximum likelihood exploratory factor analysis was conducted,



revealing six factors with eigenvalues greater than one (i.e., average internal consistency reliability = .84; average interrater reliability = .95) The factors identified were charismatic (visionary, inspirational, self-sacrifice, integrity, decisive, and performance-oriented); team-oriented (emphasizes effective team building and implementation of a common purpose); participative (degree to which others are involved in making and implementing decisions); humane (supportive and considerate leadership includes compassion and generosity); self-protective (ensuring the safety and security of the individual and group); and autonomous (individualistic, independent attributes) (for a detailed methodological description, see House et al., 2004). According to the literature, the first four dimensions have been associated with transformational leadership and the latter two with transactional leadership. The leadership variable is measured on a scale by country. According to implicit leadership theory (ILT), people within cultural groups concur in their beliefs about leadership such that there are statistically significant differences among cultures regarding leadership beliefs. This agreement within cultural groups validates the aggregation of individual ratings to the organizational and societal level of analysis. Even if the information used to measure values in terms of leadership is from the year 2004, as this is the last available cross-cultural study, the broad cultural heritage of a society leaves an imprint on values that endure despite modernization (Inglehart & Baker, 2000).

*Control variables.* We included the gross domestic product (GDP) at purchasing power parity (PPP) and control of corruption as control variables. Given that the level of development of countries is a key factor in explaining entrepreneurial activity (Carree et al., 2007), the natural logarithm of gross domestic product (LnGDP) at purchasing power parity (PPP) per capita was included. The data source used for the GDP-PPP variable is the International Monetary Fund World Economic Outlook database for the year 2013. Control of corruption was obtained from the Worldwide Governance Indicators (WGI) project. The scores lie between -2.5 and 2.5, with higher scores corresponding to better outcomes of the institutions. Control of corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as ‘capture’ of the state by elites and private interest. The final sample was 34 countries, because those countries that were not included in the survey’s data for our research were eliminated (See Appendix 9). Table 6.1 shows all the variables used in this chapter.

Table 6.1. Definition of variables.

	Variable	Description	Source
Dependent variable Country Level	Entrepreneurship	Total Early Stage Entrepreneurial Activity. Percentage of the 18-64 population who are either a nascent entrepreneur or the owner-management of a new business (Reynolds et al., 2005)	GEM 2013
	Entrepreneurship by opportunity	TEA: Opportunity Index Percentage of adults aged 18–64, involved in TEA to pursuing perceived opportunities.	GEM 2013
	Entrepreneurship by necessity	TEA: Necessity Index Percentage of adults aged 18–64, involved in TEA reflecting necessity (lack of alternatives).	GEM 2013
Independent variables Country Level	Charismatic Leadership	The respondents were asked "How important that behavior is for a leader to be outstanding" using a Likert scale where 1 mean "greatly inhibits" and 7 "contributes greatly". This factor measures the scale by country with the subscales visionary, inspirational, self-sacrifice, performance oriented, decisive and integrity.	GLOBE 2004
	Team Oriented Leadership	The respondents were asked "How important that behavior is for a leader to be outstanding" using a Likert scale where 1 mean "greatly inhibits" and 7 "contributes greatly". This factor measures the scale by country with the subscales collaborative, integrator, diplomatic, malevolent (reverse score) and administrative competent.	GLOBE 2004
	Self-Protective	The respondents were asked "How important that behavior is for a leader to be outstanding" using a Likert scale where 1 mean "greatly inhibits" and 7 "contributes greatly". This factor measures the scale by country with the subscales self-centered, status consciousness, conflict inducer, face saver, and procedural.	GLOBE 2004
	Participative Leadership	The respondents were asked "How important that behavior is for a leader to be outstanding" using a Likert scale where 1 mean "greatly inhibits" and 7 "contributes greatly". This factor measures the scale by country with the subscales autocratic (reverse scored) and non-participative (reverse scored).	GLOBE 2004
	Humane Leadership	The respondents were asked "How important that behavior is for a leader to be outstanding" using a Likert scale where 1 mean "greatly inhibits" and 7 "contributes greatly". This factor measures the scale by country with the subscales human orientation and modesty.	GLOBE 2004
	Autonomous Leadership	The respondents were asked "How important that behavior is for a leader to be outstanding" using a Likert scale where 1 mean "greatly inhibits" and 7 "contributes greatly". This factor measures the scale by country.	GLOBE 2004
Control variable Country Level	LnGDP- PPP	Natural logarithm of gross domestic product based on purchasing power party (PPP) per capita GDP.	IMF 2013
	Corruption	Control of Corruption – capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. The values are between -2.5 and 2.5 with higher scores corresponding to better outcomes of institutions (Kaufmann et al., 2009).	WGI 2013

GEM: Global Entrepreneurship Monitor

GLOBE-Global leadership and Organizational Behavior effectiveness project, <http://business.nmsu.edu/programs-centers/globe/>

IMF – International Monetary Fund, World Economic Outlook Database

WGI - *Worldwide Governance Indicators*. <http://info.worldbank.org/governance/wgi/index.aspx#home>

In order to test the hypotheses presented in the previous section, two models were constructed. Equation 1 tests hypotheses 1 through 4, and equation 2 tests hypothesis 5. All hypotheses were tested using regression analysis.

Equation 1:

$$Y_i = \alpha + \beta_1 L_i + \beta_2 C_i + \varepsilon_i \quad (1)$$

where  $i = 1, 2, \dots, 34$  countries,  $Y_i$  is the total early stage entrepreneurial activity of country (TEA)  $i$ ,  $\alpha$  is a constant term,  $\beta_n$  is a vector of parameters to be estimated for the  $n$ th independent variables,  $L_i$  collects the leadership dimension of country  $i$ ,  $C_i$  represents the control variables of country  $i$ , and  $\varepsilon_i$  is a random disturbance

Equation 2:

$$Y_i = \alpha + \beta_1 LTR_i + \beta_2 LAuto_i + \beta_3 LTR_i \times LAuto_i + \beta_4 C_i + \varepsilon_i \quad (2)$$

where  $i = 1, 2, \dots, 34$  countries,  $Y_i$  is the TEA of country  $i$ ,  $\alpha$  is a constant term,  $\beta_n$  is a vector of parameters to be estimated for the  $n$ th independent variables,  $LTR_i$  collects the dimension related with transformational leadership of country  $i$ ,  $Auto_i$  collects the autonomous leadership dimension of country  $i$ ,  $C_i$  represents the control variables of country  $i$ , and  $\varepsilon_i$  is a random disturbance.

## 6.4 Results

Summary statistics and the correlation matrix of the variables used in this analysis are reported in Table 6.2. As can be seen, almost all variables considered are significantly correlated with entrepreneurship. Charismatic, humane, and self-protective leadership all have a positive and significant correlation with entrepreneurship, and autonomous leadership is negatively and significantly correlated with entrepreneurship. Team-oriented leadership has the expected sign; however, there is no significant correlation with entrepreneurship, and participative leadership shows a negative and not significant correlation. The correlation matrix also shows that GDP-PPP and control of corruption have a negative and significant relationship with entrepreneurship. Several authors identify a negative relationship between the level of new business activity and economic development, as measured by income per capita (Wennekers et al., 2005); furthermore, in line with these results, literature suggests that corruption can help entrepreneurship and economic growth (e.g., Dreher & Gassebner, 2013).

Table 6.2. Descriptive statistics and correlation matrix.

Variable	Mean	Std.	1	2	3	4	5	6	7	8	9	10
1. Total Entrepreneurial Activity	12.420	10.129	1									
2. Opportunity entrepreneurship	8.603	6.612	0.981***	1								
3. Necessity entrepreneurship	3.304	3.616	0.942***	0.883	1							
4. Charismatic leadership	5.871	0.255	0.303*	0.325*	0.266	1						
5. Team oriented leadership	5.803	0.213	0.27	0.27	0.264	0.774	1					
6. Self-protective leadership	3.390	0.383	0.343*	0.273	0.406*	-0.027	0.196	1				
7. Participative leadership	5.409	0.383	-0.061	0.015	-0.101	0.209	0.09	0.713***	1			
8. Humane leadership	4.861	0.399	0.517***	0.515***	0.512***	0.424**	0.357**	0.500***	-0.15			
9. Autonomous leadership	3.788	0.454	-0.321*	-0.333*	-0.288*	-0.056	-0.306*	0.008	-0.25	-0.141	1	
10. Lngdpp	27.424	1.587	-0.354*	-0.346**	-0.361**	-0.322*	-0.405**	0.101	-0.149	-0.01	0.005	1
11. Corruption	0.430	1.057	0.439***	0.381***	0.493***	0.007	-0.244	0.789***	0.534***	0.023***	0.617	0.805

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.10

Table 6.3 shows the results of regression analysis. This table shows six models testing the factors of leadership that determine the entrepreneurial activity. Given the correlations among the several independent and control variables, we tested for the problem of multicollinearity, an issue that might affect the significance of the main parameters in the regressions through variance inflation factor (VIF) computations. The maximum VIF found within our models was 3, which is below the commonly used standard of 10 (Cohen, Cohen, West, & Aiken, 2003), indicating that multicollinearity is not problematic in our analysis of variance inflation-factor (VIF) computations.

Initially, in Model 1, we entered the control variables. This model explains 29 percent of the entrepreneurship variation across countries. The estimated coefficients shown are consistent with the existing literature, indicating negative and significant correlations between entrepreneurial activity and the development indicators. GEM research has consistently revealed a particular pattern in the association between GDP per capita and the level and nature of entrepreneurial activity in an economy. In economies with low GDP per capita, TEA rates tend to be high, with a relatively high proportion of necessity-motivated entrepreneurship. High income economies are also characterized by a greater availability of resources and more affluent markets, which may stimulate an increase in opportunity-motivated entrepreneurship. This negative association result could be explained by the people who start their own business through necessity, usually in less developed countries (Reynolds, Camp, Bygrave, Autio, & Hay, 2001). As mentioned above, Dreher and Gassebner (2013) find that corruption is beneficial in highly regulated economies (specifically those with a higher number of procedures required to start a business and a larger minimum capital requirement). Their conclusion is that corruption has a positive impact on entrepreneurship in countries with bad business climates (Dutta & Sobel, 2016).

In Model 2, we added independent variables, finding that they significantly increased our ability to explain entrepreneurship. In this model, the six leadership dimensions were introduced. This model explains 53 percent of the entrepreneurship variation across countries. These results support hypothesis 1, which proposes that leadership dimensions have a significant relationship with entrepreneurial activity. Cogliser and Brigham (2004) pointed out that leadership makes a difference (despite those few studies to the contrary), but more research is needed on the mechanisms by which leaders influence, challenge, and inspire to achieve the best results and best performance and, specifically, entrepreneurship. Byrne and Bradley (2007) support the hypothesis that leadership needs to be pluralistic. Nonetheless, only three dimensions of leadership show a significant relationship with entrepreneurship. As expected, the

charismatic dimension shows a significant and positive coefficient; in contrast, the team-oriented and autonomous dimensions show a negative and significant sign. Participative, self-protective, and humane leadership dimensions are positive but do not show a significant relationship with entrepreneurship. These findings are potentially attributable to the lack of statistical power in the sample rather than to the absence of a true relationship between leadership dimensions and entrepreneurship. Similar results are found in Dunne et al. (2016).

Hypothesis 2 predicts that autonomous leadership has a negative impact on entrepreneurial activity. As mentioned above, autonomous leadership has a negative and significant relationship with entrepreneurship. This result supports hypothesis 2. Warren (1998) argues that the leader finds greatness in the group, and he helps members find this individually. On the other hand, contrary to expectations, participatory leadership is positive but is not statistically significant. However, as it was mentioned before, the team-oriented dimension was negative and significant. These results may be interpreted as meaning that teams that demonstrate the skills of cooperation and diplomacy and, above all, consideration of all team members do affect the entrepreneurship decision-making process. There are also teams that are resistant to change and decision making so as not to affect their organization's status quo. Furthermore, research on teams includes contradictory findings regarding the effects of diversity on team and performance (Williams & O'Reilly, 1998): on the one hand, heterogeneous teams can contribute to solving complex problems because of the existence of diversity in perceptions, skills, and knowledge (Stasser, Stewart, & Wittenbaum, 1995); on the other hand, heterogeneity can produce relationship conflicts among team members, resulting in poor performance (Amason & Sapienza, 1997). Similar results are found in Dunne et al. (2016). They found collaborative style to be negatively and not significantly related to innovativeness. This result could be aligned with the idea that, in general, entrepreneurs have a greater need for autonomy and independence (Knörr et al., 2013). Entrepreneurs value individualism and freedom, and they can experience difficulty relating to others (Kirby, 2004). Therefore, hypothesis 2a is not supported. Zhou and Rosini (2015) pointed out that, although the volume of entrepreneurial team research has been increasing, the empirical results are often controversial and inconclusive. Those outcomes may stem from the variety of theoretical frameworks, as well as methodological problems.

Table 6.3. Regression Results on Entrepreneurial Activity.

	Model 1		Dependent Variable: TEA		Model 3		Dependent Variable: TEA Opportunity		Dependent Variable: TEA Necessity		Dependent Variable: TEA	
	Model 2		Model 4		Model 5		Model 6					
	Coef	SE	Coef	SE	Coef	SE	Coef	SE	Coef	SE	Coef	SE
<b>Leadership Dimensions</b>												
Charismatic/Value Based leadership			22.802**	9.796	28.869***	8.464	14.930**	6.592	7.304**	3.441	2.643	94.646
Team oriented leadership			-34.316***	12.069	-36.334***	11.537	-22.227**	8.122	-11.702**	4.239	-80.023	82.758
Self-protective leadership			3.878	7.375			1.575	4.963	2.259	2.590		
Participative leadership			2.181	5.152			2.151	3.467	1.223	1.810	-2.3496	30.519
Humane leadership			5.982	4.429			4.433	2.980	1.867	1.556	119.421**	49.515
Autonomous leadership			-9.273***	3.252	-10.216***	3.027	-5.985**	2.188	-2.929**	1.142	24.762	84.684
<b>Interactions</b>												
Autonomous Leadership X Charismatic L.											3.393	24.484
Autonomous Leadership X Team oriented L.											12.785	21.363
Autonomous Leadership X Participative L.											0.961	7.831
Autonomous Leadership X Humane L.											-28.757**	12.630
<b>Control Variables</b>												
LnGDP- PPP	-2.384**		-3.054***	0.868	-2.894***	0.869	-1.897***	0.584	-1.128***	0.305	-2.594***	0.922
Corruption	-4.361***		-4.209**	1.915	-5.836***	1.290	-2.716*	1.289	-1.555**	0.673	-3.740***	1.688
Constant	79.677***		144.342*	69.188	174.351***	60.120	87.267*	46.559	47.634*	24.302	25.471***	300.146
Number of obs												
F	7.69		5.59		8		5.08		5.88		4.95	
Prob > F	0.002		0.000		0.000		0.001		0.000		0.001	
R-squared	0.332		0.641		0.588		0.619		0.653		0.712	
Adj R-squared	0.288		0.527		0.515		0.497		0.542		0.569	
Root MSE	8.544		6.968		7.057		4.689		2.448		6.653	

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.10

In Model 3, we introduced only the significant independent variables. Compared to Model 2 (second column), R-squared shows a little reduction, suggesting that Model 2 is better than Model 3. Hypothesis 3 predicts that charismatic leadership has a positive and greater impact on entrepreneurial activity than other leadership dimensions. This finding supports hypothesis 3. Previous research online with these results shows positive relationships between transformational leadership and performance (Sparks & Schenk, 2001) and between charismatic leadership and entrepreneurship (Stephan & Pathak, 2016). In the same vein, other findings indicate the importance of leadership for entrepreneurship as a moderator variable, regardless of national setting; transformational behavior, such as articulating a vision, providing an appropriate model, having high performance expectations, and showing supportive leader behavior, positively affects the relationship between entrepreneurial orientation and firm performance (Engelen et al., 2015).

Models 4 and 5 analyze opportunity entrepreneurship and necessity entrepreneurship as dependent variable, respectively. In Model 4, we introduced all leadership dimensions. This shows a significant model which explains 50 percent of the opportunity entrepreneurship variation across countries. Only charismatic leadership shows a positive and significant influence on the dependent variable, and autonomous and team-oriented leadership show a significant and negative influence on opportunity entrepreneurship. In Model 5, we introduced all leadership dimensions. Autonomous leadership and team-oriented leadership again present a significant and negative relationship with necessity entrepreneurship. Furthermore, charismatic leadership shows a positive and significant relationship with opportunity entrepreneurship. This model explains 54 percent of opportunity entrepreneurship. According to hypothesis 4, charismatic leadership has a positive and greater effect on opportunity entrepreneurship than necessity entrepreneurship. This result supports hypothesis 4. These results are in line with other empirical findings, such as those of Van Hemmen et al. (2013), who confirm that charismatic leadership has a significant and positive impact on the number of entrepreneurs by opportunity. This result is aligned with Bass's (1998) studies. The relative prevalence of opportunity-motivated versus necessity-motivated entrepreneurial activity can provide useful insights into the quality of early stage entrepreneurial activity in a given economy. The GEM 2010 Global Report (Kelley, Bosma, & Amorós, 2011) highlights a number of factors which can have a marked impact on the level of improvement-driven opportunity motivation within an economy. It seems that innovation-driven economies can require more transformational leadership to generate opportunity entrepreneurship.

Model 6 presents the interaction effect between autonomous leadership and all dimensions related to transformational leadership. As mentioned above, charismatic, team-oriented, participative, and humane



dimensions are related to the dimension of transformational leadership. We can see that the only moderation effect that is significant in the relationship between entrepreneurship and transformational leadership is humane leadership. In Model 6, only humane leadership is positive and significant for entrepreneurship. Regarding the interactive effect, we can see that the change in the level of humane leadership (from low to high) produces a decrease in the differential effect exerted by the autonomous leadership on entrepreneurship. Following these results, hypothesis 5 is only partially supported.

## **6.5 Discussion**

Although extant research has shown the importance of leadership and entrepreneurship, there is little evidence of how the leadership dimension influences entrepreneurship across countries. Using data from GEM and the GLOBE research project, we analyzed the influence of leadership on entrepreneurship. The institutional approach argues that the beliefs, values, and attitudes of a society determine the behavior of its members, and these can significantly affect the decision to become an entrepreneur (Aldrich & Zimmer, 1986; Steyaert, 2007, among others). In this sense, leadership seems to be an influencing process between individuals: in a more advanced conceptualization, leadership is a shared property of a social system including interdependencies among individuals and organizations (Day & Harrison, 2007).

We find general support for our main thesis that all leadership dimensions have a strong effect on total national entrepreneurial activity, indicating that the dimension of charismatic leadership has a greater effect on entrepreneurial activity than other leadership dimensions, and even more with opportunity entrepreneurship. This study also shows that autonomous leadership has a negative impact on entrepreneurial activity. This study provides evidence that differences in the levels of entrepreneurship across countries could be attributable to cultural leadership dimensions and provides a framework to better understand this essential aspect of opportunity and necessity entrepreneurship. Considering that charismatic leadership is widely endorsed across cultures, this study suggests incorporating the modeling of charismatic behaviors in entrepreneurship training (Stephan & Pathak, 2016). With regard to other dimensions, research and training would need to be tailored for specific cultures because the relative acceptance of leadership varies greatly across cultures, particularly so if those cultures differ markedly in their endorsement of charismatic and autonomous CLTs. Some of our results also appear counterintuitive and therefore raise intriguing questions, which we hope will encourage additional work on the dynamic links among leadership and new business activity in various types of economies and in different cultural settings.

## 6.6 Conclusion

The objective of this chapter was to analyze the leadership dimensions that influence entrepreneurship. The main results indicate that leadership dimensions have a strong relationship with entrepreneurship. From a conceptual perspective, this study reinforces the idea of the importance of understanding cultural leadership and entrepreneurship as a collaborative process for the development of our societies. This study is in line with the increasing research which explicitly acknowledges the sociocultural context in which leadership and entrepreneurship exist (Lewis, 2015).

Practical implications can be drawn for business and education about the style of leadership that will be better received in organizations, companies, or governments and which must therefore be studied and promoted. Ulrich (1996) argued that future leaders will need to be pioneers who take risks, create new paths, shape new approaches, have strong values that drive their actions, and master the art of forming teams. Bass (1998) argues that parents should teach their children to accept responsibility for their own actions, to be willing and confident in accepting challenges, and to question authority when necessary. Maslow (1954) postulated that there was a hierarchy of needs. Now, it seems to be important to go beyond this, at the charismatic and transformational stage, where transcendental organizational citizenship behavior like altruism, conscientiousness, collectivism, and civic virtues can be achieved. Along the same lines, Humphrey (2013) pointed out the importance of empathy and emotional intelligence that leaders must develop for entrepreneurship.

Future studies may provide more knowledge by studying the impact of leadership not only on the total entrepreneurial activity of a country, but also on other types of entrepreneurship, such as social entrepreneurship, intrapreneurship, or corporate entrepreneurship. Future research should explore the complex effects of social culture and entrepreneurship, as well as how leadership can drive social economic development like jobs, innovation, and social value. Moreover, leadership research will be advanced by a continued focus on how leadership behaviors operate in widely different cultures and by identifying optimal leadership profiles specific to particular cultures (Brodbeck et al., 2000). While research on leadership has identified an extensive list of key leadership factors, it is proposed that exploring the context of leadership by explicitly incorporating the role of social culture will be a more appropriate way of searching for effective leadership factors than trying to identify attributes that may (or may not) be universally endorsed or effective. Thus, further cross-cultural research is imperative for an improved understanding of leadership as a global concept and its effects on entrepreneurship. Future

studies could be considered in the light of institutional economics, analyzing the relationships among the normative factors (Scott, 2007) that support the institutions and leadership and entrepreneurship. Given the importance of leadership development, it is critical that leadership models are as comprehensible, complete, and coherent as possible (Cox, Pearce, & Sims, 2003).

In summary, entrepreneurs are an important type of strategic leader. Understanding entrepreneurship and leadership as drivers in different cultural contexts is essential for the development of our societies. This study integrates insights from institutional and leadership theory and proposes culturally endorsed implicit leadership theories (CLTs) as a fresh perspective to advance comparative entrepreneurship research. This study contributes to the leadership and entrepreneurship literature by examining how the interplay between leadership dimensions shapes the level of new business activity across economies. This work demonstrates the complexity of entrepreneurship, highlighting important links between culture and leadership styles. This study therefore challenges others to develop and test further contextual leadership models using a more complete spectrum of personal, social, and cultural variables. This is a modest study, but an important research effort to help leadership and entrepreneurial theorists and strategic leaders grapple with the enormous complexities posed by a varied and competitive global market. In short, this study contributes to a better understanding of the mechanisms through which leadership cultural values influence entrepreneurship.

# CHAPTER 7

## CONCLUSIONS

## 7.1 Main Conclusions

Leadership and entrepreneurship are concerned with growth and wealth creation (Ireland et al., 2003). Leadership is linked to the success of all sizes and types of firm (Daily, McDougall, Covin, & Dalton 2002) because it has a substantial effect on entrepreneurship (Elenkov & Manev, 2005; Ensley et al., 2006b; Zhou, 2016). Important international organizations and global forums such as the World Economic Forum in Davos 2015 agree that two of the most important problems that the world faces today are the lack of job opportunities and the lack of leaders. Global leaders agree that we have a leadership crisis in the world today.

Along these lines, there has been a renewal of interest in the personal factors of leadership, especially those factors that develop charismatic and transformational leaders. The need to learn more about those informal factors is apparent (Bass & Bass, 2008). Overall, the need to develop the required skills, values, beliefs, and behaviors for leadership and entrepreneurship is recognized (Dorfman et al., 2012) and these elements are learned and shared by a sociocultural environment (Hofstede, 1980). As mentioned above, the relationship between sociocultural context and leadership (Chen et al., 2016b; Li et al., 2015) and entrepreneurship (Hafer & Jones, 2015; Shapero & Sokol, 1982; Stephan, Uhlaner, & Stride, 2015; Thornton et al., 2011) has received growing research attention. However, few researches has provided concrete links between sociocultural context and entrepreneurial leadership, and even fewer have studied this relationship from an institutional perspective. The current investigation has shown that sociocultural (informal institutions) factors are relevant to the promotion of leadership and entrepreneurship. Moreover, as we propose in this thesis, consideration of the sociocultural context will further benefit our understanding of both fields. The need to obtain greater knowledge regarding the influence of sociocultural factors has been pointed out. This investigation used institutional economics (North, 1990) and the theory of social and economic organization (Weber, 1947) as theoretical frameworks for the study of entrepreneurship and leadership respectively.

The main objective of this investigation was to analyze the relationship between leadership and entrepreneurial activity from a sociocultural perspective. The results obtained indicated that informal institutions, such as belief, values, perceptions, behavior, and social capital, affect leadership and entrepreneurship. Specifically, independence, risk taking, religious faith, and networking are related to entrepreneurial leadership. Tolerance, creativity, social capital, power, and responsibility proved to be related to leadership in an international context. An effect of transformational leadership attributes on

leadership behaviors, as well as social capital and resilience, was found in developing countries. Finally, the results obtained indicate that leadership is related to entrepreneurship, especially charismatic leadership has a positive effect on entrepreneurship and, even more, on opportunity entrepreneurship (see Table 7.1).

From a conceptual perspective, the results of this thesis support the importance of the sociocultural environment for entrepreneurship (Baum & Locke, 2004; Davidsson & Honig, 2003; Lounsbury & Glynn, 2001) and leadership (House & Aditya, 1997; Javidan, House, Dorfman, Hanges, & De Luque, 2006). This thesis explores, analyzes, and studies the informal factors that may overlap leadership and entrepreneurship.

Table 7.1. Summary of the main results of the research.

Chap.	Independent variables	Dependent variables	Methodology	Main results
3	Independence Risk taking Religious faith Networking	Entrepreneurial leadership	Logistic regression. Data were obtained from the WVS. Sample of 50 countries.	Informal institutions such as independence, risk taking, and networking increase the probability of being an entrepreneurial leader.
4	Tolerance Creativity Social capital Power value Responsibility	Leadership behavior	Panel data from wave 5 (2005–2008) and wave 6 (2010–2012). Sample of 35 countries.	Informal institutions such as tolerance, creativity, social capital, and responsibility have a positive effect on leadership behavior. Only power shows a negative effect on leadership behavior.
5	Transformational leadership Social capital Resilience	Leadership behavior	Factor analysis and logistic regression models utilizing data obtained from INEGI Mexico-OCDE 2014.	All informal institutions are positively related to the probability of displaying leadership behavior. We find differences between rural and urban contexts.
6	Charismatic Team-oriented Self-protective Participative Humane Autonomous	Total entrepreneurial activity; opportunity entrepreneurship; necessity entrepreneurship	Multiple regression analysis over 34 countries	Leadership dimensions have a strong relationship with entrepreneurship. Charismatic leadership has a greater positive effect on entrepreneurship than other dimensions and even more so on opportunity entrepreneurship. Autonomous leadership has a negative relationship with entrepreneurship; we also found a positive moderating effect between leadership dimensions and entrepreneurial activity.

As mentioned in chapter 1, we explored in phase 1 the content and evolution of the research on sociocultural factors (informal institutions) that influence entrepreneurship and leadership. Specifically in chapter 2, we explored the main research on leadership and entrepreneurship from a sociocultural perspective published in journals indexed by the SSCI Web of Knowledge in the last 20 years. We identified 200 articles published in the top journals in the management and entrepreneurship fields. We also identified the authors, content, units of analysis, statistical techniques, and conceptual frameworks used. The literature review revealed several gaps. The first gap was in the literature that deals with the relationship between leadership and entrepreneurship from a sociocultural perspective: this is very scarce among those journals with the greatest impact factors in the business subject category (representing only three percent of the total published on the subject). Along the same lines, literature reviews that specifically address the intersection of these two concepts, pointing to sociocultural factors, are non-existent. The second gap concerns research dealing with the relationship between leadership, entrepreneurship, and sociocultural factors, where we found no clarity in terms of the theoretical framework used for these articles. We suggested institutional theory to link these fields. Thirdly, more than 60 percent of the papers analyzed made use of multiple lineal regressions and logistic regression models. Fourthly, this study shows that although much of this research has been conducted in a large number of countries (104), it is focused mainly on the United States, China, the United Kingdom, and Germany, highlighting the scant research in Latin American countries. Therefore, in order to fill those gaps, we developed an investigation both at the regional level, in Mexico, and at an international level, employing an institutional perspective (North, 1990, 2005) as the theoretical framework.

Next, in phase 2, we empirically analyzed the informal institutions that influence entrepreneurial leadership through logistic regression models. Furthermore, we studied the informal institutions that affect leadership behavior through the application of panel data (considering the international context) and logistic regression models (focusing on developing countries). Finally, we analyzed the leadership dimensions that influence entrepreneurship with the application of regression analysis.

In chapter 3, we analyzed the informal institutions that influence entrepreneurial leadership. Through logistic regression analysis using data from 50 countries, it is statistically demonstrated that informal institutions increase the probability of entrepreneurial leadership. Independence, risk taking, networking, and religious faith increase the probability of being an entrepreneurial leader. Also, we found the

relationship between independence and entrepreneurial leadership to be moderated by networking and religion. This study provides empirical evidence to strengthen the concept of entrepreneurial leadership.

In the chapter 4 we studied the informal institutions that affect leadership behavior considering the international context, having studied the impact of informal institutions. We were able to show that informal institutions (tolerance, creativity, social capital, and responsibility) have a positive effect on leadership behavior, while other informal institutions, such as power, have a negative effect on leadership. This study included data from 35 countries and used fixed-effects panel data. The chapter provides insights to advance self-leadership or identity under a sociocultural perspective.

Along the same lines, in chapter 5, we studied the informal institutions that affect leadership behavior, focusing on developing countries and demonstrating that informal institutions (transformational attitudes, social capital, and resilience) are related to the probability of displaying leadership behavior. This study used data from a national database. The study indicates that, in Mexico, differences between leadership behaviors are in part explained by the presence of informal institutions.

Finally, in chapter 6, we analyzed the leadership dimensions that influence entrepreneurship. We found that cultural leadership dimensions (charismatic/value-based, team-oriented, participative, humane, autonomous, and self-protective) are relevant for entrepreneurship (opportunity and necessity entrepreneurship). We also found that the charismatic leadership dimension has a greater effect on entrepreneurial activity than other leadership dimensions, and even more so on opportunity entrepreneurship. We observed that autonomous leadership has a negative impact on entrepreneurial activity. The data for this study came from 34 countries. This chapter confirms empirically the relationship between leadership and entrepreneurship and highlights the importance of charismatic and transformational behavior for entrepreneurship.

Moreover, the findings obtained in phase 1 suggest the importance of informal institutions: in particular, we found that social capital, and networking have been examined in the field of leadership and in the field of entrepreneurship. In phase 2, we confirm these results. Networking are positively related to entrepreneurial leadership as well as to social capital with leadership behaviors. These results confirm the importance of this informal factor for both domains. (Leitch, McMullan, & Harrison, 2013).



## 7.2 Implications

As highlighted in the first chapter, this thesis might have both theoretical (academic) and practical contributions. From an academic point of view, this thesis contributes to the creation of knowledge in an understudied area such as the sociocultural factors that affect both leadership and entrepreneurship.

Concerning the theoretical contributions, although there is agreement on the importance of sociocultural factors for leadership (e.g., Dorfman et al., 2012) and for entrepreneurship (Thornton et al., 2011), little research has been conducted under the institutional approach in these disciplines. The study of leadership has produced multiple theories from different perspectives (Bass & Bass, 2008), while the study of entrepreneurship has used psychological, economic, resource-based, and institutional approaches. Therefore, considering that there are many similarities between leaders and entrepreneurs, the institutional approach can contribute elements to integrate these fields and to move forward faster.

Therefore, in this thesis we have used North's institutional theory (1990, 2005) to propose an operationalization of informal factors. The approach of institutional theory can contribute to better understanding of the integration of leadership and entrepreneurship under a sociocultural approach. To the best of our knowledge, there are very few quantitative studies in this field that make explicit use of institutional economics. In this sense, we also propose to continue advancing the concept of entrepreneurial leadership. Several authors have suggested an integration to move forward in both fields (Gartner et al., 1992; Vecchio, 2003). This research contributes to the concept of the intersection of leadership and entrepreneurship with the concept of the entrepreneurial leader. This new paradigm of leadership extends beyond a theoretical and empirical convergence of the fields (Cogliser & Brigham, 2004) and relates to the attributes of leadership across contexts (Gupta et al., 2004; Harrison et al., 2016).

There are several practical implications arising from this study. The results of this investigation should help in the creation of educational and training programs that promote leadership and entrepreneurship as a personal value or core competence as well as a collective culture. Leadership and entrepreneurial education should not only pursue individual success, but also collective success. This thesis could also be helpful to government policy that is meant to support initiatives to promote entrepreneurship, considering particular differences according to their contexts. Educational and support programs should produce leaders and entrepreneurs for a more complex environment. This thesis invites the strengthening of skills, attitudes, and values that improve leadership and entrepreneurship.

There is significant evidence that leadership and entrepreneurship can create opportunities to build a better society. Recognizing and developing the factors that drive them is everybody's responsibility. In today's world, it is necessary to move forward along an educational path that can inspire integrated, fair, and collective development. New versions of transformational, ethical, resilient, creative, and transcendental leaderships (Brendel et al., 2016) can be an answer to today's challenges. We expect this research to be used as an inspiration to leaders and entrepreneurs all around the world.

### **7.3 Limitations and Future Research**

We acknowledge that our results are subject to limitations that propose avenues for further research. We identified four areas that appear to be particularly relevant for future research: conceptual, integrative, contextual, and methodological. First, the institutional theory was introduced seeking to inspire the path for entrepreneurial leadership, by offering an adequate approach to understanding the different forms of human interaction as well as the influence of the environment. There is still a way to go, to recognize, not only which, but also how and where the factors or elements that lead to leadership and entrepreneurship become more potent. Moreover, future studies need to theorize more rigorously about the emergence of informal institutions and particularly about the mechanisms through which informal rules are created, communicated, and learned (Helmke, & Levitsky, 2004). Second, future studies may have the opportunity to integrate studies of leadership and entrepreneurship under the same perspective. As mentioned above, both disciplines establish the importance of understanding the individual as a personal, social, and cultural being, where their values, context and norms determine their behavior to a great extent. It is essential to promote a pluralistic research agenda that encourages fertilization across disciplines, methods, and regions. Further research is required to be more comprehensive and multi-level. On the other hand, it is necessary to integrate and advance towards new and fresh perspectives of leadership, focused on the development of authentic identities, where each human being, each region, each country, could find and catapult its drivers for its growth and well-being. It is well known that transformational and charismatic leaderships have proven to be relevant to development, but more research is necessary in order to understand the role of the context in which they are developed. Third, research must advance to benefit all the regions, from the richest to the poorest. The great gaps in the world make evident the need to investigate more in less favorable contexts or in the study of minorities. Therefore, we recommend to future researches to focus not only on economic and geographic differences to target, but also in incorporating those collective traits that distinguish and motivate the communities.

Finally, all this will be possible, if research advances qualitatively and quantitatively. From the qualitative point of view, better measuring instruments that deepen in reasons, motives or insights of behavior should be considered, as well as the role and value of context in leadership and entrepreneurship, considering the new values of present generations as well as those values that endure over time. In Table 7.2, we present a summary of the limitations and future research lines that have been identified in this study.

Table 7.2. Limitations and future research lines.

<b>Limitations and future research lines</b>	
Conceptual framework	<p>The lack of a clear definition of entrepreneurial leadership may also imply complexity in making this variable operational. Our entrepreneurial leadership variable may not capture the broader concept of leadership and entrepreneurship (Gupta et al., 2004). We recommend advance in a more extensive concept in the light of institutional economics. We suggest an exploration of which and how (normative and cognitive) informal factors (Scott, 2007) can substitute or complement unfavorable institutional conditions. Moreover, future studies continue to integrate an institutional approach, especially using informal institutions as a link between leadership and entrepreneurship from a sociocultural perspective, considering both fields have been interested in determining the contextual factors that foster or inhibit leadership and entrepreneurship.</p>
Integration of topics	<p>Little research integrating leadership and entrepreneurship from a sociocultural approach was identified. We suggest advancement in theory about integrative models on how leaders' behaviors are related to the processes of influence to create entrepreneurship. Also, we encourage research from both fields to integrate and learn together, given the numerous potential areas where entrepreneurship researchers might benefit from leadership researchers (Cogliser &amp; Brigham, 2004). We encourage future research to examine leadership as a multilevel and integrative process (Day &amp; Harrison, 2007) and to advance in the integration of different levels, such as personal, cultural, subcultural, and institutional, and how they relate to leadership and entrepreneurship.</p> <p>Leadership was based on transformational and charismatic theories. We invite researchers to look further into a new model of authentic leadership development (Luthans &amp; Avolio, 2003), identity self-concept (Day &amp; Harrison, 2007), and emotions-based leadership (Walter &amp; Scheibe, 2013). Also, we encourage the integration of social and corporate entrepreneurship research into entrepreneurial leadership research. We suggest that future studies should examine whether the moderating effects of transformational leadership may be influenced by cultural dimensions such as individualism, power distance, masculinity, collectivism, and uncertainty avoidance in entrepreneurship. Examining such issues would involve testing the interactive effects of transformational leadership and specific cultural or sociocultural value.</p>

### Limitations and future research lines

#### Research context

Data availability represents another constraint of the study, especially in Latin American Countries. We encourage researchers to extend this investigation by analyzing the effects on less developed countries and comparing the results. Empirical evidence is still scarce in these contexts. Future studies may contribute to close social, cultural, and economic gaps, especially using the advance in entrepreneurial leadership as a critical variable to improved performance in developing nations (Harrison et al., 2016). We encourage future research to focus not only on geographical differences, but on multinationalism and diversity. We suggest that future studies empirically explore the context within diverse contexts. In addition, the role of gender and minorities has rarely been taken into account in the literature. We exhort further cross-cultural research as imperative for an improved understanding of leadership as a global concept and its effects on entrepreneurship.

#### Methodology

The operationalization of entrepreneurial leadership variable represents a limitation in this research, because the original item was collected for some other purpose. Although we used a rigorous methodology, the results of this study should be interpreted carefully. This research uses an instrument and databases not originally intended for developing the construct of entrepreneurial leadership. Moreover, this study uses international databases such as GLOBE items which reflects the perceptions of the respondents rather than performance data or observed behaviors. The data used in this research may not be robust enough to explain the complex relationship between variables. Our data did not allow us to carry out more advanced statistical techniques. Future lines may improve the measurement of both dependent and independent variables and, try to establish the causal relationships in cross-sectional data. We call for advance research such as multilevel statistical models.

We encourage further empirical research on different socio-cultural contexts. The consideration of sub-samples of countries or of dichotomous variables that collected distinctive socio-cultural information, beyond the aggregated results, could help to carry out in-depth analysis. Also, we suggest examining leadership and entrepreneurship in a longitudinal study. This way, comparisons can be made between acculturation and value changes over time, and the corresponding implications for entrepreneurship (Morris & Schindehutte, 2005) We also, recommend a future approach through qualitative methods that may yield novel or unanticipated findings (Bryman, 1984). The availability of data has constrained our analysis.

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## APPENDIX

### Appendix 1. List of articles studied in Chapter 2

List of articles that address the relationship between leadership (L), entrepreneurship (E) and sociocultural factors or informal factors (SC/I)

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Abdelgawad et al (2013)	L-E	Journal of Leadership and Organizational Studies	In this article, the concept of entrepreneurial capability (EC) to capture a firm's capacity to sense, select, and shape opportunities, and synchronize their strategic moves and resources in pursuit of these opportunities is introduced.	Dynamic capabilities	Theoretical		
Agarwal et al (1999)	L-SC/I	Journal of International Business Studies	This study fills the gap and presents a framework for understanding the role of culture on relationships between leadership behaviors and organizational commitment.	Not defined explicitly	Empirical	Macro	Multiple lineal regression
Aidis et al (2008) (2008)	E-SC/I	Journal of Business Venturing	This paper explores the ways in which institutions and networks have influenced entrepreneurial development in Russia.	Not defined explicitly	Theoretical		
Álvarez et al (2014)	E-SC/I	Small Business Economics	This article analyzes the content and evolution of research based on the Global Entrepreneurship Monitor (GEM) project	Institutional economics	Empirical	Macro	Descriptive Analysis
Arenius and Minniti (2005)	E-SC/I	Small Business Economics	This study of nascent entrepreneurship includes demographic and economic characteristics of the individual, perceptual variables based on subjective judgements of the individuals, and aggregate variables summarizing the environment in which individuals make decisions.	Not defined explicitly	Empirical	Macro	Logistic regression
Audretsch et al (2013)	E-SC/I	Journal of Business Venturing	This paper examines the influence of religion and social class on individuals' occupational choices. Based on a large-scale database from India.	Institutional Theory and social dominance theory	Empirical	Micro	Logistic regression

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Autio et al (20-13)	L-E-SC	Journal of International Business Studies	This study explores the effects of national cultural practices on entrepreneurial behaviors by individuals, use appropriate multilevel research designs and considers the effects of culture on different entrepreneurial behaviors.	Not defined explicitly	Empirical	Macro	Multiple lineal regression
Bamiatzi et al (2015)	L-E	Journal of Small Business Management	This study investigates linkages between personal competencies and leadership style among female small and micro business owners. Although prior research suggests that leadership style is shaped according to a leader's traits and abilities, few empirical studies corroborate this, particularly among female owners.	Not defined explicitly	Empirical	Meso	Multiple lineal regression
Baron and Tang (2009)	E-SC/I	Journal of Management	This research seeks to extend previous findings concerning the relationship between entrepreneurs' social skills and new venture performance.	Not defined explicitly	Empirical	Meso	Multiple lineal regression
Barringer and Bluedorn (1999)	L-E	Strategic Management Journal	This study examines the relationship between corporate entrepreneurship intensity and five specific strategic management practices.	Not defined explicitly	Empirical	Meso	Multiple lineal regression
Batjargal et al (2013)	L-E	Academy of Management Journal	This study examines the interrelationship among formal institutions, social networks, and new venture growth.	Institutional Theory	Empirical	Micro	Multiple lineal regression
Baum and Locke (2004)	E-SC/I	Journal of Applied Psychology	This study contributes to the revival of interest in understanding the effects of entrepreneurs' personal characteristics as traits and skill (passion, tenacity, and new resource skill) and situationally specific motivation (communicated vision, self-efficacy, and goals) to subsequent venture growth.	Not defined explicitly	Empirical	Micro	Multiple lineal regression
Baum et al (1998)	L-E	Journal of Applied Psychology	The present study focuses on the vision component in entrepreneurial firms. This is the first study to examine the effects of vision on the performance of the organization as a whole.	Not defined explicitly	Empirical	Micro	Descriptive Analysis

Author/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Begley and Tan (2001)	E-SC/I	Journal of International Business Studies	This study provides predictors of interest in entrepreneurship. At the cultural level, social status of entrepreneurship and shame from business failure predict interest in entrepreneurship and at the individual level, social status predicts interest in entrepreneurship.	Theory of face.	Empirical	Macro	Multiple lineal regression
Berson et al (2006)	E-SC/I	The Leadership Quarterly	This paper presents theoretical and empirical work relevant to the nexus of leadership with organizational learning.	Organizational learning	Theoretical		
Bowen and De Clercq (2008)	E-SC/I	Journal of International Business Studies	This study hypothesizes that a country's institutional environment will influence the allocation of entrepreneurial effort.	Institutional Theory	Empirical	Macro	Logistic regression
Breugst et al (2012)	L-E	Entrepreneurship Theory and Practice	This paper analyses the employees' perceptions of entrepreneurial passion influence their commitment to entrepreneurial ventures.	Theories of emotional contagion and goal setting	Empirical	Micro	Factor Analysis
Bullough and De Luque (2015)	L-E	Leadership	This paper explores how globally endorsed leadership behaviors affect women's involvement in leadership by empirically examining the impact of Project GLOBE's culturally endorsed implicit leadership theories on a sample of female business and political leaders.	Culturally endorsed implicit leadership theories.	Empirical	Macro	Multiple lineal regression
Bullough et al (2015)	L-E	Academy of Management Perspectives	This paper presents a framework that provides the core factors that need to be considered to effectively achieve a program's goals: the elements of the program, human factors, the contextual environment, and funding.	Not defined explicitly	Theoretical		
Busenitz and Lau (1996)	E-SC/I	Entrepreneurship Theory and Practice	This article explores the phenomenon that some cultures produce many more entrepreneurs than others. This article takes a cognitive perspective because it is assumed that the way one thinks has a significant impact on the intention to start a new business.	Not defined explicitly	Theoretical		
Busenitz et al (2000)	E-SC/I	Academy of Management Journal	This study introduces and validates a measure of country institutional profile for entrepreneurship consisting of regulatory, cognitive, and normative dimensions.	Not defined explicitly	Empirical	Micro	Structural equation model

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Bygrave and Minniti (2000)	E-SC/I	Entrepreneurship Theory and Practice	This study presents a framework describing the interdependence between entrepreneurial decisions at the individual level and the local amount of entrepreneurial activity.	Not defined explicitly	Theoretical		
Byrne and Bradley (2007)	L-SC/I	Journal of Business Research	To compare and assess the separate roles which personal and national culture plays in the mediation of management leadership styles.	Schwartz's framework	Empirical	Micro	Logistic regression
Casson and Giusta (2007)	E-SC/I	International Small Business Journal	This paper investigates how social interaction between rational actors is to be modelled when there is a large number of actor to be considered.	Economic approach	Theoretical		
Castañó et al (2015b)	L-SC/I	Journal of World Business	This paper presents perceptions concerning the characteristics of outstanding leaders and differences in leadership preferences across countries in the region present important issues for organizations.	Cross-cultural leadership (House, 2004)	Empirical	Macro	Structural equation model
Castañó et al (2015a)	E-SC/I	Journal of Business Research	This study analyzes three groups of factors affecting entrepreneurship and entrepreneurs' perceptions of opportunity: social, cultural, and economic variables.	Sociocultural approach and Economic approach	Empirical	Macro	Structural equation model
Chakravarthy and Gargiulo (1998)	L-E	Journal of Management Studies	This paper argues that the legitimacy of corporate leadership during the restructuring of a traditional bureaucratic organization is crucial to its eventual transformation to one of the new organizational forms.	Not defined explicitly	Theoretical		
Chan et al (2012)	L-E	Journal of Vocational Behavior	This study proposes a person-centered framework for conceptualizing subjective careers in an increasingly boundaryless work context.	Not defined explicitly	Empirical	Micro	Structural equation model

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Chan et al (2015)	L-E	Personality and Individual Differences	This paper investigates whether different kinds of people are motivated towards entrepreneurial as compared to organizational leadership or specialized professional work-roles, using a new framework that includes entrepreneurship, professionalism and professionalism as different dimensions of subjective career space.	The 'Big Five' model of personality	Empirical	Micro	Multiple lineal regression
Chang and Chen (2015)	L-E	Journal of Business Research	This study investigates which kinds of leadership styles (transactional leadership or transformational leadership) can simultaneously benefit learning performance.	Transactional leadership and transformational leadership.	Theoretical		
Chell and Baines (2000)	E-SC/I	Entrepreneurship and Regional Development	The paper draws on quantifiable data from 104 owner-managers and qualitative data from 34 critical incident interviews from a study of microbusinesses to assess the nature and extent of networking activity.	Not defined explicitly	Empirical	Micro	Descriptive Analysis
Chen and Nadkarni (2016)	L-E	Administrative Science Quarterly	This paper examines how two distinct CEO temporal dispositions—time urgency (the feeling of being chronically hurried) and pacing style (one's pattern of effort over time in working toward deadlines)—each influence corporate entrepreneurship, a key strategic behavior.	Trait Theory	Empirical	Micro	Multiple lineal regression
Chen and Tjosvold (2006)	L-SC/I	Journal of Management Studies	This study proposes that quality relationships between leaders and employees promote effective participation in China and that cooperative interdependence is an important foundation upon which to develop these relationships.	Theory of cooperation and competition	Empirical	Macro	Structural equation model
Chen et al (2014)	L-E	Journal of Product Innovation Management	This study aims to investigate the processes through which such effect is achieved and to determine whether corporate entrepreneurship and technology orientation as intervening factors influence this effect.	Transformational leadership	Empirical	Meso	Multiple lineal regression

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Chen et al (2015)	L-E	Journal of Business Research	Based on the theories of cognitive psychology and conflict management, this paper sheds light on the missing link between entrepreneurial cognition and conflict handling in the entrepreneurship domain.	Not defined explicitly	Empirical	Micro	Structural equation model
Chen et al (2016a)	L-SC/I	The Leadership Quarterly	This study proposes that the voice behavior of employees serves as a mechanism reflecting how ethical leadership affects individual creativity.	Not defined explicitly	Empirical	Micro	Structural equation model
Cogliser and Brigham (2004)	L-E	The Leadership Quarterly	This review examines the intersection between the fields of leadership and entrepreneurship with an emphasis on how the path taken by leadership research can inform entrepreneurship and possibly lessen this young field's growing pains.	Not defined explicitly	Theoretical		
Companys and McMullen (2007)	E-SC/I	Small Business Economics	This paper reviews the strategic management and entrepreneurship literatures to identify the nature and character of entrepreneurial opportunities and the entrepreneurial strategies that firms employ to seize and commercialize these opportunities.	Cultural cognitive, economics school, sociopolitical.	Theoretical		
Cope et al (2011)	L-E	International Journal of Management Reviews	This article problematizes the nature of the form of leadership relevant for the small business as it matures. In this way, it explores the temporal dimension to the appropriateness of distributed leadership in the context of the entrepreneurial business.	Not defined explicitly	Theoretical		
Currie et al (2008)	L-E	Public Administration	This study explores the possibility for the enactment of entrepreneurial leadership in the English public sector under the Labour government's modernization agenda.	Not defined explicitly	Theoretical		

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
D'Intino et al (2007)	L-E	Journal of Leadership and Organizational Studies	The purpose in this paper is to provide a comprehensive examination of recent research into individual differences in order to better understand the future promise of self-leadership as a concept and a research subject for entrepreneurship.	Not defined explicitly	Theoretical		
Davidsson and Honig (2003)	E-SC/I	Journal of Business Venturing	The purpose of this research is to provide methodologically sound empirical longitudinal observations leading to a better understanding of aspects of human and social capital that may be influential during the emergent phases of the entrepreneurial process.	Human and social capital theory	Empirical	Micro	Logistic regression
De Clercq et al (2014b)	E-SC/I	Small Business Economics	This study addresses the relationship between the munificence offered by a country's proximate institutions in terms of a critical financial resource (informal investments) and human resource (entrepreneurship education) and its early-stage entrepreneurial activity.	Institutional Theory	Empirical	Macro	Multiple lineal regression
De Clercq et al (2010)	E-SC/I	International Business Review	This paper studies the effect of associational activity on the level of new business activity in emerging economies drawing from social network and institutional theories.	Institutional theory	Empirical	Macro	Logistic regression
De Clercq et al (2013)	E-SC/I	Entrepreneurship Theory and Practice	This study considers the relationship between people's access to resources and their likelihood to start a new business, and particularly how this relationship might be moderated by formal and informal institutions.	Schwartz's Cultural dimension	Empirical	Macro	Multiple lineal regression
Den Hartog et al (1999)	L-SC/I	The Leadership Quarterly	This study focuses on culturally endorsed implicit theories of leadership (CLTs). Although cross-cultural research emphasizes that different cultural groups likely have different conceptions a controversial position is argued here: namely that attributes associated with charismatic/transformational leadership will be universally endorsed as contributing to outstanding leadership.	Culturally endorsed implicit theories of leadership (CLTs).	Empirical	Macro	Descriptive Analysis
Dencker et al (2009)	L-E	Academy of Management Journal	This study reveals that an entrepreneur's breadth of knowledge has a negative influence on the firm's job creation, whereas the entrepreneur's leadership experience has a positive influence.	Not defined explicitly	Empirical	Meso	Logistic regression



<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Dess et al (1999)	L-E	Entrepreneurship Theory and Practice	This study proposes counterintuitive ideas or, alternatively, deny the "assumption bases" of ETP's readers.	Not defined explicitly	Theoretical		
Dewald and Bowen (2010)	E-SC/I	Entrepreneurship Theory and Practice	This study focuses on resilient responses to simultaneous perceived threat and opportunity by managers of small incumbent firms.	Not defined explicitly	Empirical	Micro	Multiple lineal regression
Díaz et al (2012)	E-SC/I	International Entrepreneurship and Management Journal	This research evaluates the influence of institutional environment on entrepreneurial intention using a comparative analysis of different attitudes among university students in two countries.	Institutional economics	Empirical	Micro	Descriptive Analysis
Dickson and Weaver (2008)	E-SC/I	International Entrepreneurship and Management Journal	This research suggests that an entrepreneurial orientation may be to an important extent a strategic response to institutional forces.	Institutional theory	Empirical	Macro	Multiple lineal regression
Dickson et al (2012)	L-SC/I	Journal of World Business	In this article, it is summarize research on how the meaning of leadership varies systematically across cultures, and describe the conflict in the literature between the quest for universals and the identification of cultural contingencies in leadership theory.	Cultural contingencies on Leadership theory	Theoretical		
DiPietro et al (2008)	L-E	International Entrepreneurship and Management Journal	This paper explores the dynamic relationship between entrepreneurship, franchisees, and management as an important triangle.	Resource-based view and upper echelons perspective	Empirical	Micro	Descriptive analysis
Dorfman et al (2012)	L-SC/I	Journal of World Business	The focus of this paper is on leadership, specifically what it is known and had learned from the GLOBE project so far.	Cross-cultural leadership	Empirical	Macro	Descriptive Analysis

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Edelman and Yli-Renko (2010)	E-SC/I	Entrepreneurship Theory and Practice	In this article, the roles that both objective environmental conditions and entrepreneurial perceptions of opportunity and resource availability play in the process of firm creation are presented.	Entrepreneurship theory: Discovery perspective and Creation perspective	Empirical	Micro	Descriptive Analysis
Eggers and Song (2015)	L-E	Academy of Management Journal	This study investigates the presence (or absence) of learning benefits from a previous to a subsequent venture.	Attributional perspective	Empirical	Micro	Logistic regression
Egri and Herman (2000)	L-SC/I	Academy of Management Journal	This study contributes to current knowledge about leaders and organizations in the North American environmental sector in a number of ways.	Transformational leadership theory	Empirical	Macro	Descriptive Analysis
Elenkov and Manev (2005)	L-SC/I	Journal of Management	This study proposes and tests a model for top-management influence on innovations. Three research questions are addressed: Is top managers' influence on innovation a function of their leadership? Does socio-cultural context directly affect leadership? Does sociocultural context moderate the relationship of leadership with top-management influence on innovation?	The Full-Range Leadership theory.	Empirical	Macro	Multiple lineal regression
Elenkov et al (2005)	L-SC/I	Strategic Management Journal	This study investigates the relationship of strategic leadership behaviors with executive innovation influence and the moderating effects of top management team (TMT)'s tenure heterogeneity and social culture on that relationship.	The 'Big Five' model of personality	Empirical	Macro	Multiple lineal regression
Engelen et al (2015)	L-E	Journal of Management	This research shows that entrepreneurial orientation (EO) is positively associated with firm performance, but several contingencies affect the strength of this relationship.	Resource-based view and upper echelons perspective	Empirical	Meso	Multiple lineal regression

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Ensley et al (2000)	L-E	Journal of Small Business Management	This research involves an attempt to verify the existence of lead entrepreneurs, or alpha heffalumps, posited by Timmons (1984, 1994), and to examine their impact on venture performance, if they do exist.	Not defined explicitly	Empirical	Meso	Logistic regression
Ensley et al (2003)	L-E	Human Resource Management Review	This paper takes a behavioral integration perspective articulating the process through which new venture performance may be explained.	Theoretical	Theoretical		
Ensley et al (2006b)	L-E	Journal of Business Venturing	This article outlines a model of when, why, and how the influence of entrepreneur leadership behavior on new venture performance is likely to be moderated by the level of environmental dynamism.	Transactional and transformational leadership model based on Burns' (1978)	Empirical	Meso	Multiple lineal regression
Estrin (2013)	E-SC/I	Entrepreneurship Theory and Practice	This article proposes that the country prevalence rate of social entrepreneurship is an indicator of constructible nation-level social capital and enhances the likelihood of individual commercial entry.	Not defined explicitly	Empirical	Micro	Logistic regression
Estrin et al (2016)	E-SC/I	Journal of Business Venturing	This paper advances research on human capital and entrepreneurial entry and posit that, in order to generate value, social entrepreneurship requires different configurations of human capital than commercial entrepreneurship.	Not defined explicitly	Empirical	Multilevel	Multiple lineal regression
Felício et al. (2013)	L-E	Journal of Business Research	This paper analyzes the roles of social entrepreneurship and transformational leadership in explaining the social value and the organizational performance of non-profit social organizations.	Transformational leadership	Empirical	Micro	Structural equation model

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Frederking (2004)	E-SC/I	Entrepreneurship and Regional Development.	This cross-national study of culture presents comparative evidence from three neighbourhoods across two countries suggesting diverging patterns of entrepreneurship.	Institutional Theory	Theoretical		
Friedman et al (2016)	L-E	Journal of Management Studies	This study develops a model indicating that transformational leadership facilitates behavioural integration and comprehensiveness in the decision process among members of the top management team (TMT), which in turn enhances organizational capacity to adapt to environmental changes.	Transformation leadership	Empirical	Micro	Structural equation model
Friedrich et al (2009)	L-SC/I	The Leadership Quarterly	This study proposes that collective leadership, or the distribution of the leadership role, is a function of selectively utilizing the information or specialized expertise that individuals within the network possess.	Not defined explicitly	Theoretical		
Fuller-Love (2006)	L-E	International Journal of Management Reviews	This paper is a review of the literature concerning management development in small firms. This paper looks at some of the barriers to management development, including the attitudes and characteristics of the entrepreneur.	Not defined explicitly	Theoretical		
Galloway et al (2015)	L-E	Journal of Small Business Management	This article argues that performativity, as described in feminist theory, can contribute to inform both the entrepreneurship and leadership literatures to afford us better understanding of what might mean by “entrepreneurial leadership.”	Not defined explicitly	Theoretical		
García and García (2008)	E-SC/I	Entrepreneurship and Regional Development.	This study aims to answer two research questions: (1) are the cultural values associated in the literature with venture creation generalisable to different cultural contexts? (2) are there intra-cultural differences in a country generating differences in the entrepreneurial behaviour of its population?	Hostede’s Cultural Dimension Theory	Empirical	Micro	Simultaneous equation model

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
García-Granero et al (2015)	L-E-SC	Journal of Business Research	This study examines the possibility of a connection between managerial risk-taking propensity, risk-taking climate and innovation performance.	Organizational climate	Empirical	Micro	Structural equation model
Gemmell et al (2012)	E-SC/I	Entrepreneurship Theory and Practice	This articules generates a grounded theory as to how technology entrepreneurs use social behaviors, techniques, and cognitive processes to generate, validate, and refine ideas for new products, processes, or services.	Theory of organizational creativity	Theoretical		
Gupta et al (2004)	L-E	Journal of Business Venturing	This article develops the construct of entrepreneurial leadership using the works on entrepreneurship and leadership as a guide.	Transformational leadership	Empirical	Macro	Factor Analysis
Hafer and Jones (2015)	E-SC/I	Small Business Economics	This paper answers to this question: Do national differences in cognitive skills (CS) predict a nation's likelihood of generating highquality entrepreneurs who create and expand highvalue businesses?	Not defined explicitly	Empirical	Macro	Multiple lineal regression
Harrison et al (2015)	L-E	Journal of Small Business Management	This paper provides the foundation for a more robust and extensive gendered study of entrepreneurial leadership, through a review of the entrepreneurial leadership literature and of the current debates on gender and leadership.	Not defined explicitly	Theoretical		
Harvey et al (2002)	L-E	Journal of Management Studies	This paper explores the determinants of performance of research groups in the context of the emergence of knowledge as a key intangible asset.	Not defined explicitly	Theoretical		
Haynes et al (2015)	L-E	Journal of Management Studies	This paper examines the potential for and the outcomes of the display of greed and hubris in different entrepreneurial contexts.	Not defined explicitly	Theoretical		

Author/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Hayton et al (2002)	E-SC/I	Entrepreneurship Theory and Practice	This article reviews past empirical research on the association between national culture and entrepreneurship and suggest some future directions for scholarly inquiry.	Not defined explicitly	Theoretical		
Hechavarria and Reynolds (2009)	E-SC/I	International Entrepreneurship and Management Journal	The aim of this research is to test if culture, operationalized through the World Values Survey (WVS) data, is a significant factor in predicting opportunity and necessity entrepreneurship rates at the country level incorporating an institutional perspective.	Institutional economics	Empirical	Macro	Multiple lineal regression
Henry et al (2015)	L-E	Journal of Small Business Management	This article reflects on extant scholarship on entrepreneurial leadership and gender, as published in both the Journal of Small Business Management and elsewhere.	Not defined explicitly	Theoretical		
Hjorth (2008)	E-SC/I	Entrepreneurship Theory and Practice	This article describes and discusses Nordic entrepreneurship research (NER). It does so by providing a broader context for conducting entrepreneurship research, including historical, sociocultural, and disciplinary elements substantiating an understanding of “Nordic.”	Not defined explicitly	Theoretical		
Hmieleski and Ensley (2007)	L-E	Journal of Organizational Behavior	This study examines the relationship of entrepreneur leadership behavior (empowering and directive), top management team heterogeneity (functional, educational specialty, educational level, and skill) and industry environmental dynamism on new venture performance.	Not defined explicitly	Empirical	Micro	Multiple lineal regression
Hmieleski et al (2012)	L-E	Journal of Management	This study applies affective events theory (AET) as a framework for understanding the relationship between the shared authentic leadership of new venture top management teams (TMTs) and the performance of their firms.	Affective events theory	Empirical	Micro	Multiple lineal regression

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Hofstede (2010)	L-SC/I	Journal of International Business Studies	This is a critical summary review of the debate about the Global Leadership and Organizational Behavior Effectiveness (GLOBE) study in JIBS and other journals between November 2006 and the present issue.	Hostede's Cultural Dimension Theory	Theoretical		
Honig and Karlsson (2004)	E-SC/I	Journal of Management	This study examines factors that led nascent organizations required to write business plans. This paper shows that institutional variables are important predictors influencing the propensity of new organizations to write business plans.	Institutional Theory	Empirical	Micro	Multiple lineal regression
Hopp and Stephan (2012)	E-SC/I	Entrepreneurship and Regional Development.	This article adds a fresh perspective to the importance of informal institutions in particular culture for entrepreneurship.	Institutional Theory	Empirical	Micro	Logistic regression
Hornsby et al (2002)	L-E	Journal of Business Venturing	This study assesses the measurement properties of a scale that measures the key internal organizational factors that influence middle managers to initiate corporate entrepreneurship activities.	Not defined explicitly	Empirical	Micro	Descriptive Analysis
House and Aditya (1997)	L-SC/I	Journal of Management	This paper examined the history of the social scientific study of leadership and the prevailing theories of leadership that enjoy empirical support.	Culturally endorsed implicit theories of leadership (CLTs).	Theoretical		
House et al (2002)	L-SC/I	Journal of World Business	In this research, national cultures are examined in terms of nine dimensions. This paper presents GLOBE as a research program focusing on culture and leadership in 61 nations.	Culturally endorsed implicit theories of leadership (CLTs).	Theoretical		

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Howell et al (2007)	L-SC/I	Journal of World Business	This paper describes an analysis of leadership and societal culture in Mexico based on data from GLOBE. Describes the culture and how it relates to the image Mexicans have of ourstanding leadership.	Culturally endorsed implicit theories of leadership (CLTs).	Theoretical		
Huang et al (2014)	L-E	Creativity and Innovation Management	This study advances prior theoretical research by examining the relationship between entrepreneurial leadership and new venture performance with the introduction of exploratory and exploitative innovations as mediating variables.	Entrepreneurial leadership is the typology of Gupta, MacMillan and Surie (2004).	Empirical	Micro	Multiple lineal regression
Hung (2004)	L-E	Human Relations	Drawing on insights from structuration theory, institutionalism and resource dependence, this article develops a new model that attempts to reconcile the action–structure dichotomy in the innovation process in industry.	Theoretical	Theoretical		
Ireland et al (2003)	L-E	Journal of Management	This article argues that SE is a unique, distinctive construct through which firms are able to create wealth. An entrepreneurial mindset, an entrepreneurial culture and entrepreneurial leadership, the strategic management of resources and applying creativity to develop innovations are important dimensions of SE.	Several theoretical bases. RBV, human capital, social capital, organizational learning, and creative cognition.	Theoretical		
Javidan et al (2006)	L-SC/I	Journal of International Business Studies	This paper explains why GLOBE used a set of cultural values and practices to measure national cultures.	Leadership theories (CLT, ILT)	Theoretical		
Jennings et al (2013)	E-SC/I	Journal of Business Venturing	The aim of this paper is to demonstrate that drawing on sociological research can further enrich entrepreneurship studies of institutions, entrepreneurs, and communities.	Not defined explicitly	Theoretical		
Jung and Avolio (1999)	L-E-SC	Academy of Management Journal	This study manipulates transformational and transactional leadership styles and compared them in individual and group task conditions to determine whether they had different impacts in individualists and collectivists performing a brainstorming task.	Transformational leadership	Empirical	Micro	Descriptive Analysis



Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Jung et al (2003)	L-E	The Leadership Quarterly	This study builds on the extant literature to propose four hypotheses about how top managers' leadership styles directly and indirectly (via empowerment and organizational climate) affect their companies' innovation.	Leader-member exchange theory / Transformational leadership	Theoretical		
Kabasakal et al (2012)	L-SC/I	Journal of World Business	This paper focuses on leadership and culture in the Middle East and North Africa (MENA) region, using data from the GLOBE Project.	Cross-cultural leadership (House, 2004)	Empirical	Macro	Cluster Analysis
Kalantaridis and Fletcher (2012)	E-SC/I	Entrepreneurship and Regional Development.	This paper introduces a Special Issue on the theme of Entrepreneurship and Institutional Change. The paper argues that entrepreneurs are not only influenced by the prevailing institution(s) but they can also influence (both intentionally and unintentionally) institutional change.	Institutional economics	Theoretical		
Kang et al (2015)	L-E	Journal of Management Studies	This article examines the relationships and intervening mechanisms between founding CEOs' transformational/transactional leadership and the innovative behaviour of managers.	The expectancy component of Vroom's (1964)	Empirical	Micro	Structural equation model
Knörr et al (2013)	L-E	International Entrepreneurship and Management Journal	This study examines the influence of the cultural-cognitive dimension - measured through creativity, risk taking and independence - on the probability of becoming an entrepreneur or an employee.	Institutional economics	Empirical	Macro	Logistic regression
Koiranen (2003)	E-SC/I	Family Business Review	This paper examines how a family business system serves as the ideological arena of three cultural forces-entrepreneurialism, managerialism, and paternalism that are, to a great extent, contesting ideologies based on different rationalities, or schools of thought.	Not defined explicitly	Theoretical		
Koryak et al (2015)	L-E	International Small Business Journal	This article reviews and synthesizes extant research on entrepreneurial leadership, capabilities and their influence on the growth of small- and medium-sized enterprises (SMEs).	Dynamic capabilities	Theoretical		

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Kreiser et al (2010)	E-SC/I	Entrepreneurship Theory and Practice	This study assess the impact of national culture and certain institutions that are representative of national culture on two key dimensions of entrepreneurial orientation: risk taking and proactiveness.	Hostede's Cultural Dimension Theory	Empirical	Meso	Multiple lineal regression
Kuratko (2007)	L-E	Journal of Leadership and Organizational Studies	This article explores the most powerful emergence of entrepreneurial activity in the world.	Not defined explicitly	Theoretical		
Kuratko et al (2005)	E-SC/I	Entrepreneurship Theory and Practice	This article integrates knowledge about corporate entrepreneurship and middlelevel managers' behaviors to develop and explore a conceptual model.	Not defined explicitly	Theoretical		
Lafuente et al (2007)	E-SC/I	Regional Studies	The paper examines the impact of entrepreneurial role models on the entrepreneurial process in rural areas with a strong entrepreneurial history versus those not necessarily characterized by such a tradition.	Institutional theory	Empirical	Macro	Logistic regression
Laspita et al (2012)	E-SC/I	Journal of Business Venturing	This paper draws cross-cultural theory and the Global Leadership and Organizational Behavior Effectiveness project to develop a model for the transmission of entrepreneurial intentions within families in different cultures.	Not defined explicitly	Empirical	Macro	Multiple lineal regression
Lee and Peterson (2000)	E-SC/I	Journal of world business	This paper presents a cultural model of entrepreneurship, based on Lumpkin and Dess's conceptualization of entrepreneurial orientation (EO).	Not defined explicitly	Theoretical		
Lee and Tan (2001)	L-E	Family Business Review	The objective of this study is to understand the growth and development of chinese family enterprises.	Not defined explicitly	Qualitative		
Leitch et al (2013)	L-E	British Journal of Management	The paper reflects on the emergence of a social capital theory of leadership development.	Theoretical	Theoretical		

Author/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Levie and Autio (2008)	E-SC/I	Small Business Economics	This article provides a theory-grounded examination of the GEM model.	Not defined explicitly	Theoretical		
Lewis (2015)	L-E	Journal of Small Business Management	The paper explores how entrepreneurial leadership is enacted by a female entrepreneur over time and how being a leader is integrated into entrepreneurial identity development via gendered identity work.	Not defined explicitly	Theoretical		
Li et al (2013)	L-E	Social Behavior and Personality	This study finds that the majority of women adopted an achievement-oriented style of leadership, that is, a style consisting of high initiating structure and high consideration.	Not defined explicitly	Empirical	Micro	Descriptive Analysis
Li et al (2015)	L-SC/I	Journal of Business Research	This study examines whether or not transformational leadership can encourage employee creativity, using a Chinese-specific transformational leadership model.	Transformational leadership	Empirical	Macro	Multiple lineal regression
Lim et al (2010)	E-SC/I	Entrepreneurship Theory and Practice	This study investigates the relationship between institutional elements of the social environment and entrepreneurial cognitions, which lead to the individual's venture creation decision.	Institutional Theory	Empirical	Macro	Structural equation model
Ling et al (2008)	L-E	Academy of Management Journal	This study examines how the CEO-TMT interface helps explain transformational CEOs' role in promoting corporate entrepreneurship.	Upper echelons theory	Theoretical		
Liñan et al (2011)	E-SC/I	Entrepreneurship and Regional Development	The main objective of this study is to identify some of the environmental cognitive elements that may explain regional differences in start-up intentions.	Institutional theory	Empirical	Meso	Structural equation model
Lounsbury and Glynn (2001)	E-SC/I	Strategic Management Journal	This study proposes a framework that focuses on how entrepreneurial stories facilitate the crafting of a new venture identity that serves as a touchstone upon which legitimacy may be conferred by investors, competitors, and consumers.	Institutional theory	Theoretical		

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Manolova et al (2008)	E-SC/I	Entrepreneurship Theory and Practice	This article seeks to validate an instrument for measuring country institutional profiles for the promotion of entrepreneurship in emerging economies.	Institutional theory	Empirical	Micro	Structural equation model
McEnany and Strutton (2015)	L-E	Business Horizons	This article describes Re-entrepreneurship as a process through which a mature enterprise can be made new again. Re-entrepreneurial leaders will encounter challenges that differ radically from those confronted by traditional entrepreneurial leaders.	Not defined explicitly	Theoretical		
McGowan et al (2015)	L-E-SC	Journal of Small Business Management	The authors explore the influence of social and human capital in defining the prospects of young women business owners as emerging entrepreneurial leaders.	Entrepreneurial leadership	Theoretical		
Meek et al (2010)	E-SC/I	Journal of Business Venturing	This article suggests that both decentralized institutions that are socially determined as well as centralized institutions that are designed by governmental authorities are important in promoting firm foundings in the environmental context.	Institutional Theory	Empirical	Meso	Data Panel
Miller and Le Breton-Miller (2016)	E-SC/I	Entrepreneurship Theory and Practice	The authors argue that negative personal circumstances of an economic, sociocultural, cognitive, and physical/ emotional nature may have an equally powerful role to play in getting people to become effective entrepreneurs. These challenges create conditions and experiences that motivate particular adaptive requirements which in turn foster outcomes such as work discipline, risk tolerance, social and network skills, and creativity.	Not defined explicitly	Theoretical		
Morris and Schindehutte (2005)	E-SC/I	Journal of Small Business Management	This study explores core values held by entrepreneurs in growth-oriented firms belonging to six subcultures based in the state of Hawaii.	Institutional theory	Empirical	Micro	Multiple lineal regression

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Mueller and Thomas (2001)	E-SC/I	Journal of Business Venturing	This paper offers several hypotheses about the relationship between two of Hofstede's culture dimensions and psychological traits associated with entrepreneurial potential.	Not defined explicitly	Empirical	Macro	Multiple lineal regression
Muethel et al (2011)	L-SC/I	Journal of International Business Studies	This article argues that transformational leadership and professional altruism are key elements of a national business ideology's stimulation of employees' prosocial values, while corporate corruption is considered to be an impediment.	Socialization theory	Empirical	Macro	Multiple lineal regression
Murnieks et al (2016)	L-E	Journal of Business Venturing	This article analyzes whether there is value in passion itself, or if it is instead used as a marker for other important characteristics like tenacity and inspirational leadership. This research find out that angels value passion in addition to tenacity, as well as both together, when evaluating entrepreneurs for investment.	Not defined explicitly	Empirical	Micro	Multiple lineal regression
Nicholls-Nixon et al (2011)	E-SC/I	Journal of Management	This study addresses this gap by providing the first literature review of Latin America management research. This literature review responds to the call for management researchers to contextualize their research.	Theoretical	Theoretical		
Nissan et al (2012)	L-E	International Entrepreneurship and Management Journal	The goal of this paper is to analyze the relationship between culture and innovation.	Logistic regression model	Empirical	Macro	Logistic regression
Pacheco et al (2010)	E-SC/I	Journal of Management	This article provides a review and analysis of institutional entrepreneurship research with a focus on the emergence of this literature within two largely divergent streams: sociology-based institutional theory and economics-based institutional economics.	Institutional economics	Theoretical		

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Pellegrini and Scandura (2006)	L-SC/I	Journal of International Business Studies	This study investigates relationships among leader–member exchange (LMX), delegation, paternalism, and job satisfaction in business organizations.	Leader-member exchange Theory	Empirical	Micro	Multiple lineal regression
Pihie et al (2014)	L-E	South African Journal of Education	The main purpose of this study is to identify the relationship between principals' entrepreneurial leadership practices and school innovativeness through the teachers' perspectives.	Not defined explicitly	Theoretical		
Pistruì et al (2000)	E-SC/I	Family Business Review	This study explores three dimensions shaping entrepreneurial characteristics and orientations: (a) sociocultural forces (family and personal alliance networks, characteristics associated with demographics, family involvement, and enterprise profiles); (b) personality characteristics associated with entrepreneurial intensity, sacrifice, and achievement motives; and (c) environmental perceptions.	Not defined explicitly	Empirical	Micro	Descriptive Analysis
Renko et al (2015)	L-E	Journal of Small Business Management	This paper discusses environmental, organizational, and follower-specific contingencies that may influence the success of entrepreneurial leadership.	Transformational leadership	Empirical	Micro	Factor Analysis
Ribeiro and Comeche (2007)	L-E	Management Decision	This paper presents confirmation of the need for aspects traditionally associated with the figure of the entrepreneur to be transmitted to the organization's collective as a whole and for the existence of collective entrepreneurship.	Not defined explicitly	Empirical	Meso	Structural equation model
Rodríguez et al (2010)	L-E	International Entrepreneurship and Management Journal	The purpose of this speech is to build in an eclectic and holistic way the bases of a theoretical mark that it describes, analyze and do interpret the phenomenon of the managerial entrepreneurship from the interdisciplinary point of view in such a way that the foundation is to respond to the question how to understand the entrepreneurship?	Not defined explicitly	Theoretical		
Ruvio et al (2010)	L-E	The Leadership Quarterly	This paper explores the role that entrepreneurial leadership vision plays in the entrepreneurial process of nonprofit and for-profit ventures.	Not defined explicitly	Empirical	Micro	Descriptive Analysis

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Sahut and Peris-Ortiz (2014)	E-SC/I	Small Business Economics	The purpose of this special issue is to examine small businesses, innovation, and entrepreneurship, and show that, although these three concepts have their own specific literature and can be dealt with independently, they are closely related.	Not defined explicitly	Theoretical		
Santos and Eisenhardt (2009)	E-SC/I	Academy of Management Journal	This study examines how entrepreneurs shape organizational boundaries and construct markets through an inductive, longitudinal study of five ventures.	Not defined explicitly	Theoretical		
Sarros et al (2008)	L-E	Journal of Leadership and Organizational Studies	This study examines these linkages in terms of their relationships with climate for organizational innovation in Australian private sector organizations.	Not defined explicitly	Empirical	Micro	Structural equation model
Shane (1997)	E-SC/I	Journal of Management	This article examines the impact of individuals on institutions on research in entrepreneurship for the period since the Academy of Management acceded division status on entrepreneurship in 1987.	Not defined explicitly	Theoretical		
Shao and Webber (2006)	L-SC/I	Journal of Business Research	This study shows that certain personality traits positively associated with transformational leadership behavior in the North American context are not evident in the Chinese environment.	Five-Factor Model of Personality and Transformational Leadership	Empirical	Micro	Descriptive Analysis
Simón-Moya et al (2014)	E-SC/I	Journal of Business Research	This study presents a thorough review of the specialist literature identifies groups of countries with similar economic and institutional environments. This article highlights differences in entrepreneurial activity and innovation outcomes between these homogeneous groups.	Institutional Theory	Empirical	Macro	Descriptive Analysis
Simsek et al (2015)	L-E	Journal of Management Studies	The purpose of the Special Issue is to provide a forum for works that build on the constraints, challenges, characteristics, and other salient elements of entrepreneurial settings to advance theory and testing on strategic leadership effects, as well as enrich our understanding of firm behaviour and outcomes in entrepreneurial contexts.	Not defined explicitly	Theoretical		

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Singh et al (2015)	L-SC/I	Journal of Business Venturing	This paper implements a qualitative, narrative approach to investigate entrepreneurs' personal experience of stigma associated with venture failure.	Not defined explicitly	Theoretical		
Siu and Lo (2011)	E-SC/I	Entrepreneurship Theory and Practice	This study examines the impact of individualism–collectivism orientation on the cognitive model of entrepreneurial intention in a collectivist environment (i.e., China).	Busenitz and Lau's Cross-Cultural Cognitive Model of New Venture Creation.	Empirical	Micro	Structural equation model
Smallbone and Welter (2012)	E-SC/I	Entrepreneurship and Regional Development	The paper demonstrates the complexity of institutional-entrepreneurship relationships, illustrated with examples of how entrepreneurs can influence institutional change even in hostile institutional environments.	Institutional theory	Theoretical		
Spreitzer et al (2005)	L-SC/I	Journal of Organizational Behavior	The purpose of this article is to better understand the effectiveness of transformational leadership across individuals holding different cultural values.	Transformational leadership.	Empirical	Meso	Multiple lineal regression
Steffens et al (2013)	L-E	European Journal of Social Psychology	This paper suggests that performance and prototypicality are interdependent and have a bi-directional impact both on each other and on leaders' capacity to engage in identity entrepreneurship (i.e., to define shared group norms and ideals).	Social identity	Empirical	Micro	Descriptive Analysis
Steffens et al (2014)	L-E	The Leadership Quarterly	This research develops and validates an Identity Leadership Inventory (ILI) that assesses these dimensions in different contexts and with diverse samples from different countries.	Social identity approach to leadership	Empirical	Macro	Descriptive Analysis



Author/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Stephan and Pathak (2016)	L-SC/I	Journal of Business Venturing	This paper offers a fresh perspective on national culture and entrepreneurship research. It explores the role of Culturally-endorsed implicit Leadership Theories (CLTs) – i.e., the cultural expectations about outstanding, ideal leadership – on individual entrepreneurship. This paper predicts that charismatic and self-protective CLTs positively affect entrepreneurship.	Culturally-endorsed implicit Leadership Theories (CLTs)	Empirical	Multilevel	Logistic regression
Stephan and Uhlaner (2010)	E-SC/I	Journal of International Business Studies	This paper is a cross-national study testing a framework relating cultural descriptive norms to entrepreneurship in a sample of 40 nations. It is identified two higher-order dimensions of culture – socially supportive culture (SSC) and performance-based culture (PBC) – and relate them to entrepreneurship rates.	Not defined explicitly	Empirical	Macro	Multiple lineal regression
Stephan et al (2015)	E-SC/I	Journal of International Business Studies	This paper develops institutional configuration perspective to understand which national contexts facilitate social entrepreneurship (SE). This study presents the effects on SE of formal regulatory, informal cognitive, and informal normative.	Not defined explicitly	Empirical	Micro	Multiple lineal regression
Steyaert and Katz (2004)	E-SC/I	Entrepreneurship and Regional Development	This paper seeks to explore and to reflect upon the implications of how to conceive entrepreneurship when considered as a societal rather than an economic phenomenon.	Not defined explicitly	Theoretical		
Strubler and Redekop (2010)	L-E	Human Resource Management	The article presents an “entrepreneurial leader” who has learned how to create an environment that fosters innovation, hard work, a sense of fun, and “team spirit” and which results in highly motivated and productive staff.	Not defined explicitly	Theoretical		
Sue et al (2016)	E-SC/I	Entrepreneurship Theory and Practice	This review systematically examines extant research, analyzing 194 articles published in 11 leading journals from 1992 to 2014.	Institutional Theory	Theoretical		
Surie and Ashley (2008)	L-E	Journal of Business Ethics	This article develops a conceptual model integrating pragmatism, a philosophical approach that emphasizes experimentation and action characteristic of entrepreneurial leadership, with ethics to suggest that the two are not incompatible.	Neo-charismatic/transformational leadership. team oriented leadership research.	Qualitative		

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Szerb et al (2007)	E-SC/I	Small Business Economics	This paper investigates the factors driving informal investment in Croatia, Hungary and Slovenia.	Economic approach	Empirical	Macro	Descriptive Analysis
Tan (2002)	E-SC/I	Entrepreneurship Theory and Practice	This study employs a hybrid, quasi-experimental design to investigate whether the cultural or national effects have a stronger influence on entrepreneurs' perception of the environment and their strategic orientations.	Hostede's Cultural Dimension Theory	Empirical	Meso	Multivariate Analysis of Variance
Terjesen et al (2016)	E-SC/I	Journal of Management	This review systematically examines comparative international entrepreneurship (CIE) research. This study outline the importance of multi-country studies of entrepreneurial activity in enabling the comparison and replication of research and generating meaningful contributions to scholarship, practice, and policy.	Multi theoretical framework	Theoretical		
Thai and Turkina (2014)	E-SC/I	Journal of Business Venturing	This article analyzes macro-level determinants of national rates of formal versus informal entrepreneurship.	Eclectic theory of entrepreneurship	Empirical	Macro	Multiple lineal regression
Thébaud (2015)	E-SC/I	Administrative Science Quarterly	This article develops and empirically evaluates an institutional theory of gender inequalities in business start-up, ownership, and growth orientation.	Institutional Theory	Empirical	Macro	Logistic regression
Thomas and Mueller (2000)	E-SC/I	Journal of International Business Studies	This paper examines the relationship between culture and four personality characteristics commonly associated with entrepreneurial motivation	Entrepreneurship theory	Empirical	Macro	Logistic regression
Thornton et al (2011)	E-SC/I	International Small Business Journal	The aim of this special issue is to focus on research that highlights and advances an understanding of the social and cultural factors that affect entrepreneurial activity.	Socio-cultural approach	Theoretical		
Tolbert et al (2011)	E-SC/I	Organization Science	This article argues that there are a number of benefits to explicitly articulating the links between Institutional theory and contemporary studies of entrepreneurship, these have generally remained distinct literatures.	Institutional Theory	Theoretical		

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Tonoyan et al (2010)	E-SC/I	Entrepreneurship Theory and Practice	This article explores the determinants of corruption in transition economies of the post- Soviet Union, Central-Eastern Europe, and Western industrialized states.	Institutional Theory	Empirical	Macro	Multiple lineal regression
Tracey et al (2011)	E-SC/I	OrganizationScience	This article argues that one important way that new organizational forms emerge is through a process of bridging institutional entrepreneurship, which involves an institutional entrepreneur combining aspects of established institutional logics to create a new type of organization underpinned by a new, hybrid logic.	Institutional Theory	Theoretical		
Urbano and Álvarez (2014)	E-SC/I	Small Business Economics	The purpose of this article is to examine the influence of institutional dimensions (regulative, normative and cultural-cognitive) on the probability of becoming an entrepreneur.	Institutional economics	Empirical	Macro	Logistic regression
Urbano et al (2011)	E-SC/I	International Small Business Journal	This article addresses theoretical and empirical issues concerning the emergent field of transnational entrepreneurship.	Sociocultural approach	Theoretical		
Vaillant and Lafuente (2007)	E-SC/I	Entrepreneurship and Regional Development.	This paper analyses how different institutional frameworks condition the influence of selected social traits: the social stigma to entrepreneurial failure and the presence of entrepreneurial role models.	Institutional theory	Empirical	Micro	Logistic regression
Valdez and Richardson (2013)	E-SC/I	Entrepreneurship Theory and Practice	This multicountry study empirically explores the institutional determinants of macro-level entrepreneurship. Findings suggest that a society's normative, cultural-cognitive, and regulative institutions are related to entrepreneurial activity.	Institutional Theory	Empirical	Macro	Multiple lineal regression
Van Assche (2005)	L-E	Leadership	This article argues that entrepreneurial leadership (Young, 1991) of European Commission president Jacques Delors was a necessary factor in the creation of an Economic and Monetary Union (EMU).	Not defined explicitly	Theoretical		

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
van Hemmen et al (2015)	L-E	Cybernetics and Systems:	This research attempts to empirically examine the relationship between leadership styles and innovative entrepreneurship in light of institutional approaches and specifically based on the normative dimension.	Institutional approach	Empirical	Macro	Multiple lineal regression
Vecchio (2003)	L-E	Human Resource Management Review	The continued treatment of entrepreneurship as a separate area of study that is distinct from other broader domains (e.g., leadership and interpersonal influence) is questioned.	Not defined explicitly	Theoretical		
Veciana and Urbano (2008)	E-SC/I	International Entrepreneurship and Management Journal	The main argument of the presentation of this special issue is that entrepreneurship research based on institutional theory is a promising field of research.	Institutional economics	Theoretical		
Venkataraman (2004)	L-E	Journal of Business Venturing	The author presents a hypothesis is that if only risk capital is injected, it flows straight to low-quality entrepreneurship.	Not defined explicitly	Theoretical		
Verheul et al (2002)	L-E	International Small Business Journal	The present study aims at investigating the existence of gender differences in entrepreneurship. The focus is on differences in strategy and human resource management (HRM) between male and female entrepreneurs in Dutch real estate brokerage.	Institutional Theory	Empirical	Macro	Multiple lineal regression
Waldman et al (2006)	L-SC/I	Journal of International Business Studies	This paper examines cultural and leadership variables associated with corporate social responsibility values that managers apply to their decision-making. How the cultural dimensions of institutional collectivism and power distance presict social responsibility values.	Institutional Theory	Empirical	Macro	Multiple lineal regression
Wales et al (2013)	L-E	Journal of management studies	This research examines whether EO partially explains why narcissistic CEO-led firms experience greater variability in firm performance.	Not defined explicitly	Empirical	Macro	Structural equation model

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Wallman (2009)	L-SC/I	Journal of the Academy of Marketing Science	This paper examines cultural and leadership variables associated with corporate social responsibility values that managers apply to their decision-making.	Institutional Theory	Theoretical		
Walter and Block (2016)	E-SC/I	Journal of Business Venturing	This paper builds and test a multilevel model on the outcomes of entrepreneurship education.	Institutional Theory	Empirical	Multilevel	Multiple lineal regression
Wang et al (2012)	L-SC/I	Journal of World Business	This review presents recent findings on strategic leadership in different cultural backgrounds. Then, based on the upper echelons theory, this review summarizes founding regarding the effects of personal characteristics of strategic leaders on firm performance in terms of observed personal experience, personality, values, cognitive style, and leadership behaviors.	Upper echelons theory	Theoretical		
Weber (2012)	E-SC/I	Administrative Science Quarterly	The goal of this edited volume is to explore the “if” and “how” of studying entrepreneurship from an institutional perspective and to demonstrate the benefits of this endeavor.	Institutional Theory	Theoretical		
Wei and Ling (2015)	L-E-SC	Journal of Business Research	This study examines the importance of CEOs' institution-related characteristics, which reflect their human and relational capital, for corporate entrepreneurship in transition economies.	Organizational learning	Empirical	Micro	Multiple lineal regression
Welbourne (2006)	L-E	Entrepreneurship Management	The focus of this paper is on the research method used to understand how firms grow. The paper will lay out the logic for the monthly research process, explain the outcomes of the system, and provide the reader with some early and tentative findings from the ongoing work on how firms grow.	Resource-based view and upper echelons perspective	Empirical	Micro	Descriptive analysis
Welter and Smallbone (2011)	E-SC/I	Journal of Small Business Management	This paper examines the institutional embeddedness of entrepreneurial behavior. The institutional context influence the nature, the pace of development, and extent of entrepreneurship as well as the way entrepreneurs behave.	Institutional Theory	Theoretical		

Autor/Year	Topic	Journal	Aims	Theoretical Framework	Research	Level	Technique
Wennberg et al (2013)	L-E	Entrepreneurship and Regional Development	This article investigates how the effects of individual's self-efficacy and of fear of failure on entrepreneurial entry are contingent on national cultural practices.	Not defined explicitly	Empirical	Macro	Logistic regression
Williams and Vorley (2015)	E-SC/I	International Small Business Journal	This article critically analyses how the institutional environment influences the development of entrepreneurship in Bulgaria.	Institutional Theory	Theoretical		
Wu et al (2008)	L-E	Journal of Business Venturing	This study suggests that a leader's behavior may be perceived as an organizational endorsement of promotion-focused or prevention-focused concerns and that this perception will influence employee behavior by eliciting a congruent state of regulatory focus.	Regulatory focus	Empirical	Macro	Multiple lineal regression
Yan et al (2014)	L-E	International Entrepreneurship and Management Journal	This paper investigates firm transformation from original equipment manufacturing (OEM) to original brand manufacturing (OBM) based on variant experiences of Taiwan's top global brands.	Not defined explicitly	Theoretical		
Yong and Zahra (2012)	E-SC/I	Journal of Business Venturing	This study suggests that the variation of the level of venture capital across countries can be attributed to the different levels of formal institutional development. This study proposes that venture capitalists respond differently to the incentives provided by formal institutions depending on different cultural settings.	Institutional Theory	Empirical	Macro	Data Panel
York and Venkataraman (2010)	E-SC/I	Journal of Business Venturing	This study illustrates how entrepreneurs 1) address environmental uncertainty, 2) provide innovation and 3) engage in resource allocation to address environmental degradation.	Not defined explicitly	Theoretical		
York and Lenox (2014)	E-SC/I	Strategic Management Journal	This paper presents the influence of institutional factors on firm entry.	Institutional theory	Empirical	Macro	Logistic regression
Yousafzai et al (2015)	L-E-SC	Journal of Small Business Management	This study, building on GEM research, a multi-level framework is developed drawing on the notion of the contextual embeddedness of entrepreneurship and institutional theory.	Institutional theory	Empirical	Macro	Structural equation model

<b>Autor/Year</b>	<b>Topic</b>	<b>Journal</b>	<b>Aims</b>	<b>Theoretical Framework</b>	<b>Research</b>	<b>Level</b>	<b>Technique</b>
Yucel et al (2014)	L-SC/I	Journal of Business Research	This study proposes that CEO transformational leadership causes high normative commitment among top executives but this relationship is nonlinear.	Not defined explicitly	Empirical	Micro	Multiple lineal regression
Zhou (2016)	L-E	International Entrepreneurship and Management Journal	This study explores the moderating effects of personality diversity on the relationship between shared leadership and entrepreneurial team performance.	The Big five model	Empirical	Micro	Multiple lineal regression
Zhou et al (2015)	L-E	International Entrepreneurship and Management Journal	This study explores the moderating effect of shared leadership on the relationship between informational diversity and entrepreneurial team performance. Four dimensions are used to measure informational diversity: functional specialty, educational specialty, educational level, and managerial skills.	Not defined explicitly	Empirical	Micro	Multiple lineal regression

Appendix 2. Theoretical approach to study the relation between Entrepreneurship-Sociocultural and Leadership-Sociocultural

Theoretical Approach	E-SC	%	Theoretical Approach	L-SC	%
Institutional theory	39	44%	Leadership theories (CLT, ILT)	6	20%
Not defined explicitly	30	34%	Not defined explicitly	5	17%
Hostede's cultural dimension theory	3	3%	Transformational leadership	4	13%
Sociocultural approach	3	3%	Cross-cultural leadership	3	10%
Economic approach	2	2%	Five-factor model of personality	2	7%
Entrepreneurship theory	2	2%	Institutional theory	2	7%
Cross-cultural cognitive model of new venture creation	1	1%	Cultural contingencies on leadership	1	3%
Cultural cognitive, economics school, sociopolitical school	1	1%	Hostede's cultural dimension	1	3%
Eclectic theory of entrepreneurship	1	1%	Leader-member exchange theory	1	3%
Human and social capital theory	1	1%	Schwartz's framework	1	3%
Multi theoretical framework	1	1%	Socialization theory	1	3%
Organizational learning	1	1%	The Full-range leadership theory	1	3%
Schwartz's cultural dimension	1	1%	Theory of cooperation and competition	1	3%
Theory of face	1	1%	Upper echelons theory	1	3%
Theory of organizational creativity	1	1%			
<b>Total</b>	<b>88</b>	<b>100%</b>	<b>Total</b>	<b>30</b>	<b>100%</b>

Appendix 3. Theoretical approach to study the relation between Leadership-Entrepreneurship and Leadership-Entrepreneurship-Sociocultural.

Theoretical Approach	L-E	%	Theoretical Approach	L-E-SC	%
Not defined explicitly	45	58%	Entrepreneurial leadership	1	20%
Transformational leadership	8	10%	Institutional theory	1	20%
Resource-based view and upper echelons perspective	4	5%	Organizational climate	1	20%
Institutional theory/ Institutional approach	3	4%	Organizational learning	1	20%
Dynamic capabilities	2	3%	Not defined explicitly	1	20%
Social identity	2	3%			
The 'Big Five' model of personality	2	3%			
Entrepreneurial leadership	1	1%			
Affective events theory	1	1%			
Attributional perspective	1	1%			
Culturally endorsed implicit leadership theories	1	1%			
Human capital theory	1	1%			
Leader-member exchange theory	1	1%			
Regulatory focus	1	1%			
The expectancy component of Vroom's	1	1%			
Theories of emotional contagion and goal setting	1	1%			
Trait theory	1	1%			
Upper echelons theory	1	1%			
<b>Total</b>	<b>77</b>	<b>100%</b>	<b>Total</b>	<b>5</b>	<b>100%</b>

Appendix 4. Level of Analysis



<b>Journal</b>	<b>Macro</b>	<b>Meso</b>	<b>Micro</b>	<b>Multilevel</b>	<b>Total</b>
Academy of Management Journal	1	1	4		6
Academy of Management Perspectives					
Administrative Science Quarterly	1		1		2
British Journal of Management					
Business Horizons					
Creativity and Innovation Management			1		1
Cybernetics and Systems:	1				1
Entrepreneurship and Regional Development		1	4	1	6
Entrepreneurship Management			1		1
Entrepreneurship Theory and Practice	3	2	5	2	12
European Journal of Social Psychology			1		1
Family Business Review			1		1
Human Relations					
Human Resource Management					
Human Resource Management Review					
International Business Review	1				1
International Entrepreneurship and Management Journal	4		4		8
International Journal of Management Reviews					
International Small Business Journal	1				1
Journal of Applied Psychology			2		2
Journal of Business Ethics					
Journal of Business Research	3		7		10
Journal of Business Venturing	6	2	4	3	15
Journal of International Business Studies	7		1	2	10
Journal of Leadership and Organizational Studies			1		1
Journal of Management	1	2	2		5
Journal of Management Studies	2		2		4
Journal of Organizational Behavior		1	1		2
Journal of Product Innovation Management		1			1
Journal of Small Business Management	1	2	2		5
Journal of the Academy of Marketing Science					
Journal of Vocational Behavior			1		1
Journal of World Business	3				3
Leadership	1				1
Management Decision		1			1
Organization Science					
Personality and Individual Differences			1		1
Public Administration					
Regional Studies	1				1
Small Business Economics	6				6
Social Behavior and Personality			1		1
South African Journal of Education					
Strategic Management Journal	2	1			3
The Leadership Quarterly	2		2		4
<b>Total</b>	<b>47</b>	<b>14</b>	<b>49</b>	<b>8</b>	<b>118</b>
<b>%</b>	<b>40%</b>	<b>12%</b>	<b>41%</b>	<b>7%</b>	

Appendix 5. Main statistic techniques used in the empirically analyzed articles.

Technique	Authors	#	%
Descriptive analysis	Álvarez et al (2014), Baum et al (1998), Chell and Baines (2000), Den Hartog et al (1999), Díaz-Casero et al (2012), DiPietro et al (2008), Dorfman et al (2012), Edelman and Yli-Renko (2010), Egri and Herman (2000), Hornsby et al (2002), Jung and Avolio (1999), Li et al (2013), Pistrui et al (2000), Ruvio et al (2010), Shao and Webber (2006), Simón-Moya et al (2014), Steffens et al (2013), Steffens et al (2014), Szerb et al (2007), Tan (2002), Welbourne (2006).	21	18%
Factor Analysis	Breugst et al (2012), Gupta et al (2004), Renko et al (2015)	3	2%
Cluster Analysis	Kabasakal et al (2012)	1	1%
Logistic Regression	Arenius and Minniti (2005), Audretsch et al (2013), Bowen and De Clercq (2008), Byrne and Bradley (2007), Davidsson and Honig (2003), De Clercq et al (2010), Dencker et al (2009), Eggers and Song (2015), Ensley et al (2000), Estrin et al (2013), Hopp and Stephan (2012), Knörr et al (2013), Lafuente et al (2007), Nissan et al (2012), Stephan and Pathakb (2016), Thébaud (2015), Thomas and Mueller (2000), Tonoyan et al (2010), Urbano and Álvarez (2014), Vaillant and Lafuente (2007), Wennberg et al (2013), York and Lenox (2014).	22	19%
Multiple Lineal Regression	Baron and Tang (2009), Baum and Locke (2004), Hechavarria and Reynolds (2009), Laspita et al (2012), Pellegrini and Scandura (2006), Thai and Turkina (2014), Tonoyan et al (2010), Agarwal et al (1999), Autio et al (2003), Bamiatzi et al (2015), Barringer and Bluedorn (1999), Batjargal et al (2013), Begley and Tan (2001), Bullough and De Luque (2015), Chan et al (2015), Chen et al (2014), De Clercq et al (2014b), De Clercq et al (2013), Dewald and Bowen (2010), Dickson and Weaver (2008), Elenkov and Manev (2005), Elenkov et al (2005), Engelen et al (2015), Ensley et al (2006a), Estrin et al (2016), Hafer and Jones (2015), Hmieleski and Ensley (2007), Hmieleski et al (2012), Honig and Karlsson (2004), Huang et al (2014), Kreiser et al (2010), Li et al (2015), Morris and Schindehutte (2005), Mueller and Thomas (2001), Muethel et al (2011), Murnieks et al (2016), Spreitzer et al (2005), Stephan and Uhlaner (2010), Stephan et al (2015), Valdez and Richardson (2013), van Hemme et al (2015), Verheul et al (2002), Waldman et al (2006), Walter and Block (2016), Wei and Ling (2015), Wu et al (2008), Yucel et al (2014), Zhou (2016), Zhou et al (2015).	49	41%
Data Panel	Yong and Zahra (2012), Meek et al (2010).	2	2%
Simultaneous equation model	García and García (2008)	1	1%
Structural equation model	Busenitz et al (2000), Castaño et al (2015a), Castaño et al (2015b), Chan et al (2012), Chen and Tjosvold (2006), Chen et al (2015), Chen et al (2016), Felício et al (2013), Friedman et al (2016), García-Granero et al (2015), Kang et al (2015), Lim et al (2010), Liñan et al (2011), Manolova et al (2008), Ribeiro and Comeche (2007), Sarros et al (2008), Siu and Lo (2011), Wales et al (2013), Yousafzai et al (2015).	19	16%
<b>Total empirical articles analyzed</b>		<b>118</b>	<b>100%</b>

Appendix 6. List of Countries studied in Chapter 2.

<b>Country</b>	<b>#</b>	<b>%</b>	<b>Country</b>	<b>#</b>	<b>%</b>	<b>Country</b>	<b>#</b>	<b>%</b>
United States	74	6%	Australia	22	2%	Norway	15	1%
China	42	3%	Austria	22	2%	Venezuela	15	1%
UK	38	3%	Brazil	22	2%	Ecuador	14	1%
Germany	37	3%	India	22	2%	Belgium	13	1%
Spain	34	3%	Portugal	22	2%	Bolivia	13	1%
Sweden	33	3%	South Afirca	22	2%	Egypt	13	1%
Netherlands	30	2%	Greece	21	2%	Iran	13	1%
France	29	2%	Ireland	21	2%	Philippines	13	1%
Finland	28	2%	Israel	21	2%	Kazakhstan	12	1%
Slovenia	27	2%	México	21	2%	Morocco	12	1%
Canada	26	2%	Poland	20	2%	Costa Rica	11	1%
Denmark	26	2%	Singapore	20	2%	Chile	10	1%
Indonesia	26	2%	New Zeland	19	1%	Georgia	10	1%
Hungary	25	2%	Taiwan	19	1%	Zambia	10	1%
Russia	25	2%	Turkey	19	1%	Albania	9	1%
Italy	24	2%	Colombia	18	1%	El Salvador	9	1%
Switzerland	24	2%	Hong Kong	18	1%	Namibia	9	1%
Argentina	23	2%	Malaysia	17	1%	Qatar	9	1%
Japan	23	2%	Thailand	17	1%	Zimbabwe	9	1%
Australia	22	2%	Korea	15	1%	Iceland	8	1%
						Others	79	6%

Appendix 7. List of Countries studied in Chapter 3

Countries			
1	Andorra	26	Mexico
2	Argentina	27	Moldova
3	Australia	28	Morocco
4	Brazil	29	Netherlands
5	Bulgaria	30	Norway
6	Burkina Faso	31	Peru
7	Canada	32	Poland
8	Chile	33	Romania
9	China	34	Rwanda
10	Cyprus	35	Serbia
11	Egypt	36	Slovenia
12	Ethiopia	37	South Africa
13	Finland	38	Spain
14	France	39	Sweden
15	Georgia	40	Switzerland
16	Germany	41	Taiwan Province of China
17	Ghana	42	Thailand
18	Guatemala	43	Trinidad and Tobago
19	India	44	Turkey
20	Indonesia	45	Ukraine
21	Japan	46	United Kingdom
22	Jordan	47	United States
23	Korea	48	Uruguay
24	Malaysia	49	Vietnam
25	Mali	50	Zambia

Appendix 8. List of Countries studied in Chapter 4

Countries			
1	Australia	19	Netherlands
2	Brazil	20	Peru
3	Chile	21	Romania
4	China	22	Russia
5	Colombia	23	Rwanda
6	Cyprus	24	Slovenia
7	Egypt	25	South Africa
8	Georgia	26	South Korea
9	Germany	27	Spain
10	Ghana	28	Sweden
11	Hong	29	Taiwan
12	India	30	Thailand
13	Iraq	31	Trinidad and Tobago
14	Japan	32	Turkey
15	Jordan	33	Ukraine
16	Malaysia	34	United
17	Mexico	35	Uruguay
18	Morocco		

Appendix 9. List of Countries studied in Chapter 6.

<b>Countries</b>			
1	Brazil	18	Korea
2	China	19	Malaysia
3	Colombia	20	Mexico
4	Czech Republic	21	Namibia
5	Ecuador	22	Netherlands
6	Finland	23	Nigeria
7	France	24	Portugal
8	Germany	25	Russia
9	Greece	26	Slovenia
10	Guatemala	27	South Africa
11	Hungary	28	Spain
12	India	29	Sweden
13	Iran	30	Switzerland
14	Ireland	31	Turkey
15	Israel	32	USA
16	Italy	33	United Kingdom
17	Japan	34	Zambia

