

Chapter 4

National Culture, Societal Values, and Type of Economy: Are They Relevant to Explain Entrepreneurial Activity?

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ABSTRACT

We analyze the relationship between cultural values, societal values and the type of the economy with necessity-driven, opportunity-driven and improvement-driven entrepreneurship. We take into account GEM's data from 56 countries. These reports are also used to characterize the three types of entrepreneurship, the societal values and the type of economy. We approach national culture through the five dimensions of Hofstede's work on cultural values using the Values Survey Module 2013 (based on Hofstede's work). Cultural values marginally explain necessity-driven and opportunity-driven entrepreneurship. In turn, societal values only explain improvement-driven entrepreneurship. Finally, the type of economy is important in explaining necessity-driven and opportunity-driven entrepreneurship, however it is of no added value in explaining improvement-driven opportunity. One needs to be cautious when drawing general conclusions as we believe that societal values are failing to capture differences among the types of entrepreneurship analyzed.

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INTRODUCTION

The economic importance of entrepreneurship has long been recognized. However, the economic and financial crisis that has been affecting the European economy since 2007 and the economic evolution of certain developing countries have sparked the analysis of entrepreneurship taking into account cultural and societal values.

Entrepreneurship has a large potential in terms of economic growth, job creation, and regional and national competitiveness, as it contributes to improve human wellbeing (Audretsch, 2007; European Commission, 2013), particularly whenever entrepreneurial ecosystems are consolidated and the interactions between actors are explored in depth (Simatupang, Schwab & Lantu, 2015).

The relationships between national culture and entrepreneurial activity are relatively well understood as national culture permeates all human business activity. Moreover, there is a significant body of research relating national culture and entrepreneurship (Dantas, Moreira & Valente, 2015).

However, existing literature does not provide an unequivocal answer: does the type of (national, regional, industrial or individual) culture play a role in what concerns to entrepreneurship?; does national culture influence entrepreneurial orientation, entrepreneurial activity or the creation of contextual conditions fostering or hindering entrepreneurship?; should culture be considered as a dependent variable, an independent variable or a moderator variable? There are certainly more questions than answers on this issue. Moreover, research is still unclear on how to *measure* entrepreneurship (Gartner & Shane, 1995).

Building on the five cultural dimensions proposed by Hofstede (1980) and Hofstede and Bond (1988), on the societal values analyzed by the Global Entrepreneurship Monitor (GEM, 2016; 2017), and on the three main motivations – necessity-driven entrepreneurship (NDE), opportunity-driven entrepreneurship (ODE), and improvement-driven entrepreneurship (IDE) – normally used to undertake new ventures based on the 2016 and 2017 Global Entrepreneurship Monitor Report (GEM, 2017), this chapter seeks to find out: (1) the relationship between each of the five cultural dimensions and necessity-driven, opportunity-driven, and improvement-driven entrepreneurship; (2) how each of the three societal values complement the five cultural dimensions in explaining NDE, ODE, and IDE; (4) finally, how the country level of development complement cultural dimensions and the societal values in explaining NDE, ODE, and IDE.

We departed from the work of Dantas et al. (2015) who analyzed how cultural variables influence entrepreneurship. As we included societal values and perception, used in the GEM reports (2016; 2017) but with no previous empirical work, we decided not to draw any research hypothesis from either cultural values or societal values.

The chapter is organized as follows. In the first section, we present the literature regarding the concept of entrepreneurship and entrepreneurial ecosystems. The second section addresses national culture and societal values, highlighting Hofstede's approach. The third section presents the data and the methodology used. The fourth section presents the results. Sections fifth and sixth present the main conclusions and future research.

ENTREPRENEURSHIP AND ENTREPRENEURIAL ECOSYSTEMS

The Relationship Between Entrepreneurship and Economic Growth

Although entrepreneurship is far from being a new concept, it has been extensively used by policy makers, scholars, businessmen and citizens, in general, as a way out of the financial crisis that has been affecting in a more or lesser degree most of the European countries, putting pressure on the creation of new businesses that foster economic development and job creation.

For over two centuries, entrepreneurship has been occupying a prominent place on the research agendas of academics from different disciplines such as anthropology, economics, management, psychology and sociology (Casson, 1982; Kirzner, 1973; Knight, 1921; McClelland, 1961; Schumpeter, 1934).

Psychologists are particularly concerned with the origins of entrepreneurship (França, Vilares, Frankenbach, Vereb & Moreira, 2017), as entrepreneurs have specific personality traits. Entrepreneurs present three distinctive attributes (Brockhaus, 1982; McClelland, 1961): need for achievement, internal locus of control, and risk-taking behavior. On the other hand, Cromie (2000) associates seven characteristics with entrepreneurial behavior (entrepreneurs and business owners) that distinguish them from non-entrepreneurs: creativity, tolerance for ambiguity, self-confidence and autonomy in addition to the three Brockhaus' (1982) attributes.

Economists have followed a different perspective as they are more interested in the consequences of entrepreneurship on economic wellbeing, namely: economic growth, job creation, economic efficiency improvement and regional disparities reduction.

Although it is generally recognized that there is a positive relationship between entrepreneurship and economic development, this assertion may be misleading (Dantas et al., 2015) as this relationship is rather complex (GEM, 2017). If we analyze the last GEM report (GEM, 2017), for instance, we can conclude that the top five most entrepreneurial countries (measured by the TEA), are Burkina Faso (33.5%), Ecuador (31.8%), Belize (28.8%), Cameroon (27.6%) and Colombia (27.4%), some with very low levels of per capita income. In contrast, the five countries with the lowest TEA are Italy (4.4%), Germany (4.6%), Malaysia (4.7%), Bulgaria (4.8%) and Morocco (5.6%), some of them being high-income countries. Moreover, there are important differences in regional perspectives as in the African continent – between Burkina Faso and Morocco – and in the American continent – between Chile (24.2%), Ecuador (31.8%) and The USA (12.6%).

The reason behind the lack of a direct and positive relationship between higher levels of entrepreneurship and gross domestic product (GDP) per capita is the prevalence of one of the two kinds of entrepreneurship – motivated by necessity or by opportunity – that is closely linked with the stage of economic and social development across countries (concepts that we will return to in the following section). Indeed, there is a U-shaped relationship between entrepreneurial activity and economic development (e.g. Ács, 2006; Wennekers, Van Stel, Thurik & Reynolds, 2005). However, if we focus on the prevalence of entrepreneurship by opportunity, we can claim that it has a positive influence on economic development, as Ács (2006) states.

The contribution of small and medium-sized enterprises (SMEs) for employment growth (e.g. Davidson, Lindmark & Olofsson, 1994) has been a strong argument for the renewed attention that policy makers had given to entrepreneurship since the mid-1980s. Although, one cannot establish a direct relationship between new entrants and the level of employment mainly by three reasons: time lag effects, rate of failure and the replacement effect (Baptista, Escária & Madruga, 2008; Fritsch & Mueller, 2004; Van Stel & Storey, 2004).

Particularly in the case of opportunity-driven entrepreneurship, the one that we consider of utmost importance, new ventures are often based in innovative solutions that are associated to high mortality rates (Geroski, 1995), with limited influence on the level of employment as referred by Gartner and Shane (1995).

Unless new businesses are targeted for different/new market needs, where they can serve their own customers, the survival of new firms is assured at the expenses of the declining or even market exit of incumbent firms. As such, even if they contribute to a more competitive economy, the net job creation is not very relevant, at least in their early years (Geroski, 1995). If we assume that new firms use more sophisticated processes and technologies that enable them to reach higher levels of efficiency than the incumbent firms, driving them out of business, we must admit that they can even have a negative effect on the level of employment (in a certain way the creative destruction, stated by Schumpeter (1934), as the resources freed up will later be used in improved conditions).

When entrepreneurship consists of successful innovative solutions, it is expected that followers/imitators will boost, which intensifies competition bringing increased market benefits. But besides that, successful entrepreneurs operate also as role models stimulating new entrepreneurial projects (Wennekers et al., 2005). But even when new entrants target markets already served, they are often accompanied by new or at least more advanced technologies and processes, which forces incumbent companies to catch-up if they want to remain in business. All in all, the global result is a more competitive economy.

Particularly in rural and less developed regions, where depopulation is a serious problem, even small entrepreneurial projects can have a disproportionate effect to reverse the phenomenon, due to the jobs directly and indirectly created but also by the mentioned role model and imitation effects and even eventual specific externalities (Dantas & Valente, 2013).

Based on a large number of contextual variables, entrepreneurship, in the medium and long run, has a very positive role in enhancing economic growth, employment, and regional and national competitiveness. In other words, it pushes up general welfare (Audretsch, 2007; European Commission, 2013; Moreira & Martins, 2009; Moreira, 2017; OECD, 2005).

Therefore, it is natural and desirable that policy makers keep fostering entrepreneurship, improving its suitable conditions that vary from country to country and almost always embodies cultural changes, and involves long-term commitment (Huggins & Williams, 2011), which is not compatible with the short-term outputs that electoral cycles seem to recommend.

Even if the last three/four decades have shown an increased attention to the potential of entrepreneurship and there is agreement about its results and some of its characteristics (e.g. initiative, risk taking, newness, organizing, creating wealth) we do not have yet a consensual concept of entrepreneurship. In their research Hébert and Link (1989), for instance, have found 12 different concepts of entrepreneurship.

At the general level in which we wish to operate for the purposes of this chapter, and mainly adopting Hindle's (2010) proposal, we define entrepreneurship as the process of evaluating, committing to and achieving, under contextual constraints (one of them being culture), the creation of new value from new knowledge or different combinations of existent knowledge for the benefit of all stakeholders involved.

The Global Entrepreneurship Monitor Project

The Global Entrepreneurship Monitor (GEM) project was created in 1997 to measure differences in the level of entrepreneurial activity between countries, to uncover factors leading to appropriate levels of entrepreneurship, and to suggest policies that may enhance the national level of entrepreneurial activity (Reynolds, Hay & Camp, 1999).

The regular and consistent character of GEM data made their annual issues become a precious tool in the area of entrepreneurship being used by a large number of researchers (Ács, 2006; Dantas et al., 2015; Pinillos & Reyes, 2011; Wennekers et al., 2005). The importance of the GEM reports is very pertinent for this chapter as GEM (2017) is going to provide the following information: the consistent metric they use to measure entrepreneurship across countries, the distinction between necessity-driven, opportunity-driven and improvement-driven entrepreneurship and the aggregation of countries according to their level of development.

To estimate the level of entrepreneurial activity in a harmonized way, which is critical to cross-country comparisons, GEM uses the TEA, which includes individuals between 18 and 64 years that can be considered nascent entrepreneurs or new business owners (GEM, 2017).

People may engage in entrepreneurial activities for two main motivations: opportunity or necessity. Being opportunity driven means that someone decides to start a business as one of several alternative career options, i.e. because they perceive an unexploited (or underexploited) business opportunity in the market, with high socio-economical potential impact (growth, job and wealth creation, role model, etc.). It usually corresponds to a matured idea/opportunity, with a planned strategy (Bosma, Ács, Autio, Corduras & Levie, 2008).

A necessity-driven entrepreneur is someone who chooses to start his/her own business (sometimes merely self-employment) because he/she has no better employment choice (he/she is unemployed or has an unsatisfying job). Often this is the only chance available to assure oneself and/or family survival and the project normally consists on some sort of independent work or a straight imitation of already existent businesses. Accordingly, its socio-economic impact is weak.

According to GEM (2017), improvement-driven entrepreneurs (IDE) are individuals who seek opportunities to improve their economic situation, either through increased independence or through increased income (versus maintaining their income). GEM (2017) has created the Motivational Index to assess the improvement-driven entrepreneurs.

According to GEM (2017), this index reveals that in 2016 there were 1.2 times as many IDE as necessity-driven entrepreneurs, on average, in factor-driven economies. Moreover, efficiency-driven economies showed a higher proportion at 2.3 times. For example, in Sweden and Finland, there are 10 or more times as many improvement-driven entrepreneurs as necessity-driven entrepreneurs.

However, in what pertains to economic development, our goal is not to verify high rates of necessity-driven, opportunity-driven, or improvement-driven entrepreneurship: the point is to complement previous studies that analyzed opportunity-driven versus necessity-driven entrepreneurship (Dantas et al., 2015) and to understand the rationale behind the differences of the three concepts in a worldwide basis.

At the 2008 issue, following Porter, Sachs, and McArthur (2002), GEM has begun to group the participant countries into three blocks: factor-driven, efficiency-driven and innovation-driven countries (Bosma et al., 2008), as *“countries face very different challenges and priorities as they move from resource-based to knowledge-based economies”* (Porter et al., 2002, p. 17), which is also reflected in

the kind of entrepreneurship they pursue. In Table 1 we present the distribution of the GEM 2016 participant countries by block.

Factor-driven countries can be described as relying mostly in the primary factors of production: exploitation of the land, extraction of natural resources, manufacturing of basic goods and unskilled labor that, mostly, live in the countryside. In general, many people have to resort to self-employment (usually small manufacturing or service firms) to assure their basic needs. This decision is taken mainly for survival reasons, i.e., what is particularly at stake in necessity-driven entrepreneurship. At best, firms produce commodities and compete based on price (Porter et al., 2002).

As the development proceeds the transition to the second stage begins: efficiency-driven countries. As a result of capital accumulation, foreign direct investment and government support, the average firm size should increase, its production becomes more sophisticated, and the economy is integrated more and more in global markets. We will see the decreasing of self-employment, as the returns to wage work become more attractive relative to entrepreneurial activity (Ács, 2006). However, technology keeps coming mainly from abroad, even if companies are more and more able to assimilate and even improve on it (Porter et al., 2002). Productive efficiency is by and large the source of competitiveness and to enhance it can be useful to outsource some activities giving rise to business opportunities from which entrepreneurs can take advantage.

The shift from one phase of development to the next is always difficult, as it implies significant changes at the macro and microeconomic levels. But this one – the transition from efficiency-driven to innovation-driven economies – is the hardest, according to Porter et al. (2002). It needs a strong involvement of public authorities in order to foster public and private research and development (R&D), higher education, the development of capital markets and the emergence of new technology-based firms. In this context entrepreneurial activity will increase and the new ventures – mainly small and flexible firms that provide high value-added products and/or services – will have a positive impact on economic development.

The transition also implies a change in management practices. Companies do not need, particularly, to reach economies of scale, as in the last stage, but it is critical to assure a permanent stock of ideas to renew existent products and to launch new ones. As we used to say (Dantas, 2011), now they are more and more driven by ‘brain power’ and less by ‘muscular strength’.

Production capacity is available everywhere and often at very attractive prices. This means that more than investing in hardware they need to invest in ‘brainware’. And more than workers companies need partners, people willing to take up the cudgels of the company. What we want to stress is that things do

Table 1. GEM economies by economic development level

Factor-Driven Economies	Efficiency-Driven Economies	Innovation-Driven Economies
Burkina Faso, Cameroon, India, Iran, Kazakhstan, Russian Federation, Senegal.	Argentina, Belize, Brazil, Bulgaria, Chile, China, Colombia, Croatia, Ecuador, El Salvador, Egypt, Georgia, Guatemala, Hungary, Indonesia, Latvia, Jamaica, Jordan, Lebanon, Macedonia, Malaysia, Mexico, Panama, Peru, Poland, Slovakia, South Africa, Saudi Arabia, Thailand, Turkey and Uruguay.	Australia, Austria, Canada, Cyprus, Estonia, Finland, France, Germany, Greece, Hong Kong, Ireland, Israel, Italy, Korea, Luxembourg, Netherlands, Portugal, Puerto Rico, Qatar, Slovenia, Spain, Sweden, Switzerland, Taiwan, United Kingdom, United Arab Emirates and USA.

Source: Data retrieved from GEM (2017)

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not happen by chance. If companies wish to take the best from their human capital, they have to delegate authority, to empower their employees, to tear down hierarchical barriers and to review the compensation schemes. But they need also to take advantage from their environment: to foster networking, to promote alliances, to increase their competencies to compete but without forgetting the large potential of competition.

In what concerns the management teams the question is, often, a need of organizational culture change, issue where nice words are common but not enough; leaders have to transmit consistently, through their everyday practice, the desired behavior.

At national level, as we will see in the remaining of the chapter, acting on culture – bringing it into line with entrepreneurship – is a crucial challenge, but it is very difficult to achieve. However, to get there one day, we have to take the first step and it is never too late to start the great crusade. The development of entrepreneurial ecosystems can make an important contribution to the aforementioned cultural change, topic that will be discussed below.

Entrepreneurial Ecosystems

Since early ground-breaking studies of Silicon Valley and Route 128 (Saxenian, 1994), entrepreneurship ecosystems have been investigated from different research perspectives (Prahalad, 2005) such as policy advice (Isenberg, 2011; Mason & Brown, 2014; World Economic Forum, 2014), as well as academically (Ács, Szerb & Autio, 2015; Ács, Autio & Szerb, 2014).

The term entrepreneurial ecosystem was used to describe the conditions in which the individuals, businesses, governments, civil society, and development partners come together regionally to support entrepreneurial activities (Prahalad, 2005; Cohen, 2006).

The OECD (2013) suggests the concept of entrepreneurial ecosystem is holistic and interactive by nature, thus recalling concepts such as regional agglomeration (Fujita & Thisse, 2002), innovative regional clusters (Saxenian, 1994), industry clusters (Feldman, Francis & Bercovitz, 2005; Porter, 1990), and national innovation systems (Lundvall, 1992), which have been shaping local policies of economic development.

Despite the diversity of approaches, a common link among entrepreneurial ecosystems is the certainty that any ecosystem involves a number of interconnected key elements, which constantly interact and mutually reinforce. It encompasses a number of moving parts, components that have to come together to facilitate innovation and growth (Foster & Shimizu, 2013; Stam, 2015).

This range of actors that can be part of the entrepreneurial ecosystem makes the concept still not very consensual, being object of multiple approaches. In this chapter, we will only refer to the definitions of Isenberg (2011) and Mason and Brown (2014), for their international recognition. According Daniel Isenberg, executive director of the Babson Entrepreneurship Ecosystem Project, the concept of entrepreneurship ecosystem refers to a network of relationships that enables interactions between a wide range of institutional and individual stakeholders to foster entrepreneurship, innovation, and regional economic growth.

For Mason and Brown (2014), an entrepreneurial ecosystem must be understood as a set of interconnected actors – entrepreneurs, business organizations (e. g. business angels, banks), institutions (universities, financial bodies) and business events (e. g. the birth rate of new business, number of high-growth companies present in the economy) – which formally and informally bind them, with the purpose of intervening and governing performance in a given business environment. This definition was adopted

by the OECD (2013) and stresses the importance of formal and informal connections as mediators of performance within the local business environment.

In both definitions and underlying operational models, a new and distinctive perspective is emphasized, by making the success of entrepreneurial ecosystems dependent not only on the existence of a diversity of entities in a particular geographic area, but above all on the interaction and articulation among them in the promotion, support, creation and growth of new companies (Simatupang, Schwab & Lantu, 2015).

In this sense, it can be stated an entrepreneurial ecosystem is considered a highly complex, multi-level construct that integrates different – regional, firm, and individual – levels of participation (Alsos & Kolvereid, 1998).

With regard to the operationalization of ecosystems, several models (GEM, 2016; OECD, 2013; World Economic Forum, 2014) can be identified, which do not define a common set of indicators, focusing on specific actors (e. g banks, incubators, institutions) and in key areas such as politics, financial resources, and culture. Despite the differences between them, we could verify that the cultural pillar is common to many operational models. As such, referring only to the cultural pillar, since it is the aspect that most interests us within this work, the models integrate a diversity of determinants whose influence on the entrepreneurial activity varies according to the context. One of the determinants most frequently mentioned is the attitude toward failure and social criticism because the positive or negative perceptions that society has about entrepreneurship can have a strong influence on the entrepreneurial ambitions of entrepreneurs (Feld, 2012).

For example, according to GEM (2016), some countries have a conservative attitude and avoid the risk of the business and it is essential to change the perception of failure in those populations if the goal is to increase the number of entrepreneurs. In economies where entrepreneurship is booming, failure is seen as part of the process. For example, the same report recognizes investors in the USA and UK are more likely to take this approach – when they invest in entrepreneurs, they accept that there is a high chance that a first venture will fail, but would recognize this is a necessary part of the entrepreneurial journey.

Another determinant in the cultural pillar of entrepreneurial ecosystems, which we will approach later, is social values prevailing in a given society which, that according GEM (2016), show significant differences across regions.

CULTURAL DIMENSIONS, SOCIAL VALUES, AND ENTREPRENEURSHIP

According to Kluckhohn (1951), culture is for society what memory is for people. As such, society tends to transmit to future generations the “solutions” (a set of basic common values) that have worked in the past that will shape their behaviors (Inglehart, 1997). So individuals naturally build organizations according to their values, and institutions and organizations themselves reflect the dominant values within their culture (Hofstede, 1984).

Although the definition of culture is not consensual yet, we adopt the definition proposed by Hofstede (2001, p. 9), culture is the “*collective programming of the mind that distinguishes the members of one group or category of people from others.*” Hofstede’s cultural dimensions (1980) have been extensively used by many researchers (Dantas et al., 2015; Gupta, Turban, Wasti & Sidkar, 2009; Pinillos & Reyes, 2011; Shane, 1993) and are now considered as the most widely accepted among entrepreneurship and management scholars (Hayton & Cacciotti, 2013).

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The seminal research of Hofstede (1980) aimed at finding differences in values between individuals in their work context. The sample consisted in employees from IBM's offices and subsidiaries from 50 countries and 3 regions (Eastern Africa, Western Africa and Arab Countries). Initially his research led to four dimensions (uncertainty avoidance, individualism/collectivism, power distance and masculinity/femininity). One dimension has been added in 1988 (long-term/short-term orientation) (Hofstede & Bond, 1988), although this one was primarily designed to Asian/eastern countries.

These dimensions are used as our framework in what concerns the impact of national culture on entrepreneurship and will be commented in the remaining section. However, it is henceforth important to stress that the results presented by Hofstede (1980) are average values. Accordingly, we must be cautious and remember that in every society cultural heterogeneity is common.

Uncertainty Avoidance

Uncertainty avoidance refers to a society's tolerance for uncertainty and ambiguity (Hofstede, 1980, 2003). In cultures ranking high in uncertainty avoidance individuals "...want to have structure, to know precisely how they are supposed to behave and what is going to happen next. Predictability of events is highly valued..." (Triandis, 2004, p. 92). However, by its own nature, entrepreneurship faces high uncertainty (Kirzner, 1973; Knight, 1921), especially when driven by opportunity. Moreover, the more innovative the new venture is, the more uncertain it is.

The need for predictability results in entrepreneurial policies with bureaucratic procedures and a huge amount of rules to 'control' the environment in which new ventures are created, and a large number of institutional approvals to lower the risk associated with the creation of new firms, discouraging entrepreneurial activities (Baughn & Neupert, 2003). Besides, "...customers prefer established products and services, and investors invest in ventures that reduce risk..." (Rauch, Frese, Wang, Unger, Lozada, Kupcha & Spirina, 2013, p. 736).

Moreover, high uncertainty avoiding societies do not appreciate deviants. As Hofstede (1984, p. 96) pointed out, in uncertainty avoidance societies "...what or who is different is considered dangerous. Such societies have a low level of social tolerance..." which once again hinders entrepreneurship and innovation, as Hayton, George, and Zahra (2002) suggest.

Clearly, there are different social and economic situations. In developed countries with high GDP per capita income where the uncertainty avoidance index (UAI) is large, it can be stated that economic development is the outcome of a structured economic policy leading to decreased risk. Meanwhile, in countries with low level of economic development it might be rewarding for entrepreneur to take risks to generate their own jobs.

It can be argued that the lack of jobs leads to necessity-driven entrepreneurs. Furthermore, the lack of social security entitlements pushes people to start their own jobs. In uncertainty avoidance countries necessity-driven entrepreneurs might be explained by the lack of better options to work.

In innovation-driven economies, startups might be associated to the willingness to earn more money or to seek independence. On the other hand, in factor-driven economies, new ventures might be associated to the willingness of individuals to create their own jobs. Our thinking was based on the fact that as necessity-driven entrepreneurship is spurred by survival their rates are going to be higher than those of opportunity-driven entrepreneurship.

Individualism vs. Collectivism

Hofstede (2001) defines individualism as a preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families. Its opposite, collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty.

Greenfield (2000) considers the individualism/collectivism dichotomy to be the foundation of cultural differences, being one of the most widely studied cultural dimensions (Smith & Bond, 1993).

Individualists are autonomous and independent from their in-groups, they place a greater emphasis on self-interest, personal goals and personal achievement, while collectivists are mainly concerned with relationships, what make them subordinate their personal goals for the sake of the larger collective to which they belong (Ramamoorthy & Carroll, 1998; Triandis, 2001).

Collectivists rely on cooperation to achieve their results and they prefer methods of conflict resolution that do not destroy relationships, whereas for individualists their own goals and rights are first and they are willing to go to court to settle disputes (Leung, 1997).

It is possible to claim that individualism is more conducive to entrepreneurship than collectivism, as it values characteristics as individual achievement, independence, and autonomy (Gupta et al., 2009; Hofstede, 1980; Morris, Avila & Allen, 1993). However, there are three different situations, according to the motivation to undertake new ventures already mentioned, i.e. necessity-driven, opportunity-driven, and improvement-driven entrepreneurship.

In the case of necessity-driven entrepreneurship, the main challenge potential entrepreneurs have to face is to get resources to implement and launch their projects. The fact is that the integration into strong, cohesive in-groups (family, race, religion, etc.) makes it easier to raise the needed resources, as collectivists, by definition, are sensitive to serve their group's interest (Tiessen, 1997).

Pinillos, and Reyes (2011) concluded that the relationship between individualism/collectivism and entrepreneurial activity is moderated by the level of economic development, that is, in developing countries collectivist are more prone to create their own business, due to their need for achievement and affiliation, while in developed countries the need for achievement and to attain their own goals make individualists to engage in new firms' creation, i.e. "...both orientations can contribute to firm creation..." (Pinillos & Reyes, 2011, p. 33), according to the level of development.

In innovation-driven economies it is expected that the percentage of necessity-driven entrepreneurs to be lower than in factor-driven or efficiency-driven economies.

Power Distance

Power distance is the degree to which the less powerful members of a society accept and expect that power is distributed unequally (Hofstede, 1980; 2003). It relates to the way each society manages the inequalities among their people.

In high power distance cultures organizations tend to exhibit strong decision-making hierarchies and maintain tight control mechanisms. Individuals are expected to be deferential and obedient to their hierarchical superiors (Shane, 1993) and do not believe in proposing initiatives (Hofstede, 1991; Sagie & Aycan, 2003). Power differences are translated into visible differences in status that contribute to the superior's authority that subordinates have to respect (Hofstede, 1984).

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In low power distance, cultural formal power is less important, organizations are more decentralized, flatter, communication is more fluent across functional areas and even with external organizations. The management style is usually participative and status differences are considered undesirable (Hofstede, 1984). Authority is not something to be taken for granted, as individuals question their superiors when they believe it to be appropriate (Shane, Venkataraman & Macmillan, 1995).

The relationship between power distance and entrepreneurial activity is far from being consensual. Some researchers (e.g. Kreiser, Marino, Dickson & Weaver, 2010) state that societies ranking lower in power distance would be less entrepreneurial, while others (e.g. Busenitz & Lau, 1996) contend that power distance can foster entrepreneurial activity.

On the positive side, as societies with high power distance indexes preserve the status quo and tend to resist to change (Hofstede, 1991) there is little acceptance for individual initiatives (Rauch et al., 2013), what can be discouraging for creative employees. Besides, as in this kind of societies upward social mobility is difficult, entrepreneurship can be understood as the only way to improve one's independence and power position (Busenitz & Lau, 1996; Zhao, Rauch & Frese, 2010). Thus, in both situations high power distance can foster employees to create their own ventures.

Companies in high power distance cultures can be more successful in the process of implementation of new internal ventures, as their centralization makes easier the adherence to institutionalized practices for the implementation of new projects and their control (Nakata & Sivakumar, 1996). On the negative side, as companies in cultures ranking high in power distance have rigid hierarchies, there is little incentive for innovation (Rauch et al., 2013) and so they do not take advantage of the potential of their creative people, which can lead to a shortage of ideas. Besides, in high power distance countries resources are not distributed fairly, which reduces the likelihood of potential entrepreneurs of disadvantaged groups to take advantage of potential profitable opportunities (Zhao et al., 2010).

In innovation-driven economies it is expected the percentage of necessity-driven entrepreneurs to be lower than in efficiency-driven economies.

Masculinity vs. Femininity

In feminine societies gender roles overlap (men and women should be modest, tender and concerned with the quality of life) while in masculine societies social gender roles are clearly distinct: men are supposed to be assertive, tough and focused in material success and women are supposed to be modest, tender and concerned with the quality of life (Hofstede, 2001).

In masculine societies, the task is the absolute priority. As individuals are performance-oriented, more concerned with their careers, competitiveness is appreciated. In turn, in feminine societies making a career is less important. They are more concerned to reach welfare society (Hofstede, 1984).

Although we consider laudable the values (modesty, solidarity, social justice) associated with femininity – particularly in the troubled times we live in – we defend that the entrepreneurial activity is much more consistent with the aspirations pursued by masculine societies (achievement, assertiveness, material success), which is in line with many researchers (e.g. Gupta et al., 2009).

Long-Term vs. Short-Term Orientation

The fifth cultural dimension, long-term orientation (LTO)/short-term orientation (STO), was first labeled Confucian work dynamism, as some of the values are related with Confucius's ideas. This dimension has

its origin in the research developed by the Chinese Culture Connection (1987), a team of 24 researchers, one of them being Michael Bond.

Because the questionnaire used by Hofstede (1980) was developed by western researchers and influenced by their own culture, this team prepared, first, a list of basic Chinese values (CVS), and then administered a questionnaire survey in 22 countries. They found again four dimensions, but contrary to expectations, they did not find any dimension related to uncertainty avoidance. The fourth dimension included, on one hand, a long-term orientation (LTO) – persistence, ordering relationships by status and observing this order, thrift and having a sense of shame – and, on the other hand, a short-term orientation (STO) based on personal steadiness and stability, protecting your face, respect for tradition and reciprocating of greetings, favors and gifts (Hofstede & Bond, 1988).

This dimension has been adopted in Hofstede's subsequent works. Through replications and extensions, it has already covered some dozens of countries. However, while the four initial above-mentioned Hofstede's (1980) dimensions have been extensively used in empirical studies (we just have mentioned a few), the LTO-STO dimension has not received much attention so far.

We admit that LTO makes organizations more conservative, as Sharma, Chrisman, and Chua (1997) argue, which may inhibit them to address riskier projects, but a certain amount of prudence is always welcome as a way to sustainability and growth. This more preventive behavior allows organizations to understand the tradeoffs among possible choices, which is important as entrepreneurial activities have often a chaotic, unpredictable character (Kanter, 1983), and is much more in line with the absence of immediate results that characterizes entrepreneurship (Hisrich, Peter & Shepherd, 2008).

Zahra, Hayton, and Salvato (2004), who analyze the entrepreneurship in the family firm context, defend that time orientation is reflected in the choice of the control system, and LTO favors strategic controls while STO cultures have preference for financial controls. They conclude that there is a positive association between strategic controls, as a proxy for LTO, and entrepreneurship, which indicates the importance of a long-term cultural orientation for entrepreneurial activity. Busenitz, and Lau (1996) also assume that LTO is positively associated with entrepreneurship, position also stated by Hofstede (1993) in what pertains to China.

Societal Values

Probably any one of us has, at least in a specific New Year's Day, wished to introduce major changes in our lives (e.g. stop smoking, taking regular exercise, or even becoming an entrepreneur). However, one did little or nothing at all to fulfill this specific wish, i.e. one confined to the idea, the intention (the first pre-decisional phase) out of four phases proposed by Gollwitzer and Brandstätter (1997) to achieve a goal) and the wish remained unrealized. What we want to stress is that we need to seek people's motivations if we want to correctly understand someone's actions (becoming self-employed, in this case), that is, motivation is the link between intention and action (Carsrud & Brännback, 2011; Kuratko, Hornsby & Nafziger, 1997).

As Ács et al. (2014, p. 490) note, mentioning Autio and Thomas (2013), "...the 'heroic entrepreneur' is not the sole determinant of entrepreneurial success, and that the environment – or the 'ecosystem' – can play an important role in nurturing new venture seeds into fully-fledged, value-adding growth ventures..." Culture is a key element of the framework conditions in the entrepreneurial ecosystem proposed by Stam (2015) and, together with social norms, constitute one of the nine pillars of Global Entrepreneurship Monitor ecosystem (GEM, 2016).

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National culture influences the way a given country's inhabitants view entrepreneurship (Taylor & Wilson, 2012) and, as aforementioned, affect the individual decision to consider the entrepreneurial career in that it influences its perceived desirability (Ács et al., 2014).

It is recognized that individual behavior is influenced by both economic incentives and social norms (Lindbeck, Nyberg & Weibull, 1999). As Harsanyi (1969) stated, quoted in Gächter and Fehr (1999, p. 341), "...people's behavior can largely be explained in terms of two dominant interests: economic gain and social acceptance." Taking into account that entrepreneurship is carried out by individuals who live in specific cultural and social conditions, and that people have preference for social approval (Regea & Telleb, 2004), it comes as no surprise that social norms can enhance or hinder entrepreneurial activity, which received full attention from distinct organizations concerned about this issue, such as the European Commission (2013) and GEM's reports.

In fact, people have preference for social approval because it is "...assumed that people who do not obey to a social norms experience social disapproval..." (Regea & Telleb, 2004, p. 1626).

In order to measure the social image of entrepreneurship the European Commission (2013) report approaches the social support of entrepreneurship asking their respondents namely if they agree that entrepreneurs: (1) are job creators; (2) create new products and services that are beneficial for the society; (3) take advantage of other people's work; and (4) only think about their own wallets.

GEM's work, in turn, deals with three variables: (1) whether entrepreneurship is considered to be a good career choice; (2) whether society assigns a high status to successful entrepreneurs; and (3) to what extent the media evaluate positively the entrepreneurial activity. Other variables might have been included, such as the stigma of failure which reduces the willingness of many individuals to enter the entrepreneurial activity in order to avoid negative social judgments and also lower the likelihood that failed entrepreneurs would reenter into entrepreneurial activity (Simmons, Wiklund & Levie, 2014).

The concern with the social assessment of entrepreneurship is very apparent in both cases as social approval/disapproval can have a significant impact on individuals' behavior including career choice. We do agree with the perspective of entrepreneurship as a utility-maximizing response (e.g. Arenius & Miniti, 2005; Baumol, 1990; Douglas & Shepherd, 2002). However, we defend that social recognition (returns of approval/costs of disapproval) should be taken into account in the equation: First of all, because it influences the 'attitude toward behavior' (its attractiveness) if the behavior is in contrast with the 'subjective norm', two pillars of the recognized Theory of Planned Behavior (Ajzen, 1991). Second, because society is attentive to citizens' behavior charging/rewarding those who ignore/follow their norms (Regea & Telleb, 2004). Thus, besides Hofstede's cultural dimensions, we include the societal values (as approached by GEM) in what we believe might constitute a further country specific component which might influence fostering (or discouraging) entrepreneurial behavior.

To bring this section to a close we present an example which can shed some light on our viewpoint on entrepreneurship as a career choice. In Belarus, according to Miazhevich (2007) any successful private business owner is labelled as 'individualist' or 'careerist'; quite conversely, in Vietnam, the Prime Minister, quoted in Benzing (2005, p. 21), declared in 2002 to the press: "Your success in the marketplace is no less glorious than a victory on the battlefield... Glory belongs to those who produce more commodities for the country. You have been contributing to bring Vietnam glory in the international market..."

DATA AND METHODOLOGY

Our analysis was based on data from 56 countries for both cultural practices (taken from <http://www.geerthofstede.eu/culture>) and entrepreneurship activity taken from (GEM, 2017).

The countries analyzed are presented on Table 2. We tried to enlarge the sample as much as possible. Accordingly, we tried to match data available from cultural surveys with those from entrepreneurial studies.

Simulations for three different scenarios were prepared in this study: a basic cultural model, an expanded model, and an integrated model. In the basic cultural we introduced as independent variables the five cultural variables presented earlier: power distance index (PDI); individualism/collectivism (IDV); masculinity/femininity (MAS); long/short term orientation (LTO) and uncertainty avoidance index (UAI). In addition to these five cultural variables we introduced in the expanded model three variables addressing the societal values and perceptions: high status to successful entrepreneurs (HSSE), entrepreneurship as good career choice (EGCC), and media attention for entrepreneurship (MATE). The integrated model includes the variable ‘Type of Economy’ (ECO), which aims to capture the differences between factor-driven countries (FDC), efficiency-driven countries (EDC) and innovation-driven countries (IDC). The variable used is an ordinal one, differentiating factor-driven (0), efficiency-driven (1) and innovation-driven countries (3). From figure 2, it is possible to conclude that the subsample of factor-driven countries is very small *vis-à-vis* the other two subsamples.

The geographical origin tries to capture some differences that are related to cultural and economic backgrounds, but that are not easily explained by any of them individually. We used categorical/ordinal scale, differentiating countries from different origins: Africa (0), Latin America and Caribbean (1), Asia and Oceania (2), Eastern Europe (3) and Western economies (4). The main reason behind this choice stems on their relative homogeneity. Clearly, Latin American, Asian and European countries are very relatively more culturally homogeneous within their groups than between them. Furthermore, in order to capture certain historical ideological/economical perspectives we decided to separate Eastern from Western economies. We acknowledge that previous studies dealing with these particularities are scarce.

Table 2. Countries analyzed by type of economy and geographic region

	Factor-Driven Economies	Efficiency-Driven Economies	Innovation-Driven Economies
Africa	Burkina Faso	Egypt, Morocco, South Africa	
Latin America & Caribbean		Argentina, Brazil, Chile, Colombia, Ecuador, El Salvador, Guatemala, Jamaica, Mexico, Panama, Peru, Uruguay	
Asia & Oceania	India, Iran, Philippines*,	China, Indonesia, Jordan, Malaysia, Saudi Arabia, Thailand, Turkey	Australia, Hong Kong, Israel, South Korea, Taiwan
Former Eastern European Economies	Russian Federation	Croatia, Hungary, Latvia, Poland, Romania, Slovakia	Estonia, Slovenia
Western Economies			Canada, Belgium*, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom, Switzerland, USA

Source: Data retrieved from GEM (2017)

*Data retrieved from GEM (2016)

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To measure entrepreneurship, we used three different metrics that capture different motivations to start a business based on GEM (2017) data: necessity-driven entrepreneurship (NDE), opportunity-driven entrepreneurship (ODE), and improvement-driven entrepreneurship (DE).

Methodologically diverse tools and techniques are used. Initially, descriptive data analysis was used for all cultural variables, for the societal values and perceptions, as well as for the variables identifying national entrepreneurial characteristics. Descriptive statistics and correlations of the studied variables are displayed in Table 3.

In order to analyze the normality of all items, we followed Curran, West, and Finch's (1996) recommendation that items should have absolute values for skewness and kurtosis lower than 2.0 and 7.0, respectively. We used the ANOVA (Marôco, 2007) for comparing the mean values of all cultural variables, all societal values and perceptions, and the three variables identifying entrepreneurial characteristics taking into account the type of economy and the region of origin. To this end, we used the Levene test to confirm the homogeneity of variances, which is presented in Table 4 for the type of economy as factor and Table 5 for the region of origin as factor.

Regression analysis may be used to model the functional relationship between at least two variables (Marôco, 2007). In this case we used the multiple linear regression analysis to test the relationship between the dependent variable (necessity-, opportunity- and improvement-driven entrepreneurship) and the set of explanatory variables for the cultural model, the expanded model, and the integrated model.

Table 3. Descriptive statistics and correlations among variables

	Mean	Standard Deviation	PDI	IDV	MAS	UAI	LTO	TEA	NDE	ODE	ODE	ODE	ODE
PDI	61.25	20.242	1										
IDV	43.89	24.124	-0.0672 (0.000)	1									
MAS	49.45	17.762	0.117 (0.390)	0.147 (0.279)	1								
UAI	67.95	21.788	0.228 (0.091)	-0.277 (0.038)	-0.209 (0.122)	1							
LTO	46.81	23.721	-0.019 (0.891)	0.142 (0.317)	-0.025 (0.862)	-0.072 (0.612)	1						
TEA	12.039	6.6016	0.145 (0.286)	-0.406 (0.002)	0.037 (0.785)	-0.425 (0.002)	-0.425 (0.002)	1					
NDE	22.457	9.3868	0.373 (0.005)	-0.338 (0.011)	0.169 (0.213)	0.144 (0.290)	-0.030 (0.833)	-0.095 (0.488)	1				
ODE	74.489	9.5785	-0.311 (0.020)	0.269 (0.045)	-0.196 (0.214)	-0.110 (0.418)	-0.004 (0.976)	-0.082 (0.548)	-0.968 (0.000)	1			
IDE	50.793	11.7094	-0.300 (0.025)	0.241 (0.073)	-0.209 (0.122)	-0.113 (0.408)	0.079 (0.580)	-0.081 (0.554)	-0.499 (0.000)	-0.537 (0.000)	1		
HSSE	68.163	11.4588	-0.253 (0.059)	0.028 (0.840)	0.091 (0.505)	-0.293 (0.029)	0.210 (0.136)	0.237 (0.079)	-0.116 (0.396)	0.090 (0.511)	-0.145 (0.286)	1	
EGCC	62.714	12.4479	-0.257 (0.056)	-0.371 (0.005)	-0.078 (0.565)	-0.090 (0.509)	-0.358 (0.009)	0.384 (0.004)	0.319 (0.017)	-0.282 (0.035)	-0.376 (0.004)	0.404 (0.002)	1
MAFE	61.241	12.3461	-0.016 (0.906)	-0.174 (0.201)	0.017 (0.903)	-0.462 (0.000)	-0.158 (0.263)	0.271 (0.043)	-0.046 (0.736)	0.034 (0.802)	0.092 (0.500)	0.491 (0.000)	0.432 (0.001)

RESULTS

Table 4 shows the means for the cultural variables (PDI, IDV, MAS, LTO and UAI), societal values and perceptions (HSSE, EGCC and MATE), and entrepreneurship variables (NDE, OPE and IPE) as well as the homogeneity of variances test taking into account the type of economy (factor-driven, efficiency-driven and innovation-driven economies).

It is possible to conclude that power distance index, individualism/collectivism, long term orientation, necessity-driven entrepreneurship, opportunity-driven entrepreneurship, improvement-driven entrepreneurship and entrepreneurship as good career choice, for a 5% significance level, are statistically different among the types of economies. Moreover, it is possible to claim that innovation-driven economies are characterized by low power distance, more collectivist orientation, long term orientation, strong improvement-driven entrepreneurship and entrepreneurship is not considered a good career choice *vis-à-vis* efficiency-driven and factor-driven economies. Complementarily, factor-driven economies have low opportunity-driven entrepreneurship when compared to efficiency-driven and innovation-driven economies. Masculinity, uncertainty avoidance, high status to successful entrepreneurs and media attention for entrepreneurship are not different among the types of economies.

Table 5 shows the means for the cultural variables (PDI, IDV, MAS, LTO and UAI), societal values and perceptions (HSSE, EGCC and MATE), and entrepreneurship variables (NDE, OPE and IPE) as well as the homogeneity of variances test taking into account the region of origin (Africa, Latin America & Caribbean, Asia & Oceania, Former Eastern European Economies and Western Economies).

For a 5% significance level, one can claim that there are differences between the averages of power distance index, individualism/collectivism, long term orientation, necessity-driven entrepreneurial activity, opportunity-driven entrepreneurship, entrepreneurship as good career choice and media attention for entrepreneurship. After applying the Bonferroni Post hoc test it is possible to claim that:

Table 4. ANOVA results and averages by type of economy

Variables	ANOVA					Homogeneity of Variances	
	Average			F	Sig.	F	Sig.
	FDC	EDC	IDC				
PDI	78.40	70.57	46.17	18.051	(0.000)	0.238	(0.789)
IDV	35.00	32.79	59.35	10.942	(0.000)	1.752	(0.183)
MAS	49.80	51.64	46.70	0.482	(0.620)	0.824	(0.444)
UAI	58.60	71.82	65.26	1.081	(0.347)	0.271	(0.763)
LTO	40.00	39.46	55.96	3.351	(0.043)	0.107	(0.898)
NDE	31.00	25.12	17.36	8.344	(0.001)	3.593	(0.034)
ODE	66.64	72.02	79.20	6.460	(0.003)	2.924	(0.062)
IDE	43.32	46.97	57.05	7.059	(0.002)	3.259	(0.046)
HSSE	71.92	66.91	68.16	0.472	(0.626)	3.787	(0.029)
EGCC	63.08	67.30	57.05	4.887	(0.011)	1.281	(0.286)
MAFE	59.04	61.87	60.96	0.118	(0.889)	0.289	(0.750)

Note: Values between parentheses are probabilities (*pvalues*)

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Table 5. ANOVA results and averages by region of origin

Variables	ANOVA							Homogeneity of Variances	
	Countries					F	Sig.	F	Sig.
	Africa	Latin America & Caribbean	Asia & Oceania	Former Eastern European Economies	Western Economies				
PDI	64.75	69.42	67.80	67.22	44.75	4.806	(0.002)	0.720	(0.582)
IDV	37.75	23.75	33.13	50.11	67.13	12.335	(0.000)	0.403	(0.806)
MAS	52.75	49.83	50.53	47.33	48.50	0.087	(0.986)	5.089	(0.002)
UAI	62.75	79.42	57.73	77.44	64.88	2.454	(0.057)	0.772	(0.548)
LTO	20.50	25.38	48.33	64.56	52.69	6.156	(0.000)	3.113	(0.024)
NDE	28.05	27.54	21.18	25.81	16.56	3.824	(0.009)	1.972	(0.113)
ODE	69.25	69.79	76.11	71.36	79.57	2.824	(0.034)	1.232	(0.309)
IDE	41.48	49.43	50.75	48.12	55.68	1.547	(0.203)	1.384	(0.252)
HSSE	78.63	64.82	70.69	61.76	69.29	2.188	(0.083)	1.289	(0.287)
EGCC	78.98	68.40	63.76	56.56	56.87	4.855	(0.002)	2.954	(0.029)
MAFE	66.05	61.20	68.48	52.32	58.30	3.322	(0.017)	1.020	(0.406)

Note: Values between parentheses are probabilities (*pvalues*)

- Western economies are different from the rest of the countries in what concerns to power distance index and individualism/collectivism;
- Western countries and former Eastern European economies are more individualistic than African, Latin American and Asian/Pacific countries;
- In what pertains to LTO, there are statistically significant differences between African and Latin American countries and Western countries and former Eastern European economies;
- There are statistically significant differences between African and Latin America countries and Western countries in what pertains to necessity-driven entrepreneurship.
- Entrepreneurship as good career choice and media attention for entrepreneurship American countries are very short term oriented when compared to Asian/Pacific, Eastern and Western European countries;
- Latin American countries have the largest scores for a larger entrepreneurship as good career choice, which are statistically different regarding Western countries and former Eastern European economies;
- There are statistically significant differences between Asia & Oceania and former Eastern European economies in what concerns Media attention for entrepreneurship.
- Despite an F value of 2.824 (*pvalue*=0.034), there are no statistically significant differences among the different regions of origin.

As mentioned above, multiple regression models are based on the cultural model, the expanded model, and the integrated model. The cultural models include only cultural variables (PDI, IDV, MAS, LTO and UAI). The expanded models include the referred cultural variables and the societal values and

perceptions (HSSE, EGCC and MATE). In the integrated models the type of economy (factor-driven, efficiency-driven and innovation-driven economies) are included to the previous variables.

Table 6 shows the three models with necessity-driven entrepreneurship as dependent variable. As can be seen, only individualism is statistically significant in the cultural model. However, in the expanded model there are no statistically significant independent variables explaining necessity-driven entrepreneurship. Finally, in the complete model the type of the economy is the only statistically significant variable explaining necessity-driven entrepreneurship.

As can be seen in Table 6, the cultural model explains 24.8% of necessity-driven entrepreneurship. However, adding societal values and perceptions has a marginal contribution of 7% of explanatory power. Finally, the determination coefficient escalates to 41.2% when including the type of economy.

It is possible to claim that, on one hand, necessity-driven entrepreneurship is not sought in innovation-driven economies, and, on the other hand, factor-driven economies explain larger values of necessity-driven entrepreneurship. This clearly reflects that motivations to start a business are more stringent in less-developed countries because there were no better options for work rather than because entrepreneurs spotted brand new startup opportunities, regardless of cultural or societal values.

Table 6. Regression models for necessity-driven entrepreneurship

	Cultural Model	Expanded Model	Complete Model
(Constant)	4,580 (0,593)	20,984 (0,192)	29,464 (0,060)
PDI	0,145 (0,080)	0,081 (0,364)	-0,045 (0,645)
IDV	-0,033 (0,637)	-0,069 (0,345)	-0,049 (0,482)
MAS	0,070 (0,310)	0,090 (0,204)	0,099 (0,140)
UAI	0,094 (0,105)	0,018 (0,796)	0,064 (0,343)
LTO	-0,003 (0,951)	0,011 (0,826)	0,059 (0,259)
HSSE		-0,130 (0,311)	-0,193 (0,138)
EGCC		0,207 (0,115)	0,163 (0,187)
MAFE		-0,180 (0,164)	-0,066 (0,606)
ECON			-6,228 (0,013)
R ²	[0,248]	[0,318]	[0,412]
ΔR ²		[0,070]	[0,094]
F test	[3,034]	[5,501]	[3,226]
p value	(0,019)	(0,025)	(0,004)

Note: Values between parentheses are probabilities (pvalues)

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In this way necessity-driven entrepreneurship can be understood as a survival strategy for someone searching for her/his own independence or one of the ways for disadvantaged groups to get away of poverty in their search of the new incomes.

Table 7 shows the three models with opportunity-driven entrepreneurship as dependent variable. As can be seen, only power distance index and uncertainty avoidance index are statistically significant at a 10% level, being both negative in justifying the cultural model. As can be noticed, the cultural model only explains 21.2% of opportunity-driven entrepreneurship. When adding societal values and perceptions (HSSE, EGCC and MATE) to address the expanded model, one can conclude that neither of the variables of the cultural or the societal values are statistically significant at the usual 1, 5 or 10% levels. Moreover, when introducing the variable ‘type of economy’ to form the complete model, one can conclude that this is the only statistically significant variable, at 5% level, explaining opportunity-driven entrepreneurship.

As can be seen in Table 6, if the expanded model explains 26.2% of opportunity-driven entrepreneurship the complete model only explains 35.5% of opportunity-driven entrepreneurship.

When analyzing table 8 it is possible to conclude that necessity-driven and opportunity-driven entrepreneurship are two different complementary realities as the variables used to analyze those realities change from negative to positive (and vice versa). This is a clear indication that the closer a country is

Table 7. Regression models for opportunity-driven entrepreneurship

	Cultural Model	Expanded Model	Complete Model
(Constant)	94,907 (0,000)	81,611 (0,000)	73,272 (0,000)
PDI	-0,151 (0,071)	-0,104 (0,260)	0,020 (0,844)
IDV	-0,004 (0,955)	0,026 (0,725)	0,006 (0,932)
MAS	-0,054 (0,439)	-0,067 (0,355)	-0,076 (0,271)
UAI	-0,105 (0,076)	-0,039 (0,579)	-0,085 (0,227)
LTO	-0,011 (0,822)	-0,018 (0,727)	-0,065 (0,228)
HSSE		0,083 (0,527)	0,135 (0,287)
EGCC		0,170 (0,206)	-0,127 (0,319)
MAFE		0,170 (0,200)	0,058 (0,662)
ECON			6,126 (0,018)
R ²	[0.212]	[0.262]	[0.355]
ΔR ²		[0,050]	[0,093]
F test	[2,476]	[1,908]	[2,566]
p value	(0.046)	(0.083)	(0.019)

Note: Values between parentheses are probabilities (pvalues)

to an innovative-driven economy the more opportunity-driven entrepreneurs are and, on the other hand, necessity-driven entrepreneurs are closer to factor-driven economies. This means that cultural and societal values fail to explain necessity-driven or opportunity-driven entrepreneurship, based on the three models used.

Finally, Table 9 displays information regarding how the three models explain improvement-driven entrepreneurship as dependent variable. As opposed to the two previous situations, the cultural model explains only 15.2% of improvement-driven entrepreneurship, in which no cultural variable has potential significant explanatory power. On the other hand, when introducing societal values and perceptions (HSSE, EGCC and MATE) to the expanded model, there is a marginal contribution of 24.3% to the explanatory power of improvement-driven entrepreneurship as entrepreneurship as good career choice (EGCC), and media attention for entrepreneurship (MATE) are statistically significant at 1% level. This clearly indicates that, *vis-à-vis* to necessity-driven and opportunity-driven entrepreneurship, societal values and perceptions play an important role. Finally, when we incorporate type of economy to analyze the complete model, one can conclude that entrepreneurship as good career choice (EGCC), and media attention for entrepreneurship (MATE) are statistically significant at 5% level, which contribute to improvement-driven entrepreneurship.

Generically, the results display some controversy, at the least. Firstly, the cultural variables (models) are somehow marginally important in explaining necessity-driven and opportunity-driven entrepreneurship, however not important at all in explaining improvement-driven entrepreneurship. Secondly, when incorporating the societal variables (expanded models), one can conclude that they are contributing to explain improvement-driven entrepreneurship but are of no statistically significant contribution to explain necessity-driven or opportunity-driven entrepreneurship. Thirdly, when introducing the type of economy (to the complete model), one can conclude that this variable is again important in explaining necessity-driven and opportunity-driven entrepreneurships, however it is of no added value in explaining improvement-driven opportunity.

Table 8. Comparing opportunity-driven and necessity-driven entrepreneurship

	Necessity-Driven Entrepreneurship Cultural Model	Opportunity-Driven Entrepreneurship Complete Model
PDI	-	+
IDV	-	+
MAS	+	-
UAI	+	-
LTO	+	-
HSSE	-	+
EGCC	+	-
MAFE	-	+
ECON	-	+

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Table 9. Regression models for improvement-driven entrepreneurship

	Cultural Model	Expanded Model	Complete Model
(Constant)	70,062 (0,000)	79,693 (0,000)	72,800 (0,001)
PDI	-0,152 (0,185)	-0,154 (0,167)	-0,058 (0,647)
IDV	0,013 (0,896)	0,020 (0,822)	0,005 (0,960)
MAS	-0,109 (0,263)	-0,090 (0,305)	-0,097 (0,264)
UAI	-0,089 (0,273)	0,024 (0,782)	-0,012 (0,892)
LTO	0,027 (0,696)	-0,033 (0,610)	-0,069 (0,307)
HSSE		-0,263 (0,103)	-0,223 (0,165)
EGCC		-0,450 (0,007)	-0,416 (0,012)
MAFE		0,499 (0,003)	0,411 (0,017)
ECON			4,791 (0,133)
R ²	[0.152]	[0.395]	[0.427]
ΔR ²		[0,243]	[0,032]
F test	[1,649]	[3,511]	[3,479]
p value	(0.166)	(0.003)	(0.003)

Note: Values between parentheses are probabilities (pvalues)

CONCLUSION

The results presented above pose some important questions: how can some intertwined concepts have such different behavior? Is this a problem of conceptualization or is it a problem of metric reliability?

When compared to previous results for necessity-driven entrepreneurship we can conclude that the results here obtained – $R^2 = 0.248$ – are poorer than those obtained by Dantas et al. (2015) – $R^2 = 0.469$. The same is true for opportunity-driven entrepreneurship – $R^2 = 0.212$ vs $R^2 = 0.339$, obtained by Dantas et al. (2015).

However, when one analyzes improvement-driven entrepreneurship the cultural model has almost no explanatory power ($R^2 = 0.152$), which was totally unexpected. When we add societal values to the cultural model, the results are even more striking: the marginal exploratory power (ΔR^2) of societal values to explain necessity-driven and opportunity-driven entrepreneurship are, respectively, 0.070 and 0.05. On the other hand, the same marginal explanatory power to explain improvement-driven entrepreneurship is 0.243. This means that, *ceteris paribus*, societal values are only important in explaining improvement-driven entrepreneurship and meaningless in explaining necessity-driven and opportunity-driven entrepreneurship.

This study analyzed 56 countries – 5 factor-driven countries, 28 efficiency-driven countries and 23 innovation-driven countries – *vis-à-vis* the 44 countries analyzed from Dantas et al. (2015) – 23 efficiency-driven economies and 21 innovation-driven economies. Clearly, five factor-driven economies, five efficiency-driven economies and two innovation-driven economies were added, which might have altered the influence on necessity-driven and opportunity-driven entrepreneurship activities. However, it does not explain why societal values are much more important on improvement-driven entrepreneurship.

When analyzing ANOVAS from Tables 4 and 5, it is possible to conclude that there are certain differences among cultural values and societal values in explaining different types of economies and geographical regions.

However, in broad terms, when taken together cultural and societal values do not explain the differences among necessity-driven, opportunity-driven and improvement-driven entrepreneurship. As such, one needs to be cautious in making bold conclusions. One of the possible explanations is that innovation/entrepreneurial public policies have been addressing the specificities of the entrepreneurial ecosystems. As such, it is possible to claim that no matter how individualist/collectivist, masculine/feminine, long-term/short-term oriented, risk taking/uncertainty avoidant or large/small the power index are in a country/society, customized entrepreneurial policies have managed to address the cultural specificities of those countries addressing specific necessity-driven, opportunity-driven and improvement-driven entrepreneurial challenges.

FUTURE RESEARCH DIRECTIONS

Apparently, societal values are failing to capture differences between necessity-driven and opportunity-driven entrepreneurial activities. However, they have a strong influence in explaining improvement-driven entrepreneurship.

As such, we would propose to revise the societal values in order to address if they are really composed of items that can explain different types of entrepreneurship. Moreover, as the concept (societal values) has not been extensively addressed in the literature it would be advisable to deploy more research on its theoretical foundations in order to realize how it can be shaped to explain different types of entrepreneurship and its impact on different types of economies.

As the concept of improvement-driven entrepreneurship has been derived from the need to explain increased independence or increased income, it would be advisable to address how different the concept is from opportunity-driven entrepreneurship or to assess how those types of entrepreneurship are really measured across different countries.

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KEY TERMS AND DEFINITIONS

Contextual Conditions: Are a set of political, social, economic and cultural dimensions that characterize a country or a region.

Culture: Is the collective programming of the mind that distinguishes the members of one group or category of people from others and causes them to display more or less the same behavior in similar situations.

Entrepreneur: Is someone who identifies an opportunity and gather the necessary resources, which through action, creates and implements new projects.

Entrepreneurial Ecosystem: Is a community composed of various factors and interdependent actors, interacting within a geographical region, which evolve over time, in order to promote the creation of new businesses.

Entrepreneurship: Is the process of evaluating, committing to and achieving, under contextual constraints, the creation of new value from new knowledge or different combinations of existent knowledge for the benefit of all stakeholders.

Improvement-Driven Entrepreneurs: Are individuals who seek opportunities to improve their economic situation, either through increased independence or through increased income.

Necessity-Driven Entrepreneur: Is someone who started a business because there were no better options for work, rather than because he/she saw the startup as an opportunity.

Opportunity-Driven Entrepreneurs: Are individuals who start a business as a potential career option, i.e. because they perceive an unexploited (or underexploited) business opportunity in the market. It usually corresponds to a matured idea/opportunity, with a planned strategy.

Societal Values: Represent the social attitude towards entrepreneurship (in this chapter measured through the assessment of entrepreneurship as a career choice, the status assigned to entrepreneurs, and the positive media's attention to entrepreneurial activity).