UNVEILING CULTURAL INFLUENCES ON EN-TREPRENEURSHIP - BRIDGING TO AFRICA

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Abstract

The current work aims at studying the relationship between national culture and entrepreneurship, while focusing on African countries (i.e., Angola, Egypt and Morocco), as part of a global context. Specifically, the study looks to identify countries' cultural profiles and uncover their relationship with locals' entrepreneurial intentions and behaviour (i.e., opportunity vs. necessity motivation and local vs. international entrepreneurship). Data concerning 41 countries obtained from Hofstede Insight and Global Entrepreneurship Monitor allowed us to carry out the study. We found three different cultural groups of countries that give rise to different entrepreneurial intentions and behaviour in both new and established entrepreneurs. Our results hence suggest that there is no single cultural configuration that boosts entrepreneurship and which can be associated with an increase in all entrepreneurship indicators. While some national cultures favour entrepreneurial intention and local entrepreneurship, others favour international entrepreneurship. Practical implications are suggested to policy-makers and firms.

Keywords: National culture; cultural values; entrepreneurship; international entrepreneurship; Africa.

Introduction

National culture matters when considering the ways people in different countries understand firms' activities and their aspirations for growth that they develop for their businesses (e.g., Torres and Augusto, 2018). Such differences can affect intercultural communication between managers from different countries and consequently the success of business relationships (Hofstede, 2001;

Hofstede et al., 2010). However, previous literature provides mixed results concerning the influence of different national cultural values on entrepreneurship (e.g., García-Cabrera and García-Soto, 2008). For example, it should be expected that cultures that are highly averse to risk will have lower levels of entrepreneurship, although empirical evidence does not always show this (Torres and Augusto, 2018). In addition, relationships between national culture and entrepreneurship have been scarcely analysed in the case of African countries (Nachum et al., 2023), so there is need of further research on this continent to facilitate a bridge to Africa.

To fill this gap, the current research analyses the relationships between national culture and entrepreneurship while focusing on African countries.

National culture is "the collective programming of the mind that distinguishes the members of one group or category from another" (Hofstede, 2001, p.9). Hofstede (2001), and later on Hofstede et al. (2010), explains the differences between countries in terms of national culture through six cultural dimensions: (1) Power distance relates to the basic problem of human inequality so that while low power distance cultures do not accept unequal distribution of power, countries with a high score in this dimension consider inequality to be an inherent feature of society and they accept and expect more powerful individuals to possess certain privileges; (2) Uncertainty avoidance refers to the level of stress in a society in the face of an unknown future, so that low uncertainty avoidance societies fully accept uncertainty; (3) Individualism (versus collectivism) alludes to the integration of individuals into primary groups so that in individualistic societies there is the belief that decision-making is individual in nature, as well as a clear emotional independence from groups; (4) Masculinity (versus femininity) refers to the division of roles between women and men so that in masculine societies, social gender roles are clear, men being assertive, tough and oriented towards material success, while women are more modest, sensitive and concerned about the quality of life; (5) Long-term (versus short-term) orientation indicates to what extent societies focus their efforts on future versus present; and finally (6) Indulgence (versus restraint) makes reference to the gratification or control of the basic human desires related to enjoying life, so that indulgence values are

highlighted in societies that allow relatively free gratification of basic human drives related to enjoying life and having fun. Restraint points to a society that suppresses gratification of needs and regulates it by means of strict social norms.

According to literature, we could expect that countries with low power distance and uncertainty avoidance values, but high individualism, masculinity, long-term orientation and indulgence values will experience higher levels of entrepreneurship (e.g., García-Cabrera and García-Soto, 2008; Hofstede, 2001; Hofstede et al., 2010). However, such a combination of low and high values does not always exist in countries (Hofstede, 2001). So, it is of interest to analyse how different combinations of national cultural values relate to entrepreneurship.

Methodology

This study uses two data sources: (i) Hofstede Insight (s/f), which provides information on national cultural values for a wide range of countries, and (ii) Global Entrepreneurship Monitor (GEM, 2019), which provides annual data on the entrepreneurial activity carried out in different countries around the world.

First, Hofstede Insights (s/f) offers a free online tool where each country's score for the cultural dimensions of Hofstede's model (Hofstede, 2001; Hofstede et al., 2010) can be obtained. The tool offers information for 109 countries. This online tool was used in the present work to collect sample country's scores for the following national cultural values: power distance, individualism, masculinity, uncertainty avoidance, long term orientation and indulgence.

Second, we used data from Global Entrepreneurship Monitor (GEM, 2019), which builds its worldwide database by conducting surveys focused on entrepreneurship. Every year, GEM collects information directly from adult populations involved in entrepreneurial activities by using surveys in many countries. This is possible because GEM operates as a collaborative network, involving research teams located in each participating country. The 2019 edition (GEM, 2019) provides information concerning characteristics, motivations and aspirations of individuals starting businesses in 2018. This information was collected from 162,077 individu-

als from 49 countries. The survey was conducted on a minimum of 2,000 individuals per country to ensure the representativeness of the sample.

Using both sources of data - Hofstede Insight (s/f) and GEM (2019) –, we built a single database with data referring to national cultural values and different entrepreneurship indicators. Since of 49 countries in the GEM database only 41 also have information available for the six national cultural values in Hofstede Insight (s/f) database, we limited the sample to these 41 countries (Figure 1). In particular, the 8 countries disregarded were Cyprus, Guatemala, Panama, Israel, Korea, Qatar, Madagascar and Sudan, the latter two being African countries. Among the sample countries, we have information for three African countries: Angola, Egypt and Morocco.

The dependent variables in our study correspond to 4 entrepreneurship indicators that are operationalised by 9 variables included in GEM (2019), as showed in table 1. Certainly, methodologists recommend using multiple-item measures, though not all authors agree (Loo, 2002). Indeed, literature has provided qualified support for the validity and psychometric properties of single-item measures (Matthews et al., 2022; Wanous and Hudy, 2001). Accordingly, in international entrepreneurship literature, a dependent variable consisting of a single item is not uncommon – e.g., the firm exports or does not export (Hessels and Terjesen, 2010).
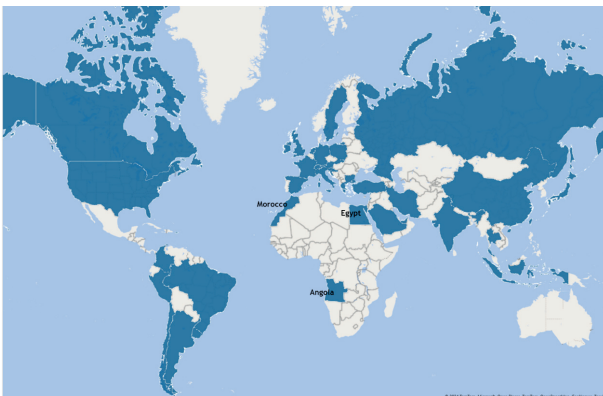

Figure 1. Sampling countries*

*Sampling countries: Angola, Argentina, Austria, Brazil, Bulgaria, Canada, Chile, China, Colombia, Croatia, Egypt, France, Germany, Greece, India, Indonesia, Iran, Ireland, Italy, Japan, Lebanon, Luxembourg, Morocco, Netherlands, Peru, Poland, Puerto Rico, Russia, Saudi Arabia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Arab Emirates, United Kingdom, USA, Uruguay.

Table 1. Measurement of dependent variables*

Entrepreneur-ship indicators	Variables	Measurement
Entrepreneurial intention	Expects to start a new business in the next 3 years	Percentage of the country's population (aged 18-64) that answers YES: Expects to start a new business in the next 3 years
Entrepreneurial motivation	Opportunity motive in TEA	Percentage of entrepreneurs within TEA by an Opportunity motive (entrepreneurship for pursuing an opportunity in the market)
	Necessity motive in TEA	Percentage of entrepreneurs within TEA by a Necessity motive (entrepreneurship because of no better choice for work)
Local entrepreneurship	TEA	Percentage of entrepreneurs within TEA without revenues from outside the country of origin
	Established business	Percentage of entrepreneurs within Established business without revenues from outside the country of origin
International entrepreneurship	Export (25-75%) in TEA	Percentage of entrepreneurs within TEA with 25-75% of revenue from outside the country of origin
	Export (75-100%) in TEA	Percentage of entrepreneurs within TEA with 75-100% of revenue from outside the country of origin
	Export (25-75%) in Established business	Percentage of entrepreneurs within Established business with 25-75% of revenue from outside the country of origin
	Export (75-100%) in Established business	Percentage of entrepreneurs within Established business with 75-100% of revenue from outside the country of origin

* Note: **TEA** (Total entrepreneurial activity) is defined as people aged 18 to 64 who are setting up a firm or are owner of a young firm (i.e., who owns and manages a business with an income that is less than 3.5 years old); **Established business** refers to people

aged 18 to 64 who own and manage a business with an income, which is more than 3.5 years old.

The independent variable in this study is national culture and was operationalised through groups of countries with a similar culture according to the Hofstede score for each national cultural value. In particular, for each value, the score varies from 0 to 100, with the following interpretation: (1) power distance (higher scores point out to societies with higher power distance cultures, while lower scores suggest less hierarchical societies); (2) individualism (higher scores indicate individualistic cultures, while lower scores imply collectivism); (3) masculinity (higher scores point out to masculinity values while lower scores indicate femininity values); (4) uncertainty avoidance (higher scores refer to cultures with a high aversion to uncertainty, while lower values indicate societies that are better able to deal with uncertainty); (5) long term orientation (higher scores refer to societies with a strong long-term orientation, while lower scores indicate a preference for short-term orientation); and (6) indulgence (higher scores point out to indulgent cultures, while lower scores show the existence of more restrictive cultures).

Referring to the data analysis, we first performed a cluster analysis using the K-means algorithm on the sample of 41 countries to classify them according to their national cultural values. This kind of analysis allows the identification of groups of countries that are similar to each other concerning their cultural values, but different from countries in other groups. In particular, we used Pseudo-*F* index (Caliński and Harabasz, 1974) to identify the optimal number of clusters. This procedure allowed us to study the three African countries under analysis as part of a global context.

Second, we carried out a mean difference test to determine the existence of statistically significant differences among identified cultural groups of countries and some characteristics, motivations and aspirations concerning entrepreneurship. These tests are useful for understanding how variables in this study are related (i.e., national culture and country level of entrepreneurship).

Results

To identify groups of countries according to the six national cul-

tural values from Hofstede's model (Hofstede, 2001; Hofstede et al., 2010), we ran the K-means clustering analysis to obtain solutions of K=2, K=3, … till K=10 groups. No significant differences were found for masculinity and long-term orientation cultural values in the definition of clusters. We then removed these two cultural values from the analysis and repeated the procedure. For each new output, we estimated the Pseudo-*F* index to find the optimal solution concerning the number of clusters. According to this statistic, the optimal solution is that with the highest value. As showed in Table 3, the optimal solution for our data was K=3, as it has the larger value of Pseudo-*F* (25.89).

Table 3. Calinski and Harabasz Pseudo-F index for different clusters solutio

Cluster solution	Calinski and Harabasz Pseudo-*F* index	Cluster solution	Calinski and Harabasz Pseudo-*F* index
K = 2	25.80	K = 7	18.44
K = 3	**25.89**	K = 8	18.03
K = 4	17.89	K = 9	17.02
K = 5	19.84	K = 10	18.22
K = 6	17.81	---	---

Thus, we retained the solution of K=3. For this solution, all the national cultural values were significant in the definition of clusters. According to the F test, the relevance of each cultural value for the definition of clusters is the following: power distance is the most relevant dimension (F=58.691, *p*<.001), followed by individualism (F=32.585, *p*<.001) and indulgence (F=31.619, *p*<.001); uncertainty avoidance is the least influential in the cluster definition (F=8.610, *p*<.001).

Descriptives for the identified groups of countries are shown in Table 4. Cluster 1 accounts for 16 countries located in four out of the five wide geographical areas established by GEM (2019) - North American countries are missing in this group. It is remarkable that all the Latin American & Caribbean countries in our sample belong to this first cluster. One target country in this study, Angola, is classified in this group (Figure 2a).

Table 4. Clusters description: geographic distribution and national culture

Characteristics	Cluster 1	Cluster 2	Cluster 3
Geographic distribution* (Frequency)			
Total countries in the cluster	16	14	11
Latin American & Caribbean countries	7	---	---
African countries	1	2	---
Asian & Oceanic countries	4	7	---
European countries	4	5	9
North American countries	---	---	2
Cultural values (Mean)			
Power distance	64	75	35
Individualism	33	39	73
Indulgence	57	23	61
Uncertainty Avoidance	80	64	53
National culture label	National culture of solidarity and indulgence	National culture of resilience and restraint	National culture of innovation and entrepreneurship

* Note: GEM (2019) states five worldwide geographic areas to study entrepreneurship that are reproduced in this table for our analysis: Latin American & Caribbean countries, African countries, Asian & Oceanic countries, European countries and North American countries.

Cluster 2 includes 14 countries located in three out of the five wide geographical areas – no American country belongs to this group, but Egypt and Morocco, the other two African countries of interest in this study, do belong (Figure 2b). Finally, Cluster 3 consists of 11 countries located in Europe and North America. Again, it must be underscored that the only two North American countries in our sample (USA and Canada), as well as all the northern European and central European countries, are in this last group (Figure 2c).

In terms of national culture, countries in cluster 1, compared to clusters 2 and 3, are characterised as having very higher uncertainty avoidance and lower individualism (i.e., they are collectivist cultures); they also deal with quite a degree of power distance and enjoy really high indulgence, these last two values being somewhere in the middle of the other two clusters. We named this

group *National culture of solidarity and indulgence* as countries in this group have a tendency towards collectivism and high aversion to uncertainty, suggesting solidarity and cooperation (collectivism) when coping with uncertainty, as well as the desire to live at a relaxed pace and, although acknowledging that hard work is important, achieve a high level of work/life balance (high indulgence). Results indicate that Angola has a national culture that matches this description.

Fig. 2a. Angola, Argentina, Brazil, Chile, Colombia, France, Greece, Japan, Peru, Puerto Rico, Slovenia, Spain, Taiwan, Thailand, Turkey, Uruguay

Fig. 2b. Bulgaria, China, Croatia, Egypt, India, Indonesia, Iran, Lebanon, Morocco, Poland, Russia, Saudi Arabia, Slovakia, United Arab Emirates

Fig. 2c. Austria, Canada, Germany, Ireland, Italy, Luxembourg, Netherlands, Sweden, Switzerland, United Kingdom, United States

Figure 2. Cluster solution: Geographic distribution of cultural groups of countries. Fuente: ©2024 TomTom Microsoft Open Places, OpenStreetMap GeoNames Zenrin

Countries in cluster 2, in turn, if compared to clusters 1 and 3, are characterised as having much lower indulgence (i.e., restraint, control of satisfaction of the personal need for leisure and enjoyment, etc.) and higher power distance; other cultural characteristics of this group include low individualism (i.e., collectivist values in this group are very close to those of cluster 1) and high uncertainty avoidance, with this last value being somewhere in the middle of the other two clusters. We named this group *Nation-*

al culture of resilience and restraint as national cultures in this group are characterised by strength (hard-work and self-control due to the low indulgence, and relevance of group due to the collectivism) and adaptability (no great fear of risk). The high power distance reinforces the idea that privileges are within the reach of few people who belong to the elite and those who do not belong to the elite accept it. According to results, Egypt and Morocco fit this cultural picture.

Countries in cluster 3, compared to clusters 1 and 2, are distinguished by having much lower power distance, much higher individualism, higher indulgence, and lower uncertainty avoidance. In accordance with these cultural values, this third cluster is labelled *National culture of innovation and entrepreneurship* as countries in this group are characterised as having a combination of cultural characteristics that foster innovation and entrepreneurship, among them low uncertainty avoidance (i.e., no fear of new ideas and potential failure, acceptance of risk…), high individualism (i.e., having a strong drive for personal achievement and to reach goals in the individual sphere), low power distance (i.e., ease of mobility between social levels, equality between individuals is accepted, incentives to act in order to climb social positions, etc.) and high indulgence (i.e., lack of social controls to prevent the pursuit of gratification).

Concerning the cluster descriptions, we end by highlighting cluster 3, which, according to the distances between final cluster centres, must be considered the most different. It holds 57.095 from cluster 1, and of 66.130 from cluster 2, while clusters 1 and 2 maintain a distance of 40.188. Thus, although Angola, Egypt and Morocco belong to two different clusters (i.e., clusters 1 and 2), these countries are closer in cultural terms than they are to the countries in cluster 3.

After the cluster description, we studied the relationships between national culture and entrepreneurship indicators by using the F test from the one-factor Anova (Table 5). The results indicate that while entrepreneurial intention, as well as the two entrepreneurial motivations (opportunity and necessity) and local entrepreneurship, reaches higher levels in cluster 1, international entrepreneurship indicators are the lowest in this group of coun-

tries. When looking at international entrepreneurship, cluster 3 stands out in reaching the highest levels in this regard, with the proportion of the adult population that own and manage a business that is less than 3.5 years old (whatever the level of export considered) being the highest in these countries. However, it is cluster 2 that must be highlighted for this international indicator for established businesses - that is, among the portion of the population that own and manage a business more than 3.5 years old and if considering mid-level revenues from outside countries (exports between 25 and 75% of total sales). It is remarkable that cluster 3 also stands out for its relatively high levels of international entrepreneurship among established firms and for being the one with lowest entrepreneurial intention, necessity motive to start up a business and local entrepreneurship.

Table 5. Difference between national culture and entrepreneurship indicators by clusters

Entrepreneurship indicators		Mean			F
		Cluster 1 (n=16)	Cluster 2 (n=14)	Cluster 3 (n=11)	
Entrepreneurial intention	Expects to start a new business in the next 3 years	30.70	27.59	14.28	**3.716** ($p < .034$)
Entrepreneurial motivation	Opportunity motive in TEA	10.51	6.75	7.86	**2.579** ($p < .089$)
	Necessity motive in TEA	3.79	3.38	1.22	**3.480** ($p < .041$)
Local entrepreneurship	TEA	61.83	51.71	33.91	**4.329** ($p < .020$)
	Established business	64.92	53.43	37.58	**4.313** ($p < .021$)
International entrepreneurship	Export (25-75%) in TEA	8.57	17.43	18.28	**3.705** ($p < .034$)
	Export (75-100%) in TEA	4.52	7.02	10.41	**3.589** ($p < .037$)
	Export (25-75%) in Established business	5.48	15.58	12.93	**3.572** ($p < .038$)
	Export (75-100%) in Established business	3.73	6.47	7.69	1.491 ($p < .238$)

Conclusions

The current work finds three different groups of countries according to their national cultural values. These three groups also differ according to their locals' entrepreneurial intentions and behaviour (i.e., opportunity vs. necessity motivation, local vs. international entrepreneurship). While in the first group of countries, to which Angola belongs, entrepreneurial intention and opportunity and necessity motivations to start up business with a local scope are prevalent, international entrepreneurship are higher in groups 2 and 3. Group 2, where Egypt and Morocco are located, stands out for having a higher proportion of established businesses (i.e., the portion of the population who own and manage a business more than 3.5 years old) that generate between 25 and 75% of their revenue from outside countries, but also for having the lower levels of opportunity motivation. Group 3 can be highlighted for having more young firms (less than 3.5 years old) involved in exports (i.e., 25-75% or even 75-100% of revenues from outside countries).

Thus, our study contributes to the literature by suggesting that there is no single cultural configuration to boost entrepreneurship that can give rise to an increase in different facets of entrepreneurship (i.e., intentions, motivations, growth aspiration). We found that while some national cultures favour entrepreneurial intention and local entrepreneurship, others favour international entrepreneurship.

In terms of practical implications, this work is useful for policy makers as it suggests that there are alternative cultural paths to achieving high levels of the various facets of entrepreneurship (e.g., intentions, motivations, growth aspiration). Thus, policy-makers could consider investing in advancing those national cultural values that favour the facets of entrepreneurship that they wish to boost. This study is also useful for firms in different parts of the world that are willing to do businesses with firms located in countries with a different cultural profile, as they will likely have different motivations and growth aspirations.

According to the research objective of this study, our findings are especially useful for bridging to Africa, as countries in this continent are the most unknown under managerial and entrepreneurial perspectives.

Acknowledgements

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