Linking national culture and entrepreneurship: a systematic literature review

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Abstract

Purpose – This study generates an aggregated overview of the literature on national culture and entrepreneurship (NC&E). The aim is to map the NC&E field via a systematic literature review of 130 articles published in refereed academic journals up to the end of 2022.

Design/methodology/approach – Two different citation analysis methods are used: bibliographic coupling and co-citation.

Findings – The results include the most influential studies, top-cited references and journals, and five major thematic clusters. The latter are (1) cultural models, frameworks and case studies; (2) social entrepreneurship, perceived barriers and entrepreneurial intentions; (3) institutions and sociocultural environments; (4) entrepreneurial orientation, cognition and networks; and (5) economic growth, entrepreneurial activity and firm performance.

Originality/value – In contrast to previous NC&E literature reviews, this research employs a combination of bibliographic coupling and co-citation analysis. The findings offer a clearer understanding of the intellectual structure of this field and suggest new avenues for future investigations, including several relationship links with the resource-based view.

Keywords Cultural dimensions, Entrepreneurship, National culture, Resource-based view, Systematic literature review

Paper type Original article

1. Introduction

Scholars have not reached a consensus on how to define entrepreneurship (e.g., Arrak et al., 2020). According to the European Commission (2003), this concept can be understood as the mindset and process of developing economic activities that combine risk taking, creativity and innovation with effective management, in a new or existing organization. Entrepreneurship is also widely defined as a multidimensional process of creating a new venture or expanding an existing one, which can be carried out by an individual or group. The Global Entrepreneurship Monitor (GEM) (Bosma et al., 2021) reports that early-stage entrepreneurship encompasses both new entrepreneurs involved in setting up a business and owners of a young business (i.e., up to 3.5 years). Proprietors of older businesses are considered to be owners of established businesses (Arrak et al., 2020). Thus, differences exist in what is considered important for early-stage entrepreneurship and for owners of long-standing businesses (Arrak et al., 2020).

In Schumpeter’s (1934) definition, entrepreneurial activities involve innovation because they introduce new products, organizations or procedures, which implies a process of destruction. This vision includes the creation of new industries that causes significant structural changes in economies. Entrepreneurs can be considered key agents of change who engage in entrepreneurial behavior and adapt their activities and strategies in response to the threats and opportunities generated by existing formal and informal institutions.

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The resource-based view (RBV) (Barney, 1991; Wernerfelt, 1984) argues that the heterogeneity of owned or accessible resources is the main driver of firms’ performance, and the existence of unique resources enables them to attain sustainable competitive advantage (SCA). The concept of entrepreneurship based on the introduction of new products or processes echoes this perspective. These innovations appear as valuable and unique resources in the market, emphasizing the notion of inimitability present in the RBV.

Thomas and Müller (2000) assert that some societies have a greater predisposition or propensity to entrepreneurship than others do, which indicates that national culture plays an implicit role in entrepreneurship. Weber (2015), in turn, argues that cultural and religious factors can explain differences in entrepreneurial activities at a societal level. According to the latter author, the puritanical elements of Calvinist ethics influence the pursuit of profit and accumulation of wealth, which has contributed to entrepreneurship’s association with specific cultural factors.

Arrak et al. (2020) suggest that different factors can explain variations in entrepreneurial activity in diverse countries and regions. Variations can be associated with demographic characteristics (e.g., age, gender and education) and variables at the level of human capital (e.g., experience, skills and training) and economic context (e.g., unemployment level and loans). Other determinants are connected to formal institutions (e.g., regulatory complexity, protection of property rights and corruption) or to informal institutions (e.g., social norms and cultural values). Economic factors clearly influence the level of entrepreneurship, but a significant degree of unexplained variance has been found among countries when only economic variables are considered (Hofstede et al., 2002; Thurik and Dejardin, 2012). These ideas suggest that different levels of entrepreneurship among countries can be influenced by cultural elements, seen as an integral part of resource heterogeneity. According to Maurer et al. (2011), the context in which firms operate can create or destroy economic value. Therefore, it is crucial for firms to leverage the interconnections between their internal resources and the surrounding context. This suggests that a country’s culture impacts organizational culture, which, in turn, serves as an intangible asset influencing a firm’s strategic orientation. Thus, cultural elements such as values, beliefs, traditions and social norms often manifest in how organizations operate and structure themselves (Arrak et al., 2020). This underscores that RBV provides an appropriate lens for comprehending how firm-specific resources within cultural contexts can generate economic value (Maurer et al., 2011).

National culture and entrepreneurship (NC&E) research is highly complex, so a substantial part of this field still remains unexplored (cf. Bullough et al., 2022; Dheer and Treviño, 2021). The present study is motivated by the complexity and lack of consensus in defining entrepreneurship, especially concerning its relationship with cultural and national elements. The lack of understanding of this relationship indicates a need for a more in-depth analysis of this topic.

An analysis of the existing research revealed that only eight literature reviews have focused on NC&E topics, and none of these studies have been systematic literature reviews. These prior reviews are summarized in Table 1.

The studies presented in Table 1 focus on developing conceptual models and frameworks and/or conducting assessments of empirical research on NC&E. The contributions identified indicate that four main gaps remain. The first is that empirical research has been sparse and has relied on mixed variables that produce reductionist conclusions (cf. Hayton and Cacciotti, 2013; Watson et al., 2019). The second gap is the need for additional longitudinal empirically robust studies that facilitate comparisons of the available theoretical approaches. The third lacuna is the absence of research emphasizing a deeper understanding of behavioral research on national culture and developing a comprehensive theoretical model that links all areas of NC&E (Hayton et al., 2002; Gupta, 2018). The last gap is a lack of clear distinctions between
<table>
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<th>Author(s)</th>
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<th>Sample timespan</th>
<th>Objective(s)</th>
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<tr>
<td>Tiessen (1997)</td>
<td><em>Journal of Business Venturing</em></td>
<td>84 Documents (1968–1995)</td>
<td>- Redefine the understanding of individualism and collectivism concepts in their relationship with entrepreneurial behavior</td>
<td>- Theoretical framework and seven related propositions linking national culture (<em>i.e.</em>, individualist and collectivist orientations) to entrepreneurship</td>
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<td>- Propose a framework explaining how individualist and collectivist orientations influence entrepreneurial functions</td>
<td>- Entrepreneurial functions shown to be quite different processes, and individualism and collectivism confirmed to neither categorically encourage nor discourage entrepreneurship</td>
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<td>- Emphasis on the importance of developing an independent measure of cultural values affecting entrepreneurship</td>
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<td>Saffu (2003)</td>
<td><em>International Journal of Entrepreneurial Behaviour &amp; Research</em></td>
<td>92 Documents (1905–2002)</td>
<td>- Compare traits of Western and Pacific Island entrepreneurs and analyze cultural impact on traits in the South Pacific</td>
<td>- Exploration of relevance and applicability of entrepreneurs’ characteristics espoused in the Western entrepreneurship literature to indigenous entrepreneurs and development of an integrative model</td>
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<td>- Demonstration that culture affects entrepreneurs’ characteristics that account for differences between Pacific Island entrepreneurs’ traits and those found in the Western entrepreneurship literature</td>
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<td>Muzychenko</td>
<td><em>European Management Journal</em></td>
<td>133 Documents</td>
<td>- Investigate how national culture(s) influence relevant competencies &lt;br&gt; - Conceptualize the role of cross-cultural competence in international opportunity recognition</td>
<td>- Overview of cross-cultural environments’ influence on cognition, behavior and international entrepreneurs’ effective decision-making &lt;br&gt; - Verification that specific competencies developed in home cultural environments may not necessarily ensure effective performance when entrepreneurs seek to exploit international opportunities</td>
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<td>Todorovic and Jun (2008)</td>
<td><em>Journal of Enterprising Communities: People and Places in the Global Economy</em></td>
<td>78 Documents</td>
<td>- Explore how culture influences the relationship between entrepreneurial orientation (EO) and market orientation (MO), and their impact on firm organizational performance</td>
<td>- Analysis of culture’s role in relationship between EO and MO and this link’s subsequent impact on firms’ organizational performance &lt;br&gt; - Validation of assumptions that entrepreneurial organizations in collectivist societies operate within resource-constrained environments and that effectiveness of particular strategic orientations (i.e., EO or MO) should not be presumed to be consistent</td>
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<tr>
<td>Fayolle et al. (2010)</td>
<td><em>Entrepreneurship and Regional Development</em></td>
<td>107 Documents</td>
<td>- Analyze how different levels of culture (i.e., national, industry and corporate) influence firms’ EO</td>
<td>- Presentation of conceptual framework integrating the three interdependent levels of culture that collectively influence EO &lt;br&gt; - Argument made that firms’ EO is influenced by cultural variables at three levels: national, industry and corporate</td>
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<td>Salimath and Cullen (2010)</td>
<td><em>International Journal of Organizational Analysis</em></td>
<td>“Entrep*”</td>
<td>187 Documents (1980–2009)</td>
<td>- Overview and synthesis of literature on entrepreneurship based on formal (i.e., social institutions) and informal (i.e., national culture) institutional factors' effects on entrepreneurship at the national level</td>
<td>- Contention that both formal and informal institutional factors affect entrepreneurship at multiple levels</td>
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<td>Hayton and Cacciotti (2013)</td>
<td><em>Entrepreneurship &amp; Regional Development</em></td>
<td>“National culture and entrepreneurship”</td>
<td>33 Documents (1988–2012)</td>
<td>- Analyze how cultural values influence the beliefs, motivations and actions of entrepreneurs</td>
<td>- Demonstration of mixed associations between culture and entrepreneurial outcomes at regional and national levels - Analysis of culture's complex impacts on entrepreneurship as cultural contexts can moderate the effect of policies aimed at influencing entrepreneurial behavior</td>
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**Source(s):** Own elaboration

Table 1. Linking national culture and entrepreneurship
cultural values, personal values, individual difference variables and subjective norms (Hayton and Cacciotti, 2013; Karimi and Makreet, 2020).

Previous literature reviews are now outdated as the most recent is from 2013, which justifies the present study. This review sought to develop a holistic view of NC&E-based research grounded in up-to-date bibliometric analysis in order to help fill the gaps and address the lack of more comprehensive systematic literature reviews of the NC&E field. This study thus focused on answering the following research questions:

RQ1. What are the main topics covered by NC&E research?

RQ2. When were these studies published?

RQ3. Which are the most influential?

RQ4. Which academic journals have had the greatest impact?

RQ5. Who are the most cited authors?

In addition, the study generated a series of theoretical frameworks that highlight associations among this field’s main themes, thereby providing a better understanding of NC&E research. The bibliometric analysis relied on bibliographic coupling and co-citation and a database of 130 academic articles published from 1992 to 2022. The results reveal five major thematic clusters in the literature on NC&E. These are (1) cultural models, frameworks and case studies; (2) social entrepreneurship, perceived barriers and entrepreneurial intentions; (3) institutions and sociocultural environments; (4) entrepreneurial orientation, cognition and networks; and (5) economic growth, entrepreneurial activity and firm performance.

The remainder of this paper is structured as follows. The second section presents the research methods and an overview of the NC&E dataset. The next sections include the findings produced by co-citation and bibliographic coupling analyses, as well as a future research agenda. The final section offers closing remarks and provides a roadmap for future studies.

2. Research methods

To achieve the research objectives, bibliometric analysis was conducted to ensure a more quantitative, empirically objective literature review since this methodology does not “deal with theories, methods, and constructs [but instead] with authors, affiliations, countries, citations and co-citations” (Paul and Criado, 2020, p. 2). Bibliometric analysis helps clarify a field’s structure by identifying influential authors and their interrelationships and providing researchers with a solid basis on which to position their studies and follow new lines of research (Pereira and Bamel, 2021).

Fink (2010) suggest that this methodology be applied in seven phases: (1) defining the research questions, (2) selecting the article database, (3) choosing search terms, (4) applying practical screening criteria, (5) using methodological screening criteria, (6) conducting the review and (7) synthesizing the results. The present analyses identified clusters of articles on NC&E, the most influential authors in the field, where they come from and their respective co-author networks. Bibliometric maps were constructed using VOSviewer (see www.vosviewer.com) and Bibliometrix R-package (see www.bibliometrix.org) software.

The Scopus database provided the publications reviewed as this is “the largest online database of peer-reviewed literature” (Dantas et al., 2018, p. 413). To ensure homogeneity, the sample was limited to articles published in international academic journals, so books, conference proceedings and reports were excluded. The following terms were used: (TITLE-ABS-KEY (“entrepreneurship”) AND TITLE-ABS-KEY (“cultural dimension*” OR “national
The search generated 230 documents, after which only English-language articles or literature reviews in the management, business and economics fields were selected, leaving 157 documents. Next, a content analysis of each article was carried out that considered the title, abstract and keywords. Publications were removed if they were related to (1) entrepreneurship and stock markets, (2) organizational culture (i.e., unrelated to NC&E) and (3) culture and tourism. Figure 1 shows that the final sample included 130 documents.

Finally, the lists of authors, references and journals were analyzed to avoid any duplication. Repeated names were identified and reduced to one instance. To this end, a

Figure 1. Procedural steps in article selection

Source(s): Own elaboration
The thesaurus file was created and uploaded into VOSviewer software since this program “can be used to merge different variants of a source title, an author name, an organization name, a country name, or a cited reference” (van Eck and Waltman, 2018, p. 27).

The present study is based on a sample of 130 academic articles. Figure 2 provides an overview of the dataset under analysis, summarizing the evolution of these articles and citations over time, illustrating the publication trends. According to Scopus, the first paper on NC&E was published in 1992, so the data collected covered the 1992–2022 period. The sample featured 79 journals, 300 authors, 8,992 references and 339 keywords.

As shown in Figure 2, the number of publications until 2014 is relatively low (from 0 to 5 articles per year). This tendency changed in 2015 with a significant increase in published articles (from 9 to 13 articles per year), which made NC&E an emerging field of research. The highest number of citations recorded is in 2001 (43), 2005 (21), 2004 (17), 2011 (13) and 2013 (11).

This study includes co-citation and bibliographic coupling analyses. Co-citation “takes place when two documents are independently cited by other documents” (Ferreira and Santos, 2021, p. 904). Bibliographic coupling, in turn, “occurs when two documents cite a common third document, indicating that a probability exists that both documents address a related topic. The ‘coupling strength’ of two documents is higher the more citations to other documents they share” (Ferreira and Santos, 2021, p. 904). Because bibliographic coupling is retrospective in nature and co-citation is forward-looking, these methods can complement each other, which provides notable advantages (cf. Garfield, 2001). These benefits justified the decision to use both methods in the current research.

3. Co-citation analysis
To identify trends in the literature on NC&E, the co-citation analysis of cited journals was conducted based on articles with at least twenty co-citations. The result is five clusters with 55 journals (see Figure 3).

Figure 3 shows that the red cluster is the top ranked in terms of co-citation of cited journals. The Journal of Business Venturing comes first with 18 journals, 661 citations and 54 links, followed by Entrepreneurship: Theory and Practice with 18 journals, 559 citations and 54 links. The next three most frequently co-cited journals are the Journal of International Business Studies (i.e., the light blue cluster with 5 sources, 338 citations and 54 links), Small
Business Economics (i.e., the yellow cluster with 8 journals, 296 citations and 54 links) and the Academy of Management Review (i.e., the dark blue cluster with 8 journals, 161 citations and 54 links). The least co-cited are the International Small Business Journal (i.e., the purple cluster with 5 journals, 72 citations and 54 links) and Entrepreneurship and Regional Development (i.e., the green cluster with 11 journals, 71 citations and 54 links).

The Scopus database also reveals that the most frequently cited authors are from the United States, followed by Spain, Germany and France. In addition, a Sankey graph of the NC&E field’s thematic evolution was generated based on the keywords listed by the studies published between 1992 and 2022. Figure 4 depicts the associated topics’ temporal evolution across two periods: 1992–2016 and 2017–2022.

In the first period (i.e., 1992–2016), the main topics are entrepreneurship, entrepreneurial activity, institutional theory and national culture. In the second period (i.e., 2017–2022), the entrepreneurship topic is associated with two new topics: entrepreneurship and GEM. Entrepreneurial activity is also related to entrepreneurship and GEM. Institutional theory is connected to entrepreneurship and cultural dimensions. Finally, national culture remained stable in both periods. In terms of keyword usage over time, entrepreneurship became the most frequently used keyword, followed by GEM, national culture and cultural dimensions.

The most cited publications are Mueller and Thomas (2001), with 860 citations; Shinnar et al. (2012), with 401 citations; Stephan and Uhlaner (2010), with 294 citations; Tiessen (1997),
with 283 citations; and McGrath et al. (1992), with 190 citations. The most cited authors are Geert Hofstede with 358 citations, followed by Roy Thurik with 192 citations, Scott Shane with 165 citations, Erkko Autio with 143 citations and Stephen Mueller with 107 citations. These authors can thus be considered the greatest mentors of the NC&E theoretical framework (see Figure 5).

Source(s): Bibliometrix R output

Figure 4. Sankey graph of national culture and entrepreneurship topics' temporal evolution

Source(s): VOSviewer output
The first two authors (i.e., Hofstede and Thurik) have published joint papers, and their studies are strongly related through their focus on national culture’s role in entrepreneurship. Shane has additionally explored the role of culture in national innovation rates. Autio has concentrated on cultural practices’ consequences for entrepreneurial behavior, and Mueller has studied cultural dimensions’ impact on entrepreneurial orientation.

4. Bibliographic coupling analysis
A coupling map was created to isolate the 130 articles’ main topics. According to VOSviewer, only 85 documents have a strong connection between them, so the analysis focused on this coupling network. The map (see Figure 6) reveals that the research can be divided into five clusters. These thematic groups are (1) institutions and sociocultural environments; (2) cultural models, frameworks and case studies; (3) entrepreneurial orientation, cognition and networks; (4) social entrepreneurship, perceived barriers and entrepreneurial intentions; and (5) economic growth, entrepreneurial activity and firm performance.

Appendix 1 presents the most relevant authors based on citation scores for each cluster. Due to the high number of papers considered, the tables present the main four authors, that is, with the highest number of citations for each cluster.

4.1 Institutions and sociocultural environments cluster
The institutions and sociocultural environments cluster is the most prominent in terms of size and volume (N = 25). This group refers to the following keywords, among others: institutional pressures, social identity, national entrepreneurship system, government policy, institutional environments and sociocultural factors. Table A1 (see Appendix 1) presents the most significant authors in institutions and sociocultural environments research based on their citation scores. The publication timeline for this topic is from 2010 to 2021.

Two topics were identified in this cluster: institutions and sociocultural environments. Thirteen studies were conducted on the first topic, of which several merit being highlighted here. Institutions research has sought to determine sustainable entrepreneurship’s foundations and economic, institutional and cultural dimensions’ impacts on small and medium-sized enterprises, with reference to programs that support sustainable practices’

Source(s): Bibliometrix R output

Figure 6. Thematic map: Clusters by document coupling
adoption (Spence et al., 2011). North’s (1990) model (cf. Salimath and Cullen, 2010) is used in a second article on formal and informal institutions’ effect on the level of entrepreneurship.

Sociocultural environments is covered by 12 studies. Some of these have used a combination of GEM and Global Leadership and Organizational Behavior Effectiveness (GLOBE) data on culture’s effects on entrepreneurs’ behavior in order to conduct multilevel research on firms’ growth aspirations (Autio et al., 2013). Other studies have concentrated on culture and religion’s influence on individuals’ entrepreneurial activity, based on countries with a mainly Christian population (Parboteeah et al., 2015). Finally, some researchers have examined the role of leadership patterns, namely, cultural expectations’ effect on individual entrepreneurship (Stephan and Pathak, 2016). Figure 7 presents the integrative framework for the institutions and sociocultural environments cluster.

The studies included in this first cluster suggest that both topics (i.e., institutions and sociocultural environments) (Figure 7) influence each other and that this relationship is mediated by national culture. More specifically, the institutions topic is related to strategic planning, institutional pressures, corporate support programs promoting innovation, institutional support programs encouraging sustainable entrepreneurship, formal and informal institutions, government policy and regulative and normative conditions. The sociocultural environments topic, in turn, is concerned with entrepreneurial behavior, social identity, individual values, cultural dimensions, religion, cultural values and practices, and trust. Both topics highlight culture as a pivotal competitive resource, aligning with RBV’s perspective on resources as drivers of SCA.

4.2 Cultural models, frameworks and case studies cluster

The cultural models, frameworks and case studies cluster is the second most important in terms of size and volume (N = 20). This research is grounded in some of the following keywords: cultural indices, multigroup comparison, intra-cultural variation, entrepreneurial profile, national culture, framework and Hofstede’s model. Table A2 (see Appendix 1) presents the most significant authors based on their citation scores. The articles in this cluster were published between 1997 and 2019.

Three topics were identified in this cluster. The first, cultural models, is covered by six studies. These articles focus on six subtopics of which the first is the relationship between the GLOBE cultural dimensions and entrepreneurship, with an emphasis on institutional economics theory (Castillo-Palacio et al., 2017). The second subtopic is the inclusion of two
new aspects of culture – normative and factual – in the link between national culture and entrepreneurial activity (Alon et al., 2016). The third is the relationship between national culture and the development of networking skills in entrepreneurial contexts (McGrath and O’Toole, 2014). The fourth subtopic is quality of life’s influence on national culture as a complex whole and on entrepreneurial activities (Woodside et al., 2016), while the fifth is national culture’s effect on entrepreneurship rates (Çelikkol et al., 2019). The last subtopic is culture’s impact on capacity for innovation and propensity for entrepreneurship (Svarc et al., 2019).

The second topic in this cluster is frameworks, which comprises research related to two subtopics. The first is an integrative model based on the literature on culture’s influence on indigenous entrepreneurs in the South Pacific (Saffu, 2003). The second subtopic is a theoretical framework with seven propositions that unify the NC&E field (Tiessen, 1997).

This cluster’s last topic is case studies, which includes 11 articles. For example, one publication focuses on the theory of entrepreneurship, proposing that national culture, political history and economic performance are predictors of entrepreneurship in future generations of business leaders (Mueller et al., 2002). A second article explores how the individualism-collectivism dimension has affected entrepreneurial activities differently according to the level of economic development, based on 52 countries (Pinillos and Reyes, 2011). Figure 8 presents the integrative framework for the cultural models, frameworks and case studies cluster.

Specifically, the topic of cultural models covers the interrelationship between frameworks (i.e., based on cultural models and literature reviews) and case studies (i.e., analyses of several countries or individuals to test the proposed models’ relationships). The frameworks topic is strongly correlated with case studies (i.e., both sets of articles test and analyze data on cultural models). In addition, cultural models are designed based on Hofstede’s (1980) and McClelland’s (1961) approaches and GEM or GLOBE data, as well as being mainly focused on cultural and economic patterns’ interactions. This cluster delves into cultural models’ impact on entrepreneurial activities, resonating with RBV’s focus on diverse resource influences in shaping entrepreneurial behavior and competitive edge.

Figure 8. Framework for cultural models, frameworks and case studies cluster

4.3 Entrepreneurial orientation, cognition and networks cluster
The low impact and low centrality quadrant (see Figure 6) includes the entrepreneurial orientation, cognition and networks cluster. This group contains 15 articles and refers to at least one of the following keywords: market orientation, entrepreneurial cognition, social cognitive theory, immigration networks and entrepreneurial orientation. Table A3
(see Appendix 1) presents the most important authors within this cluster based on their citation scores. The publications on this topic appeared between 2007 and 2018.

Three topics were identified in this cluster. The first is entrepreneurial orientation, with seven research articles. Some studies related to this topic concentrate on university students’ propensity to start a business, including the influence exerted by a university environment prone to entrepreneurship and the surrounding society’s perception of desirable entrepreneurial behavior (e.g., Shirokova et al., 2018). Other researchers have explored culture’s role in the relationship between entrepreneurial orientation and market orientation and culture’s impact on firms’ organizational performance (e.g., Todorovic and Jun, 2008). Another subtopic covered is the performance results for new ventures that reflect a market orientation (e.g., Brettel et al., 2009).

The second topic in this cluster is cognition, which is addressed by six articles. Most of these studies are directly related to four subtopics. The first is the connection between culture and entrepreneurial cognition, especially the propensity to create a business, entrepreneurs’ aspiration to start a new venture and their assessment of opportunities (e.g., Goktan and Gunay, 2011). The second subtopic is intercultural environments’ influence on international entrepreneurs’ cognition, behavior and effective decision-making (e.g., Muzychenko, 2008). A third subtopic is different cultures’ role in entrepreneurial education and international entrepreneurship, with reference to social cognitive theory (e.g., Oo et al., 2018), while the last is how Hofstede’s (1980) cultural values affect the formation of individuals’ entrepreneurial mindset (e.g., Rarick and Han, 2015).

The final topic is networks, which considers two research studies related to: (1) the combination of national culture frameworks and social capital theory to explain the formation and management of enterprises among immigrant communities and how these communities use their social networks (Chand and Ghorbani, 2011); and (2) the relationship between entrepreneurship and a new cultural dimension—economy versus sharing—demonstrating that the economy promotes entrepreneurship and that sharing harms it (Poirine et al., 2017). Figure 9 presents the integrative framework for the entrepreneurial orientation, cognition and networks cluster.

According to Figure 9, entrepreneurial orientation establishes a mutual relationship with network and is strongly influenced by cognition. Entrepreneurial orientation is related to market orientation, social capital and national culture, and entrepreneurial activity. Cognition

![Figure 9. Framework for entrepreneurial orientation, cognition and network cluster](source(s): Own elaboration)
presents its main traits grounded on the propensity to start a business, the entrepreneur's aspiration, the influence of cultural traits and the intercultural environment, the social cognitive theory and the formation of an entrepreneurial mindset. Finally, network is based on the creation and management of new ventures among immigrant communities and in the economy and sharing differences. These topics align with the RBV approach, showcasing how external factors impacting multifaceted nature of intangible resources (i.e., environmental, cognitive or relational) underscore the influence of cultural traits on mindsets and entrepreneurial opportunities.

4.4 Social entrepreneurship, perceived barriers and entrepreneurial intentions cluster
The low-impact and high centrality quadrant includes the social entrepreneurship, perceived barriers and entrepreneurial intentions cluster. This cluster is the second smallest in terms of size and volume (N = 14) and is grounded on some of the following keywords: entrepreneurial prevalence, inclusive business, social business, entrepreneurial intentions, perceived desirability and perceived barriers to entrepreneurship. Table A4 (see Appendix 1) presents the most relevant authors based on citation scores. The publication timeline of this cluster is between 2011 and 2019.

Three topics were identified in this cluster. Social entrepreneurship includes five research studies in total. Some of them analyze how certain cultural dimensions facilitate or hinder social entrepreneurship (e.g., Kedmenec and Strašek, 2017), assess how cultural dimensions influence the determinants of social entrepreneurship intentions (e.g., Yang et al., 2015) and explore the role of culture, socioeconomic development and government institutions in the prevalence of social entrepreneurship (e.g., Puumalainen et al., 2015).

The second topic is entrepreneurial intentions, which considers five research studies in total. Some of them are case studies based on: (1) the analysis of age differences and culture as a driver of self-employment desire, using Flash Barometer 2012 and GLOBE in 21 countries, and demonstrating the existence of a relationship between individual factors, age and culture (e.g., Minola et al., 2016); (2) understanding and comparing the intentions, interest and prevalence of university students in relation to their beliefs and perceptions about entrepreneurship and entrepreneurial attitude (e.g., Gasse and Tremblay, 2011); and (3) comparative exploration of the effects of culture, social values and entrepreneurial motivation on career decisions on young people in Bhutan's new liberal economy (e.g., Valliere, 2014).

The last topic is perceived barriers to entrepreneurship, which considers four research studies related to (1) the way culture and gender shape entrepreneurial perceptions and intentions in university students, through the cultural dimensions of Hofstede and the theory of role and gender (Shinnar et al., 2012); (2) the differences between countries to understand the barriers of starting a business, based on institutional theory (Iakovleva et al., 2014); (3) the influence of culture on entrepreneurship, relating cultural values and perceived desire to entrepreneurial intention in different ethnic cultural groups (Urban and Ratsimanetrimanana, 2015); and (4) the role of gender and regional culture in entrepreneurial intentions and perceived barriers to entrepreneurship (Sharma, 2018). Figure 10 presents the integrative framework for the social entrepreneurship, perceived barriers and entrepreneurial intentions cluster.

According to Figure 10, entrepreneurial intentions has connections with perceived barriers and social entrepreneurship. Studies on this topic present results on the influence of beliefs and perceptions, as well as the importance of motivation for self-employment and the influence of culture and social values on the individual intentions of entrepreneurs. Naturally, perceived barriers are correlated with entrepreneurial intentions and affect social entrepreneurship, since they address the regulatory structures (e.g., lack of financial resources) and cognitive conditions (e.g., lack of skills); gender differences; ethnic groups; lack
of professional experience; social and political environment; and perceptions with culture change. Furthermore, social entrepreneurship is influenced by several aspects: cultural dimensions, which may facilitate or hinder social entrepreneurship; the influence of culture in the determinants of social entrepreneurship intentions; social mission, customer focus, competition/market focus, individual goals and collective/community goals; and the role of culture, socioeconomic development and governance institutions. These studies reflect the RBV focus on cultural elements shaping resource availability for ventures, even in the social sector. They also highlight external constraints hindering resource utilization which, in turn, impacts entrepreneurial success.

4.5 Economic growth, entrepreneurial activity and firm performance cluster

The cluster that presents low impact and moderate centrality is economic growth, entrepreneurial activity and firm performance. This cluster is the smallest in terms of size and volume (N = 11) and presents some of the following keywords: economics, job creation, firm performance, entrepreneurial activity, economic development and business development. Table A5 (see Appendix 1) presents the most relevant authors based on citation scores. The publication timeline of this topic is between 2004 and 2020.

Three topics were identified in this cluster. Economic growth includes three studies. This topic is related to: (1) the proactive approach of governments in accelerating economic growth, job creation and entrepreneurship, giving the example of 16 incubators in Helsinki and comparing with other countries of different cultures (Abetti, 2004); (2) the role of national culture as a variable that explains the level of economic development, reinforcing the effect of entrepreneurship on the level of income (e.g., Liñán and Fernandez-Serrano, 2014).

The second topic is entrepreneurial activity, which includes six studies in total. Some of these studies try to (1) propose a conceptual framework to provide a better understanding of how three independent levels of culture (i.e., national, industry and corporate) influence entrepreneurial activity (Fayolle et al., 2010); (2) identify the combinations of cultural dimensions that lead to high (or low) female or male entrepreneurial activity (Crespo, 2017);
and (3) prove that national culture is important in interpreting the differences in entrepreneurial activities among countries, with national wealth as a moderator (Rauch et al., 2012).

The last topic is firm performance. There are two studies on this topic. The first is based on how firms manage to achieve high performance in different cultural settings, exploring how the configurations of entrepreneurial intention and strategic planning lead to high performance in different cultural contexts (Coen et al., 2017). The second examines the relationship between family business culture and entrepreneurship, arguing that culture is a strategic resource from the resource-based view’s (Wernerfelt, 1984) theoretical lens. As such, it has an influence on firm performance (Zahra et al., 2004). To better understand the economic growth, entrepreneurial activity and firm performance cluster, Figure 11 presents the links between topics.

According to Figure 11, entrepreneurial activity strongly impacts economic growth and firm performance. This topic is based on entrepreneurial intentions, the combination of cultural dimensions affecting entrepreneurial activity and the relationship between culture and entrepreneurial activity at the national and regional levels. The economic growth topic is related to job creation and entrepreneurship, government encouragement and funding, the effects on income level and national wealth. Lastly, the firm performance topic includes studies on cultural definitions that may influence performance levels and culture as a strategic resource of the firm. Overall, these studies echo RBV’s principles, emphasizing the role of diverse resources in firms’ sustainable performance, and the entrepreneurs’ ability to leverage a diverse array of resources for achieving SCA.

![Figure 11. Framework for economic growth, entrepreneurial activity and firm performance cluster](chart)

5. Research agenda
The analyses of the articles facilitated the identification of potential lines of research, grouped into five thematic areas.

5.1 Cultural values and measurement
This area of the NC&E field could benefit from further research along the following lines:

1. Include a broader set of cultural values and/or apply different measures of the same constructs.
(2) Use Minkov’s (2018) classification framework as an alternative to Hofstede’s (1980) classic national culture model.

(3) Analyze the predictive validity of cultural archetypes using non-student samples in different research contexts.

(4) Investigate nonlinear correlations among different GLOBE cultural values to shed light on cultural values’ complexity and their impact on the reasoning behind entrepreneurial intention.

5.2 Sociocultural context and entrepreneurship
Further research in the domain of NC&E studies stands to gain substantial advantages by exploring the avenues proposed in the following manner:

(1) Explore how sociocultural contexts affect entrepreneurial attitudes in rural settings.

(2) Focus on intra-country cultural differences and examine their impact on rural entrepreneurs.

(3) Study how cultural practices specifically affect formal and informal institutional arrangements (e.g., role models, educational systems and financial capital for innovation) that make self-employment more desirable or feasible within specific contexts.

(4) Explore how sociocultural conditions determine what types of business ventures are started by women and how these circumstances affect these entrepreneurs’ success and performance.

5.3 Entrepreneurial intention and behavior
This area within NC&E studies has the potential to yield significant results with further research along the following lines:

(1) Examine the relationships between perceived barriers and entrepreneurial intention for business majors versus students who choose other fields.

(2) Explore perceived desirability’s moderating effect on the link between culture and entrepreneurial intention.

(3) Investigate planning’s impact on entrepreneurial orientation in various nations.

(4) Verify whether a causal relationship exists between strategic planning and entrepreneurial orientation.

(5) Check if entrepreneurship depends on social norms about thrift and sharing in various countries and conduct cross-country regressions.

(6) Explore how the level of financial support affects students’ start-up activities.

(7) Include different aspects of work environments such as pressures, organizational barriers to creativity, resources and peer and/or supervisor support.

(8) Carry out qualitative and comparative interviews across diverse sectors to find differences in behavior driven by environmental or social pressures within specific industries.

(9) Analyze complex data from different countries on strategic planning, individuals’ workplace conditions in diverse units and hierarchies, and multiple firms’ entrepreneurial orientation.
5.4 Institutional and national context
The NC&E field has room for substantial growth through exploration of the suggested research directions:

1. Conduct additional bibliometric studies of NC&E with an expanded database including publications in languages other than English.

2. Investigate formal institutions’ role more deeply.

3. Examine how corporate culture interacts with corporate support programs, especially their national cultural dimensions.

4. Group countries based on institutional variables and check for differences in various types and phases of entrepreneurship between these groups.

5. Apply structural equation models to elucidate how cultural and formal institutional factors interact.

6. Carry out further cross-sectional research among countries and cultures to develop a contingency theory and determine the most appropriate patterns of incubator sponsorship and funding.

7. Cluster nations according to the innovation level in their respective economies, after making sure the latter are not in the development stage.

8. Analyze humane orientation’s effect and interaction with national wealth, as opposed to focusing solely on Hofstede’s (1980) proposed dimensions.

9. Investigate the importance of technological development and female labor participation as forces driving social entrepreneurship development.

5.5 Cultural elements and entrepreneurial dynamics
Delving into the following proposed research avenues has the potential to enhance the NC&E field considerably:

1. Explore cultural differences across life cycle stages and how these variations influence family firms’ entrepreneurship.

2. Explore in greater detail the interconnection of cultures’ national and regional elements conducive to entrepreneurial activity and innovation.

3. Compare entrepreneurship-related phenomena across national contexts to generate additional insights into the new venture creation process, namely, those that cannot be gained by examining the process within a single political, economic or cultural context.

6. Conclusion
The NC&E field is attracting increasing interest from academics and business practitioners. The present study revealed a significant rise occurred in the number of publications annually from 1992 to 2022, especially between 2016 and 2019. This growing interest can be partially explained by NC&E research’s contribution to the development of entrepreneurial activities (cf. Crespo, 2017; Poirine et al., 2017). This pattern is reinforced by increasing case study evidence for four issues: (1) culture’s influence on self-employment motivation; (2) the impact of charismatic and self-protective leaders’ cultural values on self-employment through entrepreneurship; (3) culture’s moderating effect on the relationship between entrepreneurs’
social identity and decision-making; and (4) effect of culture on entrepreneurship at more localized regional levels due to the wide variation found in the cultural dimension of long-term orientation across regions and nations.

This study conducted bibliometric analyses using bibliographic coupling and co-citation. The results add to prior reviews’ findings because the current research provided a holistic view of NC&E themes and revealed associations between the identified thematic groups that provide a better understanding of this field. Additionally, this literature review can serve as a starting point for researchers looking to develop future studies in new directions. Practitioners and academics in the field of management can also use the results to increase their practical applications and number of publications on NC&E, respectively.

The bibliometric analysis conducted for the present study summarized the relationships between fundamental studies in the NC&E field. The results encompass five major clusters identified by their bibliometric coupling strength, and these themes are defined as follows: (1) cultural models, frameworks and case-studies; (2) social entrepreneurship, perceived barriers and entrepreneurial intentions; (3) institutions and sociocultural environments; (4) entrepreneurial orientation, cognition and networks; and (5) economic growth, entrepreneurial activity and firm performance. The findings answered the first and second research questions (i.e., “What are the main topics covered by NC&E studies?”; “When were these studies published?”).

The co-citation analysis identified the most influential studies, which addressed the third research question to (i.e., “Which [studies] are the most influential?”). The results also provided the top-five journals with the highest numbers of citations, thereby answering the fourth research question (i.e., “Which academic journals have had the greatest impact?”). The findings further included the authors with the highest number of co-citations, which answered the last research question (i.e., “Who are the most cited authors?”). The most influential studies were found to be grounded in the most cited references and published in the top-five most cited journals.

Based on the main gaps identified in the literature, prospective research trends were defined for all five clusters. This study contributes significantly to the existing literature in several ways. First, it highlights the main research trends in understanding how cultural practices, considered as intangible resources, impact institutional arrangements. Second, it underscores the contribution of corporate culture in national contexts to a firm’s uniqueness and its ability to perform better within specific national environments. Third, it recognizes the impact of sociocultural conditions on specific business ventures, shaping the creation and utilization of resources and their potential competitive advantages in varying cultural contexts. Fourth, it sheds light on how cultural dimensions influence networking skills, innovation capacity and entrepreneurial mindsets. Finally, it emphasizes the need for further analysis of the causal relationships between strategic planning and entrepreneurial orientation.

This study made the first attempt to map the NC&E field more systematically while endeavoring to analyze it from an RBV perspective, but the research had some limitations. More specifically, only the Scopus database was used, and, naturally, not all issues and areas could be covered. In addition, a homogeneous sample was guaranteed by excluding books, conference proceedings and reports from the analyses, and the selected articles were only taken from the business, management and economics categories. Scholars should thus examine other categories to complement the present results.

Avenues for future studies could include, among others, reinforcing this literature review by including more recent articles and/or other types of publications left out of this research’s sample (e.g., books, conference proceedings and reports). Further investigations are also needed to pursue the research lines identified for each cluster. Any insights generated by future studies should help expand the NC&E research field in new directions.
References


Garfield, E. (2001), From Bibliographic Coupling to Co-citation Analysis via Algorithmic Historio-Bibliography, Drexel University, Philadelphia, PA.


(The Appendix follows overleaf)
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Objective(s)</th>
<th>Methods</th>
<th>Sample</th>
<th>Key findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutions</strong></td>
<td>Spence et al. (2011)</td>
<td>Explore the essential principles of sustainable entrepreneurship (SE) on a global scale and examine how economic, institutional and cultural factors can influence sustainability levels in small and medium-sized enterprises (SMEs)</td>
<td>Conceptual model, Literature review</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Salimath and Cullen (2010)</td>
<td>Provide an overview and synthesis of existing literature on entrepreneurship, focusing on the impact of formal (social institutions) and informal (national culture) institutional factors on entrepreneurship at the national level</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Sociocultural environments</strong></td>
<td>Autio et al. (2013)</td>
<td>Perform a comprehensive analysis that explores the relationships between national cultural practices and entrepreneurial behaviors, and replicate a study conducted at the country level using a multilevel methodology</td>
<td>Multilevel design</td>
<td>42 Countries</td>
</tr>
<tr>
<td></td>
<td>Stephan and Pathak (2016)</td>
<td>Explore how culturally endorsed implicit leadership theories (CLTs) influence individual entrepreneurship</td>
<td>Multilevel design</td>
<td>42 countries</td>
</tr>
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**Source(s):** Own elaboration
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<th>Method</th>
<th>Sample</th>
<th>Key findings</th>
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<tbody>
<tr>
<td>Cultural Models</td>
<td>Examine the relationship between national culture and the development of networking skills in the entrepreneurial context</td>
<td>In-depth interviews</td>
<td>2 Countries</td>
<td>Hofstede's five dimensions illustrate that culture matters to network capability</td>
</tr>
<tr>
<td>Frameworks</td>
<td>Present a theoretical framework and seven related propositions linking national culture – individualist and collectivist orientations – to entrepreneurship</td>
<td>Literature review</td>
<td>–</td>
<td>Recognition that entrepreneurial functions involve distinct processes, highlighting that individualism and collectivism do not unequivocally promote or deter entrepreneurship</td>
</tr>
<tr>
<td>Case Studies</td>
<td>Propose that national culture, political history and the economic performance of a nation can be dependable indicators of entrepreneurial potential within business leaders</td>
<td>Questionnaires</td>
<td>17 Countries</td>
<td>In cultures with a masculine orientation, individuals tend to exhibit a stronger psychological predisposition toward entrepreneurship, while economic development and experience with democratic governance have a positive impact on perceptions of the feasibility of new business ventures</td>
</tr>
<tr>
<td></td>
<td>Determine whether cultural differences can explain the deviations from the predictions based on economic-structural variables</td>
<td>Regression analysis</td>
<td>3 Pairs of regions</td>
<td>Values and beliefs influence the rates of new firm formation in different regions</td>
</tr>
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</thead>
<tbody>
<tr>
<td><strong>Entrepreneurial</strong></td>
<td><strong>Shirokova et al.</strong> (2018)</td>
<td>Regression analysis</td>
<td>26 Countries</td>
<td>- Positive connections exist between curricular and cocurricular programs and student start-up initiatives, with specific cultural dimensions playing a role in moderating these relationships</td>
</tr>
<tr>
<td><strong>Orientation</strong></td>
<td><strong>Enhance comprehension of the ways in which the university environment and national culture affect student entrepreneurial behavior</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Cognition</strong></td>
<td><strong>Muzychenko</strong> (2008)</td>
<td>Literature review</td>
<td>–</td>
<td>- Competencies developed in one’s home cultural environment may not guarantee effective performance in identifying international opportunities, potentially leading to a decrease in the perception of these opportunities</td>
</tr>
<tr>
<td></td>
<td><strong>Gain insight into how the cross-cultural environment impacts the cognitive processes, behaviors and decision-making effectiveness of international entrepreneurs when identifying opportunities across borders</strong></td>
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<tr>
<td></td>
<td><strong>Goktan and Gunay (2011)</strong></td>
<td>Regression analysis</td>
<td>232 Respondents</td>
<td>- Culture and entrepreneurial cognitions are significantly interrelated</td>
</tr>
<tr>
<td></td>
<td><strong>Examine how culture relates to entrepreneurial cognition, focusing on factors such as the probability of initiating a new venture, the entrepreneur’s ambitions for the venture and the assessment of opportunities. This analysis is grounded in Hofstede’s (1980) conceptualization of culture</strong></td>
<td></td>
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<tr>
<td><strong>Network</strong></td>
<td><strong>Chand and Ghorbani</strong> (2011)</td>
<td>Theoretical propositions</td>
<td>–</td>
<td>- Different immigrant communities accumulate and utilize social capital in unique ways when starting and managing their ethnic ventures. These differences are reflected in variations in their motives for forming these ventures, human resource practices and termination rates</td>
</tr>
<tr>
<td></td>
<td><strong>Explain the formation and management of entrepreneurial ventures among immigrant communities and the role that the different dimensions of culture play in how immigrants use their social networks to start such firms</strong></td>
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<tbody>
<tr>
<td>Social Entrepreneurship</td>
<td>Examine whether specific national cultural dimensions facilitate or hamper social entrepreneurship</td>
<td>Correlation analysis</td>
<td>40 Countries</td>
<td>The national power distance level is inversely related to social entrepreneurial activity, while higher levels of social entrepreneurial ventures among young individuals are associated with lower masculinity levels</td>
</tr>
<tr>
<td>Perceived Barriers</td>
<td>Examine how culture and gender shape entrepreneurial perceptions and intentions within Hofstede’s cultural dimensions framework and gender role theory</td>
<td>Structural equation modeling</td>
<td>761 Students from 3 countries</td>
<td>Gender differences in barrier perceptions are significant, although these differences do not remain consistent across cultures</td>
</tr>
<tr>
<td>Urban and Ratsimanetrimanana (2015)</td>
<td>Delve deeper into understanding to what extent does culture influence entrepreneurship by connecting the causal chain from cultural values to perceived desirability to entrepreneurial intention (EI)</td>
<td>Regression analysis</td>
<td>2220 Respondents</td>
<td>Cultural dimensions affect the link between perceived desirability and EI, primarily within the highlander ethnic group. Furthermore, distinctions emerge among ethnic groups in terms of the indulgence-restraint cultural dimension</td>
</tr>
<tr>
<td>Entrepreneurial Intentions</td>
<td>Investigate age-related variations in self-employment desirability and feasibility beliefs across diverse cultures, spanning from young to late adulthood</td>
<td>Regression analysis</td>
<td>21 Countries</td>
<td>There are similar curvilinear lifespan trends in both desirability and feasibility beliefs, with a zenith in young adulthood followed by a notable decline toward late adulthood</td>
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<tbody>
<tr>
<td><strong>Economic Growth</strong></td>
<td>- Determine the distinct contribution of national culture as a variable that elucidates the level of economic development and amplifies the impact of entrepreneurship on income levels within the European Union</td>
<td>Regression analysis</td>
<td>56 Countries</td>
<td>- Central and Northern Europe align more closely with the stereotypical European culture, while English-speaking countries, Eastern Europe and the Mediterranean have their distinguishing features. These regional entrepreneurial cultures each have a unique dynamic, influenced by both culture and income.</td>
</tr>
<tr>
<td></td>
<td>- Test the cross-cultural applicability of the connection between innovation and growth across five countries</td>
<td>Regression analysis</td>
<td>857 Business owners</td>
<td></td>
</tr>
<tr>
<td><strong>Entrepreneurial Activity</strong></td>
<td>- Propose a conceptual framework designed to enhance comprehension of how three interconnected levels of culture – national, industry and corporate – shape entrepreneurial orientation (EO)</td>
<td>Literature review</td>
<td>–</td>
<td>- The EO of firms is influenced by cultural variables at three levels: national, industry and corporate. It is also the result of interactions between, on the one hand, industry and national levels, and, on the other hand, corporate and national levels.</td>
</tr>
<tr>
<td><strong>Firm Performance</strong></td>
<td>- Explore the relationship between four dimensions of organizational culture and their influence on entrepreneurship in both family-owned and non-family businesses</td>
<td>Regression analysis</td>
<td>536 Firms</td>
<td>- Positive linear correlations are observed between entrepreneurship and external orientation, organizational cultural orientation favoring decentralization and a long-term versus short-term orientation.</td>
</tr>
</tbody>
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**Source(s):** Own elaboration
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