JOEPP 10,1

22

Received 29 January 2022 Revised 19 June 2022 Accepted 21 July 2022

The journey of culture and social responsibility and its relationship with organizational performance: pathway and perspectives

Alexandre dos Reis and José Manuel Cristovão Veríssimo Instituto Superior de Economia e Gestao, Universidade de Lisboa, Lisboa, Portugal

Abstract

Purpose – The purpose of this study is to map and analyze the academic production regarding the relationship among organizational culture (OC), corporate social responsibility (CSR) and organizational performance (OP), based on 240 papers listed in the Web of Science (WoS) database.

Design/methodology/approach – This research was performed based on a bibliometric analysis supported by the VOSviewer software, followed by a content analysis of 37 prominent publications.

Findings – The results make it possible to identify the geographical and institutional profile of the production, the level of collaboration and interaction between the researchers and their theoretical base of reference, and to consolidate the main characteristics, trends, and future directions of research in this field.

Practical implications – This study propitiates a vast and practical repertoire that addresses business issues involving the relationship among OC, CSR and OP aiming to help the managers to interpret their local realities and challenges, especially due to positive impacts that such relationship can generate in the business. **Originality/value** – A systematic literature review involving specifically the themes of OC, CSR, and OP in a scenario of gradual growth in the number of publications and interest in these themes.

Keywords Organizational culture, Culture (organization), Corporate social responsibility, Organizational performance, Performance management, VOSviewer

Paper type Research paper

Introduction

The quantity and availability of academic literature currently produced represent one of the most challenging aspects in the researchers' routine, especially those associated with the field of Management. The existence of many scientific journals and the availability and accessibility of worldwide databases, reveal a pulsating issue in academic world, as well as bring with them the difficulty of effectively understanding which are the trends and the materials of recognized quality (Rodrigues *et al.*, 2014; Wang *et al.*, 2014; Zhou *et al.*, 2015).

Considering this quantity of information and the challenges involved, this study aims to explore, summarize, and interpret the existing literature that addresses the relations among organizational culture (OC), organizational performance (OP) and corporate social responsibility (CSR). In relation to this last theme, related to CSR, it is worth noting that we could adopt the concept of Sustainability, currently in vogue in the academic and business world, however, considering the breadth of this theme, there would be a negative impact on the operability of the study. In this way, we chose to study exclusively the social responsibility approach, one of the most important pillars of the triple bottom line model, associated with environmental and economic pillars (Hermundsdottir and Aspelund, 2021; Negri et al., 2021; Ruggerio, 2021).

The goals of this study are, therefore, (1) to identify the geographical and institutional profile of the research and the level of interaction and collaboration existing in this production, (2) to identify the theoretical reference that traditionally supports this research, (3) to consolidate the main characteristics and, finally, (4) to identify future research trends



Journal of Organizational Effectiveness: People and Performance Vol. 10 No. 1, 2023 pp. 22-42 © Emerald Publishing Limited 2051-6614 DOI 10.1108/JOEPP-01-2022-0016 and directions in the field of OC, CSR, and OP relationship. To achieve these goals, knowing the challenges, we will use as a research methodology a bibliometric analysis, consisting of quantitative and qualitative analysis steps.

This research effort is justified considering that the relations among the practices of OC, CSR and OP represent key factors in the understanding of business dynamics, although, they are still lacking empirical, robust, and conclusive investigations (González-Rodríguez et al., 2019).

Culture, social responsibility and goals

Essential elements of the relationship among OC, CSR, and OP

Whereas the relations among OC, CSR and OP will be explored as the main object of this study, the intention of this section is to offer an overview of how such topics are related and analyzed considering several factors such as complexity, diversity, gaps, levels of analysis, results of the relationship between them and main approaches, as well as in the models proposed by Abu-Jarad *et al.* (2010) and Belias and Koustelios (2014), for instance.

The relationship between OC and CSR

Considering the extension of the concepts of OC and CSR, a higher level of complexity is expected when it comes to the relationship between them. An analysis with a holistic and systemic view is needed, observing the fundamental role that OC plays in relation to CSR, and vice versa (Yu and Choi, 2016).

While OC and CSR demonstrate to be critical factors for the survival of businesses, much remains to be explored in this relationship. Factors that contribute to the formation of a specific OC and the need for alignment between CSR and OC as a determining issue for achieving positive results in the organization represent examples of research avenues in the field (Deng and Hu, 2010).

According to Kucharska and Kowalczyk (2019), socially responsible policies and practices are necessarily embedded in the socio-cultural context of that historical and geographical conjuncture, making these concepts inseparable.

In this scenario, according to Karassin and Bar-Haim (2016) and Hejjas *et al.* (2019), it is important to explore the multilevel investigations, which are necessary in a context of increasing complexity. There is, therefore, a challenge to unify these levels, currently dominated by the institutional level, instead of individual and organizational level analysis.

Even if the authors highlight the lack of multilevel investigations, this does not mean their total absence. According to Brunton *et al.* (2017), the integration and mutual influence of the concepts of OC and CSR, at various levels, can be observed in the theoretical perspectives of several researchers such as Cramer (2005), Rupp *et al.* (2006), Aguilera *et al.* (2007), Linnenluecke *et al.* (2009) and Powell (2011).

Another relevant point, besides the relation between the concepts, concerns the moderating role that they can play. This role is widely observed in the literature (Lee and Kim, 2017). Examples of this moderating role can be observed in the studies by Gorondutse and Hilman (2016), who consider "innovative" OC as a moderating variable in the relations between CSR and OP, by Mueller *et al.* (2012), who analyzes the employees' perception of CSR considering the organizational affective commitment, or by Pasricha *et al.* (2018), who studies the relationship between CSR and ethical leadership moderated by OC.

Regarding the results of the research carried out on the relationship between OC and CSR, there is a predominance of a significant and positive relationship between the concepts, especially when observed in the long-term condition (Kucharska and Kowalczyk, 2019).

Examples of this positive relationship can be observed in the researches of Galbreath (2010) and Mueller et al. (2012), where the "humanistic" cultural values are directly related to

the organizational and ethical commitment; Pasricha et al. (2018), where the positive results of CSR are associated with the organization's "organic culture"; Übius and Alas (2009) and Deng and Hu (2010), where are demonstrated the impacts of clan, bureaucratic and efficiency OC on the results of CSR; Upadhaya et al. (2018) and Vveinhardt and Andriukaitiene (2017), where we can see a link between the success of the CSR to the level of consistency and integration of the OC; Duarte (2010), where discretionary behaviors from OC can produce positive results in the organization through the creation and maintenance of a CSR culture or, finally, in the research of Chang (2015), where there is a positive relationship between CSR, OP and the "Green OC".

According to Enquist *et al.* (2006), it can be concluded that the adjustment between cultural factors, associated with socially responsible action, are responsible for the creation of an organization with better performance and sustainability.

However, although predominant, this direct and positive relationship between concepts is not a general rule. The implementation of CSR policies and practices, as well as the understanding and management of cultural factors, depend on a combination of conjunctural factors of great analytical complexity (Hejjas *et al.*, 2019). Research from Brunton *et al.* (2017) and Karassin and Bar-Haim (2016) and Jaakson *et al.* (2009), for instance, demonstrate inconclusive results.

To conclude, we can observe, among the main gaps in the analyses of the OC and CSR relationship, the lack of studies that explore multilevel evaluation (including the personal, organizational, and institutional levels).

The relationship between OC and OP

The study of the relationship between OC and OP presents enormous challenges, especially considering the complexity and diversity that surround these two concepts, which may lead to different results in the carried-out research (Shahzad *et al.*, 2012).

The diversity can be observed in the variations of the concept of OC associated with the development of the field, namely OC of excellence (Rezaei et al., 2018), OC of learning (Wahda, 2017) and entrepreneurial OC (Al-Dhaafri et al., 2016), or in the extension of the OP concept, mainly taken as a dependent variable that establishes a causal relationship with several organizational domains (Deng and Smyth, 2013).

Considering the research results, although some approaches identify that OC has a significant impact on the organization's long-term performance, generating superior and sustainable financial results (Valmohammadi and Roshanzamir, 2015), such conclusion has not yet been clearly verified in the studies (Nitzl et al., 2019).

The evidence of the significant and positive relationship between OC and OP can be visualized in some studies such as those by Zheng *et al.* (2010), Hartnell *et al.* (2011) and Samad *et al.* (2018), where it is suggested that OC (as a concept that represents behaviors, values, beliefs, and assumptions), combined with the goals and structure of organizations, influences directly the OP. Authors such as Panuwatwanich and Nguyen (2017), Rezaei *et al.* (2018) and Wahda (2017), also corroborate this view, through the studies of Total Quality, Excellence and Learning, respectively.

However, this positive relationship does not represent a peaceful point among researchers. O'Reilly (1989), analyzing corporate merger processes, warns that changes in management philosophy or OC do not always lead to a better OP. Al-Dhaafri *et al.* (2016) and Sanda and Kuada (2016), additionally, do not identify the relationship between OP and OC of excellence. According to Tan (2019), the fact that OC leverages OP is often based on "faith" than evidence.

The main gap observed in the studies is the absence of a better definition and delimitation of the concepts of OC and OP to propitiate focused and effective analyses.

Culture, social

responsibility

and goals

The relationship between CSR and OP

The complexity in this relationship is potentialized because the concepts of CSR and OP are considered as "umbrellas", preventing the existence of a totalizing vision. The analyses, therefore, may vary depending on the industries, contexts and demands of the stakeholders (Javed *et al.*, 2016).

The concepts of CSR and OP and their relationships present a great diversity of theoretical approaches (Cheng *et al.*, 2014), data sources and measurement practices (Griffin and Mahon, 1997; Van Beurden and Gössling, 2008), thus, it is necessary to adopt methodological care in research (Loosemore and Lim, 2017). According to Endrikat *et al.* (2014) and Loosemore and Lim (2017), if the plurality of concepts is inevitable and positive for the development of the field, more attention should be paid to the ambiguities that it can bring.

Taking the OP concept isolated, it is possible to identify the approaches based on market, accounting, and operational results dimensions, with a more recent approach to non-financial aspects, focusing on the long term, and based on holistic view of economic, social, and environmental orders (Amini *et al.*, 2018). On the other hand, CSR approaches consist of the perceptions from authors involved in the process, reputation ratings, social audits, management principles and values and several indexes (Griffin and Mahon, 1997; Orlitzky *et al.*, 2003). It is important to highlight the concept of corporate social performance (CSP), proposed originally by Wood (1991), which foresees the integration (not hierarchical) between principles, purposes, programs, and results, which makes the concept of CSR more tangible and empirical.

The studies that analyze the relationship between CSR and OP present a great variation in the research results. This variation is based in (1) different measurement methods, modeling, and scope definitions (Endrikat *et al.*, 2014), (2) consideration of different contingency factors, sampling patterns, business sectors, models of operationalization of variables and different theoretical approaches (Javed *et al.*, 2016) and, (3) finally, different time intervals considered (Preston and O'Bannon, 1997).

Studies that present positive results in the relationship between CSR and OP can be exemplified by the work of Andriof *et al.* (2017), where strategies focused on CSR are responsible for reducing information asymmetries, reduce the agency cost and capturing the engagement of stakeholders; Brammer and Millington (2008), who verify the managerial benefits resulting from socially responsible performance and; Reverte *et al.* (2016), who present the function of "positive advertising" that generates reliability and credibility and, therefore, better OP.

On the other hand, examples of research that diverge from this understanding can be observed in Loosemore and Lim (2017), where the results demonstrate that companies are more focused on economic and legal aspects than on ethical and discretionary actions and in Al-Samman and Al-Nashmi (2016), who evidence a minimal impact of the CSR on the OP, especially that of a non-financial nature.

Finally, it is worth noting examples of research that affirm the difficulty of analyzing this relationship. Fombrun *et al.* (2000) and Waheed and Yang (2019) defend that it is not possible to establish a simple correlation between CSR and OP, especially considering that each stakeholder is a source of reputational risk to be handled and, therefore, brings a great interpretative spectrum. Additionally, Griffin and Mahon (1997) and Van Beurden and Gössling (2008) equally affirm that this difficulty is mainly due to the methodological impossibilities inherent in the concepts of this nature.

Finally, we can observe the absence of longitudinal studies, as well as studies that contemplate and synthesize the diversity of concepts, methods, and control variables.

Data and method

The methodology adopted in this study consists of two distinct parts. The first one is based on a bibliometric analysis of academic publications that combines the themes OC, CSR, and

OP. The second part includes a content analysis of the most relevant publications highlighted in the bibliometric analysis.

Both phases use the Web of Science (WoS) database, which was chosen since it is one of the most recognized repositories of publications and widely used in the academic area, with emphasis on the field of Management (Yang et al., 2013).

For the initial bibliometric analysis, a search of publications in WoS was conducted in January 2021. In this process we looked for publications with the terms Organizational Culture, Social Responsibility and Performance in the search model called "topic" that contemplates the occurrence of these terms in title, abstract and keywords of the documents. In the search, no limitation of publication dates was performed. This search procedure is aligned with the central goal of this study and, according to Yang et al. (2013), it provides robustness and assertiveness to the selection of relevant documents to the research.

The search procedure resulted in 240 publications. The search results, including the completeness of the information available in the database, were exported to the ".csv" extension file, used as a basis for the research.

This bibliometric analysis, based on the VOSviewer software, enables a systematized view of the academic production, highlighting its critical points and research trends (Zhang *et al.*, 2016). Therefore, it is noteworthy that the use of widely recognized software, aligned with the use of a robust bibliographic database, allows the replication of this same methodology to other studies and topics of interest.

Bibliometric analysis makes use of VOSviewer software and aims to highlight historical features of academic production, its details, and trends. This software can provide analysis of the evolution of publications over the years, visualization of the relationship among authors, citations, terms, dates, and places of publication, revealing maps that allow an accurate evaluation of the similarity, trends and existing groupings in the selected material (Rodrigues *et al.*, 2014).

The second part of the methodology consists of a content analysis of the most relevant publications found in the search. The selection of these publications was performed by an individual qualitative analysis of the abstracts, based on their adherence to the central goal of the research, that is, to have explicit content about the relations between OC, CSR, and OP. This selection resulted in 37 publications, which have been individually analyzed and organized in a synoptic view that aims to present an overview of the most relevant issues present in the publications.

Results and discussion

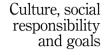
Growth in publications

The data presented in Figure 1 evidence that the number of publications addressing the relationship among OC, CSR and OP has shown significant growth since 1991 (date of the first publication selected), with particular attention to the period after 2010, where cumulative data reveal a faster growth rate. Considering the 240 selected publications, 80% of them (n = 192/240) have been published in the decade of 2010, especially in the year 2019 with 44 publications, a number four times higher than the annual average of publications (10.3) in the period considered.

This significant growth in the last decade reveals the interest that the themes and the relationship among them have increased in the field of Management and reinforces the importance of the analysis carried out in this study.

Authors and publications

The publications analyzed, summing up 240, have been written by 634 different authors. Regarding the co-authorship of these publications, there is a great dispersion, and it is not possible to register relevant groupings. Figure 2, obtained by VOSviewer software, shows





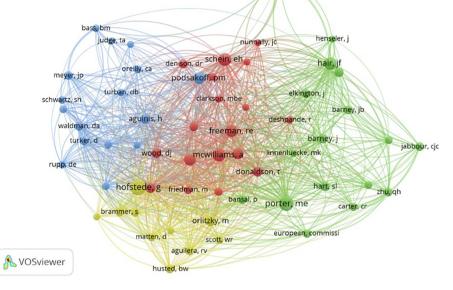


Figure 1. Evolution in the number of publications

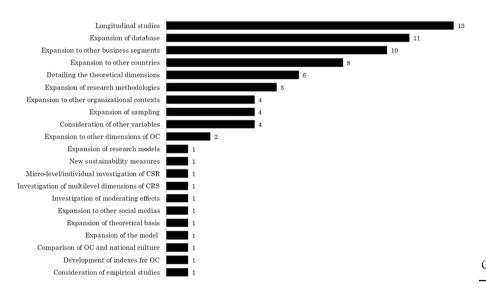


Figure 2. Co-authorship clusters

such dispersion through the existence of 224 distinct clusters, which may reveal the early stage of collaboration between researchers.

Regarding the number of citations, it is possible to highlight 72 publications, including 14 distinct clusters. Table 1 records details of the ten most cited papers and respective authors. Figures 3 and 4, obtained by VOSviewer software, indicate, respectively, the authors organized in their clusters and the years of publication. In the analysis, the limitation of a

IODDD.						
JOEPP 10,1	#	Authors	Citations	Year	Title	Journal
10,1	1	Surroca, J; Tribo, JA; Waddock, S.	669	2010	Corporate Responsibility and Financial Performance: The Role of Intangible Resources	Strategic Management Journal
	2	Maignan, I; Ferrell, OC; Hult, GTM.	515	1999	Corporate citizenship: Cultural antecedents and business benefits	Journal of Academic Marketing Science
28	3	van Dierendonck, D.	450	2011	Servant Leadership: A Review and Synthesis	Journal of Management
	4	Epstein, MJ; Roy, MJ.	296	2001	Sustainability in action: Identifying and measuring the key performance drivers	Long Range Planning
	5	Lerner, M; Brush, C; Hisrich, R.	174	1997	Israeli women entrepreneurs: An examination of factors affecting performance	Journal Business Venturing
	6	Maignan, I; Ferrell, OC.	167	2001	Antecedents and benefits of corporate citizenship: an investigation of French businesses	Journal of Business Research
	7	Baumgartner, RJ.	163	2014	Managing Corporate Sustainability and CSR: A Conceptual Framework Combining Values, Strategies and Instruments Contributing to Sustainable Development	Corporate Social Responsibility and Environment Management
	8	Maon, F; Lindgreen, A; Swaen, V.	150	2010	Organizational Stages and Cultural Phases: A Critical Review and a Consolidative Model of Corporate Social Responsibility Development	International Journal of Management Review
	9	Crittenden, VL; Crittenden, WF; Ferrell, LK; Ferrell, OC; Pinney, CC.	137	2011	Market-oriented sustainability: a conceptual framework and propositions	Journal of Academic Marketing Science
Table 1. Most cited publications	10	Luo, LL; Tang, QL.	124	2006	Does National Culture Influence Corporate Carbon Disclosure Propensity?	Journal of International Accounting Research

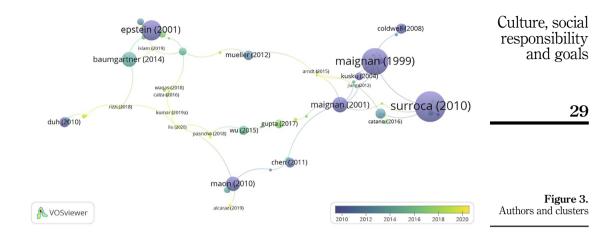
minimum of 20 citations has been applied to provide visualization of the most relevant publications and authors.

The analysis shows that, even if there is a relationship among some publications, there are no populated clusters, nor a strong intensity of connection. Another relevant point concerns the dates of the publications. Figure 4 shows that the academic production with the highest number of citations is found in publications prior to 2010. Although it represents a natural conclusion, in which the maturity of the publication can propitiate a growth in the number of citations, it can also be assumed that there are no studies dealing with this subject or having reached a great impact in the field since 2010.

Geographical and institutional distribution

In the geographical approach, the publications originate from 60 different countries and have 10 predominant clusters. Among these countries, the top 10 (recorded in Table 2), represent approximately 75% (n = 178/240) of all publications. Figures 5 and 6 indicate, respectively, the most representative countries organized in their clusters and the years of publication.

The data presented shows the relevant role played by the United States of America (USA) in the number of publications, followed by China, which has an increasing number of publications in the last decade. Figure 6 indicates that USA production was issued before 2014, while other countries, including China, have a more recent profile of publications. Another important point is the presence of peripheral countries in the international academic mainstream in the group of



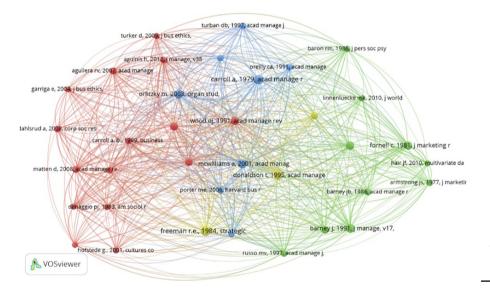
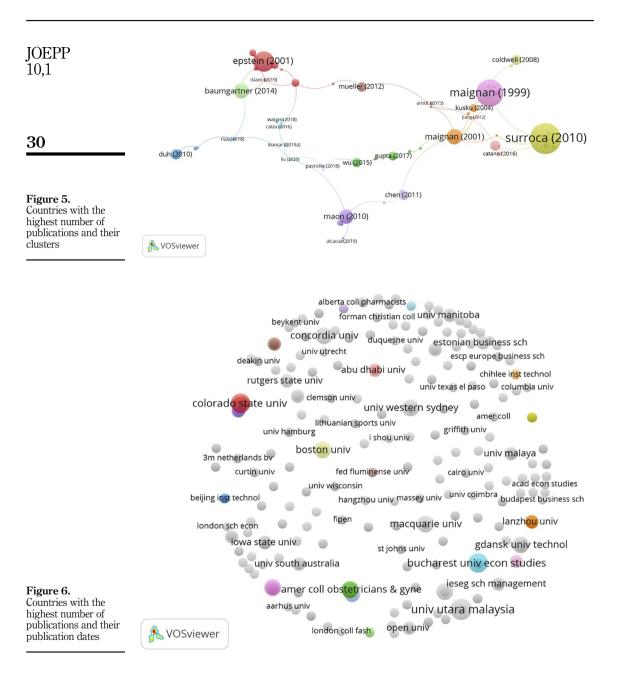


Figure 4. Authors and clusters showing the year of publication

#	Country	Publications	Citations	
1	United States of America	61	3,374	
2	China	23	187	
3	Australia	18	195	
4	Canada	17	513	
5	Spain	16	811	
6	United Kingdom	15	509	
7	Malaysia	14	51	
8	Romania	14	50	Table 2.
9	Germany	12	132	Most representative
10	India	10	37	countries



most relevant countries (e.g. Malaysia, Romania, India, Brazil, Argentina, and Iran), which may reveal the importance of OC, CSR, and OP themes in emerging economies.

As far the institutional aspect, the selected publications involved 402 organizations. Regarding the cooperation between the organizations, there is a great dispersion, and it is not

possible to register relevant clusters, as shown in Figure 7. It is worth noting that, even without the existence of clusters involving cooperation between organizations, a concentration is observed when the citations of the publications are analyzed. In this sense, as shown in Table 3, it is possible to realize that the material published by 10 institutions (of the 402) represents 43% of the total number of citations (n = 5026/11,626), most of them referring to the publications produced by American organizations.

Culture, social responsibility and goals

Bibliographic references

Another relevant point of analysis concerns the bibliographic references used by the 240 publications analyzed. The analysis of these references allows the visualization of the clusters of authors and fields of knowledge that supported the theoretical basis of the research. In total, 14,560 publications and 10,317 referenced authors have been found. For filter purposes, these numbers represent publications and authors cited at least 15 and 20 times, respectively.

As shown in Figure 8, 37 prominent publications have been identified, focusing on 4 distinct clusters. Regarding the authors, 61 highlights have been identified, focusing on 4

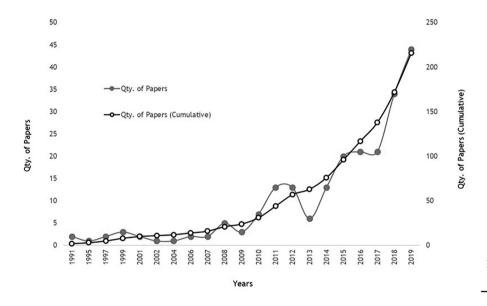


Figure 7. Profile of institutional distribution

#	Institutions	Country	Publications	Citations	
1 2 3 4 5 6 7 8 9	Boston College Colorado State University University Groningen Universidad Carlos III Madrid Florida State University Erasmus University Harvard University Stanford University Université Laval	USA USA Netherlands Spain USA Netherlands USA USA USA Canada	2 4 2 1 2 1 1 1 1	806 737 682 669 519 450 296 296 296	Table 3. List of the 10 organizations with the highest number of
10	Boston University	USA	3	275	citations

32

distinct clusters, as shown in Figure 9. Finally, Table 4 records the most relevant authors and the number of times they were cited.

In addition to the large number of publications and authors and their strong relationship, it is possible to identify well-defined clusters, reflecting the concentration of references in theoretical fields consolidated and associated with OC, CSR, OP, and the Organizational Strategy.

Analysis of the most relevant publications

In this second part of the research, a content analysis of the most relevant publications was performed, including a total number of 37 articles. The publications were analyzed both,

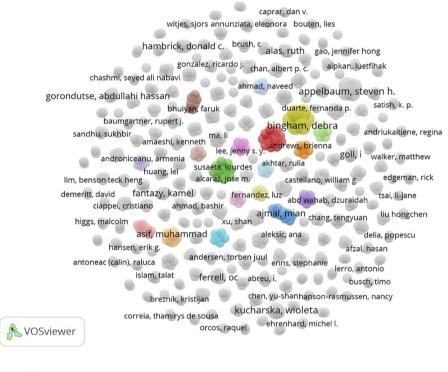


Figure 8. Most cited publications and their clusters, represented by their authors

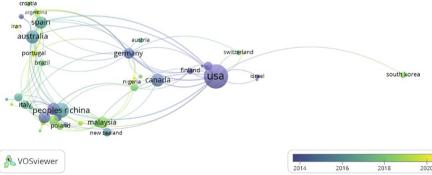


Figure 9. Most cited authors and their clusters

individually and entirely, and organized in a synoptic view that aims to present an overview of the most relevant factors present in the publications. This synoptic view with the authors and mains subjects studied, represented in Table 5, has been taken as an object of analysis and aims to provide the characteristics and trends found in the outstanding academic production.

The first results obtained demonstrate some relevant descriptive characteristics. Regarding the countries taken as object of study, it is observed that most publications explore a multiple context, that is, consider two or more countries in the analysis. These papers represent 46% (17) of the total selected publications. It is possible to find papers that study Asian countries with 24% (9), followed by European countries with 19% (7). Regarding the business segments studied, there is a large concentration of papers that explore multiple segments, with a representation of 57% (21) of the total. Besides this concentration, there is a dispersion of business segments studied, including sectors such as energy, industry, health, tourism and hospitality, clothing, and construction. See details in Table 6.

Considering the methodology used, there is a concentration of studies of quantitative approach, covering 84% (31) of the publications, the rest of them (6) composed by papers of qualitative or mixed approach. Among the studies of quantitative approach there is a balance between works that make use of instruments of conventional statistics methods and those that make use of models of structural equations.

Regarding to the tendencies of the results found in the studies, considering the relationship between the concepts taken in the analysis, it is verified that 68% (25) of the studies present a positive impact tendency, 16% (6) of variable impacts, 11% (4) with no significant relationship and only 5% (2) with negative impact. See details in Table 7.

Another important result concerns the existing gaps and research perspectives that are found (Figure 10). These gaps and perspectives represent important drivers for future research efforts. Three main dimensions can be summarized. The first is represented by the theoretical basis. There is a need to expand the theoretical models used, to deepen the concepts and to increase the range of variables and measure instruments.

The second dimension is related to the methodology applied in the studies of the relationship among OC, CSR, and OP. There is a significant demand for investigations based on longitudinal studies and using a wider range of methods, breaking the concentration in quantitative studies of statistical approach.

Finally, we highlight the dimension associated with the scope and sampling of the studies. At this point, there are suggestions for future studies focused on the need to expand the business segments and countries studied and to expand the databases used to provide greater capacity to generalization.

#	Author	Citations
1	Hofstede, G.	96
2	Porter, M.E.	84
3	Hair, J.F.	70
4	Mcwilliams, A.	69
5	Schein, E.H.	67
6	Freeman, R.E.	63
7	Carroll, A.	58
8	Podsakoff, P.M.	54
9	Orlitzky, M.	48
10	Maignan, I.	42

Table 4. 10 most cited authors

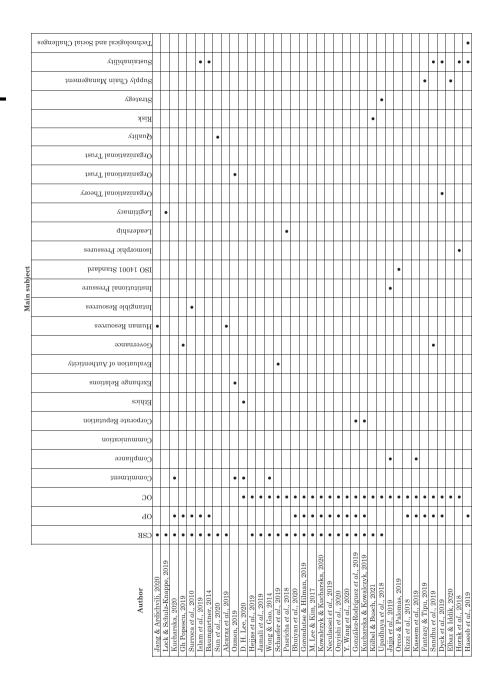


Table 5. Synoptic view – authors and subjects

Culture, social responsibility and goals

35

Second, the theoretical models studied demonstrate that, frequently, the relations among OC, CSR and OP have a tendency of direct and positive impacts. Finally, still in the theoretical perspective, despite the efforts represented by the publications analyzed, there is still a great avenue for the theoretical development of this field of research, especially considering a constant demand for expansion of models and conceptual deepening of OC, CSR, OP, and their relationships.

Studied co	untries	Business areas	areas	
Country	Qty. (%)	Business area	Qty. (%)	
Various	17 (48%)	Various	21 (58%)	
China	2 (5%)	Construction	3 (8%)	
Italy	2 (5%)	Energy	3 (8%)	
Nigeria	2 (5%)	Tourism	3 (8%)	
Romania	2 (5%)	Clothing	2 (5%)	
South Korea	2 (5%)	Health & Care	2 (5%)	Table 6.
Others	10 (27%)	SME	2 (5%)	Studied countries and
		Industrial	1 (3%)	business areas

Methodological approaches		Tendencies	_	
Approach	Qty. (%)	Tendencies of results	Qty. (%)	
Structural Equation Modeling (SEM) Hypothesis Testing Literature Review Interview and Content Analysis Others	14 (38%) 7 (19%) 4 (11%) 2 (5%) 10 (27%)	Positive impact (+) Variable impact (+/-) Impacts with no significant relationship Negative impact (-)	25 (68%) 6 (16%) 4 (11%) 2 (5%)	Table 7. Methodological approaches and tendencies

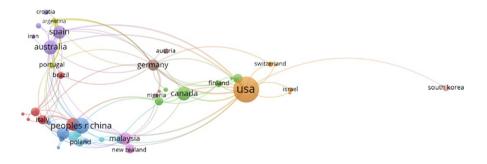




Figure 10. Gaps and perspectives

Practical contributions

Considering the practical contributions some important information can also be visualized. First, we observed that the studied countries are concentrated in some regions of the globe (namely, North America, Europe, and Asia) and in studies of multiple conjugated countries. This characteristic leads to two practical consequences. Managers of these regions find a vast theoretical and practical repertoire that addresses realities like those found in their managerial practice and that can respond more directly to their needs, on the other hand, the lack of studies exploring South American countries, for example, requires from managers a detailed interpretation and adequacy of the results found to their local realities and challenges.

Second, the extension of market segments, organizational scenarios studied and the confirmation of a direct and positive tendency relationship among OC, CSR, and OP, confirm to managers that this relationship should be considered daily and carefully by organizations, regardless of the market or context where they operate. Finally, this extension and this direct relationship reinforce the need for managers to maintain these subjects in their agendas, especially due to the high possibility of generating positive impacts in the business.

Conclusions, limitations, and future research

Considering the data and results presented throughout this paper we can consider as achieved the proposed goals. First, it was possible to identify the geographical and institutional profile responsible for the productions, with a North American historical domain and a growing role of China in the last decade, and a still low level of collaboration and interaction among researchers, with few relevant clusters and low connection intensity.

The second goal concerns the identification of the theoretical reference basis that traditionally supports these studies. In the presented study, it was possible to observe well delineated clusters in relation to the basic theory and the respective "classic" authors that supported the production, clearly showing the consolidation of the fields of OC, CSR, OP and organizational strategy. Third, it was possible, through the elaboration and analysis of a synoptic view, to consolidate the main characteristics of the publications analyzed, demonstrating its comprehensive profile in relation to the countries and business segments studied, the direct and mostly positive tendency relationship found among the concepts, and the predominance of quantitative approach when analyzing the methodological dimension of production.

Finally, in the fourth goal it was possible to identify the main tendencies and future directions of research in the relationship among OC, CSR, and OP, especially represented by the need to expand the theoretical models used and to deepen the concepts, the significant demand for investigations based on longitudinal studies and the need to expand the business segments and countries studied to provide greater generalization capacity.

To summarize, the achievement of these objectives contributes to provide a solid theoretical basis to practitioners of the area, propitiates a panoramic view of the studies about these relationships, and offers a practical guide to new study fronts that will enrich the field. In this sense, researchers interested in the relations between OC, CSR, and OP, as well as managers who need to deal with these relations in their organizational routine, will benefit from the results.

However, there are some limitations that need attention. First, it is a specific sample in relation to the databases and the keywords used for searching. This limitation, especially considering the availability of several data bases and the strength of academic production on the subjects, should be considered as a limiting factor in the analysis.

A second limitation concerns the variations in the concepts of OC, CSR and OP. Considering that for enabling the operationalization of this study it was necessary to define pragmatically the terms to be researched, many other correlates or similar terms, present in the literature, may not have been covered by the analysis.

Finally, considering the evolution of the number of publications dealing with the relations among OC, CSR, and OP we still have many gaps to explore. Meta-analyses with greater qualitative and quantitative scope, in addition to the work developed in this study, can increase the level of assertiveness regarding the identification of the "state of the art" in the field, representing thus great possibilities for future research.

Culture, social responsibility and goals

References

- Abu-Jarad, I.Y., Yusof, N.A. and Nikbin, D. (2010), "A review paper on organizational culture and organizational performance", *International Journal of Business and Social Science*, Vol. 1 No. 3, pp. 26-46.
- Aguilera, R.V., Rupp, D.E., Williams, C.A. and Ganapathi, J. (2007), "Putting the S back in corporate social responsibility: a multilevel theory of social change in organizations", *Academy of Management Review*, Vol. 32 No. 3, pp. 836-863.
- Al-Dhaafri, H.S., Al-Swidi, A.K. and Yusoff, R.Z.B. (2016), "The mediating role of TQM and organizational excellence, and the moderating effect of entrepreneurial organizational culture on the relationship between ERP and organizational performance", *The TQM Journal*, Vol. 28 No. 6, pp. 991-1011.
- Al-Samman, E. and Al-Nashmi, M.M. (2016), "Effect of corporate social responsibility on nonfinancial organizational performance: evidence from Yemeni for-profit public and private enterprises", Social Responsibility Journal, Vol. 12 No. 2, pp. 247-262.
- Alcaraz, J.M., Susaeta, L., Suarez, E., Colon, C., Gutiérrez-Martínez, I., Cunha, R., . . . and Pin, J.R. (2019), "The human resources management contribution to social responsibility and environmental sustainability: explorations from Ibero-America", *The International Journal of Human Resource Management*, Vol. 30 No. 22, pp. 3166-3189.
- Amini, M., Bienstock, C.C. and Narcum, J.A. (2018), "Status of corporate sustainability: a content analysis of Fortune 500 companies", *Business Strategy and the Environment*, Vol. 27 No. 8, pp. 1450-1461.
- Andriof, J., Waddock, S., Husted, B. and Rahman, S.S. (2017), "Unfolding stakeholder thinking: theory, responsibility and engagement", Unfolding Stakeholder Thinking: Theory, Responsibility and Engagement, Routledge, Abingdon.
- Baumgartner, R.J. (2014), "Managing corporate sustainability and CSR: a conceptual framework combining values, strategies and instruments contributing to sustainable development", *Corporate Social Responsibility and Environmental Management*, Vol. 21 No. 5, pp. 258-271.
- Belias, D. and Koustelios, A. (2014), "Organizational culture and job satisfaction: a review", International Review of Management and Marketing, Vol. 4 No. 2, pp. 132-149.
- Bhuiyan, F., Baird, K. and Munir, R. (2020), "The association between organisational culture, CSR practices and organisational performance in an emerging economy", Meditari Accountancy Research, Vol. 28 No. 6, pp. 977-1011.
- Brammer, S. and Millington, A. (2008), "Does it pay to be different? An analysis of the relationship between corporate social and financial performance", *Strategic Management Journal*, Vol. 29 No. 12, pp. 1325-1343.
- Brunton, M., Eweje, G. and Taskin, N. (2017), "Communicating corporate social responsibility to internal stakeholders: walking the walk or just talking the talk?", *Business Strategy and the Environment*, Vol. 26 No. 1, pp. 31-48.
- Chang, C.H. (2015), "Proactive and reactive corporate social responsibility: antecedent and consequence", Management Decision.

- Cheng, B., Ioannou, I. and Serafeim, G. (2014), "Corporate social responsibility and access to finance", Strategic Management Journal, Vol. 35, pp. 1-23.
- Cramer, J. (2005), "Company learning about corporate social responsibility", Business Strategy and the Environment, Vol. 14 No. 4, pp. 255-266.
- Deng, L. and Hu, Y. (2010), "An investigation of the relationship between corporate social responsibility and organizational culture", 2010 2nd International Conference on Communication Systems, Networks and Applications, ICCSNA 2010, pp. 329-332.
- Deng, F. and Smyth, H. (2013), "Contingency-based approach to firm performance in construction: critical review of empirical research", *Journal of Construction Engineering and Management*, Vol. 139 No. 10, 04013004.
- Duarte, F. (2010), "Working with corporate social responsibility in Brazilian companies: the role of managers' values in the maintenance of CSR cultures", *Journal of Business Ethics*, Vol. 3 No. 96, pp. 355-368.
- Dyck, B., Walker, K. and Caza, A. (2019), "Antecedents of sustainable organizing: a look at the relationship between organizational culture and the triple bottom line", *Journal of Cleaner Production*, Vol. 231, pp. 1235-1247.
- Elbaz, J. and Iddik, S. (2020), "Culture and green supply chain management (GSCM): a systematic literature review and a proposal of a model", *Management of Environmental Quality: An International Journal*, Vol. 31 No. 2, pp. 483-504.
- Endrikat, J., Guenther, E. and Hoppe, H. (2014), "Making sense of conflicting empirical findings: a meta-analytic review of the relationship between corporate environmental and financial performance", European Management Journal, Vol. 5 No. 32, pp. 735-751.
- Enquist, B., Johnson, M. and Skålén, P. (2006), "Adoption of corporate social responsibility incorporating a stakeholder perspective", *Qualitative Research in Accounting and Management*, Vol. 3 No. 3, pp. 188-207.
- Fantazy, K. and Tipu, S.A.A. (2019), "Exploring the relationships of the culture of competitiveness and knowledge development to sustainable supply chain management and organizational performance", *Journal of Enterprise Information Management*, Vol. 32 No. 6, pp. 936-963.
- Fombrun, C.J., Gardberg, N.A. and Barnett, M.L. (2000), "Opportunity platforms and safety nets", Corporate Reputation Review, Vol. 105 No. 1, pp. 85-106.
- Galbreath, J. (2010), "Drivers of corporate social responsibility: the role of formal strategic planning and firm culture", British Journal of Management, Vol. 21 No. 2, pp. 511-525.
- González-Rodríguez, M.R., Martín-Samper, R.C., Köseoglu, M.A. and Okumus, F. (2019), "Hotels' corporate social responsibility practices, organizational culture, firm reputation, and performance", *Journal of Sustainable Tourism*, Vol. 27 No. 3, pp. 398-419.
- Gorondutse, A.H. and Hilman, H. (2016), "Research note the moderating effect of organisational culture on the commitment to corporate social responsibility (CSR) and the performance of SMEs in Nigeria", *Journal of General Management*, Vol. 42 No. 1, pp. 65-77.
- Gorondutse, A.H. and Hilman, H. (2019), "Does organizational culture matter in the relationship between trust and SMEs performance", *Management Decision*, Vol. 57 No. 7, pp. 1638-1658.
- Griffin, J. and Mahon, J. (1997), "The corporate social performance and corporate financial performance debate, twenty-five years of incomplete research", *Business and Society*, Vol. 36 No. 1, pp. 5-31.
- Hartnell, C.A., Ou, A.Y. and Kinicki, A. (2011), "Organizational culture and organizational effectiveness: a meta-analytic investigation of the competing values framework's theoretical suppositions", *Journal of Applied Psychology*, Vol. 96 No. 4, pp. 677-694.
- Haseeb, M., Hussain, H.I., Kot, S., Androniceanu, A. and Jermsittiparsert, K. (2019), "Role of social and technological challenges in achieving a sustainable competitive advantage and sustainable business performance", Sustainability, Vol. 11 No. 14, 3811.

Culture, social

responsibility

and goals

- Hejjas, K., Miller, G. and Scarles, C. (2019), "It's like hating puppies!" employee disengagement and corporate social responsibility", Journal of Business Ethics.
- Hermundsdottir, F. and Aspelund, A. (2021), "Sustainability innovations and firm competitiveness: a review", *Journal of Cleaner Production*, Vol. 280, 124715.
- Horak, S., Arya, B. and Ismail, K.M. (2018), "Organizational sustainability determinants in different cultural settings: a conceptual framework", Business Strategy and the Environment, Vol. 27 No. 4, pp. 528-546.
- Islam, M.S., Tseng, M.L. and Karia, N. (2019), "Assessment of corporate culture in sustainability performance using a hierarchical framework and interdependence relations", *Journal of Cleaner Production*, Vol. 217, pp. 676-690.
- Jaakson, K., Vadi, M. and Tamm, K. (2009), "Organizational culture and CSR: an exploratory study of Estonian service organizations", Social Responsibility Journal, Vol. 5 No. 1, pp. 6-18.
- Jajja, M.S.S., Asif, M., Montabon, F.L. and Chatha, K.A. (2019), "The influence of institutional pressures and organization culture on Supplier Social Compliance Management Systems", *International Journal of Physical Distribution and Logistics Management*, Vol. 49 No. 5, pp. 552-574.
- Jamali, D., Samara, G., Zollo, L. and Ciappei, C. (2019), "Is internal CSR really less impactful in individualist and masculine Cultures? A multilevel approach", *Management Decision*, Vol. 58 No. 2, pp. 362-375.
- Jang, S. and Ardichvili, A. (2020), "Examining the link between corporate social responsibility and human resources: implications for HRD research and practice", *Human Resource Development Review*, Vol. 19 No. 2, pp. 183-211.
- Javed, M., Rashid, M.A. and Hussain, G. (2016), "When does it pay to be good a contingency perspective on corporate social and financial performance: would it work?", *Journal of Cleaner Production*, Vol. 133, pp. 1062-1073.
- Karassin, O. and Bar-Haim, A. (2016), "Multilevel corporate environmental responsibility", Journal of Environmental Management, Vol. 183, pp. 110-120.
- Kassem, R., Ajmal, M., Gunasekaran, A. and Helo, P. (2019), "Assessing the impact of organizational culture on achieving business excellence with a moderating role of ICT: an SEM approach", *Benchmarking*, Vol. 26 No. 1, pp. 117-146.
- Kölbel, J.F. and Busch, T. (2021), "Signaling legitimacy across institutional contexts the intermediary role of corporate social responsibility rating agencies", Global Strategy Journal, Vol. 11 No. 2, pp. 304-328.
- Kowalczyk, R. and Kucharska, W. (2020), "Corporate social responsibility practices incomes and outcomes: stakeholders' pressure, culture, employee commitment, corporate reputation, and brand performance. A Polish–German cross-country study", Corporate Social Responsibility and Environmental Management, Vol. 27 No. 2, pp. 595-615.
- Kucharska, W. (2020), "Employee commitment matters for CSR practice, reputation and corporate brand performance—European model", Sustainability, Vol. 12 No. 3, p. 940.
- Kucharska, W. and Kowalczyk, R. (2019), "How to achieve sustainability? —Employee's point of view on company's culture and CSR practice", Corporate Social Responsibility and Environmental Management, Vol. 26 No. 2, pp. 453-467.
- Lee, D.H. (2020), "Impact of organizational culture and capabilities on employee commitment to ethical behavior in the healthcare sector", Service Business, Vol. 14 No. 1, pp. 47-72.
- Lee, M. and Kim, H. (2017), "Exploring the organizational culture's moderating role of effects of corporate social responsibility (CSR) on firm performance: focused on corporate contributions in Korea", Sustainability (Switzerland), Vol. 9 No. 10.
- Linnenluecke, M.K., Russell, S.V. and Griffiths, A. (2009), "Subcultures and sustainability practices: the impact on understanding corporate sustainability", *Business Strategy and the Environment*, Vol. 18 No. 7, pp. 432-452.

- Lock, I. and Schulz-Knappe, C. (2019), "Credible corporate social responsibility (CSR) communication predicts legitimacy: evidence from an experimental study", Corporate Communications: An International Journal, Vol. 24 No. 1, pp. 2-20.
- Loosemore, M. and Lim, B.T.H. (2017), "Linking corporate social responsibility and organizational performance in the construction industry", Construction Management and Economics, Vol. 35 No. 3, pp. 90-105.
- Mueller, K., Hattrup, K., Spiess, S.O. and Lin-Hi, N. (2012), "The effects of corporate social responsibility on employees' affective commitment: a cross-cultural investigation", *Journal of Applied Psychology*, Vol. 97 No. 6, pp. 1186-1200.
- Neculaesei, A.N., Tatarusanu, M., Anastasiei, B., Dospinescu, N., Grigoruta, M.V.B. and Neculaesei, A.M. (2019), "A model of the relationship between organizational culture, social responsibility and performance", *Transformations in Business and Economics*, Vol. 18 No. 2, pp. 489-509.
- Negri, M., Cagno, E., Colicchia, C. and Sarkis, J. (2021), "Integrating sustainability and resilience in the supply chain: a systematic literature review and a research agenda", *Business Strategy and the Environment*, Vol. 30 No. 7, pp. 2858-2886.
- Nitzl, C., Sicilia, M. and Steccolini, I. (2019), "Exploring the links between different performance information uses, NPM cultural orientation, and organizational performance in the public sector", Public Management Review, Vol. 21 No. 5, pp. 686-710.
- Onyishi, I.E., Amaeshi, K., Ugwu, F.O. and Enwereuzor, I.K. (2020), "Going the extra mile because my organization does: how does corporate social responsibility influence organizational citizenship in Nigeria?", Management and Organization Review, Vol. 16 No. 1, pp. 169-197.
- Orcos, R. and Palomas, S. (2019), "The impact of national culture on the adoption of environmental management standards: the worldwide diffusion of ISO 14001", Cross Cultural and Strategic Management, Vol. 26 No. 4, pp. 546-566.
- O'Reilly, C. (1989), "Corporations, culture, and commitment: motivation and social control in organizations", California Management Review, Vol. 31 No. 4, pp. 9-25.
- Orlitzky, M., Schmidt, F. and Rynes, S.L. (2003), "Corporate social and financial performance: a metaanalysis", Organization Studies, Vol. 245 No. 3, pp. 403-441.
- Ozmen, Y.S. (2019), "How the exchange relationship affects employee commitment: the mediating role of organizational trust", *Journal of Management Development*, Vol. 38 No. 6, pp. 501-516.
- Panuwatwanich, K. and Nguyen, T.T. (2017), "Influence of total quality management on performance of Vietnamese construction firms", *Procedia Engineering*, Vol. 182, pp. 548-555.
- Pasricha, P., Singh, B. and Verma, P. (2018), "Ethical leadership, organic organizational cultures and corporate social responsibility: an empirical study in social enterprises", *Journal of Business Ethics*, Vol. 151 No. 4, pp. 941-958.
- Popescu, C.R.G. (2019), "Corporate social responsibility, corporate governance and business performance: limits and challenges imposed by the implementation of directive 2013/34/EU in Romania", Sustainability, Vol. 11 No. 19, p. 5146.
- Powell, S.M. (2011), "The nexus between ethical corporate marketing, ethical corporate identity and corporate social responsibility: an internal organisational perspective", *European Journal of Marketing*, Vol. 45 Nos 9/10, pp. 1365-1379.
- Preston, L.E. and O'Bannon, D.P. (1997), "The corporate social-financial performance relationship: a typology and analysis", *Business and Society*, Vol. 36 No. 4, pp. 419-429.
- Reverte, C., Gómez-Melero, E. and Cegarra-Navarro, J.G. (2016), "The influence of corporate social responsibility practices on organizational performance: evidence from Eco-Responsible Spanish firms", Journal of Cleaner Production, Vol. 112, pp. 2870-2884.
- Rezaei, G., Mardani, A., Senin, A.A., Wong, K.Y., Sadeghi, L., Najmi, M. and Shaharoun, A.M. (2018), "Relationship between culture of excellence and organizational performance in Iranian manufacturing companies", *Total Quality Management and Business Excellence*, Vol. 29 Nos 1–2, pp. 94-115.

Culture, social

responsibility

and goals

- Rizzi, F., Annunziata, E. and Frey, M. (2018), "The relationship between organizational culture and energy performance: a municipal energy manager level study", Business Strategy and the Environment, Vol. 27 No. 6, pp. 694-711.
- Rodrigues, S.P., Van Eck, N.J., Waltman, L. and Jansen, F.W. (2014), "Mapping patient safety: a large-scale literature review using bibliometric visualization techniques", BMJ Open, Vol. 4 No. 3, e004468.
- Ruggerio, C.A. (2021), "Sustainability and sustainable development: a review of principles and definitions", Science of the Total Environment, Vol. 786, 147481.
- Rupp, D.E., Ganapathi, J., Aguilera, R.V. and Williams, C.A. (2006), "Employee reactions to corporate social responsibility: an organizational justice framework", Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, Vol. 27 No. 4, pp. 537-543.
- Samad, S., Alghafis, R. and Al-Zuman, A. (2018), "Examining the effects of strategic management and organizational culture on organizational performance", *Management Science Letters*, Vol. 8 No. 12, pp. 1363-1374.
- Sanda, M.A. and Kuada, J. (2016), "Influencing dynamics of culture and employee factors on retail banks' performances in a developing country context", *Management Research Review*, Vol. 39 No. 5, pp. 599-628.
- Sandhu, S., Orlitzky, M. and Louche, C. (2019), "How nation-level background governance conditions shape the economic payoffs of corporate environmental performance", *Management Decision*, Vol. 57 No. 10, pp. 2714-2739.
- Schaefer, S.D., Terlutter, R. and Diehl, S. (2019), "Is my company really doing good? Factors influencing employees' evaluation of the authenticity of their company's corporate social responsibility engagement", Journal of Business Research, Vol. 101, pp. 128-143.
- Shahzad, F., Luqman, R.A., Khan, A.R. and Shabbir, L. (2012), "Impact of organizational culture on organizational performance: an overview", *Interdisciplinary Journal of Contemparary Research* in Business, Vol. 3 No. 9, pp. 975-985.
- Sun, S., Li, T., Ma, H., Li, R.Y.M., Gouliamos, K., Zheng, J. and Yue, X.G. (2020), "Does employee quality affect corporate social responsibility? Evidence from China", Sustainability, Vol. 12 No. 7, p. 2692.
- Surroca, J., Tribó, J.A. and Waddock, S. (2010), "Corporate responsibility and financial performance: the role of intangible resources", *Strategic Management Journal*, Vol. 31 No. 5, pp. 463-490.
- Tan, B.S. (2019), "In search of the link between organizational culture and performance: a review from the conclusion validity perspective", *Leadership and Organization Development Journal*, Vol. 40 No. 3, pp. 356-368.
- Übius, Ü. and Alas, R. (2009), "Organizational culture types as predictors of corporate social responsibility", Commerce of Engineering Decisions, Vol. 61 No. 1, pp. 90-99.
- Upadhaya, B., Munir, R., Blount, Y. and Su, S. (2018), "Does organizational culture mediate the CSR strategy relationship? Evidence from a developing country, Nepal", *Journal of Business Research*, Vol. 91, pp. 108-122.
- Valmohammadi, C. and Roshanzamir, S. (2015), "The guidelines of improvement: relations among organizational culture, TQM and performance", *International Journal of Production Economics*, Vol. 164, pp. 167-178.
- Van Beurden, P. and Gössling, T. (2008), "The worth of values a literature review on the relation between corporate social and financial performance", *Journal of Business Ethics*, Vol. 82 No. 2, pp. 407-424.
- Vveinhardt, J. and Andriukaitiene, R. (2017), "Management culture as part of organizational culture in the context of corporate social responsibility implementation", *Economics and Sociology*, Vol. 10 No. 3, pp. 294-320.

- Wahda, W. (2017), "Mediating effect of knowledge management on organizational learning culture in the context of organizational performance", *Journal of Management Development*, Vol. 36 No. 7, pp. 846-858.
- Waheed, A. and Yang, J. (2019), "Effect of corporate social responsibility disclosure on firms' sales performance: a perspective of stakeholder engagement and theory", Corporate Social Responsibility and Environmental Management, Vol. 26 No. 3, pp. 559-566.
- Wang, B., Pan, S.Y., Ke, R.Y., Wang, K. and Wei, Y.M. (2014), "An overview of climate change vulnerability: a bibliometric analysis based on Web of Science database", *Natural Hazards*, Vol. 74 No. 3, pp. 1649-1666.
- Wang, Y., Xu, S. and Wang, Y. (2020), "The consequences of employees' perceived corporate social responsibility: a meta-analysis", *Business Ethics*, Vol. 29 No. 3, pp. 471-496.
- Wong, I.K.A. and Gao, J.H. (2014), "Exploring the direct and indirect effects of CSR on organizational commitment: the mediating role of corporate culture", *International Journal of Contemporary Hospitality Management*, Vol. 26 No. 4, pp. 500-525.
- Wood, D.J. (1991), "Corporate social performance revisited", Academy of Management Review, Vol. 16 No. 4, pp. 691-718.
- Yang, L., Chen, Z., Liu, T., Gong, Z., Yu, Y. and Wang, J. (2013), "Global trends of solid waste research from 1997 to 2011 by using bibliometric analysis", Scientometrics, Vol. 96 No. 1, pp. 133-146.
- Yu, Y. and Choi, Y. (2016), "Stakeholder pressure and CSR adoption: the mediating role of organizational culture for Chinese companies", Social Science Journal, Vol. 53 No. 2, pp. 226-235.
- Zhang, Y., Shang, L., Huang, L., Porter, A.L., Zhang, G., Lu, J. and Zhu, D. (2016), "A hybrid similarity measure method for patent portfolio analysis", *Journal of Informetrics*, Vol. 10 No. 4, pp. 1108-1130.
- Zheng, W., Yang, B. and McLean, G.N. (2010), "Linking organizational culture, structure, strategy, and organizational effectiveness: mediating role of knowledge management", *Journal of Business Research*, Vol. 63 No. 7, pp. 763-771.
- Zhou, Z., Goh, Y.M. and Li, Q. (2015), "Overview and analysis of safety management studies in the construction industry", Safety Science, Vol. 72, pp. 337-350.

Corresponding author

Alexandre dos Reis can be contacted at: alexandre.reis@phd.iseg.ulisboa.pt