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This is the peer reviewed version of the following article: Villalba-Ríos, P., Barroso-Castro, C., & Vecino-Gravel, J. D. (2022). The influence of CEO profile on corporate social responsibility companies. A qualitative comparative analysis. *Corporate Social Responsibility and Environmental Management*, 29(2), 356-366, which has been published in final form at <https://doi.org/10.1002/csr.2205>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions. This article may not be enhanced, enriched or otherwise transformed into a derivative work, without express permission from Wiley or by statutory rights under applicable legislation. Copyright notices must not be removed, obscured or modified. The article must be linked to Wiley's version of record on Wiley Online Library and any embedding, framing or otherwise making available the article or pages thereof by third parties from platforms, services and websites other than Wiley Online Library must be prohibited."

THE INFLUENCE OF CEO PROFILE ON CORPORATE SOCIAL RESPONSIBILITY COMPANIES. A QUALITATIVE COMPARATIVE ANALYSIS.

ABSTRACT

This paper, anchored in the principles of the upper echelons theory, strives to ascertain which CEO profiles configure high corporate social responsibility companies (CSR) among the best-performing companies worldwide. In addition, it considers the legal system that embeds the company. Based on a five-year dataset (2015-2019), fuzzy-set qualitative comparative analysis (fsQCA) was employed to ascertain the presence of CEO profiles related to the company's CSR, linking CEO characteristics and company CSR.

The results show that CEOs promoted from outside the company, holding an engineering degree and an MBA, have ample experience and have been in the position for a long time, leading organisations within systems based on civil law, configure the best CSR companies. This multi-attribute approach to the study of CEOs could provide many fruitful lines of future research in the field of CSR.

KEYWORDS

CEO, CEO profile, corporate social responsibility, fuzzy logic, qualitative comparative analysis, upper echelons theory.

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1. INTRODUCTION

Corporate social responsibility (CSR) has become an essential part of the governance of organisations (Yuan, Yi Lu, Tian, & Yu, 2020) in which the role of the CEO is of special importance¹ (Aguilera, 2018; García-Sánchez & Martínez-Ferrero, 2019; Godos-Díez, Cabeza-García, Fernández-Gago, & Nieto-Antolín, 2020). The question can be asked, “Does the CEO’s profile matter to the company's CSR?” Society expects companies and their executives² to behave in a socially responsible way while simultaneously creating value (Agirre Aramburu & Gómez Pescador, 2019). Not only does society require companies to generate economic value but it also expects them to behave in a socially responsible way (Raimo, Caragnano, Zito, Vitolla, & Mariani, 2021). It is even more the case in turbulent and uncertain times such as those we face due to the social and economic crisis brought on by the COVID-19 pandemic, because firms could become a game changer in the quest for a sustainable future for people (Hassan, Elamer, Lodh, Roberts, & Nandy, 2021) through their socially responsible way of operating.

In this line, the upper echelon theory (Hambrick & Mason, 1984) conclude that “executives act on the basis of their personalized interpretations of the strategic situation they face” and, that these individualized interpretations are a result of the executives’ attributes (i.e. experiences, values and personalities) (Hambrick, 2007, p. 334). Thus, prior studies anchored in the principles of the upper echelon theory have shown that a firm's CEO exerts a significant impact on CSR (Carpenter et al., 2004; García-Sánchez et al., 2020; Saridakis et al., 2020) and

¹ In 2019, Business Roundtable stated that all its CEOs were committed to running their companies for the benefit of all stakeholders. This fact is worthy of mention since the earlier declarations published since 1997 were all based on shareholder primacy.

² As an example, the recent unfortunate statements by the CEO of CrossFit Inc. have caused the biggest crisis in the popularity of this brand, the breaking of sponsorship contracts, the rejection by the market, and the CEO’s resignation.

that the CEO's attributes provide a powerful explanation for the differences in CSR across companies (Chin, Hambrick, & Treviño, 2013; Tang, Qian, Chen, & Shen, 2015). Indeed, Kim, Moon, & Kim (2020) find that migrated executives incorporate CSR elements from their old firms into their new organisations.

However, CEOs make decisions not in an isolated manner, but inside an institutional environment that can be favourable or not for socially responsible behaviour (Campbell, 2007).

To the best of our knowledge, each of the different demographic attributes of CEOs have tended to be considered individually when studying this relationship (Huang, 2013; Saridakis et al., 2020), without considering their combined effects. However, there are ways that a CEO's characteristics could interactively influence their strategic choices (Wang, Holmes, Oh, & Zhu, 2016, p. 825), in terms of CSR, giving rise to the concept of profiling. A profile, as a set of attributes rather than a single characteristic, reflects a CEO's cognitive framework and behavioural preferences (Garcés-Galdeano & García-Olaverri, 2019; Wang et al., 2016), meaning that the identification thereof can help us to understand and predict his or her decisions.

The purpose of this research is therefore to ascertain the set of CEO attributes in relation with the institutional environment that configure firms toward socially responsible behaviour among the high-performing companies, since CSR decisions are influenced not only by the CEO's characteristics but are also modelled by the company's environment (Aguilera, Rupp, Williams, & Ganapathi, 2007; Jamali, Sidani, & El-Asmar, 2009).

In order to understand the CEO's role in the CSR of their company and anchored in the principles of the upper echelon theory (Hambrick & Mason, 1984; Hambrick, 2007), we explore the following research's questions: (a) How does the CEO's profile influence their company's CSR?; and subsequently, considering the role of the environment and based on institutional coercive isomorphism (DiMaggio & Powell, 1983), (b) How does the type of legal system in

the country where the company is based affect the relationship between the CEO's profile and the CSR of their company?

To this end, the fuzzy-set qualitative comparative analysis (fsQCA) method was applied in this research (Ragin, 2000). Based on a sample of 223 CEOs over five years, our results conclude that the profile of the CEOs from high-performing companies that achieve the best CSR results is shaped around the following basic attributes: gender, education, and whether the CEO is an internal or external successor. We also show how the legal system of the country where the firm is based enriches the CEO profile.

Our study contributes to the literature of corporate governance and CSR in several ways. Firstly, drawing on insights from upper echelon theory (i.e. Ali, Rehman, Suleman, & Ntim, 2021; Neely, Lovelace, Cowen, & Hiller, 2020; Zhu, Hu, & Shen, 2020), we furthered the concept of profile to explain a CEO's behaviour and decision-making (Wang et al., 2016). The joint study of the individual attributes of the CEO that influence the CSR of their companies expands the research previously carried out in this regard (Saridakis et al., 2020), meaning that attributes which do not achieve significant results if they are studied individually become important if they are considered together. It is therefore of great interest to study these attributes jointly under the concept of a profile. Secondly, our study contributes towards the literature by delving into the concept of the CEO profile (Kouaib & Jarboui, 2016) in the field of CSR. With this joint study of the attributes that have been shown to be significant in previous research, we seek to identify synergies between said attributes that will lead to a better and deeper understanding of the reasons why certain high-performance companies enjoy a better position in the CSR rankings than do others. In doing so, we provide a perspective that helps to reinforce the relationship between CSR and CEOs (Aguinis & Glavas, 2012; Chin et al., 2013; Frynas & Yamahaki, 2016; Saridakis et al., 2020). Thirdly, and in contrast to previous work (Kim et al., 2020; Oh, Chang, & Jung, 2018), we focus on the characteristics of the CEO that drive the

company's approach to CSR as opposed to those that hinder its development. Fourthly, since there may be multiple valid profiles that drive a company's CSR and since different combinations of attributes can achieve similar results, we contribute to the field by using a method that hitherto has seldom been employed, that of the fsQCA, which allows us to further the study and identification of the individual profiles of those who occupy the highest positions in management bodies. Finally, through the use of coercive institutional isomorphism, we tested the extent to which the country's legal system influences the identification of the most socially responsible CEO profile. The study therefore also makes a significant addition to the literature on the impact of the institutional context (Aguinis & Glavas, 2012; Frynas & Yamahaki, 2016) on the relationship between the personal attributes of CEOs and company CSR performance.

The rest of this paper is structured as follows. Firstly, the theoretical background for the work is presented and the authors' hypotheses are set out. An empirical test is then performed using fsQCA. Subsequently, a discussion of these results and their theoretical and managerial implications are given. The study concludes by outlining limitations and providing suggestions for future research.

2. LITERATURE REVIEW AND HYPOTHESES

Corporate social responsibility is a form of strategic behaviour (Waldman & Siegel, 2008) that reflects the extent to which a firm actively engages in social initiatives in response to a wide set of stakeholder interests and expectations (McWilliams & Siegel, 2000), by going beyond the legal requirements to offer some benefit to society (McWilliams & Siegel, 2001).

Aware of the existence of certain confusion in the use of ethical and CSR terms (Fischer, 2004), we framed our work within ethical theories (Garriga & Melé, 2004) in order to address CSR. Ethical theories are based on the idea that firms should accept their social responsibilities as an ethical obligation above any other consideration. Companies should therefore contribute

to the common good by creating wealth and providing goods and services in an efficient and fair way (Gatti, Seele, & Rademacher, 2019) to ensure that their impact and outcomes are consistent with the ideal of sustainability across social, environmental, and economic criteria (Wheeler, Colbert, & Freeman, 2003).

2.1. The role of the CEO in CSR

The role of the CEO is particularly relevant for many reasons if companies are to engage in activities related to CSR (Bernard, Godard, & Zouaoui, 2018; Chen, Zhou, & Zhu, 2019). Indeed, high CSR performance appears to reduce the likelihood of CEO turnover (Orij, Rehman, Khan, & Khan, 2021). Therefore, the previous literature has suggested that several CEO characteristics, which can range from idiosyncratic attributes (Chin et al., 2013; García-Sánchez et al., 2020; Hrazdil, Mahmoudian, & Nazari, 2021; Tang et al., 2015) to whether the CEO has been promoted within the company or has been hired from outside the company (Bernard et al., 2018), weigh on the CEO role in leading CSR.

Regarding the attributes of the CEO, the upper echelons theory (Hambrick & Mason, 1984) argues that strategic decisions made by firms are largely a reflection of the attributes of their leaders (Sanders & Carpenter, 1998), which suggests that the more complex a decision becomes, the greater the influence of these characteristics (Bernard et al., 2018; Zhang, Wang, & Jia, 2020). Thus, Wernicke, Sajko, & Boone (2021) argue that CEOs explain approximately 30 percent of the total performance variance in CSR.

The study of the relationship between the demographic characteristics of CEOs, as proxy variables of psychological characteristics (Neely et al., 2020), and CSR has focused on analysing the most relevant attributes such as gender, age, education, earlier professional experience, and tenure (Huang, 2013; Manner, 2010; Shahab et al., 2020). Their studies assumed the independence of the attributes, without considering their complex

interrelationships and their joint impact on CSR (Jain & Jamali, 2016; Wang et al., 2016), and produced inconclusive results in many cases. Our study contributes to the literature by proposing that CEO attributes combine to form various profiles, some of which are more suitable for driving CSR strategies than others. Following previous studies in the field (Liu, 2020; Wiersema & Bantel, 1992), the attributes selected for our CEO profile analysis were as follows: gender, age, education, and tenure. These indicators were chosen for several reasons (Wang et al., 2016). Firstly, they are observable and measurable attributes that are central to upper echelon theory predictions regarding the role of CEOs in company outcomes (Hambrick & Mason, 1984). Secondly, they feature among the most frequently studied CEO characteristics (Finkelstein, Canella, & Hambrick, 2009; Neely et al., 2020). Finally, research on these variables with regard to CSR, has produced mixed empirical findings, hence the need for the further study of this relationship. Additionally, the external or internal origin of the CEO completes the profile.

With respect to gender, previous research indicates that women CEOs tend to take fewer risks than do men, are more conservative in their decisions, and act as better overseers on behalf of company stakeholders (Cooper, 2017). In terms of CSR, several previous studies find a significant and positive relationship (Borghesi, Houston, & Naranjo, 2014; Huang, 2013; Manner, 2010) although the gender attribute needs to be further analysed anchored in the principles of the upper echelon theory (Carpenter et al., 2004), since empirical evidence supports the view that gender differences are not universal. Furthermore, Saridakis et al. (2020) conclude that the presence of a female CEO is a necessary condition only in cases where firms have a narrow CSR focus on diversity issues and all other CSR engagement types are mostly represented by male CEOs. We therefore propose that the CEO's gender should be an attribute when defining the CEO profile related to CSR.

Age is a relevant CEO attribute as it affects their attitude, behaviour, preferences, motivation, and even their concerns regarding their career (Li et al., 2017; Rhodes, 1983). The relationship between the age of the CEO and CSR has been analysed and yields contradictory results. Oh, Chang, & Cheng (2016) concluded that, as CEOs advance in age and approach retirement, they become less committed to CSR, with similar conclusions reached by Borghesi et al. (2014), who point out that older CEOs are significantly less likely to invest in CSR. However, Liu (2020) found evidence that older CEOs, who are generally more concerned with maintaining their reputation and ensuring the legitimacy of their companies, are more motivated to participate in CSR initiatives. Finally, Chen et al. (2019) and Huang (2013) found no significant relationship (Li et al., 2017).

Regarding the educational background, Hambrick & Mason (1984) argued that engineering CEOs use cognitive models in decision-making that differ from other CEOs specialising in the arts or business. Furthermore, Finkelstein et al., (2009) suggested that CEOs with MBAs have greater human capital and are more skilled in strategic decision-making and hence view CSR more proactively. Similarly, Huang (2013) concluded that CEOs with an MBA or MSc are very positively related to CSR. We take the view that the CEO's education is a relevant characteristic when assessing the CEO profile, due to its potential influence on others.

Tenure is a characteristic attribute when distinguishing between CEOs, as they develop different patterns of behaviour over the years they spend in their position (Citrin, Hildebrand, & Stark, 2019; Hambrick & Fukutomi, 1991). Especially in the early stages of their tenure, CEOs show a strong interest in their work, by seeking information and showing a desire to learn, despite their limited knowledge of the company (Citrin et al., 2019; Hambrick & Fukutomi, 1991). As tenure increases, CEOs become increasingly confident (Citrin et al., 2019) and they perform better (Ali et al., 2021). With respect to the impact of CEO tenure on CSR, the results remain inconclusive. Several studies have suggested that the relationship is negative

(Chen et al., 2019; Saridakis et al., 2020), an argue that CEOs, especially in the early stages, are motivated to use CSR to demonstrate their ability (Borghesi et al., 2014; Chen et al., 2019) in view of the board's assessment of the company's management (Finkelstein et al., 2009). Conversely, other studies point to a positive relationship (Huang, 2013) in that CEOs acquire specific knowledge of their firm and its stakeholders as they carry out the work that helps them to develop CSR more effectively (Oh et al., 2018). Given the arguments set out above, we consider CEO tenure to be a characteristic of interest in determining the profile of CEOs.

Finally, regarding the internal or external origin of the CEO, it should be borne in mind that the appointment of a CEO is a key organisational decision with major implications for firms (Datta & Guthrie, 1994). Thus, many studies have found that internally- or externally-appointed CEOs present differing patterns of behaviour with regard to company strategy (see Finkelstein et al. (2009) for a review), within this CSR strategy. These differences may be reflected in the propensity to make strategic changes (Zhu et al., 2020). To the best of our knowledge, research that analyses the relationship between CSR and the CEO's external or internal CEO origin remains scarce. Bernard et al. (2018) suggested that the arrival of a CEO from outside the company who expresses a desire to break with company practices has a greater impact on CSR. However, given the relative lack of evidence, we have to rely on the arguments given in studies concerning externally-appointed directors, since they, like CEOs appointed from other companies, are not immersed in the company's DNA (Galbreath, 2009). Previous studies indicate that the inclusion of externally-appointed directors can make the board more sensitive to corporate responsibility (Ibrahim & Angelidis, 1995), which may have a positive impact on CSR (Jo & Harjoto, 2011; Webb, 2004). For all these reasons, we argue that the CEO's origins constitute an attribute of interest between the CEO and CSR.

The relevance of each of the CEO's attributes leads us to think that the separate analysis of the variables may be incomplete (Garcés-Galdeano & García-Olaverri, 2019; Liu, Fisher, &

Chen, 2018; Saridakis et al., 2020). In fact, Jain & Jamali (2016) suggest that CEO attributes are often interdependent and interactively shape or create specific CSR outcomes for the firm (Aguilera & Williams, 2009). Saridakis et al. (2020) similarly concluded that scholars need to determine how these characteristics coalesce to trigger CSR engagement. For this reason, the focus should be on how the different variables combine to explain specific CSR outcomes (Aguilera & Williams, 2009). We therefore hope that consideration of their joint study and the search for equifinal solutions will obtain enriching results. Based on the arguments above, we propose that:

Hypothesis 1. The profile of CEO configures firms with high CSR.

2.2. The role of the institutional environment

Institutional coercive isomorphism hypotheses postulate that the behaviour of firms in the same environment is usually homogeneous, since the rules governing these firms are imposed by the institutional environment (DiMaggio & Powell, 1983). Differences between countries or regions are abundant, which suggests that the amount of influence, prestige, and privilege given to leaders varies widely across cultures (House, Hanges, Javidan, & Dorfman, 2004). For this reason, CEOs are sometimes limited in what they can or cannot do. With regard to corporate sustainability (Jamali et al., 2009), previous studies have argued that the institutional environment of the company influences the evolution and behaviour patterns of CSR.

In this respect, and in line with La Porta, Lopez de Silanes, Shleifer, & Vishny (1998), differences can be identified between countries with a common-law tradition derived from English law and those with a civil-law tradition derived from Roman law (Crossland & Hambrick, 2011). Indeed, companies in common-law countries tend to be more investor-protective than those in countries with a civil-law tradition (La Porta et al., 1998). Moreover,

in civil-law countries, executives and directors are explicitly obliged to consider all stakeholders (Crossland & Hambrick, 2011) and will therefore be more oriented towards CSR-related activities (García-Sánchez, Rodríguez-Ariza, & Frías-Aceituno, 2013). The institutional environment of the company is therefore considered to affect the relationship between the CEO profile and CSR, and thus:

Hypothesis 2. The legal environment and the CEO profile come together in the configuration of firms with high CSR.

3. DATA AND METHOD

This section presents the data and method employed. The fsQCA methodology, instead of traditional dependent and independent variables, uses the terms *conditions* and *outcome*, respectively. The calibration of both the conditions and outcome enables a truth table to be built that displays all the possible combinations of conditions that yield a specific outcome.

3.1. Data

In order to guarantee the value creation, the CEOs studied pertain to the 100 top companies in the S&P Global 1200. Baseline data was obtained from the Harvard Business Review publication “The Best Performing CEOs in the World” for the period 2015-2019, because not only do these reports include financial ranking but they also contain at least a CSR ranking. These databases exclude companies whose CEOs had been in their position for less than two years to ensure there was a sufficient track record to evaluate, as well as those whose CEO had been either convicted of a crime or arrested. This data includes 223 different CEOs.

The position in the ranking is a weighted mean of the financial ranking and the environmental, social, and governance rankings. The 2015 data has been excluded from the analysis due to the change of method in obtaining the overall ranking. Thus, for the years 2016

to 2019, the number of different CEOs drops to 192. Table 1 displays their attributes. The position achieved in the Sustainalytics ranking for each company measures the level of CSR.

Outcome

Each year the outcome variable takes the value of 1 if the company is ranked as one of the best twenty-five in the CSR ranking, and 0 if it is not.

Conditions

Here, a configuration model that incorporated key attributes that could affect the position in the organisation's CSR ranking was furthered with the consideration of the CEO's demographics, origin, and institutional factors.

The gender variable was given a value of 1 for "male" and 0 otherwise (Manner, 2010). Age reflected the number of years at the time of construction of the ranking (Oh et al., 2016). In terms of educational background, two measures were considered: technical training, where value 1 was given to those holding an engineering degree and 0 otherwise; and management training, where value 1 represented an MBA and 0 otherwise (Huang, 2013). The CEO's tenure was measured as the number of years from taking office to the year of the ranking (Chen et al., 2019). The origin concerning the CEO's appointment to the position was given a value of 1 for an external CEO and 0 for an internal promotion (Liu, 2020).

The institutional environment refers to the dominant legal context of the country of the company's headquarters. There are two legal traditions: civil-law and common-law (La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 2002; La Porta et al., 1998). In the case of civil-law tradition, the variable took the value 1 and 0 otherwise.

--- Table 1 over here ---

3.2. Method

As Ragin (2000) notes, fuzzy qualitative comparative analysis (fsQCA) is a relatively new technique that uses Boolean algebra to compare cases with a combination of conditions and forms a configuration that yields an outcome. This method has recently gained attention in management research (Kraus, Ribeiro-Soriano, & Schüssler, 2018). Due to the nature of the data, we used fs/QCA software 2.6, which can handle binary and continuous variables.

This method was based on three assumptions: (i) complex causality, where independent variables are treated as factors potentially causing an outcome; (ii) equifinality, where multiple configurations can lead to the same outcome (Ragin, 2000); and (iii) asymmetric causality, whereby “the presence of an outcome may be explained by a certain combination of conditions, while its absence may be explained by different conditions and not merely by the same conditions in the opposite direction” (Berg-Schlosser, Meur, Rihoux, & Ragin, 2009).

The fsQCA methodology offers several advantages. It enables the identification of which combinations of attributes are related to a good CSR ranking position of the company. It provides a holistic solution (Berg-Schlosser et al., 2009) in line with the true nature of the business world, and identifies whether there are several combinations of CEO attributes related to the high CSR performance of the organisation (Saridakis et al., 2020). Finally, fsQCA is sufficiently robust to be employed with variables at various levels of analysis, such as in this case, which considers personal and institutional variables (Saridakis et al., 2020).

For fsQCA analysis, calibration of the variables (Table 1) is required in order to convert the original data into membership scores within predefined sets (Ragin, Strand, & Rubinson, 2008). Variables are calibrated according to the degree to which the cases belong to sets, and range from 0 (total non-membership) to 1 (total membership), with 0.5 indicating the point of maximum ambiguity (Kraus et al., 2018).

The calibration of the outcome variables is either full membership or full non-membership, which means a value of 1 if the company is among the top twenty-five in the CSR ranking and 0 otherwise. Calibration also equals the original values in the case of dichotomous variables.

In the case of age, the maximum value was taken as the value of full membership, the minimum value as full non-membership and the median as the point of maximum ambiguity. When analysing CEO tenure, as with age, the maximum value was taken to establish full membership, the minimum value for full non-membership and 10 years was established for maximum ambiguity following the conclusions of Miller (1991), who classified CEOs into long-tenure CEOs and short-tenure CEOs depending on whether they had been in office either more or less than 10 years. This value was in line with the work of Citrin et al. (2019) on the life cycle of CEOs, which highlights the beginning of “the golden years”, where they experienced their best stage for value creation.

Central to the fsQCA is the construction of the “truth-table”, which contains the possible logical combinations of the causal conditions, called configurations, and the resulting outcome (Ragin et al., 2008). Table 3 presents the configurations corresponding to a CSR classification in the upper quartile. Each row represents a condition with the result of the combinations given along the columns. Each column is a configuration where a black circle indicates a causal condition met, a white circle indicates the opposite case, and where no circle represents its irrelevance. Bigger circles refer to core conditions and smaller circles to contributing conditions.

The table also contains consistency and coverage indicators, with the former measuring the extent to which the settings lead to the result (Kraus et al., 2018). All consistency scores in this study exceeded the threshold of 0.8, which suggests that detailed settings are sufficient to

predict the outcomes of research interests. Coverage shows which part of the outcome is explained, first by each solution configuration with the raw coverage and unique coverage and subsequently by the solution as a whole with the solution coverage.

4. RESULTS

4.1. Preliminary Analysis

The Mann-Whitney test and other descriptive statistical techniques were employed to provide the preliminary analysis. The aforementioned test was run, as was a comparison of means and medians for each individual attribute that was previously used: gender, educational background, age, tenure, CEO origin, and the country's legal system. To this end, the age and tenure attributes had to be recoded using the point of maximum ambiguity to create two groups. The Mann-Whitney test showed that having a short tenure (Saridakis et al., 2020), being an engineer (Huang, 2013), and managing a company in a country with a civil law system (García-Sánchez et al., 2013) all constituted positive characteristics which are ninety-five per cent significantly related to a company having a better position in the CSR ranking. The medians of these variables were then analysed, and it was found that the median in the CSR ranking was much better when the CEO had come from outside the firm and was an engineer than when these attributes were considered separately. In the first case, the position in the ranking was 87, while in the latter, the positions were 221 and 246, respectively. These results reinforced the importance of the interaction of attributes in the concept of the CEO profile.

4.2. Necessity analysis

The analysis of necessary conditions (Table 2) in fsQCA (Ragin et al., 2008) was a separate procedure that examined whether individual conditions are necessary or mostly necessary for the outcome to occur (Beynon, Jones, & Pickernell, 2020). The results indicate

that being a man is a necessary to obtain the result because it surpasses the adequate consistency level (0.95) (Ragin, 2006), but also it is necessary condition not to obtain the result. Hence, this is due to the few women in the sample.

--- Table 2 over here ---

4.3. Sufficiency analysis

In order to ascertain the profiles that may be held by CEOs who run the most socially-responsible companies, we sought the combination of causal conditions that might explain the outcome during the study period, an aspect undertaken through sufficiency analysis (Beynon et al., 2020). The conditions were tested by fsQCA for each year of study and for each outcome variable in the form of the quartile.

When running fsQCA, three types of solutions were reported: complex, parsimonious, and intermediate (Ragin et al., 2008). In our work, intermediate solutions coincided with complex solutions since no restrictions are imposed on the causal conditions. Complex solutions show all the conditions, and parsimonious solutions show the core conditions.

--- Table 3 over here ---

The results (Table 3) showed that there were at least three different CEO profiles that related to high-performance CSR companies, thereby supporting the existence of a variety of socially responsible CEO profiles. Nevertheless, there is one single configuration that remains across the years except in 2018 for the non-relevant MBA. These were the third configuration of 2016 and 2017, the second configuration in 2018, and the fifth configuration in 2019. Most of these profiles were therefore configured around the three basic attributes of educational background and CEO origin, to which others, such as age and CEO tenure, were subsequently added. Our results showed that the profile was always made up of more than one attribute and

that all the attributes were present in the final configurations, thus supporting Hypothesis 1. Considering the results obtained, we can conclude that a CEO profile of a person with an engineering degree who has taken up the position from outside the company is related to a company's good CSR performance.

The presence in the vast majority of the configurations of the legal environment factor supported Hypothesis 2. In this respect, the results (see Table 3) allow us to conclude that there is a CEO profile based on the basic attributes of education, CEO appointment, and legal environment that is related to the CSR performance of the organisation. More specifically, this profile describes a person with an engineering degree who has accessed the position externally and who carries out work as a CEO in a country with civil law. In addition to these basic attributes, it is also important to hold an MBA.

5. DISCUSSION

5.1. Theoretical contributions

Concern for sustainable organisational performance constitutes a key issue for business competitiveness (Porter & Kramer, 2011), for which CEOs are ultimately responsible (Oh et al., 2016). The existing literature has struggled to explore the relationship between the role of the CEO and the company's social performance (Manner, 2010; Oh et al., 2016) and there is still a long way to go. This study seeks to examine which combinations of individual CEO attributes play the most important role in the social performance of the organisations they lead.

Our work makes several contributions to the literature on corporate governance and CSR. First, we conclude that the combination of CEO attributes allows us to better predict the company's CSR, since every profile needs the presence of more than two attributes. The concept of a CEO profile shows that there are no good or bad attributes for a CEO in order to ensure

that they are socially responsible; rather it is the interaction or combination of various characteristics (Garcés-Galdeano & García-Olaverri, 2019) that makes it easier for them to make CSR-oriented decisions, thus confirming the relevance of the CEO profile concept in this field. Our main profile is therefore characterised by CEOs who are willing to make greater investments in R&D due both to their educational background (Barker & Mueller, 2002; Gottesman & Morey, 2010) and to the innovative knowledge and skills they bring in from outside the company (Zhang & Rajagopalan, 2003): aspects that are necessary for most sustainability challenges (Chatterji & Lenox, 2018). This explains why companies are increasingly recruiting CEOs from outside the company (Kuang, Qin, & Wielhouwer, 2015), which means that the average stay of CEOs from outside is lower than those from inside the firm.

Secondly, we need to stress the characteristics of the CEO that lead to good social performance. This approach is important because only CEOs who promote their company's CSR can gain trust in the eyes of society, thereby strengthening the firm's reputation (Pham & Tran, 2020) and fulfilling the promise of the Business Purpose Roundtable. The identification of these profiles will thus complement research that focuses on the study of the effects on CSR of the personal values and psycho-social characteristics of CEOs (Chin et al., 2013; García-Sánchez & Martínez-Ferrero, 2019; Tang et al., 2015), as well as of their integrity (Pham & Tran, 2020). Likewise, these different profiles could help discover and highlight the true leaders in economic and social management (CSR Europe & Globescan, 2020).

Third, there is no single profile of socially responsible CEO. Different combinations of attributes enable similar results for CSR. In general, all the attributes selected in this study could be desirable (Garcés-Galdeano & García-Olaverri, 2019) for a CEO. Our research also shows that various combinations of these attributes may be more suitable for CSR. For example, our study concluded that the skills and knowledge of an external CEO, which can break the usual

practices of the company (Bernard et al., 2018), only results in noteworthy CSR when the CEO also has a technical background. Finally, our study shows that the institutional context bears influence (Aguinis & Glavas, 2012; Frynas & Yamahaki, 2016).

Finally, given the revealed importance of the CEO education in the CSR of the organization, we consider that CSR should be an essential part of the education of tomorrow's leaders. In this vein, universities and business school must boost the integration of a more formal way of the CSR topic in curriculum, instructional materials, and faculty careers and advancement (Alfred & Adam, 2009). To this end, Jabbour (2010) propose a model for the inclusion of environmental issues and knowledge in teaching, research, extension community, and university management activities of the business school, the same should be addressed for other dimensions of CSR. Thus, with a deeper understanding of CSR among the CEOs of the future, they will be able to conduct their business in a more socially responsible manner.

5.2. Managerial implications

Our research also has implications for corporate governance bodies and, perhaps most importantly, for CEO appointees. There is no single solution, no single profile of a socially responsible CEO. While being a man with an engineering degree coming from another company is repeatedly seen to be important, these are not unique factors. In fact, there are profiles of socially responsible CEOs who are internally appointed women with long tenures. This again highlights the importance of the combination of attributes. In addition, our findings show that not only financial results have to be considered by the boards of directors to recruit the right person to manage the company but also the person that can improve the corporate social responsibility considering their characteristics and the institutional environment.

5.3. Limitations and future research

This work is not exempt from limitations, which give rise to future lines of research. Since this work is based on the upper echelon theory, it focuses on the observable attributes of CEOs and ignores other attributes linked to psycho-social or behavioural aspects. It would therefore be highly interesting to continue to study the concept of the CEO profile and its relationship with CSR, while including other attributes for its configuration. Furthermore, our source of data is secondary. This field of study could be enriched by incorporating primary data and other methodologies such as in-depth interviews of the CEOs who run these large companies. Finally, and despite the relevance of primary data, increasing the size of the sample of each year of study could bring an enrichment of the results achieved.

Several measures of CSR are available with different sources and methodologies, and the industry in which the company operates also matters due to the differences in technology, manufacturing process, labour intensity, and resources consumed. Comparison between CSR indicators and the industrial sample could improve the results.

6. BIBLIOGRAPHY

- Agirre Aramburu, I., & Gómez Pescador, I. (2019). The effects of corporate social responsibility on customer loyalty: The mediating effect of reputation in cooperative banks versus commercial banks in the Basque Country. *Journal of Business Ethics*, *154*(3), 701–719. <https://doi.org/10.1007/s10551-017-3438-1>
- Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. (2007). Putting the “S” back in Corporate Social Responsibility: A multilevel theory of social change in organizations. *Academy of Management Review*, *32*(3), 836-863. <https://doi.org/10.5465/AMR.2007.25275678>
- Aguilera, R. V., & Williams, C. A. (2009). Law and finance: Inaccurate, incomplete and

important. *Brigham Young University Law Review*, 1413.

<https://doi.org/10.4324/9780511794537.012>

Aguilera, R. V. (2018). Corporate Governance deviance. *Academy of Management Review*, 43(1), 87–109. <https://doi.org/10.5465/amr.2014.0394>

Aguinis, H., & Glavas, A. (2012). What we know and don't know about Corporate Social Responsibility: A review and research agenda. *Journal of Management*, 38(4), 932–968. <https://doi.org/10.1177/0149206311436079>

Alfred, A. M., & Adam, R. F. (2009). Green management matters regardless. *Academy of Management Perspectives*, 23(3), 17-26. <https://doi.org/10.5465/amp.2009.43479261>

Ali, R., Rehman, R. U., Suleman, S., & Ntim, C. G. CEO attributes, investment decisions, and firm performance: New insights from upper echelons theory. *Managerial and Decision Economics*. <https://doi.org/10.1002/mde.3389>

Barker, V. L., & Mueller, G. C. (2002). CEO characteristics and firm R&D spending. *Management Science*, 48(6), 782–801. <https://doi.org/10.1287/mnsc.48.6.782.187>

Berg-Schlosser, D., Meur, G. De, Rihoux, B., & Ragin, C. C. (2009). Qualitative Comparative Analysis (QCA) as an approach. In B. Rihoux & C. Ragin (Eds.), *Applied social research methods: Configurational comparative methods: Qualitative Comparative Analysis (QCA) and related techniques*, (Vol. 51, pp. 1-18). Thousand Oaks, CA: SAGE Publications, Inc. <https://doi.org/10.4135/9781452226569.n1>

Bernard, Y., Godard, L., & Zouaoui, M. (2018). The effect of CEOs' turnover on the corporate sustainability performance of French firms. *Journal of Business Ethics*, 150(4), 1049–1069. <https://doi.org/10.1007/s10551-016-3178-7>

Beynon, M. J., Jones, P., & Pickernell, D. (2020). Country-level entrepreneurial attitudes and

- activity through the years: A panel data analysis using fsQCA. *Journal of Business Research*, 115, 443-455. <https://doi.org/10.1016/j.jbusres.2019.11.021>
- Borghesi, R., Houston, J. F., & Naranjo, A. (2014). Corporate socially responsible investments: CEO altruism, reputation and shareholder interests. *Journal of Corporate Finance*, 26, 164–181. <https://doi.org/10.1016/j.jcorpfin.2014.03.008>
- Campbell, J. L. (2007). Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility. *Academy of Management Review*, 32(3), 946-967. <https://doi.org/10.2307/20159343>
- Carpenter, M. A., Geletkancz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: antecedents, elements and consequences of Top Management Team composition. *Journal of Management*, 30(6), 749–778. <https://doi.org/10.1016/j.jm.2004.06.001>
- Chatterji, A., & Lenox, M. (2018). *Can business save the earth? innovating our way to sustainability*. Stanford, CA: Stanford University Press. <https://www.sup.org/books/cite/?id=24012>
- Chen, W. (Tina), Zhou, G. (Stephen), & Zhu, X. (Kevin). (2019). CEO tenure and Corporate Social Responsibility Performance. *Journal of Business Research*, 95, 292–302. <https://doi.org/10.1016/j.jbusres.2018.08.018>
- Chin, M. K., Hambrick, D. C., & Treviño, L. K. (2013). Political ideologies of CEOs: The influence of executives' values on corporate social responsibility. *Administrative Science Quarterly*, 58(2), 197–232. <https://doi.org/10.1177/0001839213486984>
- Citrin, J. M., Hildebrand, C. A., & Stark, R. J. (2019). The CEO life cycle. *Harvard Business Review*.

- Cooper, E. (2017). Corporate Social Responsibility, gender and CEO turnover. *Managerial Finance*, 43(5), 528–544. <https://doi.org/10.1108/MF-02-2016-0049>
- Crossland, C., & Hambrick, D. C. (2011). Differences in managerial discretion across countries: How nation-level institutions affect the degree to which CEOs matter. *Strategic Management Journal*, 32(8), 797–819. <https://doi.org/10.1002/smj.913>
- CSR Europe, & Globescan. (2020). *The European pact for sustainable industry: Making the green deal a success. CSR Europe white paper.*
- Datta, D. K., & Guthrie, J. P. (1994). Executive succession: Organizational antecedents of CEO characteristics. *Strategic Management Journal*, 15(7), 569–577. <https://doi.org/10.1002/smj.4250150706>
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147. <https://doi.org/10.2307/2095101>
- Finkelstein, S., Hambrick, D. C. & Cannella, B. (2009). *Strategic leadership: Theory and research on executives, top management teams and boards.* Oxford University Press.
- Fischer, J. (2004). Social responsibility and ethics: Clarifying the concepts. *Journal of Business Ethics*, 52(4), 381–390. <https://doi.org/10.1007/s10551-004-2545-y>
- Frynas, J. G., & Yamahaki, C. (2016). Corporate Social Responsibility: Review and roadmap of theoretical perspectives. *Business Ethics: A European Review*, 25(3), 258–285. <https://doi.org/10.1111/beer.12115>
- Galbreath, J. (2009). Corporate governance practices that address climate change: an exploratory study. *Business Strategy and the Environment*, 19(5), 335–350. <https://doi.org/10.1002/bse.648>

- Garcés-Galdeano, L., & García-Olaverri, C. (2019). The hidden value of intangibles: do CEO characteristics matter? *International Journal of Manpower*, 40(6), 1075–1091.
<https://doi.org/10.1108/IJM-06-2018-0199>
- García-Sánchez, I. M., Aibar-Guzmán, B., Aibar-Guzmán, C., & Azevedo, T. C. (2020). CEO ability and sustainability disclosures: The mediating effect of corporate social responsibility performance. *Corporate Social Responsibility and Environmental Management*, 27(4), 1565-1577. <https://doi.org/10.1002/csr.1905>
- García-Sánchez, I. M., & Martínez-Ferrero, J. (2019). Chief Executive Officer ability, Corporate Social Responsibility, and financial performance: The moderating role of the environment. *Business Strategy and the Environment*, 28(4), 542-555.
<https://doi.org/10.1002/bse.2263>
- García-Sánchez, I. M., Rodríguez-Ariza, L., & Frías-Aceituno, J. V. (2013). The cultural system and integrated reporting. *International Business Review*, 22(5), 828–838.
<https://doi.org/10.1016/j.ibusrev.2013.01.007>
- Garriga, E., & Melé, D. (2004). Corporate social responsibility theories: Mapping the territory. *Journal of Business Ethics*, 53(1-2), 51-71.
<https://doi.org/10.1023/B:BUSI.0000039399.90587.34>
- Gatti, L., Seele, P., & Rademacher, L. (2019). Grey zone in – greenwash out. A review of greenwashing research and implications for the voluntary-mandatory transition of CSR. *International Journal of Corporate Social Responsibility*, 4(1), 1–15.
<https://doi.org/10.1186/s40991-019-0044-9>
- Godos-Díez, J. L., Cabeza-García, L., Fernández-Gago, R., & Nieto-Antolín, M. (2020). Does CEO media exposure affect corporate social responsibility? *Corporate Social Responsibility and Environmental Management*, 27(2), 825-840.

<https://doi.org/10.1002/csr.1847>

Gottesman, A. A., & Morey, M. R. (2010). CEO Educational Background and Firm Financial Performance. *Journal of Applied Finance (Formerly Financial Practice and Education)*, 20(2). <https://doi.org/10.1287/mnsc.48.6.782.187>

Hambrick, D.C. (2007). Upper Echelon Theory: an update. *The Academy of Management Review*, 32(2), 334-343. <https://doi.org/10.2307/20159303>

Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: the organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193–206.
<https://doi.org/10.5465/amr.1984.4277628>

Hambrick, D. C., & Fukutomi, G. D. S. (1991). The seasons of a CEO's tenure. *Academy of Management Review*, 16(4), 719-742. <https://doi.org/10.2307/258978>

Hassan, A., Elamer, A.A., Lodh, S., Roberts, L., Nandy, M., (2021). The future of non-financial businesses reporting: Learning from the Covid-19 pandemic. *Corporate Social Responsibility and Environmental Management*, 28, 1231–1240.
<https://doi.org/10.1002/csr.2145>

Harvard Business Review (staff) (HBR). (2015). The best-performing CEOs in the world. *Harvard Business Review* (November).

Harvard Business Review (staff) (HBR). (2016). The best-performing CEOs in the world. *Harvard Business Review* (November), 41-57.

Harvard Business Review (staff) (HBR). (2017). The best-performing CEOs in the world. *Harvard Business Review* (November- December).

Harvard Business Review (staff) (HBR). (2018). The best-performing CEOs in the world. *Harvard Business Review* (November- December).

Harvard Business Review (staff) (HBR). (2019). The best-performing CEOs in the world.

Harvard Business Review (November- December).

House, R., Hanges, P., Javidan, M., & Dorfman, P. W. & Gupta, V. (Eds.). (2004). *Culture,*

leadership and organizations: The GLOBE study of 62 societies. Sage publications.

Hrazdil, K., Mahmoudian, F., & Nazari, J. A. (2021). Executive personality and

sustainability: Do extraverted chief executive officers improve corporate social

responsibility? *Corporate Social Responsibility and Environmental Management*, 1-15.

<https://doi.org/10.1002/csr.2116>

Huang, S. K. (2013). The impact of CEO characteristics on corporate sustainable

development. *Corporate Social Responsibility and Environmental Management*, 20(4),

234–244. <https://doi.org/10.1002/csr.1295>

Ibrahim, N. A., & Angelidis, J. P. (1995). The corporate social responsiveness orientation of

board members: Are there differences between inside and outside directors? *Journal of*

Business Ethics, 14(5), 405–410. <https://doi.org/10.1007/BF00872102>

Jabbour, C. J. C. (2010). Greening of business schools: a systemic view. *International*

Journal of Sustainability in Higher Education, 11(1), 49–60.

<https://doi.org/10.1108/14676371011010048>

Jain, T., & Jamali, D. (2016). Looking inside the black box: The effect of corporate

governance on corporate social responsibility. *Corporate Governance: An International*

Review, 24(3), 253–273. <https://doi.org/10.1111/corg.12154>

Jamali, D., Sidani, Y., & El-Asmar, K. (2009). A three country comparative analysis of

managerial csr perspectives: Insights from Lebanon, Syria and Jordan. *Journal of*

Business Ethics, 85(2), 173–192. <https://doi.org/10.1007/s10551-008-9755-7>

- Jo, H., & Harjoto, M. A. (2011). Corporate governance and firm value: The impact of corporate social responsibility. *Journal of Business Ethics*, *103*(3), 351–383. <https://doi.org/10.1007/s10551-011-0869-y>
- Kim, B., Moon, J. J., & Kim, E. (2020). Executive migration matters: The transfer of CSR profiles across organizations. *Business & Society*.
<https://doi.org/10.1177/0007650320949845>
- Kouaib, A., & Jarboui, A. (2016). Real earnings management in innovative firms: Does CEO profile make a difference? *Journal of Behavioral and Experimental Finance*, *12*, 40–54.
<https://doi.org/10.1016/j.jbef.2016.09.002>
- Kraus, S., Ribeiro-Soriano, D., & Schüssler, M. (2018). Fuzzy-set qualitative comparative analysis (fsQCA) in entrepreneurship and innovation research – the rise of a method. *International Entrepreneurship and Management Journal*, *14*(1), 15–33.
<https://doi.org/10.1007/s11365-017-0461-8>
- Kuang, Y. F., Qin, B., & Wielhouwer, J. L. (2015). CEO origin and accrual-based earnings management. *Accounting Horizons*, *28*(3), 605–626. <https://doi.org/10.2308/acch-50810>
- La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. (2002). Investor protection and corporate valuation. *The Journal of Finance*, *57*(3), 1147–1170.
<https://doi.org/10.1111/1540-6261.00457>
- La Porta, R., Lopez de Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy*, *106*(6), 1113–1155. <https://doi.org/10.1086/250042>
- Li, X., Low, A., & Makhija, A. K. (2017). Career concerns and the busy life of the young CEO. *Journal of Corporate Finance*, *47*, 88–109. <https://doi.org/10.1002/bse.2037>
- Liu, D., Fisher, G., & Chen, G. (2018). CEO attributes and firm performance: A sequential

- mediation process model. *Academy of Management Annals*, 12(2), 789–816.
<https://doi.org/10.5465/annals.2016.0031>
- Liu, X. (2020). Impression management against early dismissal? CEO succession and corporate social responsibility. *Corporate Social Responsibility and Environmental Management*, 27(2), 999–1016. <https://doi.org/10.1002/csr.1861>
- Manner, M. H. (2010). The Impact of CEO characteristics on corporate social performance. *Journal of Business Ethics*, 93(1), 53–72. <https://doi.org/10.1007/s10551-010-0626-7>
- McWilliams, A., & Siegel, D. (2000). Corporate Social Responsibility and financial performance: correlation or misspecification? *Strategic Management Journal*, 21(5), 603–609. [https://doi.org/10.1002/\(SICI\)1097-0266\(200005\)21:5<603::AID-SMJ101>3.0.CO;2-3](https://doi.org/10.1002/(SICI)1097-0266(200005)21:5<603::AID-SMJ101>3.0.CO;2-3)
- McWilliams, A., & Siegel, D. (2001). Corporate Social Responsibility: A theory of the firm perspective. *The Academy of Management Review*, 26(1), 117.
<https://doi.org/10.2307/259398>
- Miller, D. (1991). Stale in the saddle: CEO tenure and the match between organization and environment. *Management Science*, 37(1), 34–52. <https://doi.org/10.2307/2632491>
- Neely, B. H., Lovelace, J. B., Cowen, A. P., & Hiller, N. J. (2020). Metacritiques of Upper Echelons Theory: Verdicts and Recommendations for Future Research. *Journal of Management*, 46(6), 1029–1062. <https://doi.org/10.1177/0149206320908640>
- Oh, W. Y., Chang, Y. K., & Cheng, Z. (2016). When CEO career horizon problems matter for Corporate Social Responsibility: The moderating roles of industry-level discretion and blockholder ownership. *Journal of Business Ethics*, 133(2), 279–291.
<https://doi.org/10.1007/s10551-014-2397-z>

- Oh, W. Y., Chang, Y. K., & Jung, R. (2018). Experience-based human capital or fixed paradigm problem? CEO tenure, contextual influences and Corporate Social (ir)responsibility. *Journal of Business Research*, *90*, 325–333.
<https://doi.org/10.1016/j.jbusres.2018.05.034>
- Orij, R. P., Rehman, S., Khan, H., & Khan, F. (2021). Is CSR the new competitive environment for CEOs? The association between CEO turnover, corporate social responsibility and board gender diversity: Asian evidence. *Corporate Social Responsibility and Environmental Management*, *28*(2), 731-747.
<https://doi.org/10.1002/csr.2084>
- Pham, H. S. T., & Tran, H. T. (2020). CSR disclosure and firm performance: The mediating role of corporate reputation and moderating role of CEO integrity. *Journal of Business Research*, *120*, 127–136. <https://doi.org/10.1016/j.jbusres.2020.08.002>
- Porter, M. E., & Kramer, M. R. (2011). Creating shared value: how to reinvent capitalism and unleash a wave of innovation and growth. *Harvard Business Review*.
- Ragin, C. C. (2006). Set relations in social research: Evaluating their consistency and coverage. *Political Analysis*, *14*(3), 291–310. <https://doi.org/10.1093/pan/mpj019>
- Ragin, C. C. (2000). *Fuzzy-set social science*. University of Chicago Press.
- Ragin, C. C., Strand, S., & Rubinson, C. (2008). User's guide to fuzzy-set/qualitative comparative analysis. *University of Arizona*.
- Raimo, N., Caragnano, A., Zito, M., Vitolla, F., & Mariani, M. (2021). Extending the benefits of ESG disclosure: The effect on the cost of debt financing. *Corporate Social Responsibility and Environmental Management*, *28*(4), 1412-1421.
<https://doi.org/10.1002/csr.2134>

- Rhodes, S. R. (1983). Age-related differences in work attitudes and behavior: A review and conceptual analysis. *Psychological Bulletin*, *93*(2), 328–367.
<https://doi.org/10.1037/0033-2909.93.2.328>
- Sanders, W. G., & Carpenter, M. A. (1998). Internationalization and firm governance: The roles of CEO compensation, top team composition and board structure. *Academy of Management Journal*, *41*(2), 158–178. <https://doi.org/10.5465/257100>
- Saridakis, C., Angelidou, S., & Woodside, A. G. (2020). What type of CSR engagement suits my firm best? Evidence from an abductively-derived typology. *Journal of Business Research*, *108*, 174–187. <https://doi.org/10.1016/j.jbusres.2019.11.032>
- Shahab, Y., Ntim, C. G., Chen, Y., Ullah, F., Li, H., & Ye, Z. (2020). Chief Executive Officer attributes, sustainable performance, environmental performance and environmental reporting: New insights from upper echelons perspective. *Business Strategy and the Environment*, *29*(1), 1–16. <https://doi.org/10.1002/bse.2345>
- Tang, Y., Qian, C., Chen, G., & Shen, R. (2015). How CEO hubris affects Corporate Social (ir)responsibility. *Strategic Management Journal*, *36*(9), 1338–1357.
<https://doi.org/10.1002/smj.2286>
- Waldman, D. A., & Siegel, D. (2008). Defining the socially responsible leader. *The Leadership Quarterly*, *19*(1), 117–131. <https://doi.org/10.1016/j.leaqua.2007.12.008>
- Wang, G., Holmes, R. M., Oh, I. S., & Zhu, W. (2016). Do CEOs matter to firm strategic actions and firm performance? A meta-analytic investigation based on Upper Echelons Theory. *Personnel Psychology*, *69*(4), 775–862. <https://doi.org/10.1111/peps.12140>
- Wernicke, G., Sajko, M., & Boone, C. (2021). How much influence do CEOs have on company actions and outcomes? The example of corporate social responsibility.

Academy of Management Discoveries. <https://doi.org/10.5465/amd.2019.0074>

Webb, E. (2004). An examination of socially responsible firms' board structure. *Journal of Management and Governance*, 8(3), 255–277. <https://doi.org/10.1007/s10997-004-1107-0>

Wheeler, D., Colbert, B., & Freeman, R. E. (2003). Focusing on value: Reconciling corporate social responsibility, sustainability and a stakeholder approach in a network world. *Journal of General Management*, 28(3), 1–28. <https://doi.org/10.1177/030630700302800301>

Wiersema, M. F., & Bantel, K. A. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal*, 35(1), 91–121. <https://doi.org/10.2307/256474>

Yuan, Y., Yi Lu, L., Tian, G., & Yu, Y. (2020). Business Strategy and Corporate Social Responsibility. *Journal of Business Ethics*, 162, 359–377. <https://doi.org/10.1007/s10551-018-3952-9>

Zhang, Y., & Rajagopalan, N. (2003). Explaining New CEO Origin: Firm Versus Industry Antecedents. *Academy of Management Journal*, 46(3), 327–338. <https://doi.org/10.5465/30040626>

Zhang, Z., Wang, X., & Jia, M. (2020). Echoes of CEO Entrepreneurial Orientation: How and When CEO Entrepreneurial Orientation Influences Dual CSR Activities. *Journal of Business Ethics*, 1–21. <https://doi.org/10.1007/s10551-020-04553-x>

Zhu, Q., Hu, S., & Shen, W. (2020). Why do some insider CEOs make more strategic changes than others? The impact of prior board experience on new CEO insiderness. *Strategic Management Journal*, 41(10), 1933–1951. <https://doi.org/10.1002/smj.3183>

7. APPENDIX

Table 1. Descriptive Statistics and Calibration

	Year	Descriptive Statistics					Calibration		
		Mean	Min.	Max.	Median	SD	Non-membership	Cut-off	Full membership
Age	2016	60.3	44	88	59.5	6.77	44	60	88
	2017	60.8	45	88	60	6.59	45	60	88
	2018	60.4	46	89	59.5	6.86	46	60	89
	2019	60.1	47	75	60	5.62	47	60	75
Male	2016	98%	0	1	1	0.14	1		0
	2017	98%	0	1	1	0.14	1		0
	2018	97%	0	1	1	0.17	1		0
	2019	96%	0	1	1	0.19	1		0
MBA	2016	24%	0	1	0	0.43	1		0
	2017	29%	0	1	0	0.46	1		0
	2018	32%	0	1	0	0.47	1		0
	2019	39%	0	1	0	0.49	1		0
Engineering	2016	24%	0	1	0	0.43	1		0
	2017	32%	0	1	0	0.47	1		0
	2018	34%	0	1	0	0.48	1		0
	2019	32%	0	1	0	0.47	1		0
Tenure	2016	17.3	3	66	15	11.0	3	10	66
	2017	17.0	4	54	14	10.0	4	10	54
	2018	16.2	2	47	14	9.23	2	10	47
	2019	15.1	3	48	13	9.28	3	10	48
Outsider	2016	16%	0	1	0	0.37	1		0
	2017	19%	0	1	0	0.39	1		0
	2018	13%	0	1	0	0.34	1		0
	2019	14%	0	1	0	0.35	1		0
Civil Law	2016	36%	0	1	0	0.49	1		0
	2017	39%	0	1	0	0.48	1		0
	2018	37%	0	1	0	0.49	1		0
	2019	42%	0	1	0	0.50	1		0

Table 2. Analysis of necessity

	High		~High	
	Consistency	Coverage	Consistency	Coverage
Mature	0.43	0.23	0.49	0.77
~Mature	0.57	0.27	0.51	0.73
Male	0.99	0.25	0.97	0.75
~Male	0.01	0.08	0.03	0.92
MBA	0.34	0.28	0.29	0.72
~MBA	0.66	0.24	0.71	0.76
Engineering	0.43	0.37	0.25	0.63
~ Engineering	0.57	0.20	0.75	0.80
Long Tenure	0.42	0.20	0.55	0.80
~Long Tenure	0.58	0.30	0.45	0.70
Outsider	0.23	0.38	0.13	0.62
~Outsider	0.77	0.23	0.87	0.77
Civil Law	0.66	0.42	0.30	0.58
~Civil Law	0.34	0.14	0.70	0.86

Table 3. CEO configurations for firms with high CSR ranking

Causal condition	2016			2017			2018			2019				
	1	2	3	1	2	3	1	2	3	1	2	3	4	5
Mature	○	○	●	○		●		●	○	○	○	○	○	●
Male	●	●	●	●	●	●	●	●	○	●	●	●	●	●
MBA	●	●	●		○	●	○		●	○	●	○	●	●
Engineering	○	●	●	●	●	●	●	●	○	○	●	●	●	●
Long Tenure	○	○	●	○	○	●	○	●	●	●	○	○	●	●
Outsider	○	●	●	●	●	●	●	●	○	●	●	○	○	●
Civil Law	●	●	●	●	●	●	●	●	○	●	●	○	●	●
Raw Coverage	0.05	0.04	0.02	0.10	0.08	0.03	0.07	0.11	0.02	0.02	0.03	0.06	0.02	0.03
Unique Coverage	0.05	0.03	0.01	0.02	0.02	0.01	0.01	0.05	0.02	0.02	0.02	0.06	0.02	0.02
Consistency	0.80	1.00	1.00	0.92	0.90	1.00	1.00	1.00	1.00	1.00	1.00	0.81	1.00	1.00
Overall Coverage		0.10			0.13			0.14				0.16		
Overall Consistency		0.90			0.94			1.00				0.91		

Note: ● core condition present; ○ opposite core condition present; ● contributing condition present; ○ opposite contributing condition present. An empty cell represents an irrelevant condition.