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**Article:**

Saridakis, C [orcid.org/0000-0001-8088-1722](https://orcid.org/0000-0001-8088-1722), Angelidou, S and Woodside, AG (2020) What type of CSR engagement suits my firm best? Evidence from an abductively-derived typology. *Journal of Business Research*, 108. pp. 174-187. ISSN 0148-2963

<https://doi.org/10.1016/j.jbusres.2019.11.032>

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**What type of CSR engagement suits my firm best?**

**Evidence from an abductively-derived typology**

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**What type of CSR engagement suits my firm best?  
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**Abstract**

Why do firms engage in socially responsible activities? Prior discussion around this issue mainly applies a uniform conceptualization of corporate social responsibility (CSR) or focuses on distinct CSR activities. These perspectives are surprising given that firms respond to expectations of social responsibility through unique and often multifaceted sets of voluntary behaviors. To address the limitations of these perspectives, this study first develops a novel typology of divergent repertoires of CSR activities that reveal different constellations of CSR engagement. We, then, follow a novel analytical strategy which specifies complex interdependencies among different CEO-, firm-, and contextual-specific characteristics and reveals the causal pathways that explain alternative CSR constellations. The findings confirm that the actual multiple effects of each characteristic on CSR engagement are not only contingent on the combinations of additional characteristics that synergistically occur in a given causal recipe but also on the unique CSR constellation under consideration in specific contexts.

**Keywords:** Corporate social responsibility; CEO characteristics; contextual characteristics; empirical typology; firm characteristics

## **What type of CSR engagement suits my firm best?**

### **Evidence from an abductively-derived typology**

#### **1. Introduction**

Corporate social responsibility (CSR) 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). A central question receiving a lot of attention in strategic management is, Why do firms engage in activities related to corporate social responsibility? Prior literature suggests that the reasons are manifold and can range from idiosyncratic characteristics of executives such as beliefs and values (Weaver, Reynolds, & Brown, 2014), firm characteristics that trigger profit-maximizing incentives (McWilliams & Siegel, 2001), and institutional pressures that lead firms to resort to isomorphic behavior (Campbell, 2007).

Prior studies in the field, however, tend to neglect how these factors combine with each other to explain engagement in CSR activities. This topic deserves further consideration, since no single factor in isolation can adequately explain the different responses to social pressures (Crilly, Zollo, & Hansen, 2012). While firm characteristics have been very helpful in explaining how firms respond to stakeholder expectations (e.g., Crilly, Zollo, & Hansen, 2012), individual decision-makers do not always act in unison (e.g., Crilly, Zollo, & Hansen, 2012; Pratt & Foreman, 2000). This finding is observable primarily because individuals make decisions based on their own interests and perceptions. Further, individual decision-makers have to make sense of the institutional pressures facing their firms (Crilly, Zollo, & Hansen, 2012; George, Chattopadhyay, Sitkin, & Barden, 2006). Executives' perceptions, however, may not always converge

when institutional factors push for engagement in different CSR activities (Crilly, Zollo, & Hansen, 2012; Fiss & Zajac, 2004).

Further, the discussion in the literature about why and how firms engage in social initiatives has been mainly established with a uniform conceptualization of CSR in mind or by focusing on distinct CSR activities. These perspectives are surprising in light of the growing recognition that CSR is not only multidimensional but also highly mutable (Jayachandran, Kalaiganam, & Eilert, 2013). In fact, the conceptual distinction of CSR dimensions made by many scholars to construct aggregate measures of CSR demonstrates the high-worth of explaining the relative salience of different CSR activities and therefore, the factors that drive cross-firm variations. Although a number of prior studies provides valuable insights into the factors that influence the engagement in individual CSR activities (e.g., Julian & Ofori-dankwa, 2013), explanations for variations that crystallize around diverse repertoires of CSR activities have not yet received much attention in the strategy literature. These variations, however, are relevant particularly for CSR research because organizations respond to expectations of social responsibility through multifaceted sets of voluntary behaviors (Grant, 2012).

The present study addresses these gaps by joining different streams of research on CSR to build a testable conceptual framework for understanding how configurations of multi-level factors shape decisions to engage in variations of CSR activities that we term, “CSR constellations”. CSR constellations include unique combinations of different CSR activities whereby these combinations indicate complex representations of engagement. To achieve this contribution, we first construct a novel typology of divergent repertoires of CSR activities that reveal different constellations of CSR engagement. We then use a

broad range of CEO, firm, and contextual characteristics to explain and predict how they separately and synergistically affect the development of each identified CSR constellation. The study's findings suggest that contrary to prior assertions, the effect of each characteristic may vary independently, but its actual effect on CSR engagement hinges both on the combinations of additional characteristics (i.e., recipes) that occur synergistically in a given causal recipe, and on the unique CSR constellation that is considered in specific contexts.

This study provides three contributions to CSR research. First, the overall approach broadens the scope of outcomes examined in the CSR literature by developing a novel CSR typology that reveals different patterns of CSR engagement, which we refer to as CSR constellations. Contrary to the existing literature on CSR that focuses on the net effect estimation of single factors (Fiss, 2007), this study investigates the process by which executive-, micro-, and macro- level factors may jointly influence individual patterns of corporate social engagement. Secondly, this study enhances our understanding of pathways of CSR engagement and mechanisms shaping varying repertoires of CSR activities. Third, from a methodological perspective, the set-theoretical assumptions tested in this study can be best addressed using a novel configurational approach—namely, fuzzy-set Qualitative Comparative Analysis (fsQCA) (see e.g., Fiss, 2007; Short et al., 2008). Frösén et al. (2016) describe the merits of fsQCA over more established methods, such linear regression models, clustering algorithms, latent class analysis, and the deviation score approach, in identifying alternative combinations of multiple antecedent conditions that lead to single outcomes—specifically combinations of market orientation and marketing performance measurement that lead to high business performance. The

present study contributes beyond the study of Frösén et al. (2016) by presenting a novel use of fsQCA that combines with clustering algorithms to allow the examination of the configurational influences of several executive-, micro-, and macro-level factors on the intersections or combinations of complex outcomes, namely constellations of CSR activities.

## **2. Theoretical background**

### *2.1. CSR engagement: Dimensions and prior literature*

Some researchers refer to CSR initiatives as CSR engagement (Godfrey, Merrill & Hansen, 2009). CSR engagement can encompass a wide variety of dimensions and different levels of involvement in each dimension. A vast array of prior studies views CSR as consisting of five major dimensions: diversity, employee relations, product, environment, and community (e.g., Choi & Wang, 2009; David, Bloom, & Hillman, 2007). The rationale for this classification is that CSR initiatives usually affect or are affected by different groups of stakeholders such as employees, customers, the environment and community (Spiller, 2000). Empirically, these dimensions reflect a company's general stance with respect to a range of social concerns, such as treatment of women and minorities, employees' welfare, sustainable investment, environmental management, and community relations (Graves & Waddock, 1999).

The level of CSR engagement may vary also along a continuum from low-to-high involvement. The involvement of firms in CSR initiatives increases as the respective activities become more substantial in terms of both quality and quantity (Godfrey, Merrill, & Hansen, 2009). However, the large variety of CSR activities suggests that not all activities are regarded as equally important. Given that any corporation's resources are

limited, CSR activities tend to compete for corporate resources against other important strategic actions (McWilliams & Siegel, 1997). Further, socially responsible activities are not equally capable of generating moral capital (Jayachandran, Kalaignanam, & Eilert, 2013) and therefore, their benefits are not always commensurable. CSR activities should be appropriate for the organizational, strategic, and institutional contexts in which firms operate. When companies engage in less appropriate activities, some of their actions may be viewed as being opportunistic and may generate unfavorable evaluations from stakeholders (Simmons & Becker-Olsen, 2006).

In reality, companies may prioritize different CSR activities by deciding which stakeholders' expectations to satisfy, in what order, and to what extent (Van Beurden & Gössling, 2008). For example, some companies may engage in multiple activities, targeting, among others, equality in the workplace, safety, and quality in design, manufacture, sales and after-sales service, and protection of the environment and the local communities. These activities may often span across multiple CSR dimensions. Other firms, however, may concentrate their effort on activities relating to specific dimensions, while putting a little or no effort into others. These variations in engagement reflect what we term as CSR constellations and might be shaped in response to the different organizational, strategic, and institutional pressures that companies face dynamically (Simmons & Becker-Olsen, 2006).

## *2.2. CEO characteristics and CSR engagement*

Prior research, under the rubric of upper echelons theory (e.g., Hambrick & Mason, 1984), suggests that top executives act on the basis of their personal interpretations of the strategic situation. These interpretations form typically by their personal experiences,

values, and personalities. Thus, organizational outcomes are, in part, reflections of executives themselves (Mischel, 1977). Prior scholarship supports these arguments by showing the unique importance of CEOs and their characteristics in explaining the extent to which external social pressures are attended (Hoffman, 2001). Here, we focus on five CEO characteristics that have central role in the strategic leadership literature: gender; tenure; age; compensation; and stock ownership. The following discussion offers details of the potential influences of these characteristics on CSR engagement.

*2.2.1. CEOs' gender.* Prior studies on gender and leadership provide many useful insights to both practitioners and academics by offering a rich description of how men and women CEOs use decision rules when making ethical judgments (e.g., Brammer, Millington, & Pavelin, 2007; Roxas & Stoneback, 2004). With related research spanning four decades, female CEOs were found to demonstrate stronger ethical views and more positive attitudes toward CSR than male CEOs (Harjoto & Fabrizio, 2019). Although, accumulated research findings suggest that women are more likely to engage in corporate responsible actions than men, empirical evidence supports the view that gender differences are not universal (Davidson & Freudenberg, 1996). A careful assessment of prior findings reveals that the gender gap in ethical responses is manifested in local rather than generic social issues (see Brody, 1984; Mohai, 1992).

*2.2.2. CEOs' tenure.* A clear line of research proposes that CEOs' behavior might change over the course of their tenure (e.g., Finkelstein, Hambrick, & Cannella, 2009; Hambrick & Fukutomi, 1991). Newly appointed versus veteran CEOs were found to be more attuned to the external environment and less resistant to strategic change. On the contrary, longer-tenured CEOs were found to be more committed to established practices

(Hambrick & Fukutomi, 1991). Drawing on these findings, many studies (e.g., Lewis, Walls, & Dowell, 2014; Marquis & Lee, 2013) consider CEO tenure as an important contingency factor that affects the strategic nature of discretionary activities. These studies support the view that discretionary activities such as CSR tend to diminish as CEO tenure increases. Because, CEO power increases over time, longer tenure CEOs are more willing to ignore external and peer pressures for engaging in more socially responsible activities (Lewis, Walls & Dowell, 2014).

*2.2.3. CEOs' age.* The CEOs' age is another background characteristic of CEOs attracting attention in the strategic leadership literature. Broadly speaking, age reflects the general business experience of the CEOs. From a moral reasoning perspective, older CEOs are expected to have greater moral capacity to support corporate responsible actions (Kets de Vries & Miller, 1984). Younger CEOs are judged by the market in relation to their ability to meet financial and strategic objectives (Fabrizi, Mallin, & Michelon, 2014). In this respect, older CEOs may be less pressured by their career goals and more willing to give back to society.

*2.2.4. CEOs' compensation.* Further, several prior studies, look directly at the relationship between CEO's monetary incentives such as compensation and engagement in CSR (Mahoney & Thorne, 2005; McGuire, Dow, & Argheyd, 2003). Most of these studies build on the assumption that CEOs consider their personal benefits and costs when deciding if, and to what extent, their firms should engage in CSR. This view emphasizes that when companies engage in CSR, they forgo short-term profits to invest in projects that have no immediate payoff. Accordingly, there exists a logical, though

only partially empirically, verified negative link between the CEO's compensation and CSR (Jian & Lee, 2015).

*2.2.5. CEOs' stockownership.* Drawing on similar arguments, additional studies suggest that corporations can and should increase their control over CEOs by giving them stock ownership. Research, however, shows that stock ownership may have unintended consequences. For instance, drawing on the behavioral agency model, Sanders (2001) provides evidence that stock ownership leads to less risky decisions because CEOs tend to prioritize the protection of their equity against financial losses. This finding is in line with a growing body of evidence (e.g., Li & Zhang, 2010; Oh, Chang, & Martynov, 2011) which suggests that stock ownership may deter CEOs from engaging in CSR. Given that socially responsible initiatives may offer some legitimacy benefits but uncertain economic returns, managers who own stock in the company tend to be sensitive to the bottom line rather than responsive to external and peer pressures for CSR activities (Walls, Berrone, & Phan, 2012).

### *2.3. Firm characteristics and CSR engagement*

Empirical studies support the view that a variety of firm characteristics systematically influence CSR engagement. Perhaps legitimacy theory (Milne, 2002) is one of the most important perspectives in delineating some of these characteristics. The legitimacy theory suggests that larger companies are subject to higher public resentment, consumer hostility, and attention from regulatory bodies. Large corporations may also have a bigger group of stakeholders that influence their activities (Knox, Maklan, & French, 2005). Accordingly, many studies claim that larger firms are often more willing to engage in CSR than smaller firms (e.g., Clarke & Gibson-Sweet, 1999).

Prior research uses firm's financial slack together with size to explain the firm's commitment to CSR activities (e.g., Gupta, Briscoe, & Hambrick, 2017). Firm financial slack refers to the excess financial resources a firm has to shield itself against environmental change (Singh, 1986). As portrayed in many studies, firms might increase their engagement in CSR, when the availability of financial slack resources increases (e.g., Arena, Michelon, & Trojanowski, 2018). When excess resources are abundant, firms may afford to pursue greater social engagement (Adams & Hardwick, 1998). Following a similar reasoning, other studies have considered past performance as an important factor to affect the engagement in CSR. The basic argument of these studies is that high past performance allows firms to divert their focus from short-term financial objectives to social objectives (Brammer & Millington, 2008).

Further, many studies focus on advertising and research & development (R&D) as two strategic levers that might influence the firms' engagement in CSR (Luo & Bhattacharya 2009; McWilliams & Siegel 2001). Because advertising, R&D and CSR are important components of a firm's differentiation strategy, they are often expected to be positively correlated. However, all three strategic levers can be also viewed as alternate uses of firm resources (McWilliams & Siegel, 2000). These contradictory lines of argument clearly lead to conflicting predictions about the relationship between the constructs. In the present study, we use collectively the above described firm characteristics to explain the firms' decision to engage in CSR.

#### *2.4. Contextual characteristics and CSR engagement*

Institutional theory is relevant especially in explaining how firms respond to social pressures (Bansal & Clelland, 2004). Numerous studies suggest that industry peers tend

to adopt similar CSR strategies (e.g., Cano-Rodríguez, Márquez-Illescas, & Núñez-Níckel, (2017; Chatterji & Toffel, 2010). A common explanation for this tendency is that the prevalence of CSR practices in the industry creates cognitive and normative pressure to isomorphically adopt these practices (Strang & Soule, 1998). This demonstrates the importance of different institutional cues in explaining decisions to engage in CSR (Walker, Zhang, & Ni, 2019). Given that firms may engage in both positive and negative behaviors (Strike, Gao, & Bansal, 2006), we employ two institutional cues, namely industry CSR and industry irresponsible actions, to explain how firms respond to social issues. These institutional cues represent different points on the continuum of the industry CSR norms depending on their intensity. The higher the industry CSR, the stronger will be the industry CSR norms and therefore, the pressure to act in more socially responsible ways. Conversely, the higher the industry irresponsible actions, the weaker will be the industry CSR norms. Despite conventional wisdom, weak CSR norms do not necessarily increase the pressure to engage in more irresponsible actions but they rather help internal preferences to come to the fore and guide volitional behavior (Gupta, Briscoe, & Hambrick, 2017). In other words, the weaker the CSR norms, the higher will be the managerial discretion in adopting socially responsible behaviors.

The firms' decision to engage in CSR activities, however, may also depend on other contextual factors. As a further step towards delineating the most important antecedents of CSR engagement, we consider additional market-related and political factors. Following previous studies (e.g., Tang et al., 2015), we first examine market uncertainty as a contextual factor that affects CSR behavior. Market uncertainty refers to the extent to which a firm's external environment is unstable and unpredictable (Pfeffer

& Salancik, 1978). According to the resource dependence theory, as market uncertainty increases, the firm's dependence on various stakeholders for resources and support intensifies. In this context, the firm's incentives to engage in CSR activities will be higher since socially responsible actions contribute towards gaining a positive image and opportunities not available to other firms (Fombrun, Gardberg, & Barnett 2000).

Similarly, we use the level of market competition to explain the firms' decision to engage in CSR activities. Firms who operate in highly competitive markets face increased complexity (Hambrick & Finkelstein, 1987). This complexity may often increase the firms' dependence on various stakeholders for resources and therefore, the level of their CSR engagement (Tang et al., 2015). Finally, following Gupta, Briscoe, and Hambrick (2017), we consider the prevalence of liberalism in the firm's headquarters state as a contextual factor that might affect the firms' decision to engage in CSR. Broadly speaking, the prevalent political ideology may shape the accepted social values in the community and as such, it might exert significant pressures on firms to extend their socially responsible actions (Frynas, Child, & Tarba, 2017). Political scientists (e.g., Jost, Nosek, & Gosling, 2003) suggest that especially liberalism is highly supportive of social justice and economic equality. Therefore, in contexts where liberal ideas are widely dispersed, companies are often incentivized to increase their involvement in socially responsible activities. Table 1 summarizes key results of seminal studies examining the link between CEO-, firm- or contextual- level characteristics and CSR engagement.

*Insert Table 1 here.*

## *2.5. Research propositions*

Although so far the discussion on why firms behave in a socially responsible manner has been mainly established with a uniform conceptualization of CSR in mind, the relevant literature includes a growing recognition that CSR is not only multidimensional but also highly mutable (Jayachandran, Kalaignanam, & Eilert, 2013). In reality, each firm sets its own repertoire of CSR activities, which consists of a unique mixture of socially relevant initiatives. For example, some firms may decide to focus extensively on environment- and community-related issues, while others on diversity issues alone.

In this paper, we show that the influence of executive-, micro-, and macro-level factors may vary across a set of sufficiently heterogeneous constellations of CSR initiatives. More specifically, we claim that the actual impact of CEO, firm, and contextual characteristics on CSR engagement depends on the unique repertoire of CSR activities that is considered each time. Further, we assert that such characteristics should not be seen as competing and in isolation with each other, but rather as coexisting, synergistically affecting a firm's CSR engagement decisions.

Against this background, first, we speculate that configurations (i.e., profiles) of CEO, firm, or contextual characteristics can account for the presence of different constellations of CSR activities. In other words, the joint presence of at least two CEO, or firm, or contextual characteristics may account for the presence of certain CSR engagement types, and we explore exactly which configurations provide accurate and sufficient conditions for such constellations of CSR activities to occur. Therefore, the present study proposes and empirically examines the following configurational impacts. P1: CEO characteristics configurations (CEO profiles) alone are sufficient for identifying CSR engagement types (CSR constellations) accurately. P2: Firm characteristics

configurations (firm profiles) alone are sufficient for identifying CSR engagement types (CSR constellations) accurately. P3: Contextual characteristics configurations (contextual profiles) alone are sufficient for identifying CSR engagement types (CSR constellations) accurately. P4: Configurations of CEO and firm and contextual characteristics together have the highest consistency in explaining CSR engagement types (CSR constellations), though they have the lowest coverage.

As the discussion below elaborates, consistency represents the extent to which a causal configuration leads to a given outcome, while coverage reflects how much of the outcome is explained by a given causal configuration. If the consistency of a solution is low, the solution is not supported empirically and therefore should be considered less relevant. Unlike consistency, the fact that a solution coverage is low does not imply less relevance. In cases where a result occurs through multiple causal configurations a solution can have low coverage but nevertheless be useful to explain a set which causes a particular outcome (Ragin, 1987, 2000; Woodside & Zhang, 2012).

On the basis of P1-P4, no individual characteristic by itself (e.g., CEO gender alone, or financial slack resources alone, or market uncertainty alone) is sufficient to explain CSR engagement constellations and that its actual effect may vary depending on the additional characteristics in the causal configuration and the unique CSR constellation under examination. More specifically, the present study proposes and empirically tests the following propositions. P5: Individual CEO, or firm, or contextual characteristics in isolation may be necessary, but not sufficient by themselves to explain different types (constellations) of CSR engagement. P6: The effect of individual CEO, or firm, or contextual characteristics on CSR engagement is contingent on the combination of the

additional characteristics that synergistically occur in the given causal configuration, as well as on the CSR engagement type (constellation) that is being considered. Figure 1 is a summary of the propositions graphically.

*Insert Figure 1 here.*

### **3. Method**

The present study includes an application of abductive reasoning. “Abduction” occurs when “we have reason to suspect that the conclusion of an argument is worthy of pursuit based on an observation” (Folger & Stein, 2017). Abduction philosophy and research steps (Peirce, 1903/1955) includes multiple sequences of observation and refinements of categorization and classification of configurations of both conditions and hypotheses/propositions that supports integration of theory (Mayer & Sparrowe (2013). The abductive approach is an essential series of steps in constructing and reconstructing of the clustering process that the study describes.

#### *3.1. Data and sample*

The data used in this study come from multiple sources. Our corporate social responsibility data are obtained from the KLD database (Godfrey, Merrill, & Hansen, 2009; Orlitzky & Benjamin, 2001). KLD is an independent social choice investment advisory firm that provides social ratings for companies. KLD includes annual binary (1/0) ratings for 32 CSR strengths and 31 CSR concerns. These ratings depict how companies address the needs of their stakeholders (Flammer, 2015) and are considered the best available for measuring CSR (Hillman & Keim, 2001; Waddock & Graves, 1997). Table 2 summarizes the KLD dimensions used in this study, their definition, as well as their respective strength and concern areas. For a detailed exposition of the KLD

database and the particular CSR measure, interested readers may also refer to previously published sources (see e.g., Choi & Wang, 2009; Inoue & Lee, 2011; Mishra & Modi, 2016).

*Insert Table 2 here.*

Our CEO, firm-level and contextual data come from the ExecuComp, Standard and Poor's COMPUSTAT, I/B/E/S and KLD databases. Our population included all S&P 500 firms for the year 2009. The year, 2009, is our sampling year because many information on several CSR dimensions were not available in the KLD database for the coming years. Occasional missing variables and our requirement that the CEO, firm, and contextual variables be lagged 1 year resulted in 277 observations in the final analyses.

### *3.2. Measures*

We measured each dimension of the CSR (i.e., diversity, employee relations, product, environment, and community) by adding the strengths reported in the KLD database (e.g., Choi & Wang, 2009; David, Bloom & Hillman, 2007). This approach is in line with prior research that considers KLD strength items to be consistent with acting socially responsible (e.g., Husted, Jamali, & Saffar, 2016).

We measured CEO *gender* with a binary indicator that took the value of 1 if the CEO was female and 0 otherwise. CEO *age* was measured as the chronological age of the CEO. For CEO *tenure*, we used the number of years the individual had been CEO of the focal firm. We measured CEO *compensation* as a combination of both short-term and long-term compensation components. We followed this approach because potential exclusion of either compensation form could have underestimated the CEO's total

remuneration (Siegel & Hambrick, 2005). Further, CEO *stock ownership* was measured as the total value of CEO-owned stock.

*Firm size* was measured by using the net sales of the firm (e.g., Boyd, 1994; Boyd, Gove, & Hitt, 2005). *Slack* was measured by using the firms' cash holding scaled by firms' market capitalization. More financial slack means that firms are less limited by resources (Tang et al., 2015). *R&D intensity* was measured as the ratio of firm R&D expenses to sales (e.g., Chen & Miller, 2007; Cohen & Levinthal, 1990). To measure *past performance*, the study uses return on assets (ROA) calculated as the ratio of income before extraordinary items to the book value of assets at year  $t-1$  (e.g., Tang, Hull, & Rothenberg, 2012). ROA is an accounting-based measure which is considered to be a better predictor of CSR than other frequently used market measures (Tang, Hull, & Rothenberg, 2012). Further, to assess the *advertising intensity* of the firm, we have used the ratio of advertising spending to sales (McWilliams & Siegel, 2001).

*Industry CSR* was calculated as the average CSR strengths in each industry. Following a similar approach, we measured *industry irresponsible actions* by calculating the average CSR concerns in each industry. This approach is consistent with previous studies that use KLD's concerns to operationalize irresponsible corporate actions (e.g., Hillman & Keim, 2001). *Market competition* was assessed by using the Herfindahl-Hirschman index of industry concentration calculated as the sum of squared market shares (computed based on sales) of all firms in an industry (Flammer, 2018). Drawing on previous studies, we expect that the lower the industry concentration ratio is, the higher the market competition (Tang et al., 2015). *Market Uncertainty* was measured by using the industry median of the analyst forecast dispersion (i.e., the standard deviation of

analyst earnings per share forecasts scaled by share price) (e.g., Tang et al., 2015).

Finally, to measure *headquarters state liberalism*, we used the percentage of votes to the Democratic Party in the 2008 presidential election in the firm's headquarters state. Table 3 summarizes our variables, as well as their respective measurement, data source, and supporting literature.

*Insert Table 3 here.*

### 3.3. Fuzzy-set Qualitative Comparative Analysis

FsQCA is a case-oriented method in the sense that each observation is considered as a complex entity that needs to be comprehended (Hughes et al., 2018; Ragin, 1987; Rihoux, 2003). The method addresses complexity through multiple conjunctural causation and relies on three key principles: (i) it is a combination of conditions that produces a phenomenon—outcome; (ii) several different combinations of conditions (causal recipes) may produce the same outcome (a property called equifinality); (iii) depending on the context, a given condition may have a different impact on the outcome (relationships are rarely linear/symmetric) (Rihoux, 2003)<sup>1</sup>.

The method is based on the Boolean algebra and allows the identification of the most parsimonious causal regularities (i.e., causal interrelationships that can be expressed with the fewest possible conditions within the whole set of conditions). The particular configurational approach is mainly used to identify necessary and sufficient conditions that lead to a specific outcome (Ragin, 2008). Necessary conditions are always needed to produce the outcome, but may not be enough by themselves to produce it. Sufficient

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<sup>1</sup> We used the software for fsQCA developed by Charles Ragin (available at: <http://www.u.arizona.edu/~cragin/fsQCA/software.shtml>).

conditions always produce the given outcome by themselves, but may not be the only ones that lead to this outcome.

In fsQCA, the derived solution as a whole and each solution term (i.e., pathway leading to a given outcome) are assessed on the basis of two measures — namely, consistency and coverage. Consistency represents the extent to which a causal combination leads to an outcome and ranges from 0 to 1 (Ragin, 2008). Consistency therefore tests for sufficiency but not for sufficiency and necessity (Woodside, 2013). The researcher selects a cut-off consistency value (which usually is equal to 0.80 or more) and retains all combinations that have high enough consistency scores in the final solution (Elliott, 2013). Coverage indicates how many cases in the dataset that have high membership in the outcome condition are represented by a particular causal complex condition. In other words, coverage reflects how much of the outcome is covered (explained) by each solution term (pathway) and by the solution as a whole (Ragin, 2008). Research (e.g., Ragin, 2008; Woodside, 2013) suggests that a model (solution) is informative when consistency is above 0.70 and coverage is between 0.25 and 0.65<sup>2</sup>.

#### **4. Abductive analyses-findings iterations**

FsQCA has mainly been used so far for the examination of cases displaying the presence of simple outcome conditions (Frösén et al., 2016; Rihoux, 2003). The present study embraces a novel use of the method by testing iterations across segments of theory and the actual data matrix. More specifically, this study identifies configurations of antecedent conditions that lead to intersections of certain outcome conditions (i.e.,

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<sup>2</sup> For more information on fsQCA, the reader is also referred to the work of Skarmeas, Leonidou, and Saridakis (2014).

constellations of CSR activities). This approach is highly relevant from a theoretical perspective because firms engage simultaneously in a rather diversified and unique repertoire of CSR initiatives. As a result, viewing each CSR dimension separately and in isolation provides a myopic view of the reality of multiple realities.

This section formally examines our speculations that only configurations (profiles) of CEO, firm, or contextual characteristics can account for the presence of certain CSR engagement types (constellations of CSR activities) and that the actual effect of individual characteristics varies across profiles and CSR engagement types. To examine our research propositions, we work in three steps. In step one, using cluster analysis, we empirically identify a typology of CSR engagement and verify different CSR constellations. In step two, using fsQCA, we assess all alternative complex solutions of CEO, firm, and contextual characteristics that lead to the empirically derived CSR typology of step one. In step three, we present and discuss the most relevant and informative solutions (profiles) explaining the proposed constellations of CSR engagement.

#### *4.1. Step 1: Identifying constellations of CSR activities—A CSR engagement typology*

To derive an empirical typology of CSR engagement, we used a two-step cluster analysis, which has been the dominant tool of analysis for defining groups (see e.g., Ketchen & Shook, 1996). The five dimensions of CSR engagement were used as clustering variables to identify subgroups of specific engagement constellations. First, a preliminary hierarchical cluster analysis using Ward's minimum variance method suggested a two-cluster solution, based on cut-off values and inspection of dendrograms (Ferguson, Deephouse, & Ferguson, 2000). After estimating this two-cluster solution, K-means

cluster analysis was used, with the centroid values of the hierarchical analysis as “seeds” (e.g., Lim, Acito, & Rusetski, 2006). Note that clustering variables were calibrated for the purposes of fsQCA (see Ragin, 2008), a treatment which also facilitates comparability and interpretability of cluster centroids. The results of the predictor importance analysis for the initial two-cluster solution supports a cutoff level of 0.4, “community”, is not an important predictor for cluster membership in the derived two-cluster solution of the initial analysis. The analysis was therefore repeated with the remaining four CSR dimensions within the cutoff level. The second analysis did not lead to further restriction of included variables. The results of the subsequent predictor importance analysis, along with the five identified clusters, are presented in Table 4 and have a good cluster quality. The most important predictor for cluster membership is “product” (1.0), followed by “environment” (0.61), “employee relations” (0.44) and “diversity” (0.41).

*Insert Table 4 here.*

The first cluster comprises 37.5% of cases and associates with very low levels (in fsQCA terms, absence) of all four CSR dimensions. The second cluster comprised 24.9% of cases and is associated with high levels of “diversity” and very low levels (in essence, absence) of the remaining three CSR dimensions. The third cluster comprised 15.9% of cases and associates with high levels of “employee relations” and very low levels (absence) of “product” and “environment”. The fourth cluster comprised 15.2% of cases and is associated with high levels of “environment” and “diversity”, and very low levels (absence) of “product”. Finally, the fifth cluster comprised 6.5% of cases and is associated with high levels across all dimensions, but especially for “product” and “diversity”.

The final five-cluster solution was validated by repeating the clustering procedure in a different random sample from the same population. To perform the validation process, we split the original sample of 277 firms and began the process with a partial sample of 217 cases, reserving a portion of 60 cases for validation. The solution can be considered stable and generalizable to the population, since we were able to replicate it (Aldenderfer & Blashfield, 1984).

Drawing on the results of cluster analysis, we can think about constellations of CSR engagement in terms of the positions they occupy in a two-dimensional space. Positions in this space characterize engagement types (or constellations of CSR activities) by their affinity for the four CSR dimensions. Empirical evidence supports five general positions (types), as Figure 2 illustrates.

*Insert Figure 2 here.*

These CSR engagement types are interpretable as follows. Type one—the *CSR neutral* firm: A CSR avoidant firm that gives minimum attention to all kinds of social initiatives. Type two—the *equality expert* firm: A firm heavily promoting equality and inclusion in the workplace, by welcoming differences, whether these have to do with age, gender, condition, race, culture, religion, physical and developmental differences, and sexual orientation. This firm has a very narrow CSR focus, since emphasis is placed on diversity issues alone, without any attention given to other social dimensions. Type three—the *human capital investor* firm: An internally-oriented firm that focuses primarily on building relations with its employees, and to some extent, on diversity issues. This firm treats employees as customers, by fostering a safe and respectful workplace for them, and by improving their working experience. Type four—the

*philanthropic leader* firm: An externally-oriented firm that focuses primarily on environmental issues, and to some extent, on diversity issues. This firm's repertoire of social initiatives aims at reducing the overall environmental impact in terms of climate change, energy efficiency, waste reduction and recycling. Also, this firm type tends to promote equality and diversity in the workplace. Type five—the *CSR champion* firm: A firm that has a primary concern for social initiatives relating to product quality, product safety and diversity issues. However, this firm type excels on all areas of CSR, since it has an extended repertoire of social activities, which spans the boundaries of all CSR dimensions.

#### 4.2. Step 2: Assessing the alternative derived solutions explaining CSR engagement types

To test our research propositions, using fsQCA we estimated all alternative complex solutions of CEO, firm, and contextual characteristics, separately or in conjunction, that lead to each type (constellation) of the empirically derived CSR engagement typology.

Table 5 summarizes key indexes of all estimated models. The findings indicate that CEO characteristics configurations alone (first row in Table 5) are sufficient for explaining *CSR neutral* firms, because the derived solution has a satisfactory consistency value of 0.75, and a coverage value of 0.60. Similarly, for *equality expert* firms, CEO profile configurations alone yield a solution of high consistency (0.82). Although the low coverage value of 0.08 suggests that the particular CSR engagement type occurs through multiple causal configurations, the CEO profile solution as a whole has a high degree of relevance and is supported by empirical evidence. As a result, CEO configurations alone are useful and highly relevant in explaining *equality expert* firms. On the contrary, CEO profile configurations alone do not yield high consistency scores for *human capital*

*investors* (0.40), *philanthropic leaders* (0.39) and *CSR champions* (0.20). Evidently, CEO configurations alone are less relevant/sufficient in explaining the last three types of CSR engagement, since the respective solutions are not adequately supported by empirical evidence.

*Insert Table 5 here.*

A relatively similar pattern occurs for profile configurations consisting of firm- or contextual-related characteristics (second and third row in Table 5, respectively). Each one of those two sets of characteristics is sufficient by itself to explain *CSR neutral* firms, since the solutions yield consistency scores of 0.78 and 0.75, respectively. However, neither firm nor contextual profile configurations alone are sufficient to explain the remaining four types of CSR engagement, since the respective solutions have consistency scores well below the usual threshold of 0.70.

Finally, the derived profiles consisting of CEO and firm and contextual characteristics together (last row in Table 5), yield solutions with high consistency values across all CSR engagement types (ranging from 0.70 to 0.98), though with very low coverage values for *CSR neutrals* (coverage value: 0.12) and *equality experts* (coverage value: 0.05). Evidently, given the number of antecedents considered in these solutions, they are the least parsimonious in explaining the particular two types of CSR engagement, since they cover a very low number of cases with the given outcomes. On the contrary, the solutions for *human capital investors*, *philanthropic leaders*, and *CSR champions* are rather informative/sufficient - with consistency values of 0.70 or above and satisfactory coverage values, ranging between 0.36 and 0.56.

Taken together, the solution indexes indicate compellingly that CEO, or firm, or contextual profile configurations alone are sufficient for describing *CSR neutral* firms, while CEO profile configurations alone represent the most parsimonious solution for describing *equality expert* firms. These findings provide evidence in support of P1, P2, and P3. On the contrary, profile configurations consisting of all three sets of characteristics together are more sufficient and relevant for the description of *human capital investors*, *philanthropic leaders*, and *CSR champions*, a finding that supports P4 in part.

To frame differently, the findings suggest that firms with a narrow repertoire of CSR activities (e.g., *CSR neutral* or *equality expert* firms), can be sufficiently described on the basis of CEO or firm or contextual characteristics alone, however, as their social repertoire extends to incorporate a variety of initiatives (e.g., *human capital investors*, *philanthropic leaders*, and *CSR champions*), relevant firm types are more sufficiently explained through collective profile configurations incorporating factors at the executive-, micro-, and macro-level.

#### 4.3. Step 3: Causal recipes explaining the derived constellations of CSR engagement

This section describes the most informative and sufficient solutions for the five CSR engagement types of the proposed typology<sup>3</sup>. As noted earlier in step two, *CSR neutral* firms can be accurately described on the basis of CEO or firm or contextual characteristics alone, *equality expert* firms can be accurately described on the basis of CEO characteristics alone, while *human capital investors*, *philanthropic leaders*, and *CSR champions* are more sufficiently explained through collective profile configurations

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<sup>3</sup> Less informative solutions that are not appearing here are also available upon request from the authors.

consisting simultaneously of CEO and firm and contextual characteristics. Table 6 presents causal recipes of the respective solutions.

*Insert Table 6 here.*

#### *4.4. Causal recipes for CSR neutrals*

The findings indicate two CEO profile configurations for *CSR neutral* firms. Both configurations indicate male CEOs of lower compensations (necessary conditions), and usually of longer tenure (configuration one) or older age (configuration two). Further, *CSR neutral* firms are of smaller size and have higher levels of slack resources (necessary conditions). Usually they have high R&D intensity and past performance (configuration two) or low advertising intensity (configuration one). Finally, *CSR neutral* firms operate in industries of low CSR intensity and liberalism (necessary conditions). Market uncertainty can be low – when market concentration is high (configuration one), or high – when industry’s social irresponsibility is low (configuration two).

#### *4.5. Causal recipes for equality experts*

*Equality expert* firms employ female CEOs (necessary condition), usually of shorter tenure and with lower stock ownership (configurations one and two) or of longer tenure and with higher stock ownership (configurations three and four). These female CEOs are mostly of younger ages or of lower compensation.

#### *4.6. Causal recipes for human capital investors*

The findings indicate eight causal recipes describing *human capital investors*. These firms have high R&D intensity, operate in highly CSR intensive industries, and employ male CEOs (necessary conditions). Usually, these CEOs are younger, with longer tenures, lower compensations, and higher levels of stock ownership (not necessarily

though). On most occasions, *human capital investor* firms have high levels of advertising intensity and operate in markets of low concentration, high liberalism, and high social irresponsibility.

#### 4.7. Causal recipes for philanthropic leaders

Eight causal recipes describe *philanthropic leaders*. These firms have high R&D intensity, operate in industries with high social irresponsibility, and employ male CEOs (necessary conditions). These CEOs usually have shorter tenures, higher compensations, and higher levels of stock ownership (not necessarily though). On most occasions, *philanthropic leaders* are represented by firms of larger size, with lower levels of slack resources, and higher levels of advertising intensity. Finally, they mostly operate in markets of high concentration, low uncertainty, high liberalism, and high CSR intensity.

#### 4.8. Causal recipes for CSR champions

The findings include two configurations describing *CSR champions*. Several necessary conditions must be met for this CSR engagement type to occur. More specifically, the firm must employ a male CEO, of older age, longer tenure, higher compensation, and higher stock ownership level. The firm must have a large size, high R&D and advertising intensity, as well as high past performance. Also, it must operate in industries of high liberalism, CSR intensity and social irresponsibility. *CSR champions* can flourish in markets of high or low uncertainty and concentration. Figure 3 summarizes key findings for the profiles of the CSR proposed engagement types.

*Insert Figure 3 here.*

In light of the entire discussion, although some individual characteristics (e.g., CEO gender, R&D intensity, or industry CSR) may be necessary, none are sufficient by

themselves to explain CSR engagement types. Also, there are several occasions where the effect of an individual characteristic varies depending on the additional characteristics of the given causal configuration or the particular CSR engagement type (constellation) examined. These findings support P5 and P6.

## **5. Conclusions and implications**

Contrary to prior researchers, who mainly approach CSR engagement with a uniform conceptualization in mind or by focusing on distinct CSR activities, this study contributes to the literature by offering the first reported attempt of an empirical typology, motivated by asserting that firms may simultaneously engage in unique constellations of diverse CSR initiatives. Drawing on five established CSR dimensions (i.e., product, diversity, environment, employee relations, community) of the existing literature (see e.g., Choi & Wang, 2009), the present study empirically identifies and validates a set of sufficiently heterogeneous CSR engagement types - namely *CSR neutral*, *equality expert*, *human capital investor*, *philanthropic leader*, and *CSR champion*. Our findings suggest compellingly that any model aiming to explain CSR engagement can benefit from specifying combinations of CSR initiatives. Also, it is confirmed that previous approaches measuring CSR engagement in a uniform fashion have serious limitations because in reality firms make different judgments about which stakeholder expectations are important enough to be singled out as worthy of action. In this light, our study offers a broader theoretical and empirical conception of CSR engagement and therefore, broadens the scope of outcomes studied in the CSR literature.

Further, we compile a theoretically relevant “ingredient list” of fifteen CEO-, firm-, and contextual-related characteristics with the overall aim to investigate causal

recipes explaining the proposed types of CSR engagement. This compilation brings us to the second contribution of the present study. Compared to existing net-effect estimations that treat such characteristics as competing with each other in explaining CSR engagement, we take a novel approach, by showing how collective configurations can accurately explain the empirically derived constellations of social initiatives. Whether or not a researcher is interested in managerial responsiveness or unresponsiveness to different social issues, our findings show that taking the presence or absence of factors at the executive-, micro-, and macro-level into account is critical to understanding how firms respond to different stakeholder expectations.

In line with the propositions, the findings indicate that firms with a narrow repertoire of social initiatives (e.g., *CSR neutral* or *equality expert* firms), can be sufficiently described on the basis of CEO or firm or contextual characteristics alone, however, as their social repertoires extend to incorporate a variety of diverse initiatives (e.g., *human capital investors*, *philanthropic leaders*, and *CSR champions*), relevant firm types are explained more sufficiently through collective profile configurations incorporating factors at the executive-, micro-, and macro-level. Further, we confirm that although some individual CEO, firm, or contextual characteristics in isolation may be necessary, none of them is sufficient by its own to explain different types of CSR engagement. More importantly, this study shows that each individual CEO, firm or contextual characteristic may vary independently, however, its actual effect on CSR engagement, is contingent on the combination of the additional characteristics that synergistically occur in the given causal configuration, as well as the engagement constellation under consideration.

The derived typology of social constellations combined with our novel approach extend findings of existing literature, by providing a more nuanced coverage of the conditions under which individual characteristics may positively or negatively influence CSR engagement. For example, with regards to CEO characteristics, literature generally suggests that female CEOs demonstrate stronger ethical views and more positive attitudes toward CSR than male CEOs (e.g., Harjoto & Fabrizio, 2019; O’Fallon & Butterfield, 2005). Our results show that the presence of a female CEO is a necessary condition only in cases where firms have a narrow CSR focus on diversity issues (i.e., *equality expert* firms). All other CSR engagement types are represented mostly by male CEOs. Similarly, multiple studies (e.g., Marquis & Lee, 2013; Petrenko et al., 2016) provide support that CSR engagement is a linear function of the CEO’s age, showing that older CEOs are less pressured by their career goals and more willing to give back to society. Although our results partially confirm this finding by showing that *CSR champions* employ older CEOs, we further suggest that this is not necessarily the case for firms of other social constellations, such as *equality experts* and *human capital investors*. Those firms can employ younger CEOs under certain conditions. More importantly, we show that *CSR neutral* firms tend to employ older CEOs. These findings suggest that the relationship between CEO’s age and CSR engagement is rarely linear.

With regards to the role of firm characteristics, relevant literature suggests that larger firms are willing to engage in CSR because they have high incentives to avoid regulations, reduce potential political costs and protect their corporate image (e.g., Adams, Hill, & Roberts, 1998; Clarke & Gibson-Sweet, 1999). In line with this, smaller firms represent *CSR neutrals*, while *philanthropic leaders* and *CSR champions* are

usually represented by larger firms. However, we further suggest that for certain CSR engagement types, such as *human capital investors*, firm size may vary on the basis of the additional characteristics that simultaneously occur in the given causal recipe. Regarding the role of slack resources, past research has emphasized that when resources are abundant, firms may afford to pursue greater social engagement (Adams & Hardwick, 1998; Carroll, 1991). Our study suggests that this may not be the case on several occasions. For example, high levels of slack resources are needed for *CSR champions*, only in cases where market uncertainty and market concentration are also high. Following a similar reasoning, literature suggests that high past performance allows firms to divert their focus from short-term financial objectives to social objectives (Brammer & Millington, 2008). This holds particularly for *CSR champions*, for which high past performance is a necessary condition, but this is not the case for firms of all other social constellations.

Finally, for contextual characteristics, relevant literature suggests that as market uncertainty increases the firm's incentives to engage in CSR activities will be higher, since socially responsible actions contribute towards gaining a positive image and opportunities not available to other firms (Fombrun, Gardberg, & Barnett 2000). Again, our findings suggest compellingly that the role of market uncertainty in influencing CSR engagement decisions may vary and should not be seen in isolation from other firm- or CEO- related characteristics. For example, *CSR champions* can indeed flourish in markets of high uncertainty—if their slack resources are also high, but they can also flourish in markets of low uncertainty—if their slack resources are also low. Similarly, literature suggests that firms who operate in highly competitive markets (or else markets of low

concentration) face increased complexity, which intensifies their dependence on various stakeholders and their level of CSR engagement (Díaz-Fernández et al., 2019; Tang et al., 2015). We find certain conditions under which this can be either true (e.g., *human capital investors* usually flourish in markets of low concentration) or not (e.g., *philanthropic leaders* usually appear in markets of high concentration). These findings indicate different “recipes” of executive-, micro-, and macro- level factors for different CSR constellations. They also reveal that the role of individual CEO, firm, or contextual characteristics varies on the basis of the CSR constellation examined and the additional “ingredients” that synergistically occur in the given causal recipe

From a methodological perspective, the study contributes to the fsQCA literature by illustrating a novel use of the technique in addressing complex interrelationships. Although previous applications have mainly considered cases displaying the presence of some simple outcome conditions (see e.g., Rihoux, 2003), the present study tests intersections of the presence or absence of multiple outcome conditions, which in essence, represent various CSR constellations of the proposed typology. More broadly, we show how configurational approaches can provide new insights into the examined complex interrelationships, by suggesting that the relationships among variables are rarely linear or symmetric and should not be seen in isolation with each other.

Our findings offer several managerial implications. First, they provide a clear roadmap for managers on how to set their own repertoires of social initiatives on the basis of the unique mixture of executive-, micro-, and macro-level factors characterizing their firms and the context within which they operate. Specifically, in the face of the various executive-, micro-, and macro-level conditions that often push towards competing

responses, managers may find it worthwhile to prioritize effective CSR practices and form appropriate CSR constellations. For example, environments with pervasive investments in R&D and low market uncertainty may facilitate CSR initiatives that focus primarily on the environment and diversity issues. On the contrary, female CEOs with shorter tenure and low stock ownership are more likely to engage in CSR initiatives that focus on diversity issues alone. Finally, the results of this study indicate that firms adopting a wide range of CSR initiatives (termed in this paper as *CSR champions*) may require a thorough understanding of whether several factors at the executive-, micro-, and macro-level coincide to facilitate such a type of engagement. Accordingly, taking into account the intricacy of this task, embracing a very broad vision of CSR which includes the adoption of multiple CSR initiatives may be more complex than previously assumed.

Overall, the research presented herein provides a basis for future research on CSR. Our findings suggest that instead of conceiving different CEO-, firm-, and contextual- specific characteristics as competing predictors, scholars need to determine how these characteristics coalesce to trigger CSR engagement. Far beyond this, our findings demonstrate that these complex relationships can only be realized, if we acknowledge the variability in how firms respond to different stakeholder expectations. In this regard, crucial will be the broader conceptions of CSR engagement. Future studies should both theoretically and empirically incorporate a broader spectrum of different combinations of CSR activities at the firm level. The research question, then, will no longer be whether and which executive-, micro-, and macro- level factors matter most, but in which of these combinations and recipes that trigger these combinations do they matter and how. Future studies should delineate configurations of additional executive-,

micro-, and macro- level factors (e.g., executives' educational background, capital intensity, product market competition) to show the generalizability of our findings. These efforts will no doubt require a combination of both multivariate methods, such as cluster analysis and comparative analytic techniques. Further, we suggest that our methodology should be applied to a great number of issues, so that different theories in the CSR literature can be tested to better explain when and where managers are likely to act towards different social concerns and when and where they will remain quiescent.

## **6. Limitations**

As with all studies, this study here has its own limitations. This study examines causal recipes through configurational approaches on cross-sectional evidence. Future research should address causality through correlational approaches with the use of longitudinal data. Comparing the applicability of configurational and correlational approaches within the particular context, and contrasting the additional insights the proposed technique can offer would be a useful step forward.

Further, examining whether or not the findings hold in other contexts would be interesting. This study focuses on firms in the United States. However, a number of idiosyncrasies might influence the generalizability of our results. For example, literature suggests that US firms develop strong political ties that lead to increased levels of corporate political activism (e.g., Waddock, 2004). This may artificially inflect upwards the level of CSR engagement. Future research will have to determine the extent to which these findings are applicable to other settings.

Further, although this study compiles a broad list of fifteen CEO, firm, and contextual characteristics, additional factors may also affect CSR engagement. For

example, the features of the board of directors (e.g., size, diversity, independence) are expected to influence CSR engagement decisions (Frias-Aceituno, Rodriguez-Ariza, & Garcia-Sanchez, 2013), and therefore the proposed constellations of social initiatives. Incorporating this set of characteristics might yield additional causal recipes, or alter the effects of the ones presented here. Future research needs to further investigate the generalizability of our proposed CSR typology, as well as the complex pathways explaining its processes.

Finally, we restricted our study to only a few, but commonly employed dimensions of CSR. Future studies might gain new insights by employing additional CSR dimensions. Research on CSR, for example, emphasizes the adoption of corporate governance practices that extent to organizational efforts toward limiting compensation to top management and board members, transparent reporting, disclosure of political involvement, leadership in policy development, etc. (see e.g., Harjoto & Jo, 2011; Ioannou & Serafeim, 2015; Mishra & Modi, 2016). Further, we can find in practice a wide range of CSR activities that promote and protect human rights. One way forward could be the utilization of these CSR dimensions, which would allow researchers to specify more multifaceted and therefore, even more diverse constellations of CSR initiatives. A related issue is that in this study CSR initiatives were not classified into alternative domains, such as legal (required by laws) versus normative (voluntary) (e.g., Harjoto & Jo, 2015), embedded versus peripheral (e.g., Aguinis & Glavas, 2013), proactive versus reactive (e.g., Chang, 2015), or legal, economic, informational, partnering or hybrid (e.g., Steurer, 2010). The line of research presented here will be

strengthened substantially if future studies develop a new typology of CSR activities that includes multiple combinations of these domains.

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**Table 1. Illustrative results of previous related studies**

<b>Characteristic</b>	<b>Relevant finding</b>	<b>Study</b>
<i>CEO - level</i>		
CEO gender	Female CEOs are more likely to engage in CSR activities compared to firms with non-female CEOs.	Manner (2010)
CEO tenure	Longer tenured CEOs engage in fewer socially responsible initiatives.	Kang (2010)
CEO age	Older CEOs are more inclined to engage in CSR activities.	McCuddy & Cavin (2009)
CEO compensation	CEO compensation is negatively associated with CSR investment.	Jian & Lee (2015)
Stock ownership	Top management ownership is negatively associated with CSR.	Oh, Chang, & Martynov (2011)
<i>Firm - level</i>		
Firm size	Larger firms have more positive attitudes towards CSR initiatives.	Fülöp, Hisrich, & Szegeedi, (2000)
Firm's slack	There is a positive relationship between financial slack resources and CSR.	Orlitzky, Schmidt, & Rynes, (2003)
Past performance	Improvements in firm performance lead to higher engagement in socially responsible activities.	Mattingly & Olsen (2018)
R&D	R&D investment may result in CSR activities.	McWilliams & Siegel (2001)
Advertising	Advertising plays an important role in raising the awareness of those individuals who are interested in purchasing products with CSR attributes.	McWilliams & Siegel (2001)
<i>Contextual - level</i>		
Industry CSR	The higher the industry CSR, the stronger will be the pressure to act in more socially responsible ways.	Gupta, Briscoe, & Hambrick, (2017)
Industry irresponsible actions	Weak CSR norms may help internal preferences to come to the fore and guide volitional behavior.	Gupta, Briscoe, & Hambrick, (2017)
Market uncertainty	As market uncertainty increases, the firm's incentives to engage in CSR activities become more substantial.	Fombrun, Gardberg, & Barnett (2000)
Market competition	In highly competitive markets, firms might increase their CSR engagement.	Tang et al. (2015)
Liberalism in the firm's headquarters state	In contexts where liberal ideas are widely dispersed, companies may often increase their CSR engagement.	Gupta, Briscoe, & Hambrick (2017)

**Table 2. KLD dimensions and respective strength/concern areas**

<b>Dimension</b>	<b>Definition (Mishra &amp; Modi, 2016)</b>	<b>Strength areas</b>	<b>Concern areas</b>
<i>Diversity</i>	Organizational efforts toward improving diversity of top management (chief executive officer and the board of directors), work/life benefits, women and minority contracting, employment of the disabled, gay and lesbian-inclusive policies, etc.	<ul style="list-style-type: none"> <li>-Assignment of a woman or minority CEO</li> <li>-Promotion of women or minority employees</li> <li>-Assignment of women or minority board of -directors</li> <li>-Work/Life benefits</li> <li>-Women &amp; minority contracting</li> <li>-Employment of the disabled</li> <li>-Gay &amp; lesbian policies</li> <li>-Other strengths</li> </ul>	<ul style="list-style-type: none"> <li>-Controversies and discrimination issues</li> <li>-Non-Representation of women or minorities</li> <li>-Other concerns</li> </ul>
<i>Employee relations</i>	Organizational efforts toward improving union relationships, profit sharing, generating employee involvement, providing retirement benefits, improving health and safety records, etc.	<ul style="list-style-type: none"> <li>-Union relations</li> <li>-Cash profit sharing</li> <li>-Employee involvement</li> <li>-Retirement benefits</li> <li>-Health and safety issues</li> <li>-Other strengths</li> </ul>	<ul style="list-style-type: none"> <li>-Union relations</li> <li>-Health and safety issues</li> <li>-Work force reductions</li> <li>-Other concerns</li> </ul>
<i>Product</i>	Organizational efforts toward maintaining quality, R&D innovation, providing products to the economically disadvantaged, etc.	<ul style="list-style-type: none"> <li>-Product quality</li> <li>-R&amp;D/Innovation</li> <li>-Benefits to economically disadvantaged consumers</li> <li>-Other strengths</li> </ul>	<ul style="list-style-type: none"> <li>-Product safety issues</li> <li>-Controversial marketing/Contracting practices</li> <li>-Antitrust</li> <li>-Other concerns</li> </ul>
<i>Environment</i>	Organizational efforts toward managing the firm's environmental impact through pollution prevention, recycling, clean energy, etc.	<ul style="list-style-type: none"> <li>-Sustainable products and services</li> <li>-Pollution prevention</li> <li>-Recycling</li> <li>-Use of clean energy</li> <li>-Sustainable management systems</li> <li>-Other strengths</li> </ul>	<ul style="list-style-type: none"> <li>-Use of hazardous waste</li> <li>-Regulatory problems</li> <li>-Use of ozone depleting chemicals</li> <li>-Substantial emissions</li> <li>-Use of agricultural chemicals</li> <li>-Impact on climate change</li> <li>-Other concerns</li> </ul>
<i>Community</i>	Organizational efforts toward charitable giving, support for	<ul style="list-style-type: none"> <li>-Charitable giving</li> <li>-Innovative giving</li> </ul>	<ul style="list-style-type: none"> <li>-Investment controversies</li> <li>-Negative economic impact</li> </ul>

	housing and education, volunteer programs, etc.	<ul style="list-style-type: none"> <li>-Non-US charitable giving</li> <li>-Support for housing</li> <li>-Support for education</li> <li>-Volunteer programs</li> <li>-Other strengths</li> </ul>	<ul style="list-style-type: none"> <li>-Tax disputes</li> <li>Other concerns</li> </ul>
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*Note:* KLD dimensions have been used by numerous studies in the CSR literature, including the ones of Choi & Wang, 2009; David, Bloom & Hillman, 2007; Husted, Jamali, & Saffar, 2016; Inoue & Lee, 2011; Mishra & Modi, 2016.

**Table 3. Variables, measurements, data sources, and supporting literature**

<b>Variables</b>	<b>Measurement</b>	<b>Data source</b>	<b>Supporting literature</b>
<i>CEO variables</i>			
CEO gender	Dummy variable indicating that the CEO was female	ExecuComp	Chen, Crossland, & Huang, 2016
CEO age	Chronological age of the CEO	ExecuComp	Petrenko et al., 2015
CEO tenure	Sum of years the CEO had been in office	ExecuComp	Tang et al., 2015
CEO compensation	Sum of short-term and long-term compensation components	ExecuComp	Siegel & Hambrick, 2005
CEO stock ownership	Total value of CEO-owned stock	ExecuComp	Gupta, Briscoe, & Hambrick, 2017
<i>Firm variables</i>			
Firm size	Net sales of the firm	COMPUSTAT	Boyd, 1994; Boyd, Gove, & Hitt, 2005
Slack	Firms' cash holding scaled by firms' market capitalization	COMPUSTAT	Tang et al., 2015
R&D intensity	Ratio of firm R&D expenses to sales	COMPUSTAT	McWilliams & Siegel, (2000)
Past performance (ROA)	Ratio of income before extraordinary items to the book value of assets	COMPUSTAT	Flammer, 2015
Advertising intensity	Ratio of advertising spending to sales	COMPUSTAT	McWilliams & Siegel, (2000)
<i>Contextual variables</i>			
Industry CSR	Average CSR strengths in each industry	KLD	Gupta, Briscoe, & Hambrick, 2017
Industry irresponsible actions	Average CSR concerns in each industry	KLD	Own measure
Industry concentration ratio	Sum of squared market shares (computed based on sales) of all firms in an industry	COMPUSTAT	Flammer, 2018
Market Uncertainty	Standard deviation of analyst earnings per share forecasts scaled by share price	I/B/E/S	Tang et al., 2015
Headquarters state liberalism	Percentage of votes to the Democratic Party in the 2008 presidential election in the firm's headquarters state	Data publicly available	Gupta, Briscoe, & Hambrick, 2017

**Table 4. Final five-cluster solution**

<b>Clustering variables</b>	<b>Predictor importance</b>	<b>Cluster 1</b>	<b>Cluster 2</b>	<b>Cluster 3</b>	<b>Cluster 4</b>	<b>Cluster 5</b>
		37.5% (104)	24.9% (69)	15.9% (44)	15.2% (42)	6.5% (18)
Product	1.00	0.05	0.05	0.05	0.05	0.62
Environment	0.61	0.05	0.05	0.05	0.64	0.49
Employee relations	0.44	0.05	0.05	0.61	0.43	0.46
Diversity	0.41	0.05	0.69	0.45	0.60	0.67

**Table 5. Summary of all alternative solution consistency and coverage indexes**

		Outcome conditions: CSR engagement types					Research Proposition
		<i>CSR Neutral</i>	<i>Equality Expert</i>	<i>Human Capital Investor</i>	<i>Philanthropic Leader</i>	<i>CSR Champion</i>	
<b>Antecedent conditions</b>	CEO profile configuration						
	<i>Solution consistency</i>	0.75	0.82	0.40	0.39	0.20	<b>P1:</b> Confirmed
	<i>(Solution coverage)</i>	(0.60)	(0.08)	(0.63)	(0.74)	(0.85)	
	Firm profile configuration						
<i>Solution consistency</i>	0.78	0.53	0.48	0.48	0.50	<b>P2:</b> Confirmed	
<i>(Solution coverage)</i>	(0.48)	(0.50)	(0.53)	(0.72)	(0.80)		
Contextual profile configurations							
<i>Solution consistency</i>	0.75	0.65	0.50	0.44	0.45	<b>P3:</b> Confirmed	
<i>(Solution coverage)</i>	(0.43)	(0.30)	(0.49)	(0.47)	(0.46)		
CEO, and firm, and contextual profile configurations							
<i>Solution consistency</i>	0.85	0.98	0.76	0.70	0.82	<b>P4:</b> Partially Confirmed	
<i>(Solution coverage)</i>	(0.12)	(0.05)	(0.36)	(0.52)	(0.56)		

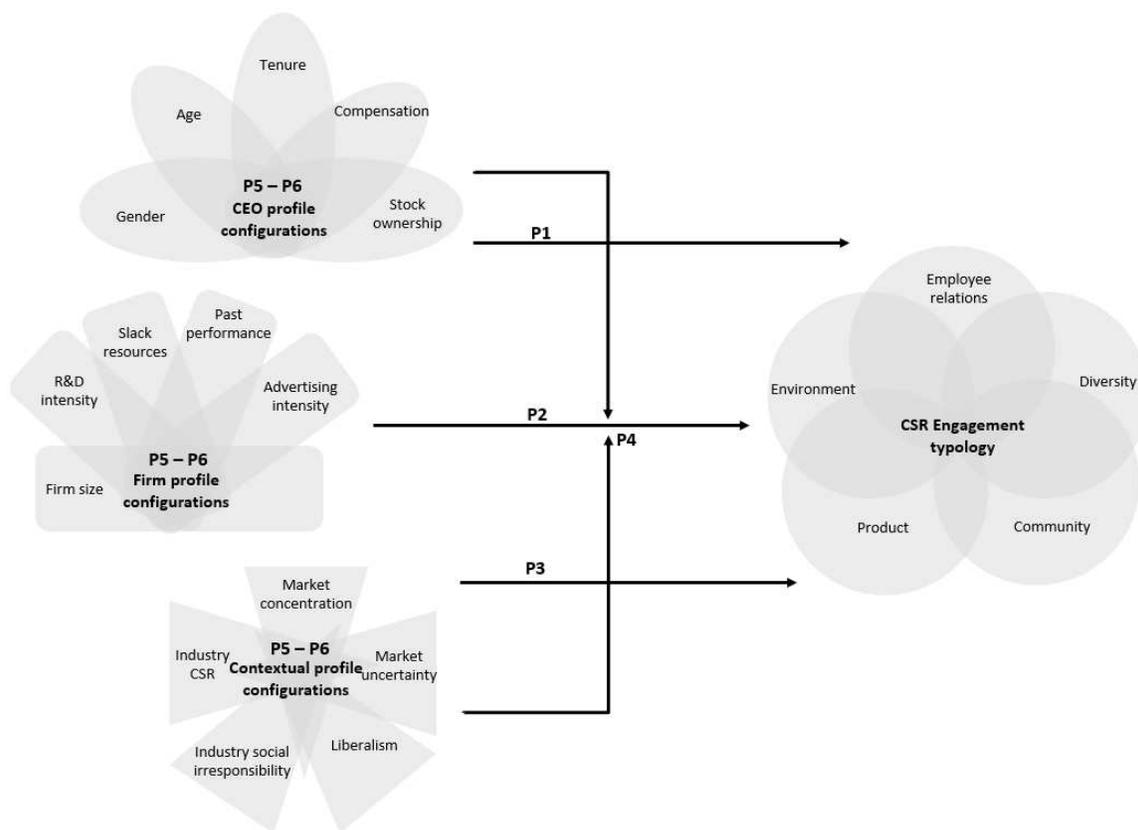
*Note:* The most informative solutions for each CSR engagement type are highlighted in black circles.

**Table 6. Chosen informative solutions explaining CSR engagement types**

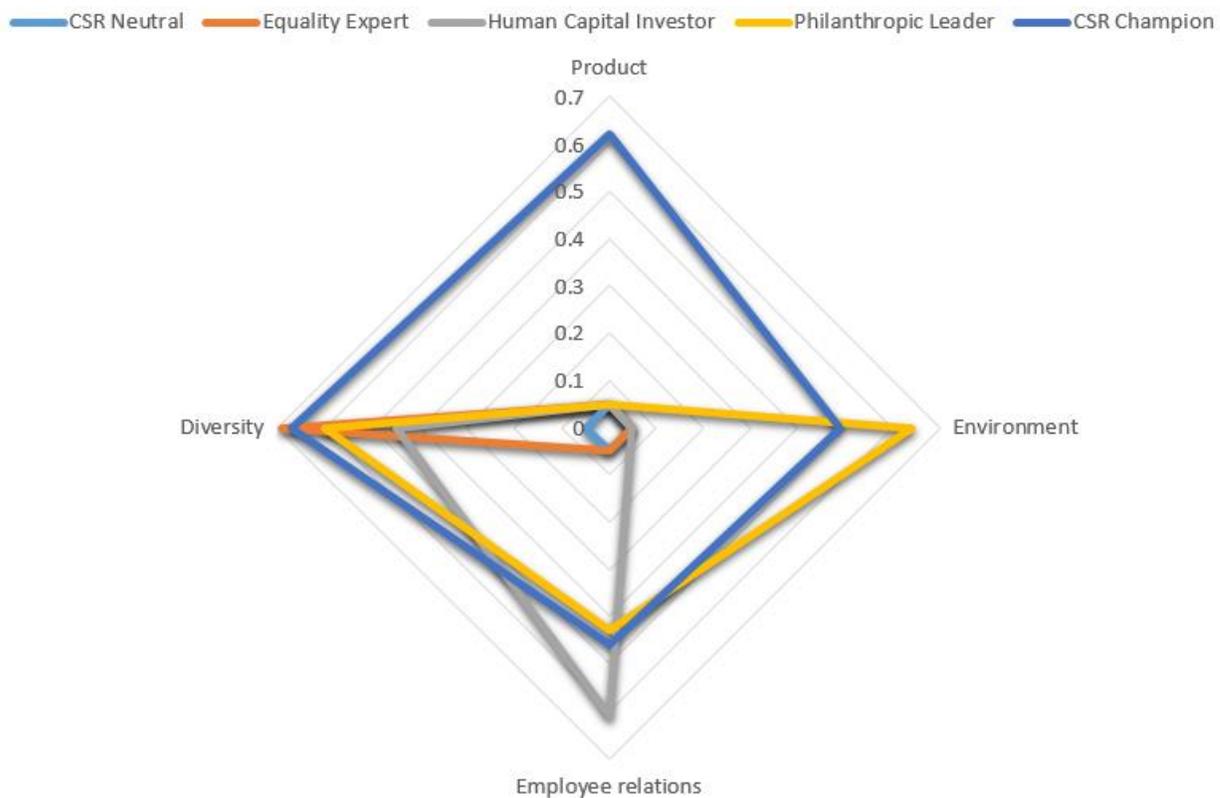
		Outcome conditions: CSR engagement types																																
		CSR Neutral		Equality Expert				Human Capital Investor								Philanthropic Leader								CSR Champion										
Antecedent conditions		1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>									
CEO Characteristics	Female	○	○	○	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○							
	Age		●	∅		○		○		○		○	●		○	●		○		○	○	●	●	●	∅	●	●	●						
	Tenure	●		∅	○	○	●	●	∅	○	○	●	●	●	●	●	∅	○	○	○	○	○	○	●	●	∅	●	●	●					
	Compens	○	○	○	○		○		∅	●	○	●	○	○	○	○	●	∅	○	○	●	●	●	●	●	∅	●	●	●					
	StOwner		○	∅	○	○	●	●	∅	○	●	●	●	●	○	●	∅	○	○	●	●	●	○	○	●	∅	●	●	●					
Raw Cov.		0.52	0.40	0.06	0.06	0.04	0.04																											
Unique Cov.		0.20	0.09	0.00	0.01	0.00	0.00																											
Cons.		0.75	0.77	0.80	0.87	0.87	0.86																											
Solution		Cons.: 0.75 Cov.: 0.60		Cons.: 0.82 Cov.: 0.08																														
Firm Characteristics	Size	○	○	○	X				●	○	○	○	●	●	○	●	∅	●	○	○	●	●	●	●	●	∅	●	●	●					
	R&D		●	∅					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Slack	●	●	●					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	PastPerf.		●	∅					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Adv.Int.	○		∅					●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Raw Cov.		0.46	0.28																															
Unique Cov.		0.21	0.03																															
Cons.		0.78	0.80																															
Solution		Cons.: 0.78 Cov.: 0.48		Cons.: 0.53 Cov.: 0.50																														
Contextual	Concentr	●	●	∅	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○					
	MarkUnc	○	●	∅	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○					
	Liberal.	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○				
	Ind.CSR	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○				
	SocIrresp		○	∅	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○				
Raw Cov.		0.35	0.31	0.19	0.23	0.19	0.17	0.19	0.18	0.17	0.24	0.41	0.31	0.33	0.26	0.36	0.39	0.35	0.34	0.41	0.51	0.02	0.01	0.00	0.01	0.01	0.02	0.00						
Unique Cov.		0.11	0.07	0.02	0.02	0.01	0.00	0.02	0.01	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.02	0.00	0.05	0.16	0.02	0.01	0.00	0.01	0.01	0.02	0.00						

Cons.	0.75 0.77		0.82 0.81 0.83 0.81 0.81 0.82 0.84 0.84	0.81 0.80 0.81 0.81 0.83 0.84 0.82 0.84	0.81 0.84
Solution	Cons.: 0.75 Cov.: 0.43	Cons.: 0.65 Cov.: 0.30	Cons.: 0.76 Cov.: 0.36	Cons.: 0.70 Cov.: 0.52	Cons.: 0.82 Cov.: 0.56

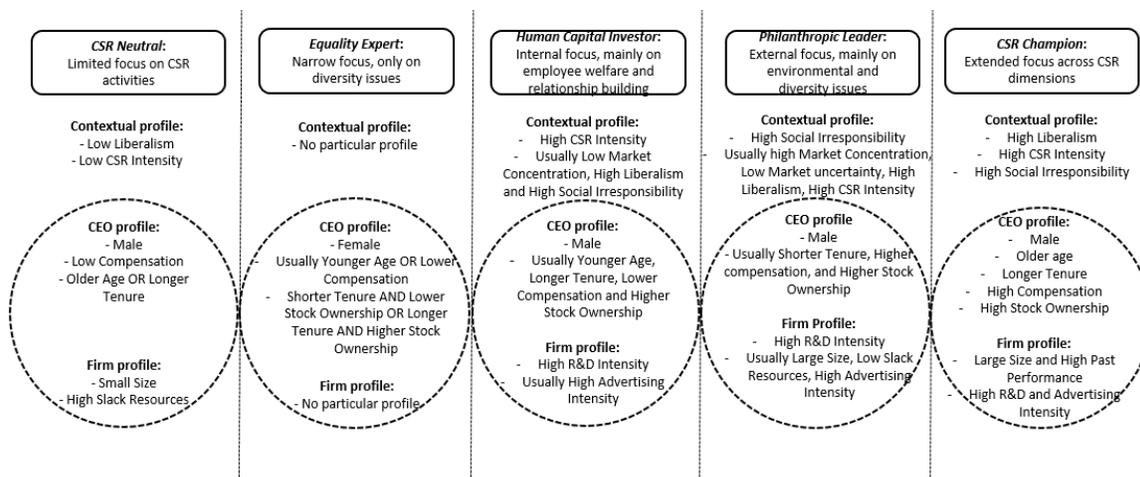
*Note:* Black circles indicate high presence of a condition, and white circles indicate negation of a condition (high nonmembership in the condition). Large black (white) circles indicate a core-necessary condition of presence (absence). “Ø” indicates a peripheral (not necessary) condition. Blank spaces in a pathway indicate “don’t care”. Sections of the table that are crossed off represent non-informative solutions (i.e., low consistency scores) and are available upon request from the authors



**Figure 1. Research model**



**Figure 2. Typology of CSR engagement defined by the activities mostly performed**



**Figure 3. Profiles of CSR engagement types**