

## When is there a sustainability case for CSR?

### Pathways to environmental and social performance improvements

Article published in Business & Society 1–47 © The Author(s) 2018  
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DOI: 10.1177/0007650318755648 [journals.sagepub.com/home/bas](http://journals.sagepub.com/home/bas)

MINNA HALME

Aalto University School of Business  
Department of Management Studies  
P.O.Box 21230, 00076 AALTO, Helsinki, Finland  
[minna.halme@aalto.fi](mailto:minna.halme@aalto.fi)

JUKKA RINTAMÄKI

Aalto University School of Business  
[jukka.rintamaki@aalto.fi](mailto:jukka.rintamaki@aalto.fi)

LEENA LANKOSKI

Aalto University School of Business  
[leena.lankoski@aalto.fi](mailto:leena.lankoski@aalto.fi)

JETTE STEEN KNUDSEN

Fletcher School of Law and Diplomacy, Tufts University  
[Jette.knudsen@tufts.edu](mailto:Jette.knudsen@tufts.edu)

MIKA KUISMA

Aalto University School of Business  
[mika.kuisma@aalto.fi](mailto:mika.kuisma@aalto.fi)

# **WHEN IS THERE A SUSTAINABILITY CASE FOR CSR? PATHWAYS TO ENVIRONMENTAL AND SOCIAL PERFORMANCE IMPROVEMENTS**

## **Abstract**

Little is known about when corporate social responsibility (CSR) leads to a sustainability case, i.e. to improvements in environmental and social performance. Building on various forms of decoupling, we develop a theoretical framework for examining pathways from institutional pressures through CSR management to sustainability performance. To empirically identify such pathways, we apply fuzzy-set qualitative comparative analysis (fsQCA) to an extensive dataset from 19 large companies. We discover that different pathways are associated with environmental and social performance (non)improvements, and that pathways to success and failure are for the most part not symmetrical. We identify two pathways to improved environmental performance, an exogenous and an endogenous one. We find two pathways to improved social performance that both involve integrating social responsibility into the core business. Pathways to non-improvements are multiple, suggesting that failure can occur in a number of ways, while there are only a few pathways to sustainability performance improvements.

**Keywords:** Corporate social responsibility, environmental performance, corporate social performance, sustainability, QCA

Whether and when there is a business case for corporate social responsibility (CSR) has attracted enormous attention for over two decades. By contrast, the question of a 'sustainability case', in other words whether and when CSR management contributes to real improvements in the environmental and social performance of companies (which we call jointly sustainability performance)<sup>1</sup>, has received less attention in the literature (Aguinis & Glavas, 2012; Halme & Laurila, 2009; Wang, Tong, Takeuchi & George, 2016). Certainly a large body of scholarship has examined corporate social responsiveness and corporate social performance, both from a general perspective (e.g., Swanson, 1995, Wood, 1991a; Wood, 1991b) and, since the integration of a stakeholder framework in this literature by Wood and Jones (1995), from a stakeholder-specific perspective (e.g., Westermann-Behaylo et al., 2013 for employees). In spite of the contributions of this literature, studies focusing on performance outcomes in terms of social and environmental impacts are nevertheless still in a small minority. This imbalance is surprising given that the very *raison d'être* of CSR is to respond to concerns for the negative environmental and social externalities of business (Mäkinen & Kourula, 2012).

The topic of an eventual sustainability case might seem redundant at first sight. After all, does not CSR by definition contribute to environmental and social improvements? Yet, such an assumption has increasingly been called into question as CSR has failed to satisfy expectations in terms of promoting a better society and reducing the ecological harm that results from business activity (e.g. Banerjee, 2007; Fleming & Jones, 2013). Indeed, commentators have argued (e.g., Margolis & Walsh, 2003; Wood, 2010) that research on the environmental and social benefits (or lack thereof) of CSR is warranted, and a debate on so-called decoupling (Meyer & Rowan, 1977) is emerging in the context of CSR (e.g., Aravind & Christmann, 2011; Crilly, Zollo & Hansen, 2012).

One form of decoupling is policy-practice decoupling which refers to a divergence between CSR statements and CSR practices, sometimes also called 'CSR-washing' (Pope & Wæraas, 2016). Another, perhaps less obvious form of decoupling is that occurring between CSR management practices and environmental and social performance improvements. Such means-ends decoupling (Bromley & Powell, 2012) occurs when practices are carried out but they have an uncertain link to outcomes. It does not have to imply intentionality but merely ambiguity about how to achieve results effectively (Crilly, Hansen, & Zollo, 2016). Means-ends decoupling is more likely when the relationship between means and ends is complex and opaque, and it may be even more widespread and consequential than policy-practice decoupling (Bromley & Powell, 2012).

According to Orton and Weick (1990, ref. Bromley & Powell, 2012, p. 500), decoupling due to causal indeterminacy between means and ends is "particularly prevalent in the production of complex social or public goods". This clearly applies to CSR. It would therefore be important to clarify means-ends relationships and to identify practices that best achieve outcomes in the context of CSR. However, we are not aware of any empirical research that would really tease out the link between CSR management and environmental and social performance in order to understand the nature of this link, when it will lead to performance improvements, and when and why the link might be broken, preventing performance improvements. Without an understanding of the pathways leading (and failing to lead) to environmental and social performance improvements, the link between CSR management and sustainability performance remains a 'black box' and the problem of decoupling cannot be effectively addressed, neither by companies themselves nor by regulators or NGOs. Yet, there is an urgent need to tackle decoupling in light of the severity of environmental problems such as climate change and loss of natural resources (Rockström

et al., 2009; UNEP, 2005), and social concerns such as the widening wealth gap (Credit Suisse, 2015) or labor rights violations in corporate supply chains (Locke, 2013).

In this paper we present a systematic empirical analysis of the pathways to improved environmental and social performance. We draw on a unique original dataset consisting of in-depth case studies of 19 large European multinational corporations in different sectors, with a particularly wide variety of indicators for performance measurement. We apply qualitative comparative analysis (QCA) (Ragin, 2009) to examine the configurations of conditions, or pathways as we interchangeably call them here, that are (or are not) associated with environmental and social performance improvements. Adopting a configurational approach allows us to avoid a problem that plagues much of CSR literature, namely that of confounding CSR 'inputs' (the policies and practices) with CSR 'outputs' (the results achieved with those inputs). Instead, we make a clear distinction between antecedents of sustainability performance and the performance itself. What is more, this novel method in organization studies and CSR especially (Delmas and Pecovic, 2017; Maggetti, 2012; Slager, 2015) exhibits several strengths: QCA directly addresses the notions of equifinality, where a particular outcome may be the result of several different configurations; conjunctural causation where conditions leading to outcomes do not operate in isolation but rather in concert; and asymmetrical causation where explanations for negative and positive outcomes may involve unrelated mechanisms and conditions (Misangyi et al., 2017; Rihoux & Ragin, 2009). In addition it allows a permanent dialogue between thick case-knowledge and a systematic analysis of the cases in question (Misangyi et al., 2017).

Our research question is thus: *What are the configurations associated with improved and non-improved sustainability performance?* In order to advance a fine-grained understanding of CSR as a complex construct, we ask two elaborating questions. One is: *Are the pathways to sustainability performance improvements and non-improvements*

*symmetrical?* In other words, if the presence of certain conditions produces performance improvements, we are interested in knowing whether performance non-improvements are simply produced by the absence of those conditions or whether the causal relationships are more intricate than this. Further, we ask: *Are the pathways to environmental and social performance identical?* Here we would like to learn how the nature of the sustainability issue potentially affects the pathways to improved (or non-improved) performance.

We find that there are two pathways to improved environmental performance: an exogenous pathway for publicly listed MNCs adhering to systems and standards, and an endogenous pathway for cooperatives and family-owned firms with more internally customized approaches to CSR. As to improving social performance, we find two pathways that both involve integrating social responsibility into core business. Pathways to non-improvements are multiple, suggesting that failure can occur in a number of ways but recipes for sustainability performance improvements are few. These results fundamentally advance understanding of the ‘sustainability case’ by showing how different pathways are associated with performance (non)improvements in the environmental and social domains, and how pathways to success and failure are for the most part not symmetrical.

The remainder of the paper is structured as follows. In the next section we develop our theoretical framework. We discuss the key concept of sustainability performance, describe the link from institutional pressures through CSR management to sustainability performance improvements, and review conditions that may affect the proneness of that link to various forms of decoupling. Thereafter we present our data, methods, and findings. We conclude by discussing the contributions and implications of our paper.

## **From Institutional Pressures through CSR Management to Sustainability**

### **Performance Improvements**

We will next discuss our key concept, sustainability performance and then address conditions from the stakeholder, CSR management, and environmental and social performance literatures that may affect the delivery of performance improvements.

#### *The Conceptualization of Sustainability Performance*

There has been a widespread issue with the conceptualization and measurement of sustainability performance: the tendency to equate CSR policies, practices and programs with performance. When speaking about 'performance', management studies often do not make a distinction between firms' policies and practices that lead (or do not lead) to performance, and the actual performance in terms of outcomes, such as amounts of energy or water used, CO<sub>2</sub> emissions, work-related injuries, non-compliance with human rights, and so on (Herbohn, Walker & Loo, 2014; Wong, Ormiston & Tetlock, 2011). Instead, the studies tend to lump together items ranging from "principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships" (Wood, 1991a, p. 693). Similarly, in more practical contexts, different standardization organizations or raters of CSR often rank companies based on their formal principles on processes, rather than the actual performance in environmental or social terms. This is true even for the most widely used CSR rating systems such as ASSET4 or KLD (Chatterji, Levine & Toffel, 2009). Such confusion fails to generate knowledge on what kind of CSR initiatives are effective in advancing better environmental and social performance. Truly, practices and programs should be considered mere antecedents to actual sustainability

performance, understood to concern real impacts for nature or for society (Whiteman, Walker & Perego, 2013).

Another common issue in sustainability performance research has been the treatment of CSR as a monolithic concept – in other words, often no distinction between environmental and social issues is made (Godfrey, Merrill & Hansen, 2009). Even though literatures on specifically social or environmental aspects of corporate performance do exist, the lack of evidence on social and environmental performance differences undermines the usefulness of CSR as a research concept and as a policy tool (Midttun, Gjolberg, Kourula, Sweet & Vallentin, 2015). The business case literature indicates that whenever the research design had allowed for differences between the financial performance impacts of environmental and social performance, such differences were indeed discovered (Lankoski, 2009). Correspondingly, for the sake of capturing a thorough and nuanced representation of sustainability performance, it may be necessary to distinguish environmental and social aspects of CSR as their own categories in sustainability case research as well.

We address both issues described above. In our theoretical framework we make the distinction explicit between performance and antecedents to performance. Furthermore, in our empirical work we evaluate environmental and social performance independently of each other. We focus specifically on performance *improvements*, which is natural given our focus on decoupling.

#### *The Link between Institutional Pressures, CSR Management, and Sustainability Performance*

According to institutional theory, organizations adapt to pressures in the institutional environment in order to survive and maintain legitimacy (DiMaggio & Powell, 1991; Edelman, 1992; Meyer & Rowan, 1977). In the case of sustainability-related pressures, the function through which such adaptation occurs is CSR management. It has been argued to



consist of strategic CSR management, whose task it is to set sustainability goals, and operative CSR management, whose task it is to organize activities to achieve those goals (Lankoski, 2016). Both types of CSR management are relevant when discussing the sustainability case. This is illustrated in Figure 1 which lays out the chain from institutional pressures through CSR management to sustainability performance improvements. Obtaining environmental or social improvements requires an effort at each step of the chain. This means identifying institutional pressures, setting policies that respond to those pressures, and implementing measures to execute the policies through the establishment of formal structures and/or the embedding of CSR in core practices.

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Insert Figure 1 about here  
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However, this fragile chain may be broken at every stage, as shown in Figure 1, leading to performance non-improvements. First, even if there are sustainability pressures in the institutional environment, the response of the firm to these pressures may sometimes be non-conforming. According to Oliver (1991), firms' strategic responses to institutional pressures range from passive conformity to active resistance. In a nonconformity situation the firm is not even attempting to 'fake it nor make it', and the sustainability goals are so unambitious so as to lead to no improvements. While this situation has not previously been called decoupling, in fact it can be seen as one kind of manifestation of the same broad phenomenon: the breaking up, or de-coupling, of the connection between societal expectations and firm responses. Thus, we call this pressure-policy decoupling. Second, there can be policy-practice decoupling, i.e. symbolic or no implementation of the conforming policies (e.g., Fiss & Zajac, 2006; Oliver, 1991). In this case the firm does establish policies and goals to externally conform to institutional pressures and thus achieve legitimacy, but the

policies and goals are not translated into real action.<sup>2</sup> Third, means-ends decoupling in the form of ineffective implementation may also be present. Even though the firm is attempting to implement its policies, there is a disconnection between its activities and the intended performance outcomes. (Bromley & Powell, 2012).

What, then, determines whether each stage will contribute to performance improvements or whether the chain will indeed be broken and decoupling will occur? Different factors have been suggested in literature to influence the effectiveness of strategic and operative CSR management in producing performance improvements. We discuss five such key factors below as they relate to our theoretical framework (see also Figure 1).

### *Institutional Pressures*

**External pressure.** Corporations are more likely to act in socially responsible ways if they encounter stakeholder pressure and a normative institutional environment that encourages socially responsible behavior (Husted & Allen, 2006; Marano & Kostova, 2015; Matten & Moon, 2008). Such an institutional environment can be created by strong regulations and policies supporting CSR initiatives, like those that have recently emerged across Europe (Albareda, Lozano & Ysa 2007; Brown & Knudsen, 2013; Matten & Moon, 2008), and by pressure from stakeholders such as customers and NGOs (Campbell, 2007; Lee & Lounsbury, 2011).

### *Strategic CSR Management*

Strategic CSR, that is, the choice of an attempted sustainability performance level, is affected by constraints on the one hand and drivers and enablers on the other. Management is balancing between these constraints and enablers when setting CSR goals. In addition to external pressure originating from the institutional context, another causal condition whose

presence, according to the literature, may support the setting of ambitious CSR goals is accountable ownership.

*Accountable ownership.* Ownership form may have a considerable influence on the environmental and social performance of firms (Arthur, Cato, Keenoy & Smith, 2007; Bingham, Dyer, Smith & Adams, 2011; Prado-Lorenzo, Gallego-Alvarez & Garcia-Sanchez, 2009). The more faceless the ownership, the less the management may be able to set ambitious goals for environmental and social performance. In this context, with accountable ownership we mean the opposite of facelessness: owners who are identifiable and whose relationship with the firm is involved. At one extreme, a number of CSR scholars claim that the traditional shareholder model of ownership leaves little room for CSR or any other goals than profit and shareholder value maximization (Banerjee, 2007; Jensen, 2002; Mäkinen & Kourula, 2012). The situation may change with a majority owner: Prado-Lorenzo et al. (2009), for example, found that owners with a controlling share have a longer-term interest in the firm than shareholders with little direct power, and thus their presence has a positive influence on CSR. Furthermore, family firms appear to differ from non-family firms with regard to aggregate measures of CSR (Adams, Taschian & Shore, 1996; Berrone, Cruz, Gomez-Mejia & Larraza-Kintana 2007; Wiklund, 2006). Bingham et al. (2011), for example, discovered that family firms are more assertive with social initiatives when compared against non-family firms. Finally, there is indication that other types of ownership, such as cooperative models, are more likely to be socially responsible than more traditional models. Arthur et al. (2007) have found, for example, that more local ownership and the co-operative organizational form are likely to ensure a higher level of corporate responsibility, and Brickson (2005) found that cooperatives have a more collectivistic identity orientation than other firms.

### *Operative CSR Management*

Operative CSR management refers to the carrying out of CSR activities in order to achieve the performance level defined by strategic CSR. This entails both the choice of activities and their implementation. Three sets of internal practices can be considered as the predominant means of carrying out CSR at the operative level. They are setting up a CSR organization, using CSR management systems, and integrating responsibility considerations into the core business (Blowfield & Murray, 2011; Boiral, 2011; Dunphy, Griffith & Benn, 2003; Porter & Kramer, 2011).

***Strength of CSR organization.*** This causal condition relates to the establishment of formal structures in our model. How firms organize their CSR may influence performance. Firms have developed various models for organizing their responsibility management. Some firms have a separate CSR department, which is often considered an advanced way of organizing CSR (Cetindamar & Husoy, 2007). Some firms, on the other hand, have CSR managers placed in the communications, legal or similar departments. These firms are considered to prioritize CSR lower than those with specialized departments (Dunphy et al., 2003; Maon, Lindgreen & Swaen, 2009). In the weakest option a firm has neither a CSR department nor a CSR manager. Another aspect to consider in this regard is top management support to CSR. If the CSR department reports directly to top management, it is considered to strengthen the CSR organization (Howard-Grenville, Nash & Coglianese, 2008; Kinnicutt & Mirvis, 2008).

***Use of CSR management systems.*** CSR management systems and their certifications that have evolved over the past two decades represent the first systematic business-side response to sustainability demands raised by stakeholders (Behnam & MacLean, 2011). From the plethora of CSR management instruments, certification-based standards (e.g., ISO14001, SA8000) are more likely to shape performance than principle-

based (e.g., UN Global Compact) or reporting-based standards (like the GRI) (Behnam & MacLean, 2011). Certified environmental management systems have been found to positively influence issues like landfill waste amounts (Erkkola, Melanen & Mickwitz, 2005; Kuisma, Lovio & Niskanen, 2001), and an OHSAS 18001 certification has been noted to influence company safety performance (Vinodkumar & Bhasi, 2011). Nonetheless, previous studies on the ISO14001 environmental management standard have found that the act of standard certification does not yet guarantee the quality of standard implementation which significantly affects the environmental performance outcomes (Aravind & Christmann, 2011; Barla, 2007; Boiral, 2007). Consistent with this observation, in our model the use of CSR management systems is situated between formal structures and core practices: introducing a management system is a way of bringing CSR to formal structures, but the spirit of the management system may or may not be carried over to the organization's daily practices.

***Integration of CSR in core business.*** This causal condition relates to embedding CSR in core practices. It has been observed that firms vary in terms of the extent they integrate CSR into their core business activities (Crilly et al., 2012; Halme & Laurila, 2009; Hillman & Keim, 2001). In some firms, CSR runs the risk of ending up as an add-on and not contributing to performance in any way (Bowen & Aragon-Correa, 2014). An approach that is likely to be more effective in achieving improvements is one which combines responsibility considerations with core business operations. This type of responsibility is characterized by actions like reducing the environmental burden caused by the firm's products and services throughout their life-cycle (e.g., manufacturing companies designing low-energy and low material-intensity products or retailers conducting choice-editing in favor of fair trade or organic and local groceries), ensuring high product quality and investment in R&D (responsibility towards customers), paying just wages and avoiding overcompensation to top managers at the cost of other employees (Halme & Laurila, 2009; Hillman & Keim,

2001). Beyond integration, more progressive companies in addition innovate new, more sustainable products or business models (Halme & Laurila, 2009; Hart, 2007; Porter & Kramer, 2006 & 2011).

## **Data and Methods**

We now turn to presenting our empirical work where we examine the influence of the five causal conditions on environmental and social performance improvements.

### *Methodology*

We argue that traditional quantitative methods are unable to provide a full picture of sustainability performance and decoupling. This is because the phenomenon under study is likely to exhibit certain characteristics that correlation-based studies cannot account for (Schneider & Wagemann, 2012). First, there may be *equifinality* (Fiss, 2007; Rihoux & Ragin, 2009, 8-9), making it possible that not only one particular configuration of CSR practices leads to improved (or not) sustainability performance but that multiple pathways exist (see Crilly et al., 2012). Second, *conjunctural causation* may be present. The antecedents to sustainability performance may not operate in isolation but rather in an interdependent manner, and certain combinations of antecedents are likely to be meaningful in determining environmental and social performance (Aguinis & Glavas, 2012; Margolis & Walsh, 2003;). Third, there may also be *asymmetrical causation*. In the context of CSR, it has already been brought up in the business case literature (e.g., Lankoski, 2009; Wood, 2010) and may well exist also with respect to the sustainability case, where asymmetrical causation would mean that configurations that produce performance improvements and configurations that fail to produce such improvements are not simple mirror images of one another.

In order to account for these characteristics and to gain new insights into the complex relationships at play, we approach the topic by applying fuzzy-set qualitative comparative analysis (fsQCA) to analyze how CSR management elements in combination produce – or fail to produce – joint effects on sustainability performance (see Rihoux and Ragin, 2009).

Our research approach incorporated both deductive and inductive elements, following Fereday and Muir-Cochrane (2006) and Dubois and Gadde (2002). We deductively drew on diverse literature on CSR management and decoupling to develop our theoretical model. Regarding the fuzzy sets, while some conditions of our model lent themselves for deductive development, for the remaining conditions as well as for the outcome we inductively developed the fuzzy sets drawing on case-based knowledge, as will be described below. The inductive component is further strengthened by the fact that the primary purpose of our study is to develop theory from empirical observations (Misangyi et al., 2017). Our integrative approach allows us to elaborate theory on the complex relations between institutional pressures and CSR management and their links to environmental and social performance.

#### *Dataset*

**Cases.** Our dataset consists of 19 European-based large case companies from the automotive, construction, ICT, retail, and textile sectors (Table 1). We applied purposeful sampling (Patton, 1990) to identify large companies that present themselves as committed to CSR. Accordingly, our case companies are large (over 250 employees and turnover over 50M€) (COM, 2012) (Appendix 1).

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Insert Table 1 about here

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**Data collection.** In order to triangulate data concerning our causal conditions and environmental and social performance, we acquired qualitative and quantitative data from multiple sources. First, we carried out semi-structured interviews with altogether 101 case company representatives from different functions and levels: top managers (12 interviews), and professionals from the CSR (30 interviews), HRM (18), marketing/communications (15), and R&D (26) functions. Our particular focus areas in these interviews were external CSR pressures, CSR management, and environmental and social performance. Second, we collected quantitative environmental and social performance data of the case companies on a set of indicators (see indicator lists in Appendices 2 and 3). The performance data originated partially from internal company sources and partially from public sustainability reports. To assess changes in environmental and social performance we compared two sets of data with a three-year interval as CSR activities take time to manifest in performance improvements (Boiral, 2011). Third, we conducted semi-structured interviews with 66 stakeholder representatives including critical NGOs, authorities responsible for regulating or monitoring an environmental and/or social issue central to the company, and trade unions and industry associations linked with the industry of the company (see the stakeholder typology by Post, Preston & Sachs, 2002). Here, our particular focus was on the pressure exerted by the stakeholders and the respondents' assessment of the environmental and social performance of the focal company. Overall, we triangulated all data from multiple sources.

**Measurement of outcome.** We wanted our measurement of the outcome – environmental and social performance improvements – to be broad and inclusive, yet focused on significant aspects. As already discussed, we measure environmental and social performance separately and because CSR is a multi-faceted concept, we measure both through multiple indicators. The measurement was done in three steps depicted in Figure 2.



In the first step, we determined the significant environmental and social performance categories and their respective indicators by drawing on authoritative research and policy reports and on the vast knowledge base of over 20 sustainability researchers from different disciplines. In the second step, we analyzed the case companies' performance against these indicators. In the third step, we defined the fuzzy-set values for environmental and social performance iteratively. Our data most naturally lent itself for a four-value fuzzy-set (Appendix 4).

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Insert Figure 2 about here  
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***Measurement of causal conditions.*** Moving on to the causal conditions, our model (Figure 1) is interested in the effectiveness of CSR management in producing improvements in performance. With the help of the five conditions identified on the basis of previous literature, we operationalized factors influencing the susceptibility that there is to decoupling in the link from institutional pressures through CSR management to sustainability performance improvements. As discussed above in our literature review, the conditions are external pressure, accountable ownership, strength of CSR organization, use of CSR management systems, and integration of CSR into core business. Of these, external pressure, use of CSR management systems, and integration of CSR into core business are measured separately for the environmental and social domains, whereas accountable ownership and strength of CSR organization are measured jointly for both domains.

### *Data calibration*

To be able to proceed with the QCA analysis, fuzzy-set values needed to be determined for the five conditions. Following Basurto and Speer (2012), we based the definition of the fuzzy-set values on the theoretical concept of interest and on our knowledge of the cases. The level of detail of the cases appeared to favour a four-value fuzzy set which permits membership scores “fully out [0]”, “more out than in [0.33]”, “more in than out [0.67]” and “fully in [1]”.

For *external pressure* to be fully [1] or partially [0.67] in, the interviews were to display strong or moderate (environmental and/or social) pressure respectively, and for partially [0.33] or fully [0] out, occasional reference to or no indication of external pressure were observed, respectively. For *accountable ownership*, as per our theoretical evaluation, to be considered fully in, a firm was to be cooperatively owned or similar. In order to be partially in, family-run or similar was required. To be partially out meant the firm was publicly listed with a majority owner, while a firm that is fully out was to be publicly listed. For the *strength of CSR organization*, following our literature-based reasoning, a firm to be fully in was to have a CSR department reporting to top management, while for partially in a stand-alone CSR department was required. For partially out, the firm was to have a CSR manager but no dedicated CSR department, and firms that were fully out had no full-time CSR manager at all. For the fourth condition, *use of CSR management systems*, previous studies indicated the following: For a firm to be fully in, a certified, widely accepted standard such as ISO 14001 was to be in place; to be partially in, a non-certified similar standard was required instead. In order to be partially out, a company-internal (environmental or social) management system was required, while to be fully out, no such systems were reported at all. Finally, for the condition *integration of CSR into core business* it was possible to determine criteria for fully or partially in from Halme and Laurila (2009) and Porter and Kramer (2011).

As the literature offered only indicative pointers for the lower categories, they were to a large part inductively developed against the backdrop of case knowledge. This suggested the value 0.33 for firms that integrate responsibility at a business unit or product group level, but not throughout the company, and the value 0 for firms displaying only sporadic CSR initiatives. Table 2 depicts the definitions of conditions, their fuzzy-set definitions, sources of data, and illustrative quotes or examples for conditions when relevant.

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Insert Table 2 about here  
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The assignment of membership scores was conducted by three of the authors of this paper; each case was originally assigned a membership score by one author, after which the scores were triangulated by the two other authors. The process included several rounds of iterations, and each of the three authors went through each case. The final calibrated scores can be found in Table 3.

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Insert Table 3 about here  
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### *Analysis*

We used the commonly applied fs/QCA (3.0) software for our analysis ([www.fsqca.com](http://www.fsqca.com)). We examined the occurrence and the non-occurrence of our outcome separately, as is good practice with QCA (Schneider & Wagemann, 2012). We constructed truth tables (see Electronic Supplement) in order to identify the configurations of conditions associated with

our selected outcomes (environmental and social performance (non)improvements make altogether four outcomes). Here, we left out the configurations which did not occur among our set of 19 cases. Following Ragin (2009), we chose the consistency threshold 0.80 in order to identify configurations that are reliably associated with the outcome. As we are engaged with a small-N QCA study, we determined the frequency threshold as 1.

Next we employed the truth table algorithms for determining the solutions relevant to our investigation. To achieve this, the algorithm uses counterfactual analysis (see e.g. Ragin & Sonnett, 2005; Soda & Furnari, 2012) to evaluate the plausibility of counterfactual configurations (i.e. configurations that do not exist in the dataset but are theoretically plausible) and their respective outcomes. This is done in order to deal with limited diversity (Fiss, 2011; Ragin & Sonnett, 2005) that inevitably follows when working with datasets with a limited number of cases, such as ours. Like other scholars, (Fiss, 2011; Ragin & Fiss, 2008), we primarily rely on intermediate solutions as they incorporate simplifying assumptions that are theoretically and empirically consistent with the outcome and thus are regarded as the most useful ones (Ragin & Sonnett, 2005). To attain the intermediate solutions, we assumed in line with our literature review that each condition was present in the case of a positive outcome.

## **Findings**

The results of our analysis indicate that the pathways to the (non)improvement of environmental performance are different from the pathways to the (non)improvement of social performance, and that the performance outcome in these two domains is not necessarily the same within a company. Of the 19 companies in the sample, over half (10) had differences in the environmental versus social performance outcomes (see Table 3).

The configurations associated with performance improvements and non-improvements are depicted in Tables 4 and 5. Conditions forming a configuration are represented by black and crossed-out orbs. Core conditions are marked with large symbols, while peripheral conditions are represented by small symbols (see Ragin & Fiss, 2008). Core conditions are more decisive causal ingredients, while peripheral conditions are contributing conditions that could be removed from the solution if the researcher would be willing to make assumptions that are at odds with theoretical knowledge or substantive assumptions (Misangyi et al., 2017, p. 276). Blank spaces in a solution term indicate a “don’t care” condition, i.e. that the presence or absence of the condition does not matter for the outcome (Fiss, 2011).

We found two environmental and two social configurations associated with improved performance. As to non-improvements, there are four configurations associated with environmental and four with social non-improvements.

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Insert Tables 4 and 5 about here  
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### *Pathways to Improved Environmental Performance*

Two configurations predict improved environmental performance (Table 4). First, in the absence of accountable ownership, the combined presence of strong external pressure and the use of formal environmental management systems (EMS) comprise a configuration that can create improved environmental performance. Publicly listed companies AUTO, DEVICES, MOBILE and SPEEDY reach improved performance through this configuration. We call it the *exogenous pathway* (to improved environmental performance) to capture the mutual presence of external pressure and formally well-managed EMS that facilitates conforming to

externally defined parameters. Formal CSR management systems help companies to adhere to external sustainability rating schemes, which not only customers but also investors follow. *“Investors are a growing group [showing interest in CSR management], they are now many more than five years ago”*, tells Ethical Compliance Manager of DEVICES. Further, external standards are considered to represent an authoritative evaluation of sustainability. According to SPEEDY’s representative: *“If an external evaluator states that we are not excellent in doing something, it has a bigger value than if it was a recommendation of the [company’s own] Sustainability Unit”*.

The second configuration to improved environmental performance, which we call the *endogenous* pathway, comprises of noteworthy external pressure associated with accountable ownership, strong CSR organization and integration of environmental responsibility into core business activities. The non-publicly listed firms (FOOD, PARTS, and GROCERIES) that are members of this set take into account external CSR principles and standards, such as the UN Global Compact, ISO14001, or the like, but they neither slavishly follow those nor put a high emphasis on certifying their management systems, preferring their own, more tailored approach. Our qualitative analysis indicates that the form of ownership enables such an internally-driven approach. One of the firms is a customer cooperative, another an employee cooperative, and one a large corporation owned by a family-foundation.

While external pressure is present in both exogenous and endogenous configurations, cooperatives or family firms do not have incentives similar to publicly listed companies to comply with external sustainability rating schemes. They have the freedom to tailor environmental management in ways that suit their needs best. A respondent from PARTS asserted: *“The drawback of the externally imposed systems and indicators is that those indicators haven’t been designed so that they can be developed further. Therefore we don’t use many of these indicators in the company.”*

Reflecting the configurations against the three operative CSR management conditions in our model (organization, management systems, and integration) shows that to achieve improvements in environmental performance, either a company needs to use a certified EMS, or a combination of strong CSR organization and integration of environmental responsibility has to be present. This suggests that both structure and practices need to co-exist for improvements to occur. A strong CSR organization provides the structure, and the integration of environmental responsibility into core business represents the practice. The fact that they represent different generic types of organizational elements (structure and practice) but apply to the same domain of operative CSR management (see our model in Figure 1) suggests symbiotic complementarity between them (Grandori & Furnari, 2009). The *Endogenous* set relies on this combination. Certified EMSs, on the other hand, in and of themselves already contain both structural and practice aspects (wherefore we had situated them between formal structures and core practices in our model), and this is the reason why in the *Exogenous* set they can alone work as a substitute for the combination of organization and integration.

Despite the substitutability between the use of EMS and the combination of strong CSR organization and integration, the latter composition does not, however, appear feasible to publicly listed companies. While some of them do integrate environmental responsibility into their core business (see Table 3), they still apply EMS. As illustrated above, this is due to their need to adhere to the precise requirements of external standards, which benefits from the use of certified EMS.

### *Pathways to Improved Social Performance*

We discovered two configurations associated with improved social performance (Table 4).

We call the first configuration systems-driven integration, abbreviated *SystemIntegration*, as companies of this set appear to use formal management systems (e.g. SA8000, ISO26000) to

assist in the integration of social responsibility into their business practices. Two companies with the presence of accountable ownership that integrate social responsibility in their core business, STORE and FOOD, are members of a set we call values-driven integration, abbreviated *ValuesIntegration*. We chose the ‘Values’ terminology because it reflects the finding that in the presence of accountable ownership, owners’ commitment enables the integration of social responsibility into core business, and these two in combination can help the company reach performance improvements.

*“I suppose it’s ‘Are we led by that or is it a consequence of what we’re doing?’, and that’s quite different. We’re not motivated by ‘we must get a good score in this’, we are going to do this anyway and if it so happens that we get a good score then so be it“.* (FOOD)

Again, an examination of these findings against our model, supported by our qualitative case knowledge, reveals patterns of substitution and complementarity. Integration of social responsibility into core business appears in both configurations. Thus, unlike their environmental counterparts, social performance improvements cannot be accomplished without a fundamental integration of social aspects into business. We surmise that this is due to the nature of social issues as more complex, less quantifiable, and more intertwined in business – no “end-of-pipe solutions” are possible in the social performance domain. Achieving such integration, however, requires internal leverage within the organization. That is why the configurations show the integration complemented with either formal management systems (whose requirements and obligations provide such internal leverage) or with accountable ownership (where organizational values provide the needed leverage). This is another example of symbiotic complementarity (Grandori & Furnari, 2009). Systems and accountable ownership can substitute for each other in providing this leverage. Intriguingly,



the strength of CSR organization comes across as a "don't care" condition, implying that the existence of a formal organization as such is not enough to guarantee the required leverage.

Comparing the environmental and social pathways to improvements, it is interesting to note that external pressure appears less meaningful for social than for environmental performance improvements. One possible explanation for this is that in Europe, the context of our empirical study, pressure regarding issues such as job quality or equity is so deeply institutionalized in legislation, collective bargaining, and HRM practices that firms and their stakeholders may no longer recognize it as external pressure. In terms of strategic CSR and ownership, our findings support the notion that due to their higher autonomy from the constant evaluation of the stock market (see Arthur et al. 2007; Dyer & Whetten, 2006), non-publicly listed firms can tailor their sustainability approaches more freely. As for operative CSR management, every configuration associated with performance improvements contained one or more conditions from the 'implementation' box, as our model would suggest.

### *Pathways to Non-Improvements*

The analysis displays four configurations that are associated with non-improved environmental performance (Table 5). Lack of integration of environmental responsibility into core business appears in three of them. In one configuration the lack of integration is combined with a weak organization of environmental responsibility and in another with the non-use of environmental management systems. This underscores the point that companies are unlikely to achieve performance improvements when a lack of formal structures for implementation combines with an absence of environmental practices. For publicly listed companies one configuration associated with non-improvements is the lack of external pressure combined with a weakly organized environmental function. This configuration is consistent with previous literature: when the institutional context does not exhibit

sustainability pressures, publicly listed companies have meagre incentive to formally organize to that end (Marano & Kostova, 2015; Matten & Moon, 2008). Respondents from two Eastern European case companies displaying non-improved performance describe this: “[Country] society is still not well developed in terms of environmental protection”, and “There are no NGOs really involved in this kind of issue in [country]”.

There also appear four configurations associated with non-improvements in social performance in Table 5. Except for one, these configurations are not identical to their environmental counterparts. Lack of integration of social responsibility into core business is a decisive causal ingredient in two configurations (which are neutral permutations of each other; Fiss, 2011). Further, the co-existence of external pressure and lack of social responsibility management systems is associated with non-improvements in social performance. The final configuration associated with a failure to improve social performance is one where accountable ownership combines with a strong social responsibility organization. This indicates that in the absence of practices of operative CSR management, structure (CSR organization) alone is not sufficient for achieving social performance improvements.

Taking stock of all the eight configurations above, the absence of integration of responsibility considerations into core business strikes as crucial for the failure to improve sustainability performance. This further accentuates the importance of responsibility integration found in the improvement configurations. Indeed, integration of responsibility considerations into core business is present in most configurations associated with performance improvements, and absent in most configurations that were not associated with improvements. External pressure, on the other hand, comes across as a “don’t care” condition in the majority of the non-improvement configurations, from which we can gather that its presence or absence is not decisive for failure. *”In order for sustainable development to*

*become part of a company, it may not only be for the desire to show off. It must be combined with the company development."* (STORE)

Our results also show that the pathways to performance improvements and non-improvements are for the most part not symmetrical, i.e. not complete mirror images of one another. In the social domain, two improvement configurations find a fully corresponding mirror image in the non-improvement configurations, emphasizing the criticality of these particular configurations. Beyond this observation, there are further configurations to social non-improvements that are asymmetrical in relation to the improvement configurations. In the environmental domain, the pathways to improvements and non-improvements are asymmetrical throughout. This suggests that the causal relationships are indeed intricate configurations of the conditions, and that the processes associated with improvements are different from the processes associated with non-improvements. Overall, there appear to be more varied explanations for non-improvements than for performance improvements.

### *Illustrative Examples of Environmental and Social Configurations and Sustainability Performance*

Next we present two short cases to illustrate in more detail how the different configurations have played out in our qualitative data. The selected cases oppose each other in a number of key respects and jointly cover both improvement and non-improvement scenarios, endogenous and exogenous pathways, and the achievement and non-achievement of responsibility integration.

#### ***FOOD – performance improvements through Endogenous and ValuesIntegration***

***pathways.*** FOOD is a mid-size retailer owned by its employees. Although FOOD operates in an industry, which faces considerable market and regulatory pressure in sustainability issues,

FOOD's respondents found the company to be ahead of such pressures. Responsibility has long roots at FOOD as its constitution, effective since the 1920s sets out expectations for fair treatment of all partners. The Head of Sourcing explains:

*“So we're a co-owned business... There is a huge culture within a co-owned business to do the right thing for ourselves and for our customers. If you're going to do the right things for your customers and for your partners, then why aren't you doing the right thing for the environment, and trying to do the right thing for the suppliers, and it rapidly becomes a position which just is part of your brand value.”*

While FOOD implements environmental and social responsibility management systems and adheres to other voluntary industry standards (for instance Ethical Trading Initiative and Roundtables of Sustainable Palm Oil and Responsible Soy, and 96 percent of FOOD's own-brand suppliers are registered on SEDEX, the supplier ethical data exchange), these are not automatically sufficient for FOOD, as told by the Head of Sourcing: *“Our starting point is best practice, not minimum requirements...usually there will be enhancements to the standards, so that the original certification will not be a sufficiently high standard for us, we choose to go to the next level up.”*

FOOD integrates both environmental and social responsibility in its core business. Procurement policies focus on local and organic, high animal welfare, ingredient traceability, and integrity of sourcing (FOOD collaborates with Oxfam, WISE, Stronger Together and Fast Forward programs to tackle modern slavery in the supply chain). Considerable parts of profits are invested back into the communities that grow its produce (recently six million pounds in communities in Ghana and Kenya). 100 percent of food waste (after donations to charities) is converted to biofuel and the company is entirely powered by renewable energy. FOOD has a company-wide performance-related bonus scheme, and it employs a high

proportion of low-skilled labour. At the consumer interface, FOOD goes beyond making sustainable alternatives available, choice-editing unsustainable items out of its shelves:

*“Now our belief is that it is not the responsibility of our customers, it is the responsibility of the industry, and it is the responsibility of experts in the field who know so much more than any customer would ever know. So in a position of knowledge it gives you a responsibility, so we will not sell unsustainable fish or you name it, whether our customers know it or not.”* (General manager).

Overall, the *Endogenous* configuration to environmental improvements and *ValuesIntegration* associated with social performance improvements portray how FOOD manages responsibility consistently and successfully. Its co-operative ownership structure is supportive of this as it makes it possible for FOOD to perceive its value more broadly than in terms of financial revenues. Benefit to society and the natural environment are legitimate intrinsic values for FOOD.

*“I don’t even think it’s as thought through as a strategy, it’s just the way that we have always done business, funny, okay, but our responsible behaviour and the way that we do business, it’s embedded in our approach rather than we read it from a, does that make sense, it’s not as contrived as it might be in other businesses I guess”* (Senior manager, Communications).

***AUTO – environmental improvements through the Exogenous pathway but non-improvements on the social side.*** AUTO is an international limited company with over 100,000 employees. AUTO operates in an industry, which faces considerable regulatory and market stakeholder pressure in particular with regard to CO<sub>2</sub> emissions, fuel efficiency and electric cars. Prompted by these pressures and the related opportunities, AUTO set up an environmental department at the turn of the millennium and some years later announced an electric car

offensive. *“With the electric vehicle we want to create a market...The choice of launching the electric car has been done on business objectives...The primary objective is not sustainable development.”* (Executive secretary, CSR).

Ten years later CSR was formalized to accompany the environmental function, but a separation of the domains persists: managers use the term ‘sustainable development’ to refer to the environment and related technological development as opposed to ‘CSR’, a term which for them means the human, social and philanthropic aspects of business. Environmental policies are advanced and environmental issues have internal legitimacy. Environmental sustainability is perceived as efficient use of materials and fuel and as new product development. Managers working with environmental issues benefit from the product-oriented nature of their work: *“The environment is rather easy, we can measure it, we can relate it to the vehicles. But CSR, it is more abstract and related to the company rather than the vehicles.”* (Senior manager, Business planning and co-innovation).

By contrast, social issues do not enjoy similar internal legitimacy. Unlike systematic application of ISO14001 at all its sites, AUTO does not implement social declarations similarly despite signing them. Managers working with social issues such as road safety and diversity need to justify these efforts as CSR is seen to create costs. *“The objective of the electric vehicles is to make AUTO a leader in sustainable mobility...to give an image to AUTO...But that is not the territory of CSR...”* (Manager, electric vehicles).

There are limits to the integration of environmental and social responsibility into core business at AUTO. The proposal of the CSR division to introduce KPIs related to carbon footprint, social business, and diversity was rejected by the top management. According to one of the interviewees this is a sign that responsibility is not yet integrated into core business: *“Today sustainable development is still more a varnish coating in the company”* (Manager, working conditions).

The above highlights how the interplay of external pressure and use of environmental management systems can produce improvements in environmental performance. This configuration, the *Exogenous* pathway, entails sensitivity to external pressure in environmental issues, and subsequently using standardized certified EMS. This combination appears to substitute for the lack of integration of environmental aspects into the core business.

The social performance of AUTO has not improved despite external pressure and setting up a formally strong CSR organization. This corresponds to our overall finding that in the absence of owners' values or system support social performance will not improve.

## **Discussion**

In this study we advance theory on corporate sustainability by first developing a theoretical model on the linkages between institutional pressures, strategic and operative CSR management, and sustainability performance, and then empirically examining the configurational influence of the causal conditions on the (non)achievement of sustainability performance improvements. The study contributes to the existing literature on three levels, which we discuss below.

First, our work advances the CSR / business sustainability literature in that we put the sustainability case on the table alongside the business case. In order for CSR to be useful and relevant, the attainment of sustainability performance outcomes through CSR management are required to also undergo serious scrutiny (Aguinis & Glavas, 2012; Halme & Laurila, 2009; Wood, 1991b). Our findings demonstrate that it cannot be assumed that environmental and social performance improvements automatically flow from CSR activities. Even within our dataset – large firms with an established CSR function – only half of the firms achieved environmental performance improvements, and the same was true for social

performance improvements. Moreover, these were not the same firms, as we found that the performance outcomes of a company were often not uniform across the environmental and social domains; while intuitively sensible, to our knowledge this incongruity has not been previously shown with large empirical evidence. Our study demonstrates a promising approach and methodology, paving the way for further research on the sustainability case.

As our second contribution we elaborate theory by recognizing three modes of decoupling that can occur in different stages of the CSR management chain. Decoupling is typically understood in terms of policy-practice decoupling, symbolic activities undertaken by firms in order to appease stakeholders while implementing few actual changes in doing business (Fleming & Jones, 2013; Haack, Schoeneborn & Wickert, 2012; MacLean & Behnam, 2010,), while means-ends decoupling, a lesser-known variety, refers to the severing of linkages between the ends that are sought by organizations and the means applied for attaining the desired ends (Bromley & Powell, 2012). In addition to these two we consider pressure-policy decoupling where firms' strategic responses to institutional pressures do not conform with what the institutional pressure pushes towards (see Oliver, 1991). Hence, we flesh out the entire link from institutional pressures to sustainability performance improvements and the various places in which this link may be broken: pressures that are not translated into policies, policies that are not translated into actions, and actions that are not translated into outcomes. Even though Haack and Schoeneborn (2015) directly oppose extending the concept of decoupling outside policy-practice decoupling, our empirical analysis shows that by expanding the perspective on decoupling we are able to better clarify the relationships between institutional pressures, CSR management, and environmental and social performance improvements. Our findings clearly demonstrate the role of policy-practice decoupling (that without implementation there can be no improvements): all of the paths to improvements contain conditions from the "implementation" box in our model. The



role of means-ends decoupling is also clear since not all kind of implementation leads to improvements. Successful firms do not need to implement all of the three causal conditions related to operative CSR management, but they need to have an effective, impactful selection of implementation activities - which, for example, setting up a formal organization alone is not. In terms of pressure-policy decoupling, our findings show that different types of ownership allow strategic responses to sustainability pressures that do lead to real performance improvements, although the matching operative paths that then achieve these strategies may vary. It is all the more necessary to look beyond policy-practice decoupling since the opportunities for it are constantly reduced by standardized reporting requirements, global real-time information flows, and active policing by NGOs (e.g., Pope & Wæraas, 2016).

Third, we contribute to the literature by identifying pathways to environmental and social performance (non)improvements. QCA has been relatively little used in the CSR literature as of yet. Yet, a neo-configurational perspective (Misangyi et al., 2017) could be especially well suited for CSR topics because the phenomena are likely to exhibit characteristics of causal complexity. This is exactly what our findings about the pathways demonstrate. Equifinality is present since there is both an endogenous and an exogenous pathway to environmental performance improvements, and a systems-driven and values-driven variant of the social performance pathway. This variation in both environmental and social pathways indicates that it is possible to achieve performance improvements through alternative routes, which in certain key aspects rely on formal management systems or on the company's internal dedication. We also find conjunctural causation in the form of complex patterns of substitution and complementarity between the individual causal conditions. In particular, our findings suggest that structures and practices are important, symbiotic complements (Grandori & Furnari, 2009) that support each other in obtaining improvements

in environmental performance. On the social side, management systems or owners' values can function as substitutes in providing leverage for integration of responsibility into core business, and these combinations can help achieving performance improvement. Finally, the pathways we discovered exhibit causal asymmetry, as, for instance, both the presence and absence of accountable ownership may lead to improved environmental outcomes (in combination with different conditions), and in a similar vein, the paths to improvement and failure are mostly asymmetrical. Generally, the paths to failure are more numerous compared to the paths to success. This suggests that in the world of performance improvements, failure is easy but success is difficult. While the paths to performance improvements and non-improvements are for the most part not mirror images of each other, integration of responsibility considerations into the core business (or lack thereof) nevertheless is a significant ingredient in both directions.

As some commentators have noted (Misangyi et al., 2017), inductive logic is typically applied in theory-developing QCA (see Aversa et al., 2015; Bromley et al., 2012), while deductive logic is generally applied in testing existing theory. Our above contributions to understanding CSR were enabled by pairing up inductive logic with deductive logic, demonstrating the usefulness of such approach in theory development. There are two primary reasons as to why this approach works with QCA. The first is that we (deductively) combine a number of narrower strands of literature in order to contribute to a broader understanding of sustainability performance. The second is that induction has nevertheless a strong presence in our reasoning due to the considerable inductive component in our set of conditions, as well as inherently as part of the iterative analytical process. These reasons suggest pairing up inductive logic with deductive logic in QCA is useful in providing understanding of complex, contested research areas such as CSR.

### *Implications for practitioners*

Our study has direct implications for firms – as well as sustainability rating agencies, NGOs, and government regulators – wishing to avoid decoupling and seeking to promote the achievement of sustainability improvements through CSR management. The findings suggest that while decoupling sometimes arises from the unwillingness of firms to make efforts towards performance improvements, sometimes it is not deliberate but arises from the firms' inability to achieve such improvements. We argue that a vague conception of sustainability performance may mislead managers and contribute towards the inability to improve actual performance. Thus, one recommendation for managers, regulators, rating agencies and NGOs is to think about performance in terms of real impacts, and not lose focus by becoming blinded by the many CSR activities the firm may be undertaking. Overall our findings help these stakeholders to broaden their understanding of the causal chain leading to (non)improvements in sustainability performance and various instances of decoupling along this chain. This enables them to better identify and tackle such instances. As to overcoming decoupling, the finding that more than one pathway may be associated with performance improvements is encouraging. Managers thus have some leeway in designing CSR approaches that suit the characteristics of their firm. In this task, better knowledge about what kind of CSR management is likely to lead to actual improvements in sustainability performance helps those companies who are confused about the effectiveness of their CSR (Wang et al. 2016). At the same time, however, some of our findings point to the difficulty of achieving performance improvements. Managers need to tread carefully in the CSR management field – there are multiple ways to fail but only so many ways to succeed.

### *Implications for Future Research*

Firstly our findings imply that as the body of research emerges around the sustainability case, researchers would be well advised to take note of the lessons learnt in the business case research during its decades-long existence: for example, not to ask ‘whether’ but ‘when’ there is a sustainability case, and to allow for case-specificity in terms of different firms and different sustainability issues.

A second strong message for researchers concerns paying attention to the valid measurement of sustainability performance. Performance measurement is notoriously difficult in the CSR/sustainability field but we emphasize here a new angle: that policies and practices should not be mixed with actual performance in terms of environmental and social outcomes. Moreover, our finding that the pathways and performance outcomes are not identical across the environmental and social domains underscores the fact that one cannot simply use one domain as a proxy for the other. Indeed, when using a narrow basis for measuring sustainability performance (such as the TRI, for example), generalizations to other parts of sustainability performance should be made with extreme caution.

In addition to these general recommendations, our findings point to specific new research opportunities. For one, future studies could build on our model and use a bigger sample to introduce a larger number of causal conditions without convoluting the analysis and intensifying the problem of limited diversity. That would allow introducing some potentially interesting conditions such as organizational culture, country and industry specific institutions, or temporality.

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## **Endnotes**

<sup>1</sup> Deviating from Wood’s (1991a) influential definition, we use the term ‘performance’ in the sense of environmental and social impacts. This would correspond to ‘observable outcomes’

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or ‘social impacts’ in Wood’s corporate social performance (CSP) model. We believe that this is a more intuitive and fruitful use of the term; in fact, Wood herself notes about social outcomes that “Arguably, this aspect of corporate social performance is the only place in the CSP model where any real performance exists” (1991a, p. 711), and also states that “In a sense, outcomes and impacts are what CSP is all about” (2010, p. 69).

<sup>2</sup>Note that Figure 1 depicts policy-practice decoupling as occurring between strategic CSR (policies) and operative CSR (implementation), where implementation may occur through formal structures and/or core practices. Often, however, policy-practice decoupling is considered to occur between policies and structures on the one hand, and practices on the other. The difference boils down to whether formal structures are considered to be part of ‘real’ CSR implementation. While we think that formal structures can play a ‘real’ role in CSR implementation, we agree that they can also be used as mere facades. Our model can easily accommodate both views, and the start position of the dotted arrow for policy-practice decoupling in Figure 1 can be modified correspondingly.

## References

- Adams, J., Taschian, A., & Shore, T. (1996). Ethics in family and nonfamily owned firms: An exploratory study. *Family Business Review*, 9(2), 157-170.
- 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.
- Albareda, L., Lozano, J. & Ysa, T. (2007). Public policies on corporate social responsibility: The role of governments in Europe. *Journal of Business Ethics*, 74 (4), 391-407
- Aravind, D., & Christmann, P. (2011). Decoupling of standard implementation from certification: Does quality of ISO 14001 implementation affect facilities’ environmental performance? *Business Ethics Quarterly*, 21(1), 73-102.
- Arthur, L., Cato, M. S., Keenoy, T., & Smith, R. (2007). Corporate social responsibility in your own backyard. *Social Responsibility Journal*, 3(2), 32-38.
- Aversa, P., Furnari, S., & Haefliger, S. (2015). Business model configurations and performance: A qualitative comparative analysis in Formula One racing, 2005-2013. *Industrial and Corporate Change*, 24(3), 655-676.
- Banerjee, S. B. (2007). *Corporate social responsibility: The good, the bad, and the ugly*. Cheltenham, England: Edgar Elgar.
- Barla, P. (2007). ISO 14001 certification and environmental performance in Quebec's pulp and paper industry. *Journal of Environmental Economics and Management*, 53, 291–306.
- Basurto, X., & Speer, J. (2012) Structuring the calibration of qualitative data as sets for qualitative comparative analysis (QCA). *Field Methods*, 24(2), 155-174.
- Behnam, M., & MacLean, T. (2011). Where is the accountability in international accountability standards? A decoupling perspective. *Business Ethics Quarterly*, 1(1), 45–72.

- Berrone, P., Cruz, C., Gomez-Mejia, L. R., & Larraza-Kintana, M. (2007). Socioemotional wealth and corporate responses to institutional pressures: do family-controlled firms pollute less. *Administrative Science Quarterly*, 55(1), 82-113.
- Bingham, J., Dyer, W., Smith, I. & Adams, G. (2011). A stakeholder identity orientation approach to corporate social performance in family firms. *Journal of Business Ethics*, 99(4), 565-585.
- Blowfield, & Murray, A. (2011). *Corporate responsibility: A critical introduction*. Oxford, England: Oxford University Press.
- Boiral, O. (2007). Corporate greening through ISO 14001: A rational myth? *Organization Science*, 18(1), 127-146.
- Boiral, O. (2011). Managing with ISO systems: Lessons from practice. *Long Range Planning*, 44, 197-220.
- Bowen, F. & Aragon-Correa, A. (2014) Greenwashing in corporate environmentalism research and practice: The importance of what we say and do. *Organization & Environment*, 27(2), 107-112.
- Brickson, S. L. (2005). Organizational identity orientation: Forging a link between organizational identity and organizations' relations with stakeholders. *Administrative Science Quarterly*, 50, 576-609.
- Bromley, P., Hwang, H., & Powell, W. W. (2012). Decoupling revisited: Common pressures, divergent strategies in the U.S. nonprofit sector. *Management Science*, 15(5), 468-501.
- Bromley, P., & Powell, W. W. (2012). From smoke and mirrors to walking the talk: Decoupling in the contemporary world. *Academy of Management Annals*, 6(1), 483-530.
- Brown, D., & Knudsen, J. S. (2013). The role of domestic institutions and market pressures as drivers of corporate social responsibility (CSR): An examination of company CSR initiatives in Denmark and the UK. *Political Studies*. 63(1): 181-201.
- Campbell, J. L. (2007). Why would companies behave in socially responsible ways? An institutional theory of corporate social responsibility. *Academy of Management Review*, 32(3), 946-967.
- Cetindamar, D. & Husoy, K. (2007) Corporate social responsibility practices and environmentally responsible behavior: The case of the United Nations Global Compact. *Journal of Business Ethics*, 76, 163-176.
- Chatterji, A., Levine, D & Toffel, M. (2009) How Well Do Social Ratings Actually Measure Corporate Social Responsibility? *Journal of Economics and Management Strategy*, 18(1), 125-169.
- COM (2012). Small and medium-sized enterprises. Retrieved September 28, 2012 from [http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index\\_en.htm](http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm).
- Credit Suisse (2015) Global Wealth Report. Retrieved April 8, 2016 from <https://publications.credit-suisse.com/tasks/render/file/?fileID=F2425415-DCA7-80B8-EAD989AF9341D47E>.

- Crilly, D., Hansen, M., & Zollo, M. (2016). The grammar of decoupling: a cognitive-linguistic perspective on firms' sustainability claims and stakeholders' interpretation. *Academy of Management Journal*, 59(2), 705-729.
- Crilly, D., Zollo, M., & Hansen, M. (2012). Faking it or muddling through? Understanding decoupling in response to stakeholder pressures. *Academy of Management Journal*, 55, 1429–1449.
- Delmas, M. & Pecovic, S. (2017). Organizational Configurations for Sustainability and Employee Productivity: A Qualitative Comparative Analysis Approach. *Business & Society*, 1-36. DOI: 10.1177/0007650317703648.
- DiMaggio, P. & Powell, W. (Eds.) (1991). *The New Institutionalism in Organizational Analysis*. Chicago, IL: University of Chicago Press.
- Dubois, A., & Gadde, L.-E. (2002). Systematic combining: An abductive approach to case research. *Journal of Business Research*, 55, 553–560.
- Dunphy, D., Griffiths, A., & Benn, S. (2003). *Organizational change for corporate sustainability*. London, England: Routledge.
- Dyer, W. & Whetten, D. (2006). Family firms and social responsibility: Preliminary evidence from the S&P 500. *Entrepreneurship Theory and Practice*, 30(6), 785-803.
- Erkkola, S., Melanen, M. & Mickwitz, P. (2005). Eco-efficiency in the Finnish EMAS reports - a buzz word? *Journal of Cleaner Production*, 13, 799-813.
- Fereday, J. & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, 5(1), 80-92.
- Fiss, P. (2007). A set-theoretic approach to organizational configurations. *Academy of management review*, 32(4), 1180–1198.
- Fiss, P. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal*, 54, 393–420.
- Fiss, P. C. & Zajac, E. J. (2006). The symbolic management of strategic change: sensegiving via framing and decoupling. *Academy of Management Journal*, 49(6), 1173-1193.
- Fleming, P. & Jones, B. (2013). *The end of corporate social responsibility: Crisis and critique*. London, England: Sage.
- Godfrey, P., Merrill, C., & Hansen, J. (2009). The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. *Strategic Management Journal*, 30(4), 425–445.
- Grandori, A., & Furnari, S. (2008). A chemistry of organization: Combinatory analysis and design. *Organization Studies*, 29(3), 459–485.
- Grandori, A., & Furnari, S. (2009). Types of complementarity, combinative organization forms and structural heterogeneity: Beyond discrete structural alternatives. In M. Morrioni (Ed.), *Corporate governance, organization and the firm: Co-operation and outsourcing in a globalized market* (pp. 63-86). London, UK: Edward Elgar.
- Grosser, K., & Moon, J. (2008). Developments in company reporting on workplace gender equality? A corporate social responsibility perspective. *Accounting Forum*, 32, 179-198.

- Haack, P. & Schoeneborn, D. (2015). Is decoupling becoming decoupled from institutional theory? A commentary on Wijen. *Academy of Management Review*, 40(2), 307-310.
- Haack, P., Schoeneborn, D., & Wickert, C. (2012). Talking the talk, moral entrapment, creeping commitment? Exploring narrative dynamics in corporate responsibility standardization. *Organization Studies*, 33(5-6), 815–845.
- Halme, M., & Laurila, J. (2009). Philanthropy, integration or innovation? Exploring the financial and societal outcomes of different types of corporate responsibility. *Journal of Business Ethics*, 84, 325-339.
- Herbohn, K. Walker, J. & Loo, H. (2014) Corporate social responsibility: The link between sustainability disclosure and sustainability performance. *Journal of Accounting, Finance and Business Studies*, 50(4), 422–459.
- Hart, S. (2007). *Capitalism at the crossroads: The unlimited business opportunities in solving the world's most difficult problems*. Upper Saddle River, NJ: Wharton School Publishing.
- Hillman, A. & Keim, G. (2001). Shareholder value, stakeholder management, and social issues. What's the bottom line? *Journal of Management Studies*, 43 (1), 75-91.
- Howard-Grenville, J., Nash, J. & Coglianese, C. (2008). Constructing the license to operate: Internal factors and their influence on corporate environmental decisions. *Law and Policy*, 30 (1), 73-107.
- Husted, B. W., & Allen, D. B. (2006). Corporate social responsibility in the multinational enterprise: Strategic and institutional approaches. *Journal of International Business Studies*, 37(6), 838–849.
- ILO (2011) *Making globalization socially sustainable*. Bacchetta, M. & Jansen, M. (Eds.) Geneva: ILO Publications.
- Jensen, M. (2002). Value maximisation, stakeholder theory, and the corporate objective function. *Business Ethics Quarterly*, 12(2), 235-256.
- Kinnicutt, S. T. & Mirvis, P. (2008). *Structures and strategies. Profile of the practice 2008: Managing corporate citizenship*. Boston, MA: Boston College Center for Corporate Citizenship.
- Kuisma, M., Lovio R., & Niskanen S. (2001). Hypoteesejä ympäristöjärjestelmien vaikutuksista teollisuusyrityksissä. *Suomen Ympäristö 486*.
- Lankoski, L. (2009). Differential economic impacts of corporate responsibility issues. *Business & Society*, 48(2), 206-224.
- Lankoski, L. (2016). Alternative conceptions of sustainability in a business context. *Journal of Cleaner Production*, 139, 847-857.
- Lee, M.-D. P., & Lounsbury, M. (2011). Domesticating radical rant and rage: An exploration of the consequences of environmental shareholder resolutions on corporate environmental performance. *Business & Society*, 50, 155–188.
- Locke, J. (2013). Can global brands create just supply chains? *Boston Review*, May-June: 12-17.
- MacLean, T. & Behnam, M. (2010). The dangers of decoupling: The relationship between compliance programs, legitimacy perceptions, and institutionalized misconduct. *Academy of Management Journal*, 53(6), 1499-1520.



- Maggetti, M. (2012). Promoting corporate responsibility in private banking: Necessary and sufficient conditions for joining the Wolfsberg initiative against money laundering. *Business & Society*, 53, 787–819.
- Maon, F., Lindgreen, A., & Swaen, V. (2009). Designing and implementing corporate social responsibility: An integrative framework grounded in theory and practice. *Journal of Business Ethics*, 87(1), 71-89.
- Marano, V., & Kostova, T. (2015). Unpacking the Institutional Complexity in Adoption of CSR Practices in Multinational Enterprises. *Journal of Management Studies*. DOI: 10.1111/joms.12124.
- Margolis, J., & Walsh, J. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly*, 48, 268–305.
- Matten, D., & Moon, J. (2008). "Implicit" and "explicit" CSR: A conceptual framework for a comparative understanding of corporate social responsibility. *Academy of Management Review*, 33(2), 404-424.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.
- Middtun, A., Gjolberg, M., Kourula, A., Sweet, S. & Vallentin, S. (2015) Public policies for corporate social responsibility in four Nordic countries: Harmony of goals and conflict of means. *Business and Society*, 54(4), 464-500.
- Misangyi, V. F., Greckhamer, T., Furnari, S., Fiss, P. C., Crilly, D., & Aguilera, R. (2017). Embracing causal complexity: The emergence of a neo-configurational perspective. *Journal of Management*, 43(1), 255-282.
- Mäkinen, J., & Kourula, A. (2012). Pluralism in political corporate social responsibility. *Business Ethics Quarterly*, 22 (4), 649-678.
- Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review*, 16(1), 145-179.
- Orlitzky, M., Schmidt, F. & Rynes, S. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24(3), 403–441.
- Orlitzky, M., Siegel, D., & Waldman, D. (2011). Strategic corporate social responsibility and environmental sustainability. *Business and Society*, 50(1) 6–27.
- Orton, J. D., & Weick, K. E. (1990). Loosely coupled systems: A reconceptualization. *Academy of Management Review*, 15(2), 203-223.
- Patton, M. 1990. *Qualitative evaluation and research methods*. Beverly Hills, CA: SAGE.
- Pope, S., & Wæraas, A. (2016). CSR-washing is rare: A conceptual framework, literature review, and critique. *Journal of Business Ethics*, 137(1), 173-193.
- Porter, M. & Kramer M. (2011). Creating shared value. How to reinvent capitalism – and unleash a wave of innovation and growth. *Harvard Business Review*, 89(1-2), 63–77.
- Post, J., Preston, L., & Sachs, S. (2002) Managing the extended enterprise: The new stakeholder view. *California Management Review*, 45(1), 6-28.
- Prado-Lorenzo, J-M., Gallego-Alvarez, I., & Garcia-Sanchez, I. (2009). Stakeholder engagement and corporate social responsibility reporting: the ownership structure effect. *Corporate Social Responsibility and Environmental Management*, 14, 94-107.

- Ragin, C. (2009). Qualitative comparative analysis: Using fuzzy sets (fsQCA). In B. Rihoux & C. Ragin (Eds.), *Configurational comparative methods: Qualitative comparative analysis and related techniques* (pp. 87–121). CA: Sage Publications.
- Ragin, C. & Fiss, P. (2008). Net effects analysis versus configurational analysis: an empirical demonstration in C. C. Ragin. *Redesigning social inquiry: Fuzzy sets and beyond* (pp. 190-212). Chicago, IL: University of Chicago Press.
- Ragin, C., & Sonnett, J. (2005). Between complexity and parsimony: Limited diversity, counterfactual cases, and comparative analysis. In Kropp, S. & Minkenberg, M. (Eds.), *In Vergleichen in der Politikwissenschaft* (pp. 1-19). Wiesbaden, Germany: VS Verlag für Sozialwissenschaften
- Rihoux, B., & Ragin, C. (2009). *Configurational comparative methods. Qualitative comparative analysis (QCA) and related techniques*. CA: Sage Publications.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, S., & Lambin, E. (2009). A safe operating space for humanity. *Nature*, 461, 472-475.
- Schneider, C., & Wagemann, C. (2012). *Set-theoretic methods for the social sciences: A guide to qualitative comparative analysis*. New York, NY: Cambridge University Press.
- Slager, R. (2015). SRI Indices and responsible corporate behavior: A study of the FTSE4Good Index. *Business & Society*, 54(3), 386-405.
- Soda, G., & Furnari, S. (2012). Exploring the typology of the plausible: Fs/QCA counterfactual analysis and the plausible fit of unobserved organizational configurations. *Strategic Organization*, 10, 285-296.
- Swanson, D. L. (1995). Addressing a theoretical problem by reorienting the corporate social performance model. *Academy of Management Review*, 20(1), 43–64.
- UNEP (2005). Millennium ecosystem assessment. *Ecosystems and human well-being: Synthesis*. Washington, DC: Island Press.
- UNEP (2011a). *Towards a green economy: Pathways to sustainable development and poverty eradication*. United Nations Environmental Program.
- UNEP (2011b). *Decoupling natural resource use from the environmental impacts of economic growth*. United Nations Environmental Program.
- Walker, K., Ni, N., & Dyck, B. (2015). Recipes for successful sustainability: Empirical organizational configurations for strong corporate environmental performance. *Business Strategy and the Environment*, 24, 40-57.
- Wang, H., Tong, L., Takeuchi, R. & George, G. (2016) Corporate Social Responsibility: An Overview and New Research Directions. *Academy of Management Journal*, 59(2), 534-544.
- Westermann-Behaylo, M., Berman, S. L., & Van Buren, H. J. III. (2014). The influence of institutional logics on corporate responsibility towards employees. *Business & Society*, 53(5), 714-746.
- Wiklund, J. (2006). Commentary: Family firms and social responsibility: Preliminary evidence from the S&P 500. *Entrepreneurship Theory and Practice*, 30(6), 803-808.

- Vinodkumar, M & Bhasi, M. (2011). A study on the impact of management system certification on safety management. *Safety Science*, 49(3), 498–507.
- Whiteman, G., Walker, B., & Perego, P. (2013). Planetary Boundaries: Ecological Foundations for Corporate Sustainability. *Journal of Management Studies*, 50(2), 307-336.
- Wong, E., Ormiston, M., & Tetlock, P. (2011). The effects of top management team integrative complexity and decentralized decision making on corporate social performance. *Academy of Management Journal*, 54(6), 1207-1228.
- Wood, D. (1991a). Corporate social performance revisited. *Academy of Management Review*, 14(4), 691–718.
- Wood, D. J. (1991b). Social issues in management: Theory and research in corporate social performance. *Journal of Management*, 17(2), 383–406.
- Wood, D. (2010). Measuring corporate social performance: A review. *International Journal of Management Reviews*, 12(1), 50-84.
- Wood, D. J., & Jones, R. E. (1995). Stakeholder mismatching: A theoretical problem in empirical research on corporate social performance. *The International Journal of Organizational Analysis*, 3(3), 229-267.
- Worldwatch Institute (2013). *State of the world 2013: Is sustainability still possible?* Washington, DC: Worldwatch Institute.

**TABLE 1**  
Description of case companies

| <b>Sector</b>                  | <b>Company name (pseudonym)</b> | <b>Country</b> | <b>Turn-over (M)</b> | <b>Personnel</b> | <b>No. of company interviews</b> | <b>No. of stakeholder interviews</b> | <b>Total no. of interviews</b> |
|--------------------------------|---------------------------------|----------------|----------------------|------------------|----------------------------------|--------------------------------------|--------------------------------|
| <b>Automobile</b>              | Mobile                          | Germany        | 126,900€             | 399,400          | 4                                | 4                                    | 8                              |
|                                | Parts                           | Germany        | 47,259€              | 283,507          | 2                                | 3                                    | 5                              |
|                                | Auto                            | France         | 28,379€              | 122,615          | 10                               | 3                                    | 13                             |
|                                | Speedy                          | Italy          | 35,900€              | 130,000          | 6                                | 2                                    | 8                              |
| <b>Construction</b>            | Building                        | Germany        | 20,159€              | 59,836           | 6                                | 2                                    | 8                              |
|                                | Construction                    | Hungary        | 116€                 | 650              | 4                                | 2                                    | 6                              |
|                                | House                           | Poland         | 810€                 | 3,903            | 6                                | 2                                    | 8                              |
| <b>ICT</b>                     | Operator                        | Denmark        | 3,500€               | 10,423           | 4                                | 3                                    | 7                              |
|                                | ICT-Service                     | Denmark        | 509€                 | 3,200            | 4                                | 5                                    | 9                              |
|                                | Telco                           | Spain          | 60,700€              | 285,000          | 6                                | 4                                    | 7                              |
|                                | Devices                         | Finland        | 42,446€              | 132,430          | 4                                | 3                                    | 7                              |
|                                | Comm                            | Hungary        | 585€                 | 1,214            | 6                                | 2                                    | 8                              |
| <b>Retail</b>                  | Food                            | UK             | 5,214€               | 48,588           | 5                                | 9                                    | 14                             |
|                                | Groceries                       | UK             | 9,905€<br>(Food)     | 78,809<br>(Food) | 5                                | 9                                    | 14                             |
|                                | Market                          | Belgium        | 6,752€               | 22,566           | 7                                | 4                                    | 11                             |
|                                | Store Poland                    | Poland         | 1,489€               | 137,000          | 8                                | 2                                    | 10                             |
| <b>Textile</b>                 | Fashion                         | Spain          | 1,270€               | 9,775            | 5                                | 4                                    | 9                              |
|                                | Design                          | Finland        | 73                   | 388              | 5                                | 2                                    | 7                              |
|                                | Trendy                          | Sweden         | 14,000€              | 87,000           | 4                                | 1                                    | 5                              |
| <b>Total no. of interviews</b> |                                 |                |                      |                  | 101                              | 66                                   | 167                            |

**TABLE 2**  
Measurement of causal conditions

| Construct                    | Definition   | Fuzzy-set value definitions  | Source of data                                      | Illustrative quote or example  |
|------------------------------|--|--|---|--|
| <b>External pressure</b>     | Pressure from external stakeholders on environmental or social issues (Marano & Kostova, 2015; Matten & Moon, 2008; Kassinis & Wafeas, 2006) | 1 = interviewees refer to strong stakeholder pressure in environmental issue(s)<br>0.67 = interviewees mention stakeholder pressure in environmental issues<br>0.33 = Interviewees mention occasional stakeholder pressure in environmental issues<br>0 = Interviewees do not indicate stakeholder pressure in environmental issues<br>[measured similarly but separately for social issues; ExPreE; ExPreS] | Company interviewees & external stakeholders        | 1 = "...we know that our main clients (operators) require. Just like they want to have good quality, they require that the products are manufactured in decent workplace conditions and that they are ethically sustainable." [DEVICES]<br>0.67 = "... standards have been tightened up all the time. If we had not been to some extent aware of the material content of our products, it could have become an obstacle to our competitiveness and firm growth." [DESIGN]<br>0.33 = "Pressures (from government and other stakeholders) are not always relevant." [MARKET]<br>0 = "We don't face requirements, because [Mentions country] society is still not well developed in terms of environmental protection." [HOUSE] |
| <b>Accountable ownership</b> | Owners who are identifiable and whose relationship with the firm is involved (Prado-Lorenzo et al., 2009; Jensen,                            | 1 = Co-op, employee-owned or similar<br>0.67 = Family-run or similar<br>0.33 = Publicly listed company with a majority owner<br>0 = Publicly listed company  | Annual report or other documentation of the company | Not relevant   |

|  |   |   |   |  |
|--|---|---|---|--|
|  | 2002; Adams et al. 1996)  |   |   |  |
| <b>Strength of CSR organization</b>        | Formal power of the CSR function in the organization structure (Cetindamar & Husoy, 2007; Dunphy et al., 2003; Howard-Grenville et al., 2008)                               | 1 = CSR department reporting to top management<br>0.67 = CSR department<br>0.33 = CSR manager placed in legal, communications, or other department<br>0 = no full-time CSR manager  | Company interviewees, CSR/Sustainability reports of companies | Not relevant   |
| <b>Use of CSR management systems</b>       | The manner of implementing environmental and social responsibility management systems in the organization (Behnam & MacLean, 2011; Boiral, 2007; Aravind & Christman, 2011) | 1 = Certified ISO 14001<br>0.67 = ISO14001 equivalent environmental management system (EMS) in place, but not certified<br>0.33 = Company-internal EMS solution<br>0 = No environmental management system [measured similarly but separately for social issues; SystE; SystS] | Company interviewees, CSR/Sustainability reports of companies | Not relevant   |
| <b>Integration of CSR in core business</b> | The depth of combining environmental and social responsibility into the firm's core   | 1 = Interviews or document data indicate several (over 5) instances where core business has been modified due to environmental considerations and there is evidence of 2 or more  | Company interviewees, CSR/Sustainability reports of companies | 1 = Avoiding overcompensation to top-managers; taking diversity oriented measures throughout the organization, conducting choice-editing favoring responsible products e.g. fair trade and organic products (applies to retailers); elimination of harmful substances with eco-materials, metals of higher |

|  |   |  |  |   |
|--|---|--|--|---|
|  | <p>business (Halme &amp; Laurila, 2009; Hillman &amp; Keim, 2001; Hart, 2007)</p> | <p>environmental innovations brought to the market.<br/> 0.67 = Interviews or document data indicate up to 5 changes where core business has been modified due to environmental considerations.<br/> 0.33 = Interviews or document data indicate some environment-induced modifications at a business unit or product group level.<br/> 0 = Sporadic stand-alone environmental activities<br/> [measured similarly but separately for social issues; IntegE; IntegS]</p> |  | <p>recycling rate, use of bioplastics, systematic materials management including full material declarations from the whole supply chain; not producing only one specific eco-friendly product model, but integrate environmental innovations integrate in all devices throughout the product line &amp; innovations like electric car, totally recyclable phone, brought to the market<br/> 0.67 = Same as above regarding examples on modification core business, but no requirement for innovation<br/> 0.33 = Measuring and reducing CO2 emission of transportation (not other areas of activity); employing disabled people in one function<br/> 0 = Donating to charitable causes; introducing recyclable plastic bags</p> |
|--|---|--|--|---|

TABLE 3. Calibration table

| Case         |              | Outcome                            |                             | Causal conditions  |                    |                       |                              |                               |                   |                                     |                    |
|--------------|--------------|------------------------------------|-----------------------------|--------------------|--------------------|-----------------------|------------------------------|-------------------------------|-------------------|-------------------------------------|--------------------|
| Industry     | Firm         | Improved environmental performance | Improved social performance | External pressure  |                    | Accountable ownership | Strength of CSR organization | Use of CSR management systems |                   | Integration of CSR in core business |                    |
|              |              |                                    |                             | ExPre <sub>E</sub> | ExPre <sub>S</sub> |                       |                              | Syst <sub>E</sub>             | Syst <sub>S</sub> | Integ <sub>E</sub>                  | Integ <sub>S</sub> |
| Automobile   | Mobile       | 0.67                               | 0.67                        | 0.67               | 1                  | 0                     | 0.67                         | 1                             | 0.67              | 1                                   |                    |
|              | Parts        | 0.67                               | 0.33                        | 0.67               | 0.33               | 0.67                  | 0.67                         | 1                             | 1                 | 1                                   |                    |
|              | Auto         | 0.67                               | 0                           | 1                  | 1                  | 0                     | 1                            | 1                             | 0.33              | 0.33                                |                    |
|              | Speedy       | 1                                  | 0.67                        | 0.67               | 1                  | 0                     | 1                            | 1                             | 1                 | 0.67                                |                    |
| Construction | Building     | 0.33                               | 1                           | 0.67               | 0.67               | 0                     | 0.67                         | 0.33                          | 1                 | 0.33                                |                    |
|              | Construction | 0                                  | 0                           | 0                  | 0                  | 0.67                  | 0                            | 0                             | 0.33              | 0.33                                |                    |
|              | House        | 0                                  | 0.33                        | 0                  | 0.33               | 0                     | 0                            | 1                             | 1                 | 0.33                                |                    |
| ICT          | Operator     | 0.33                               | 0.67                        | 0.67               | 0.33               | 0.33                  | 0.33                         | 0.67                          | 0.33              | 0.33                                |                    |
|              | ICT-Service  | 0                                  | 0.33                        | 0.67               | 0.67               | 0.33                  | 0.33                         | 0                             | 0                 | 0                                   |                    |
|              | Telco        | 0.33                               | 0.67                        | 0.67               | 0.67               | 0                     | 1                            | 1                             | 1                 | 0.67                                |                    |
|              | Devices      | 1                                  | 1                           | 0.67               | 1                  | 0                     | 1                            | 1                             | 0.67              | 1                                   |                    |
|              | Comm         | 0.33                               | 0.67                        | 0.33               | 0.33               | 0                     | 0.33                         | 1                             | 1                 | 0.67                                |                    |
| Retail       | Food         | 0.67                               | 0.67                        | 0.67               | 0.67               | 1                     | 1                            | 0.67                          | 0.67              | 1                                   |                    |
|              | Groceries    | 1                                  | 0.33                        | 0.67               | 0.67               | 1                     | 1                            | 0.33                          | 0.33              | 1                                   |                    |
|              | Market       | 0.67                               | 0                           | 0.33               | 0.67               | 0                     | 0.33                         | 0.33                          | 0.33              | 0.67                                |                    |
|              | Store        | 0                                  | 1                           | 0                  | 0                  | 0.67                  | 0                            | 0                             | 0.33              | 0.33                                |                    |
| Textile      | Fashion      | 0.33                               | 0.33                        | 0.67               | 0.67               | 0.67                  | 0.67                         | 0.67                          | 0.33              | 0.33                                |                    |
|              | Design       | 0                                  | 0                           | 0.67               | 0.67               | 0                     | 0.33                         | 0                             | 0.33              | 0.33                                |                    |
|              | Trendy       | 0.67                               | 0.33                        | 0.67               | 1                  | 0                     | 1                            | 0.33                          | 0.67              | 0.33                                |                    |

Abbreviations with <sub>E</sub> and <sub>S</sub> markings refer to the condition's calibration value for environmental and social domain respectively





**TABLE 5**  
Pathways to non-improvements in environmental and social performance

| Condition                           | Configurations for non-improved environmental performance |      |      |      | Configurations for non-improved social performance    |      |      |      |
|-------------------------------------|---|------|------|------|---|------|------|------|
|                                     | 1   | 2    | 3    | 4    | 5   | 6    | 7    | 8    |
| External pressure                   |   |      |      | ⊗    |   |      | ●    |      |
| Accountable ownership               |   | ●    |      | ⊗    | ⊗   |      |      | ●    |
| Strength of CSR organization        | ⊗   |      |      | ⊗    |   |      |      | ●    |
| Use of CSR management systems       |   |      | ⊗    |      |   | ⊗    | ⊗    |      |
| Integration of CSR in core business | ⊗   | ⊗    | ⊗    |      | ⊗   | ⊗    |      |      |
| Consistency                         | 1   | 0.93 | 1    | 0.94 | 0.83  | 0.92 | 0.94 | 0.75 |
| Raw coverage                        | 0.52  | 0.48 | 0.26 | 0.48 | 0.50  | 0.40 | 0.53 | 0.30 |
| Unique coverage                     | 0.03  | 0.10 | 0.03 | 0.13 | 0.17  | 0.03 | 0.10 | 0.07 |
|                                     | Solution consistency: 0.92<br>Solution coverage: 0.775    |      |      |      | Solution consistency: 0.78<br>Solution coverage: 0.84 |      |      |      |

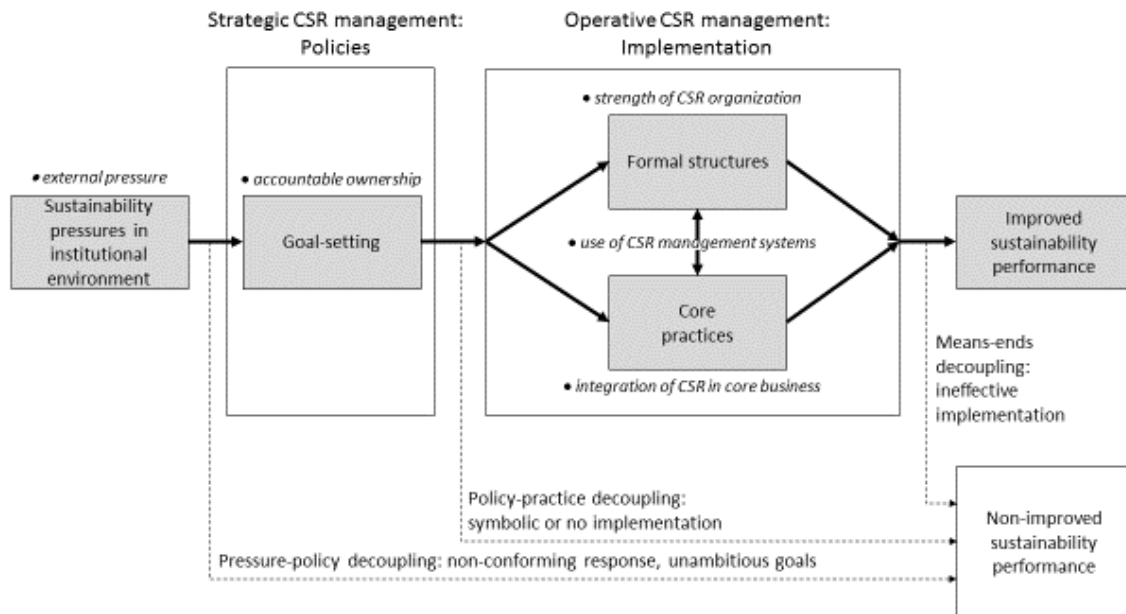
Key:

Core causal condition (present) ●

Peripheral causal condition (present) ●

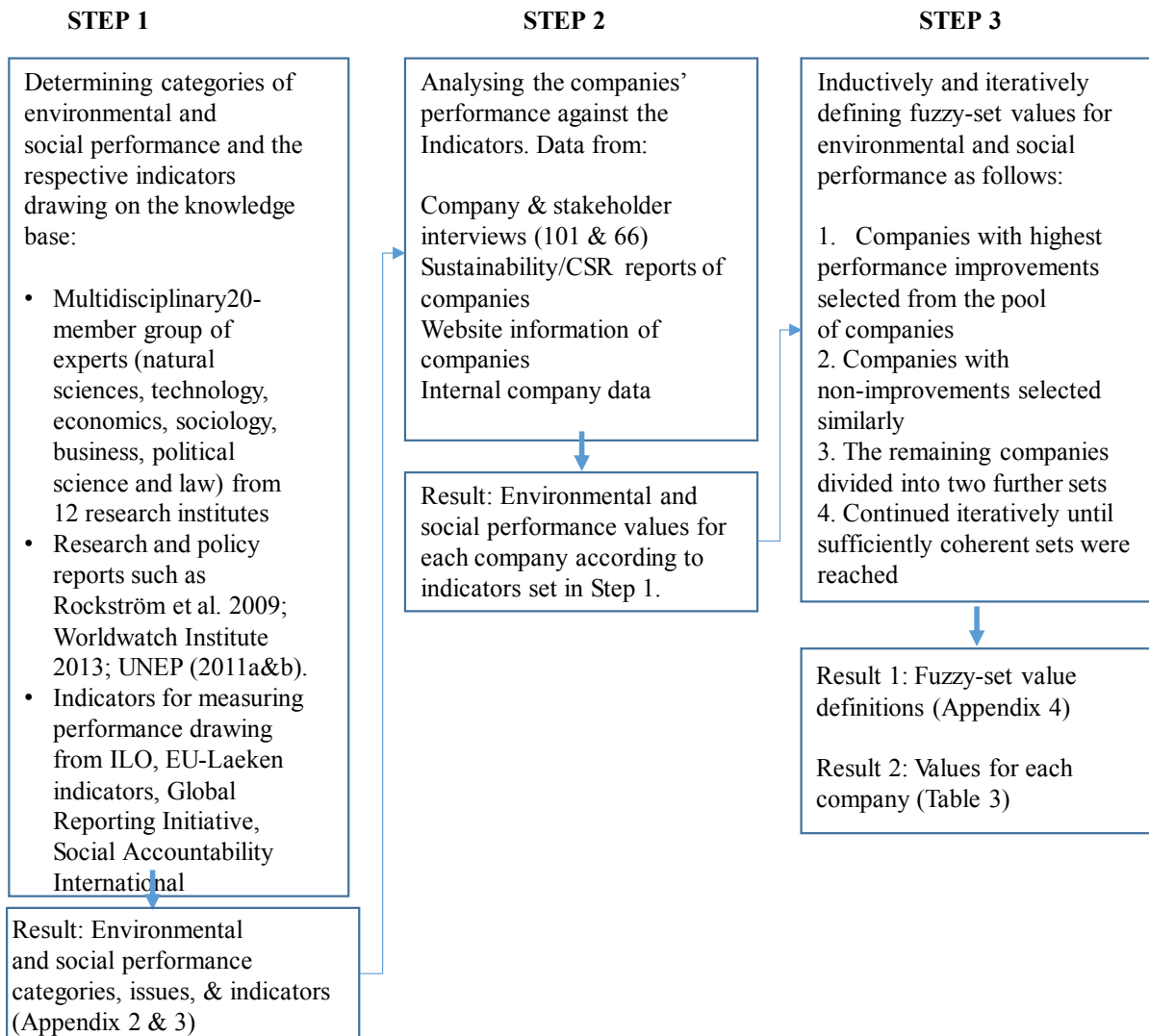
Core causal condition (absent) ⊗

Peripheral causal condition (absent) ⊗



**FIGURE 1**

The link from institutional pressures through CSR management to sustainability performance (non)improvements. The causal conditions in our model are added in italic font.



**FIGURE 2**

Process of outcome measurement

## Appendix 1. Case companies' CSR commitment and external recognitions

| Company             | Adoption of CSR & external recognition *  |
|---------------------|---|
| <b>Mobile</b>       | DJSI/SAM 2009, DJSI/SAM 2011, DJSI/SAM 2012 (SAM Gold Class), DJSI/SAM (RobecoSAM Silver Class), DJSI/SAM 2014 (RobecoSAM Industry Leader), Vigeo 2013, Vigeo 2014, FTSE4Good Europe  |
| <b>Parts</b>        | Not publicly listed – not included in ratings<br>UN Global Compact signatory. Best place to work –award & environmental awards.   |
| <b>Auto</b>         | CK 2012, CK 2013, Vigeo 2013, Vigeo 2014  |
| <b>Speedy</b>       | DJSI/SAM 2011, DJSI/SAM 2012 (SAM Gold Class), DKSI/SAM 2013 (RobecoSAM Silver Class), DJSI/SAM 2014 (RobecoSAM Gold Class), Vigeo 2013, Vigeo 2014   |
| <b>Building</b>     | DJSI/SAM 2009, DJSI/SAM 2011, DJSI/SAM 2012, DJSI/SAM 2013, DJSI/SAM 2014, Vigeo 2013, Vigeo 2014   |
| <b>Construction</b> | Small cap – not included in ratings   |
| <b>House</b>        | Respect Index at Capital City Stock Exchange, Reliable Employer in the Construction Industry, Member of Global Compact (prepares its own Communication on Progress)   |
| <b>Operator</b>     | UN Global Compact signatory, Global Reporting Initiative, Carbon Disclosure Project   |
| <b>ICT-Service</b>  | Small cap – not included in ratings<br>UN Global Compact signatory  |
| <b>Telco</b>        | DJSI/SAM 2009, DJSI/SAM 2011, DJSI/SAM 2012 (SAM Gold Class), DJSI/SAM 2013 (RobecoSAM Bronze Class), DJSI/SAM 2014 (RobecoSAM Bronze Class), Vigeo 2013, Vigeo 2014, FTSE4Good Europe  |
| <b>Devices</b>      | CK 2010, CK 2011, DJSI/SAM 2009, DJSI/SAM 2011, DJSI/SAM 2012 (SAM Silver Class), DJSI/SAM 2013 (RobecoSAM Silver Class), DJSI/SAM 2014 (RobecoSAM Bronze Class), Vigeo 2013, Vigeo 2014  |
| <b>Comm</b>         | CK 2013, DJSI/SAM 2009, DJSI/SAM 2011, DJSI/SAM 2012, DJSI/SAM 2013 (RobecoSAM Bronze Class), DJSI/SAM 2014 (RobecoSAM Silver Class), Vigeo 2013  |
| <b>Food</b>         | Not publicly listed – not included in ratings – Big Society Award in recognition of its Community Matters scheme  |
| <b>Groceries</b>    | Not publicly listed – not included in ratings – other recognition for CSR: Queen's Award for Enterprise in Sustainable Development 2012; Number one in the world in the Ethical Corporation Awards 2013 'Best Sustainability Report' category |
| <b>Market</b>       | Vigeo 2014  |
| <b>Store</b>        | Not publicly listed – not included in ratings - CSR leader in the retail sector in the country  |
| <b>Fashion</b>      | Not publicly listed – not included in ratings – UN Global Compact signatory, Made in Green certificate  |
| <b>Design</b>       | Small cap - not included in ratings<br>Member of Business Social Compliance Initiative  |
| <b>Trendy</b>       | CK 2010, CK 2011, CK 2012, CK 2013, DJSI/SAM 2012, DJSI/SAM 2013, Vigeo 2013, Vigeo 2014 , FTSE4Good Europe   |

\*CK: The Global 100 Most Sustainable Corporations in the World

<http://corporateknightscapital.com>.

\*DJSI/SAM: See <http://robecosam.com>.

\*Vigeo: Ethibel ESI's sustainability rating [www.vigeo.com](http://www.vigeo.com).

## Appendix 2. Environmental performance categories, issues and indicator examples

| Categories                                      | Issues   | Examples of performance indicators <sup>1</sup>   |
|---|--|---|
| <b>Climate Change</b>                           | Reduce CO <sub>2</sub> emissions (including supply network and/or use of products) | Share of CO <sub>2</sub> emissions stemming from Scope 1, 2 & 3<br>Amount of CO <sub>2</sub> emissions (per unit of output)<br>Amount of CO <sub>2</sub> emissions (per unit of output) for most important suppliers ( <i>Textile</i> )<br>Average CO <sub>2</sub> emissions (g/km) of products ( <i>new cars / automotive</i> )<br>Average end use energy demand of buildings constructed or managed ( <i>Construction &amp; real estate</i> )<br>Average energy demand of products in operation ( <i>ICT</i> )<br>Amount of CO <sub>2</sub> emissions per sq meter/foot ( <i>Retail</i> ) |
| <b>Protect Natural Resources from Pollution</b> | Reduce emission of harmful substances  | Amount of harmful substances (per unit of output)<br>Amount of hazardous waste from most important suppliers (per unit of output) ( <i>Textile</i> )  |
| <b>Conservation of Natural Resources</b>        | Reduce use of raw materials  | Amount of raw materials (per unit of output)<br>Amount of (recycled / non-recycled) raw materials (per unit of output)<br>Share of products taken back (in percentage of sold products) ( <i>Automotive &amp; ICT</i> )   |
|   | Reduce use of rare materials   | Amount of rare materials (per unit of output) ( <i>Automotive &amp; ICT</i> )   |
|   | Minimize land use and land use change  | Square meter of land sealed per square meter of sales floor created ( <i>Construction &amp; retail</i> )  |
|   | Reduce water consumption   | Amount of water consumed (per unit of output)<br>Amount of water consumed by most important suppliers (per unit of output) ( <i>Textile</i> )   |
|   | Reduce or reutilize product waste  | Amount of food waste disposed per unit of food products sold ( <i>Retail</i> )<br>Amount of non-food products going to waste per unit of non-food products sold ( <i>Retail</i> )   |
| <b>Sustainable Consumption</b>                  | Encourage customers to consume sustainably   | Share of revenues from sustainable products, e.g. certified and labelled organic, Fair Trade, FSC, MSC, energy efficient A+ ( <i>Retail</i> )   |

<sup>1</sup> Sector-specificity of indicator denoted in brackets.

### Appendix 3. Social performance categories, issues and indicator examples

| Categories                     | Issues  | Examples of performance indicators <sup>1</sup>   |
|--------------------------------|---|---|
| <b>Job Quality</b>             | Flexibility and job security                      | Percentage of short-time contracts of whole workforce   |
|                                | Work organization and work life balance           | Percentage of employees working more than 48h a week  |
|                                | Skills, life-long learning and career development | Percentage of unskilled employees that receive training ( <i>Construction &amp; retail</i> )  |
|                                | Health and working conditions                     | Rate of injury, occupational diseases, and work accidents ( <i>Construction</i> )   |
| <b>Human rights and equity</b> | Gender equality                                   | Percentage of women in upper management   |
|                                | Diversity and non-discrimination                  | Percentage of handicapped people of total workforce<br>Percentage of older workers (55 years and older) of total workforce ( <i>ICT</i> ) |
|                                | Social dialogue and worker involvement            | Promotion of worker involvement   |
|                                | Human rights in the supply chain                  | Number of identified cases of non-compliance with human rights of suppliers   |
| <b>Inclusion and wages</b>     | Wages and poverty                                 | Percentage of low wage (<75% of average hourly wage) employment   |

<sup>1</sup> Sector-specificity of indicator denoted in brackets.

## Appendix 4: Scoring scheme for data calibration

### *Calibration of Causal Conditions*

#### **ExPre<sub>E</sub> = External pressure for environmental issues**

- Fully in (1) = Interviewees refer to strong stakeholder pressure in environmental issue(s)
- More in than out (0.67) = Interviewees mention stakeholder pressure in environmental issues
- More out than in (0.33) = Interviewees mention occasional stakeholder pressure in environmental issues
- Fully out (0) = Interviewees do not indicate stakeholder pressure in environmental issues

#### **ExPres = External pressure for social issues**

- Fully in (1) = Interviewees refer to strong stakeholder pressure in social issue(s)
- More in than out (0.67) = Interviewees mention stakeholder pressure in social issues
- More out than in (0.33) = Interviewees mention occasional stakeholder pressure in social issues
- Fully out (0) = Interviewees do not indicate stakeholder pressure in social issues

#### **Owner = Accountable ownership**

- Fully in (1) = Co-op, employee-owned or similar
- More in than out (0.67) = Family-run or similar
- More out than in (0.33) = Publicly listed company with a majority owner
- Fully out (0) = Publicly listed company

#### **OrgCSR = Strength of CSR organization**

- Fully in (1) = CSR department reporting to top management
- More in than out (0.67) = CSR department
- More out than in (0.33) = CSR manager placed in legal, communications, or other department
- Fully out (0) = no full-time CSR manager

#### **Syst<sub>E</sub> = Use of environmental management systems**

- Fully in (1) = Certified ISO 14001
- More in than out (0.67) = ISO14001 equivalent environmental management system (EMS) in place, but not certified
- More out than in (0.33) = Company-internal EMS solution
- Fully out (0) = No environmental management system

#### **Systs = Use of social responsibility management systems**

- Fully in (1) = Certified SA8000, OHSAS 18001 or equivalent
- More in than out (0.67) = SA8000, OHSAS 18001, ISO 26000 or equivalent social responsibility management system in place, but not certified
- More out than in (0.33) = Company-internal social responsibility management system solution



- Fully out (0) = No social responsibility management system

**Integ<sub>E</sub> = Integration of environmental responsibility in core business**

- Fully in (1) = Interviews or document data indicate several (over 5) instances where core business has been modified due to environmental considerations and there is evidence of 2 or more environmental innovations in the market.
- More in than out (0.67) = Interviews or document data indicate up to 5 changes where core business has been modified due to environmental considerations.
- More out than in (0.33) = Interviews or document data indicate some environment-induced modifications at a business unit or product group level.
- Fully out (0) = Sporadic stand-alone environmental activities

**Integ<sub>S</sub> = Integration of social responsibility in core business**

- Fully in (1) = Interviews or document data indicate several (over 5) instances where core business has been modified due to social responsibility considerations and there is evidence of 2 or more social responsibility innovations
- More in than out (0.67) = Interviews or document data indicate up to 5 changes where core business has been modified due to social responsibility considerations
- More out than in (0.33) = Interviews or document data indicate some social responsibility motivated modifications at a business unit or product group level.
- Fully out (0) = Sporadic stand-alone social responsibility activities

*Calibration of Outcomes*

**Improved environmental performance**

- Fully in (1) = Substantial progress in environmental performance for all issues pertaining to the industry sector in question (one item in indicator list can show no progress).
- More in than out (0.67) = Some degree of progress with the environmental performance pertaining to the industry sector in question (2-3 items in indicator can show no progress).
- More out than in (0.33) = Progress in random environmental performance issues.
- Fully out (0) = No progress of environmental performance (excluding some haphazard minor single qualitative item marked as environmental outcome).

**Improved social performance**

- Fully in (1) = Substantial progress in social performance for all issues pertaining to the industry sector in question (one item in indicator list can show no progress). More in than out
- (0.67) = Some degree of progress with the social performance pertaining to the industry sector in question (2-3 items in indicator can show no progress).
- More out than in (0.33) = Progress in random social performance issues.
- Fully out (0) = No progress of social performance (excluding some haphazard minor single qualitative item marked as environmental outcome).

### Electronic Supplement: Truth tables<sup>3</sup>

| Truth table: Improvement in environmental performance. |       |     |        |        |          |             |                                |
|--|-------|-----|--------|--------|----------|-------------|--------------------------------|
| Conditions   |       |     |        |        | Outcome  |             |                                |
| ExPreE   | Owner | Org | ToolsE | IntegE | Presence | Consistency | Cases                          |
| 1  | 0     | 1   | 1      | 0      | 1        | 1,00        | Auto                           |
| 1  | 1     | 1   | 0      | 1      | 1        | 1,00        | Groceries                      |
| 1  | 1     | 1   | 1      | 1      | 1        | 1,00        | Food, Parts                    |
| 1  | 0     | 1   | 1      | 1      | 1        | 0,94        | Devices, Mobile, Speedy, Telco |
| 1  | 0     | 0   | 1      | 0      | 1        | 0,83        | Operator                       |
| 0  | 0     | 0   | 1      | 1      | 0        | 0,78        | Comm                           |
| 0  | 0     | 0   | 1      | 0      | 0        | 0,71        | House                          |
| 1  | 0     | 1   | 0      | 0      | 0        | 0,67        | Building, Trendy               |
| 1  | 1     | 1   | 1      | 0      | 0        | 0,66        | Fashion                        |
| 0  | 0     | 0   | 0      | 1      | 0        | 0,63        | Market                         |
| 1  | 0     | 0   | 0      | 0      | 0        | 0,50        | ICT-Service, Design            |
| 0  | 1     | 0   | 0      | 0      | 0        | 0,28        | Construction, Store            |

Note: The other 20 configurations have no empirical cases (percentage of unobserved configurations: 62.5%). The consistency threshold is set at 0.80, with consistency scores rounded to two decimal places.

| Truth table: Improvement in social performance. |       |     |        |        |          |             |                                |
|---|-------|-----|--------|--------|----------|-------------|--------------------------------|
| Conditions                                      |       |     |        |        | Outcome  |             |                                |
| ExPreS  | Owner | Org | ToolsS | IntegS | Presence | Consistency | Cases                          |
| 0   | 1     | 0   | 0      | 1      | 1        | 1,00        | Store                          |
| 1   | 1     | 1   | 1      | 1      | 1        | 1,00        | Food                           |
| 0   | 1     | 1   | 1      | 1      | 1        | 0,83        | Parts                          |
| 1   | 1     | 1   | 0      | 1      | 1        | 0,83        | Groceries                      |
| 1   | 0     | 1   | 1      | 1      | 1        | 0,82        | Devices, Mobile, Speedy, Telco |
| 0   | 0     | 0   | 1      | 1      | 1        | 0,80        | Comm                           |
| 1   | 1     | 1   | 0      | 0      | 0        | 0,74        | Fashion                        |
| 0   | 0     | 0   | 0      | 1      | 0        | 0,72        | Operator                       |
| 0   | 1     | 0   | 0      | 0      | 0        | 0,66        | Construction                   |
| 1   | 0     | 1   | 1      | 0      | 0        | 0,64        | Building, Trendy               |
| 0   | 0     | 0   | 1      | 0      | 0        | 0,60        | House                          |
| 1   | 0     | 1   | 0      | 0      | 0        | 0,50        | Auto                           |
| 1   | 0     | 0   | 0      | 0      | 0        | 0,50        | Design                         |
| 1   | 0     | 0   | 0      | 1      | 0        | 0,50        | ICT-Service, Market            |

Note: The other 18 configurations have no empirical cases (percentage of unobserved configurations: 56.25%). The consistency threshold is set at 0.80, with consistency scores rounded to two decimal places.

| Truth table: Non-improvement in environmental performance. |       |     |        |        |          |             |                                |
|--|-------|-----|--------|--------|----------|-------------|--------------------------------|
| Conditions   |       |     |        |        | Outcome  |             |                                |
| ExPreE   | Owner | Org | ToolsE | IntegE | Presence | Consistency | Cases                          |
| 0  | 0     | 0   | 1      | 0      | 1        | 1,00        | House                          |
| 0  | 0     | 0   | 1      | 1      | 1        | 1,00        | Comm                           |
| 1  | 0     | 0   | 1      | 0      | 1        | 1,00        | Operator                       |
| 1  | 1     | 1   | 1      | 0      | 1        | 1,00        | Fashion                        |
| 0  | 1     | 0   | 0      | 0      | 1        | 1,00        | Construction, Store            |
| 1  | 0     | 0   | 0      | 0      | 1        | 1,00        | ICT-Service, Design            |
| 1  | 0     | 1   | 0      | 0      | 1        | 0,89        | Building, Trendy               |
| 0  | 0     | 0   | 0      | 1      | 1        | 0,87        | Market                         |
| 1  | 0     | 1   | 1      | 0      | 0        | 0,79        | Auto                           |
| 1  | 0     | 1   | 1      | 1      | 0        | 0,68        | Devices, Mobile, Speedy, Telco |
| 1  | 1     | 1   | 0      | 1      | 0        | 0,60        | Groceries                      |
| 1  | 1     | 1   | 1      | 1      | 0        | 0,57        | Food, Parts                    |

Note: The other 20 configurations have no empirical cases (percentage of unobserved configurations: 62.5%). The consistency threshold is set at 0.80, with consistency scores rounded to two decimal places.

| Truth table: Non-improvement in social performance. |       |     |        |        |          |             |                                |
|---|-------|-----|--------|--------|----------|-------------|--------------------------------|
| Conditions  |       |     |        |        | Outcome  |             |                                |
| ExPreS  | Owner | Org | ToolsS | IntegS | Presence | Consistency | Cases                          |
| 0   | 1     | 1   | 1      | 1      | 1        | 1,00        | Parts                          |
| 1   | 0     | 0   | 0      | 0      | 1        | 1,00        | Design                         |
| 1   | 0     | 1   | 0      | 0      | 1        | 1,00        | Auto                           |
| 1   | 1     | 1   | 0      | 0      | 1        | 1,00        | Fashion                        |
| 1   | 1     | 1   | 0      | 1      | 1        | 1,00        | Groceries                      |
| 1   | 0     | 0   | 0      | 1      | 1        | 1,00        | ICT-Service, Market            |
| 0   | 1     | 0   | 0      | 0      | 1        | 0,83        | Construction                   |
| 1   | 1     | 1   | 1      | 1      | 1        | 0,83        | Food                           |
| 1   | 0     | 1   | 1      | 0      | 1        | 0,82        | Building, Trendy               |
| 0   | 0     | 0   | 1      | 0      | 1        | 0,80        | House                          |
| 0   | 0     | 0   | 0      | 1      | 0        | 0,71        | Operator                       |
| 0   | 0     | 0   | 1      | 1      | 0        | 0,70        | Comm                           |
| 1   | 0     | 1   | 1      | 1      | 0        | 0,64        | Devices, Mobile, Speedy, Telco |
| 0   | 1     | 0   | 0      | 1      | 0        | 0,60        | Store                          |

Note: The other 18 configurations have no empirical cases (percentage of unobserved configurations: 56.25%). The consistency threshold is set at 0.80, with consistency scores rounded to two decimal places.

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<sup>3</sup> Please note that the fsQCA algorithm may occasionally interpret a case to be part of both improvement and non-improvement solutions simultaneously. In general in fuzzy-set QCA a contradiction, where the algorithm interprets a case to be part of the different solution, can occur when multiple cases are very similar. This is a minor issue in our case, and there are several ways of dealing with such contradictions (Ragin & Rihoux, 2009, 47-50; Schneider & Wagemann, 2012, 120-123). As the contradiction problems here are very minor, we have chosen to include these contradictions into our analysis, so that "all cases that are members of the outcome will be explained, or covered, by that solution term" (Schneider & Wagemann, *ibid.*, 122). In other words, we feel it is important that the entirety of our data is represented in the analysis. The downside here is that the solution term will cover cases that are not members of the outcome, but we have dealt with this through our thorough engagement with the qualitative data.