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The Perceived Value of Measuring the Impact of CSR Performance on CSR Investment: Evidence from the UAE

ABSTRACT

This study examines drivers of Corporate Social Responsibility (CSR) measurement and investment in CSR. Specifically, the study examines the links between the underlying motives for measuring CSR performance, namely to comply with regulation, to provide management support, and improve stakeholders' satisfaction, and the impact thereof on CSR investments. The analysis of a survey data of 307 companies based in the Dubai identified five clusters of CSR measurements. The results show that while CSR measurement is a significant driver of CSR investments, there is varied associations between the three main drivers of CSR measurement and investment in CSR practices. Theoretical and practical implications of the study, are discussed.

Keywords: corporate social responsibility, performance measurement, performance management, sustainability, corporate social performance, reporting, disclosure.

INTRODUCTION

Although capturing the impact of corporate social responsibility (CSR) is not a straightforward task (Crane, Henriques, Husted, and Matten 2017; Idemudia and Osayande 2018; Tucker 2009; Yang, and Stohl, 2020), there is a growing body of research and consultancy work developing measurement metrics for CSR performance (Bititci et al. 2012; Gjølborg 2009; Tucker 2009; Weinreb 2015). This is understandable given the significant spending on CSR initiatives by organizations. However, most of this research explores the importance of measuring CSR performance and or provides metrics to measure CSR performance (Gjølborg 2009). There is little research on the important issue of how measurement of CSR performance influences decision making with regards to CSR investment. In particular we know very little on the link between the underlying reasons for measuring CSR performance and how these motives affect investment in CSR. As discussed below, extant research is unclear about the association between measurement of CSR impact and CSR investment. This study contributes to the CSR literature in general, and CSR measurement literature in particular, by exploring the overall link between CSR measurement and CSR investment and more importantly the varied link between the main drivers of measurement of CSR impact and CSR investment.

Thus, this study sheds light on the link between CSR measurement and investment in CSR and more importantly, it examines the extent to which the association between CSR measurement and investment in CSR varies according to the motives for measuring CSR impact in the first place. The latter is important as the drivers for measuring CSR performance impact firm's behavior towards its CSR investment (Briscoe, Gupta, and Anner 2015). The drivers of measuring CSR performance are the motivators that encourage or compel firms to measure the impact of their CSR activities. These are: to meet regulations reporting requirements (Henri and Journeault, 2010; Latif, and Sajjad, 2018); to strengthen top management support of CSR (Contrafatto 2014; Gonzalez et al. 2008); and use of CSR data by external stakeholders (Wiersma 2009). Similarly, the literature suggests a plethora of factors that influence investment in CSR ranging from external pressures from governments, NGOs and other activists (Briscoe, Gupta, and Anner 2015; Delmas and Toffel 2008), regulations (Rettab et al, 2009) to idiosyncratic characteristics of executives such as their beliefs, and values about the role of businesses in society (Mellahi et al., 2016). The literature suggests that managers are more willing to invest in CSR if they possess evidence of the positive link between CSR and corporate financial performance (Chin et al., 2013; Mellahi et al., 2016; Orlitzky, Schmidt and Rynes 2003). Thus, conceptually, this study complements the extant research on the drivers of CSR investment by adding a new important factor namely CSR measurement. We posit and demonstrate that CSR measurement is not a passive set of tools to record performance, but is a process that impacts CSR investment. In addition, as noted by Budhwar, Pereira, Temouri and Do (2021), there is limited empirical research on management and organizations in the Middle East region. Thus, in addition to the conceptual contribution to the broader CSR literature, the study makes an empirical contribution to the ongoing research on CSR in the Middle East.

Unlike other management activities, such as investment in marketing or R&D, where decisions are driven purely by their intended return on investment, CSR is driven by

both business and normative considerations (Mellahi et al., 2016). This study posits that internal organizational level motives to measure CSR performance signals an organizational commitment to CSR and therefore results in higher investment in CSR. On the other hand, external drivers such as regulations, exert pressure on the firm to measure and report the impact of their CSR practices to avoid potential costs and legal liabilities for noncompliance and therefore may not influence organization's decision to invest in CSR (Zhu and Zhang 2015). We test our proposition by answering the following research questions: Why do firms measure and report the performance of their CSR initiatives and how does that influence investment in CSR?

The remainder of the paper is structured as follows. We first provide a discussion of why organizations invest in and measure CSR performance. This is followed by a discussion of the theoretical framework which draws on existing debates and perspectives, but proposes a wider conceptualisation of CSR measurement. Subsequently, the research context and method are described, and findings of factor analysis and cluster analysis of the survey data presented. The paper concludes by discussing the main contributions to theory and practice.

WHY DO ORGANIZATIONS INVEST IN AND MEASURE CSR PERFORMANCE?

Over the past three decades, organisations have increasingly invested in CSR practices (Aguinis and Glavas 2012; Awaysheh, Heron, Perry, and Wilson, 2020; Delmas et al. 2013; Porter and Kramer 2011). Investments in CSR are often motivated by the premise that CSR offers organisations the potential to develop a competitive advantage, as economic and social value can be jointly created (Mellahi et al. 2016; Porter and Kramer 2011). Indeed, various authors have emphasised how CSR practices can have a positive impact on firms' performance – intended as financial, social and environmental (Awaysheh et al., 2020; Mellahi et al 2016; Orlitzky et al. 2003). On the other hand, despite several success stories, the empirical evidence of CSR's impact on performance is mixed (see Aguinis and Glavas 2012 for a review). This has often been attributed to the poor integration of CSR practices with organisations' main operations and to the recognition that environmental and social sustainability objectives should be more clearly related to financial ones (Longoni and Cagliano 2015). As Porter and Kramer (2006:80) observed, “the prevailing approaches to CSR are so fragmented and so disconnected from business and strategy as to obscure many of the greatest opportunities for companies to benefit society”.

In parallel with increasing investments in CSR, we have witnessed an impressive growth in the introduction of CSR measurement practices, as organisations have attempted to understand and improve their environmental and social performance, and to provide greater accountability to external stakeholders (Bititci et al. 2012; Epstein 2008). For example, the number of ISO 14001 certifications has mushroomed and an increasing number of organisations have been following the guidelines of the Global Reporting Initiative (GRI) (Pedersen and Neergaard 2008). Many companies have also introduced modified versions of the Balanced Scorecard in order to give greater salience to environmental and social aspects (Figge et al., 2002; Hansen and Schaltegger 2016) and considerable investments in CSR measurement have also been made in the supply chain (Gualandris et al. 2015; Parmigiani et al. 2011). Increases in

the uptake of CSR measurement practices are reflected in the growing number of academic studies written in this area (Mura et al. 2016).

Such developments are welcome, as measurement can contribute to putting greater emphasis on environmental and social sustainability (Bititci et al. 2012). At the same time, various studies show that CSR measurement is often decoupled from wider organisational performance measurement (Henri and Journeault 2010; Hansen and Schaltegger 2016). While firms have improved the development and use of specific measurement tools (such as environmental and social performance evaluation systems, eco-control and sustainability Balanced Scorecards), they have been less successful at integrating them into their measurement systems (Gond et al. 2012; Searcy 2012).

Debates on how to meaningfully introduce CSR practices in organisations' operations and on how to integrate CSR measurement in organisations' performance measurement systems are connected. Indeed, one of the symptoms and reasons for the 'fragmentation' and 'disconnection' of approaches to CSR lamented by Porter and Kramer (2006) is that collection, analysis, use and disclosure of CSR-related data are often poorly linked to the overall measurement, management and reporting efforts inside and between organisations. While this issue has been identified, little is known as to how CSR measurement practices can be better integrated, so that they impact CSR initiatives and managerial decision-making more broadly (Gond et al. 2012).

This study examines different approaches and consequences of CSR measurement by focusing on the roles of perceived regulation, senior management support, and uses of performance information by different stakeholders, and their impact on CSR initiatives and investments.

THEORETICAL FRAMEWORK

The rise of CSR measurement

Research in CSR and related areas such as eco-control, social accounting and corporate social performance has long promoted the introduction of indicators associated to environmental and social impacts (Henri and Journeault 2010). In practice, increasing environmental legislation and regulation, stakeholder demands and societal expectations, and the recognition by many companies that 'CSR is good for business' have all contributed to the view that environmental and social issues should be explicitly considered and measured, in addition to financial objectives (Hansen and Schaltegger 2016). Over time, CSR measurement practices have become more codified and standardised, through the introduction of various schemes and frameworks such as the GRI, ISO 14001 and life-cycle assessments from both social and environmental points of view (Beske et al. 2015; Contrafatto, 2014; Gonzalez et al. 2008). This tendency has been further reinforced by the development of environmental ratings (e.g., KLD, Dow Jones Sustainability Index, ASSET4, CDP and GES – see Delmas et al. 2013; Semenova and Hassel 2015).

From a scholarly point of view, several authors have investigated triggers and purposes of CSR measurement. Among the main drivers, researchers have emphasised the relevance of contextual factors such as the existence and enforcement of regulation and guidelines as well as the influence of external stakeholders (De Geuser et al. 2009; Simpson and Sroufe 2014). Internal stakeholders have been found to play an important role too, particularly in terms of top management support (see, e.g., Adams 2002; Contrafatto 2014; Henri and Journeault 2008).

Concerning its effects, there is evidence that CSR measurement can contribute to further investments and diffusion of CSR practices, for example by better linking an organisation to its stakeholders, and by providing feedback on progress made thanks to specific initiatives (Arjalies and Mundy 2013). On the other hand, there is also evidence of negative consequences. In some cases, the increasing use of CSR measures only resulted in compliance with external requirements, rather than in performance improvements (Cho et al. 2015; Gray 2010). In others, companies tactically chose to report only on those indicators that captured the areas in which they performed best (Marquis et al. 2016).

To explain such contradictory findings, management researchers have tended to adopt three different – although not mutually exclusive views, which consider CSR measurement as (1) an integral component of a company's performance measurement system; (2) an external reporting mechanism to inform stakeholders and to pro-actively manage enterprise risk; or (3) a reporting tool to gain legitimacy towards stakeholders. These standpoints are first reviewed, and then a unifying approach is proposed.

Three competing paradigms of CSR measurement

The first perspective views CSR as an essential element of an organisation's core business (Arjales and Mundy 2013; Mellahi et al., 2016), and CSR measures as critical components of organisational performance measurement systems (Henri and Journeault, 2010). From this point of view, the decoupling of CSR measurement from organisational measurement processes is considered to be one of the main reasons CSR has limited effects on performance (Hansen and Schaltegger 2016; Searcy 2012).

To unravel the question over the conflicting effects of CSR measurement, recent research in this field has focused on internal organisational dynamics. Authors have investigated the integration of CSR measures and proposed different measurement systems' configurations that could lead to changing organisational processes to provide a stronger focus on the triple bottom line, rather than on financial results alone (Gond et al. 2012). Also, they have advocated a more balanced and comprehensive view of organisational performance as this could help improve performance and initiate innovation (Beske et al. 2015; Bititci et al. 2012). For example, Lisi (2015) found that environmental performance measures could be effective mechanisms to translate companies' motivational factors around sustainability into enhanced performance. In their study of manufacturing firms in the Netherlands, Perego and Hartmann (2009) concluded that firms with a more proactive environmental strategy tend to rely more on measurement systems that systematically report environmental performance data. Grosvold et al. (2014) found that greater alignment in sustainable supply chain management and measurement practices led to improved sustainability performance. On the other hand, little is known as to how alignment is generated, whether different drivers of CSR measurement – such as management support and external regulation – act in similar ways or lead to diverse company approaches and consequences. Additionally, most authors have considered solely ecological issues, rather than environmental and social aspects jointly (Bebbington and Thomson 2013).

Several practice-oriented studies have also attempted to contribute to the integration of CSR measurement in organisational measurement systems by modifying existing frameworks such as the Balanced Scorecard or the EFQM (see, e.g., Figge et al. 2002; Hardjono and de Klein 2004). Other authors have suggested

potential indicators for CSR deriving them either from theory or from current business practice (e.g., Searcy 2012; Székely and Knirsch 2005). While such work is certainly relevant, it has rarely been accompanied by empirical analysis, and therefore ultimately provides little evidence over the dynamics and consequences of measuring CSR-related aspects.

The second perspective has considered CSR measurement mainly as an external reporting mechanism, which could help manage environmental and reputational risk in a pro-active way (Burritt and Schaltegger 2010). In this case, emphasis is mainly on disclosure and transparency, rather than on strategic and operational integration, and main goals of CSR measurement are reputation, accountability to stakeholders, and brand value (Gualandris et al. 2015; Hahn and Kuhnen, 2013). For example, in supply chain management, various studies have been conducted on stakeholder accountability or “the extent to which firms are required or expected to justify their decisions and actions” to stakeholders in their extended supply chains (Parmigiani et al. 2011: 215).

To make CSR measurement more effective, authors in this field have concentrated on monitoring and reporting practices, and on organisations’ capacity to understand and manage stakeholder expectations (Gualandris et al. 2015). Moreover, they have proposed improvements in social and environmental accounting systems, which could enable organisations to track and demonstrate performance along their supply chains (Parmigiani et al. 2011). However, little has been done to relate enhancements in external reporting with either internal dynamics or further investments in CSR initiatives.

The third perspective also focuses on reporting aspects, but considers CSR measurement as a pure legitimisation mechanism towards external stakeholders (Gray et al. 1995). From this point of view, CSR measurement is mainly regarded as symbolic action, rather than as an attempt to increase actual corporate transparency and accountability. Hence, organisations are portrayed as engaging primarily in ‘selective disclosure’ or “a symbolic strategy whereby firms seek to gain or maintain legitimacy by disproportionately revealing beneficial or relatively benign performance indicators to obscure their less impressive overall performance” (Marquis et al. 2016: 483).

The term ‘CSR’ is therefore used to “obfuscate the real situation regarding the effect of corporate activity upon the external environment and the consequent implications for the future” (Aras and Crowther 2009: 279). In contrast with the two previous perspectives, CSR is considered a highly contested concept, and contradictory societal and institutional pressures are seen as irreconcilable by organizations, which end up engaging in hypocrisy and in developing façades, thereby hindering the capacity for CSR reports to ever evolve into genuine disclosures (Cho et al. 2015). As Gray (2010: 48) states, “whatever else organizational ‘accounts of sustainability’ are, they are probably not accounts of sustainability”; thus, here CSR measurement is not regarded as a means to improve CSR practices, but as a cause of corporate sustainability problems (Gray and Milne 2002). From this critical perspective, CSR measurement is mainly driven by regulation and external demands, regarded as a fad, and expected to disappear in time (Burritt and Schaltegger 2010).

Towards a comprehensive view of CSR measurement

This study builds on the extant literature to empirically explore different approaches to CSR measurement and their effects on CSR investments. In particular, it jointly

considers several aspects that have been examined separately in previous studies: here, measurement is conceptualised as a reporting mechanism as well as an internal process to acquire knowledge and to support decision-making. Therefore, the roles of both regulators and senior managers are regarded as relevant, and the interplay between worth investigating. Moreover, the use of CSR-related data by different stakeholders is considered as an important factor in determining an organisation's commitment to CSR and as a potential predictor of investments in CSR (Perego and Hartmann 2009). Finally, this research regards CSR as encompassing both environmental and social aspects (Bebbington and Thomson 2013).

RESEARCH CONTEXT: AN OVERVIEW OF CSR IN THE UAE

Although the modern concept of CSR, that is firms are responsible towards both shareholders and internal and external stakeholders, has originated in Western countries, it has recently received wide attention from both practitioners and policy makers in the UAE (Al-Jenaibi 2017; Almatrooshi, Hussain, Ajmal, and Tehsin 2018) and wider Middle East region (Rettab and Mellahi 2019). As a result, the practice of CSR has grown in importance and gained significant acceptance in the last decades (Hassan Al-Tamimi 2014; Kukunuru, and Singh 2017; Rettab and Mellahi 2019) and attracted a significant body of research (Al-Abdin, Roy, and Nicholson 2018). The practice of CSR in the UAE has evolved from its origin in philanthropic activities (see Mellahi and Rettab 2019 for a discussion of the philanthropic perspective in the Middle East) towards more strategic CSR (Mellahi and Rettab 2019). Rettab et al. (2009) show that large firms in Dubai, particularly subsidiaries of MNEs, tend to align their CSR activities with their corporate strategy and design them with the aim to create positive impact for shareholders and stakeholders.

CSR in the UAE is driven by three key factors. First, regulations (e.g. Cabinet Decision No. 2 of 2018 on Corporate Social Responsibility) and political nudging to encourage firms to be responsible corporate citizens with the aim of establishing the UAE as one of the global leaders in CSR. Second, leaders of organizations in UAE have recently been devoting a lot of efforts to CSR (Rettab and Mellahi 2019). This is driven, at least in part, by the belief that, in addition to social benefits, CSR has the potential to provide organizational benefits that outweigh the cost of CSR activities. Third, key stakeholders started to push organizations to act in a socially responsible manner (Almatrooshi, et al. 2018; Anadol, Youssef, and Thiruvattal 2015). All the above drivers for CSR push firms to measure and report the impact of their CSR initiatives. Corporate leaders would want to see evidence of how well their CSR investment is having the desired impact. Also, evidence of societal impact is needed to build trust and alleviate key stakeholders' skepticism towards CSR. Finally, demonstrating positive CSR impact enhances corporate legitimacy among policy makers. Building on the above, we argue that the UAE context makes the study of CSR measurement and impact thereof on investment of CSR very important not only for research but also for practitioners and policy makers.

RESEARCH METHOD

Data Collection

To understand current CSR measurement practices and their effects on CSR investment, a survey of 820 companies based in Dubai was carried out in 2015. We

aimed to obtain a mix of small and large organizations. We targeted 400 large organizations from a selected population of 2,881 organization and obtained 83 usable responses (response rate 20.8%). 150 SMEs from a total targeted population of 100,532 were sent questionnaire and obtained valid responses from 145 companies (response rate = 96.7%). We targeted organizations randomly from the total populations. Overall, out of a total population of 103,683 and sample size of 820, 307 companies delivered usable questionnaires (response rate of 37.4%). Nearly half (46%) of the responding organisations were SMEs, the remaining 54% were large organisations. Questionnaire items are available in Appendix 1.

Measures

CSR Measurement drivers: Using a 1-7 likert scale, we measured management support drivers using five items namely – to ensure link of CSR-related performance goals to long-term strategy (Gimbert et al. 2010); support of the development of CSR measures by senior management (item adapted from DeGeuser, Mooraj and Oyon, 2009); use of CSR performance information by corporate and business unit managers (Henri and Journeault 2010); and use of CSR performance indicators (a) to justify decisions related to CSR; (b) to verify management assumptions about CSR; (c) to support CSR actions; (d) to reinforce beliefs about CSR; and (e) to increase CSR focus (Henri 2006; Van den Bosch et al. 1999).

Stakeholder support focused on customers, employees, suppliers and environmental support. The first measure captured the extent to which CSR measures were used for the following: (a) to deal more strategically with internal and/or external customers; (b) to serve internal and/or external customers; (c) to improve the quality of customer service; (d) to more creatively serve customers; (e) to exchange information with internal/or external customers.

The second measure captures the usefulness of CSR measurement to the organisation in accomplishing the following: (a) work environment and employee satisfaction; (b) working conditions; (c) suppliers' CSR policies; (d) responsible client relations; (e) responsible marketing, branding and innovation; (f) environmental impact; and (g) process efficiency (from an environmental sustainability point of view). Items a-e were adopted from (Wiersma 2009), items f, and g were adopted from (Gond et al. 2012).

Regulation driver was captured by a single item, namely, the influence of regulators in the introduction of CSR-related measures in the organisation. Finally, CSR impact is measured by two items adopted from (Comoglio and Botta 2012) namely, change in investment/spending in CSR over the last three years; and comparison of expenditures on CSR against the competitors.

Data Analysis

Data were analysed through a three-stage approach. Firstly, an exploratory factor analysis (EFA) was carried out in order to assess scale validity and reliability. Secondly, a cluster analysis was developed in order to identify meaningful clusters of companies in terms of: (i) managerial support and use of CSR-related information; (ii) information flows existing between the company and its main stakeholders; (iii) whether regulation promotes the introduction of CSR measures. Thirdly, ANOVA analyses were

conducted in order to identify relevant differences among clusters in relation to CSR investments and performance.

FINDINGS

Exploratory Factor Analysis

An EFA on the items reflecting CSR measurement practices was conducted (Questions 1-7 of the questionnaire). Results are reported in Table 1. Two factors with an eigenvalue larger than one emerge from the analysis, and all psychometric properties of both factors are satisfied. As can be seen in Table 1, the reliability coefficients - Cronbach's alpha- for the two factors are .97 and .98. and discriminant and convergent validity coefficients for the first factor range between .590 and .994 and .785 and .978 for the second factor.

Insert Table 1 about here

The first factor includes several management aspects such as the links between CSR measurement and strategy (Q.1), and senior management support for CSR measurement (Q.2), the use of CSR performance information by corporate and business unit management (Q3a-b), and the use of CSR-related measures for legitimising decisions internally (Q.4a-f). Coherently, this factor was labelled as '*managerial support and use*'. The second factor encompasses usage of CSR measures to serve customers (Q.5a-e), and perceived usefulness of measurement in several CSR areas (Q.6a-g). Thus, this factor was labelled as '*stakeholder reporting and impact*'.

The factor analysis conducted led to exclude item Q.7 on *perceived regulation* as it loaded poorly on both factors (.285 and .418 respectively), thus not supporting discriminant and convergent validity. However, the poor factor loadings displayed by this item were considered as empirical support of the fact that perceived regulation had to be considered as a distinct single-item construct. Therefore, given the importance of perceived regulation for the proposed theoretical framework, it was decided to retain this variable for further analyses.

Cluster Analysis

Based on the results of the EFA, a cluster analysis was conducted in order to identify meaningful clusters of companies in terms of different combinations of CSR measurement practices – i.e., *managerial support and use*, *stakeholder reporting and impact*, and *influence of regulation*. Under the K-means algorithm (Hartigan and Wong, 1979), the five-group model provided the best fit. The scores of *managerial support and use*, *stakeholder reporting and impact*, and *influence of regulation* for the five cluster centres are shown in Table 2.

Insert Table 2 about here

Cluster 1 consists of 46 organisations scoring low in all clustering dimensions. Cluster 2 comprises 30 organisations scoring high on regulatory influence, but fairly low on both other factors. Cluster 3 consists of 48 organisations scoring low in regulatory influence, but relatively high in both dimensions of internal management support and external reporting and impact. Cluster 4 comprises 76 organisations scoring fairly high in all dimensions. Finally, Cluster 5 consists of 90 organisations scoring highest in all three dimensions. The results of the cluster analysis are shown in Figure 1.

Insert Figure 1 about here

Analysis of variance (ANOVA)

In order to explore the consequences of CSR measurement, the five clusters emerging from the previous analysis were related to two outcome measures – investments in CSR over the last three years (Q.8) and spending on CSR compared to competitors (Q.9) – and relevant differences among clusters were assessed by means of an ANOVA analysis.

The ANOVA F -test was highly significant ($F = 10.14$, $p < .001$ for Q.8; $F = 7.37$, $p < .001$ for Q.9) and indicated that the null hypothesis of all five clusters having the same levels of investments in CSR could be rejected. Using the post hoc S-N-K (Student-Newman-Keuls) procedure, it was established that, in relation to Q.8 (investments in CSR over the last three years), clusters 1 and 2 are significantly lower at 0.10 level than the other clusters. Instead, considering Q.9 (spending on CSR compared to competitors), cluster 1 is significantly lower than cluster 2, which is significantly lower than clusters 3, 4 and 5 at 0.10 level. The results of the ANOVA analyses are shown in Table 3.

Insert Table 3 about here

DISCUSSION

This study has explored the roles of three main drivers for CSR measurement: regulation, management support and support of stakeholders and investment in CSR. From the analysis of survey data, five clusters of companies emerge; these are

characterised by different levels of perceived regulation, management support, and use CSR data to support stakeholders. When the effects on organisations' investments in CSR are considered – both over time and in relation to competition – three significantly different approaches to CSR measurement are identified.

In particular, managerial support and uses of CSR measures for internal purposes appear to go hand in hand with stakeholder reporting and impact, measured as usage of CSR measures to serve customers and perceived usefulness of measurement in several CSR areas. In contrast, perception of regulation follows a different pattern: in the first cluster it is at its minimum, similarly to internal management support and stakeholder reporting and impact. Organisations in this cluster do not seem to either invest in CSR or benefit from it, and feel little pressure from a regulatory point of view. However, in the second cluster, while internal management and CSR impact increase only minimally, regulation is felt almost at its highest. This appears to be the case of organisations that regard CSR as a legitimisation mechanism, and invest in CSR practices (as well as measurement and reporting) only because they are required to (Gray 2010; Khan, Bose, and Johns, 2020). This may be the situation of several firms that obtain environmental or people management certifications, because they are expected to do so by their customers, while attempting to minimise costs related to environmental and social aspects (Azzone and Noci 1998).

The third cluster is characterised by enhanced internal management support and stakeholder reporting and impact, but lower perception of regulation. This indicates that organizations may perceive regulatory requirements as less stringent in the presence of stronger management commitment, or that CSR measures are better integrated in the organisation's performance measurement system, and therefore less connected to external demands. The final two clusters display increasingly higher levels of all three considered factors, perhaps reflecting the adoption of environmental and social certifications or reporting frameworks (e.g., ISO 14001 and the Global Reporting Initiative).

The analysis of data demonstrates that managerial support and use of CSR measures for reporting and impact are proportionally related to investments in CSR – both over time and in relation to competitors. However, the ANOVA analyses show the first and second clusters to be the only ones that significantly differ from the other three. This again signals the importance of sufficient management commitment and use of CSR measures in differentiating between CSR measurement mainly for legitimisation purposes and CSR measurement undertaken to improve CSR practices and organisational performance more broadly.

This research makes three main contributions to theory. First of all, CSR measurement emerges as a significant driver of CSR investments and performance. Although effects differ across approaches, increasing management support and use of CSR measurement are associated with higher investments in environmental and social practices. This finding supports the view that CSR measurement is a process capable of triggering change, and cannot be considered either as a passive set of tools to record performance (Gond et al. 2012), or as a pure reporting mechanism (Gray 2010).

Secondly, this research shows that management support is positively associated with the degree of utilisation of CSR measures both within and outside the organisation. This is in line with findings in the performance measurement literature

in relation to the importance of senior management buy-in (Bourne et al. 2000; Melnyk et al. 2014), and confirms theoretical arguments on the integration of CSR measures and performance measurement systems (Gond et al. 2012; Searcy 2012). Moreover, internal support and use of data by external stakeholders are found to be aligned; this reinforces the need for research that encompasses both internal organisational dynamics and external accountability and reporting aspects (Beske et al. 2015). Indeed, the researchers agree with Burritt and Schaltegger (2010: 832) that “it is time for sustainability accounting and reporting to consider breaking away and embracing a goal beyond external accountability [and focus on] the gathering of data to help understand purposive decision making.”

Thirdly, the results of the cluster analysis allow to distinguish different roles of regulation, and to identify three types of firms. The first one consists of firms in cluster one, which appear to be *inactive* in relation to CSR measurement and investments. The second, comprising firms in cluster two, appears to be *reactive* (Azzone and Noci 1998) to the demands of regulators. The third brings together all other firms, and captures a more *pro-active* approach (Clarkson 1995), driven by both management support *and* regulation. This research therefore lends support to both streams of literature that consider CSR measurement mainly from a reporting point of view. Reactive organisations seem primarily motivated by external reporting and by providing legitimacy to the organisation’s operations. This is in line with previous studies that have considered CSR measurement as a façade and a management fad (Cho et al. 2015) or a ceremonial activity (Barrese, Phillips, and Shoaf, 2020). In contrast, more pro-active organisations demonstrate higher levels of CSR measurement and investment, and appear to consider external regulation as one of various factors. Such position is more sympathetic towards research that considers measurement as a process to provide accountability and help them engage with stakeholders (Gualandris et al. 2015; Parmigiani et al. 2011).

Whilst the findings of this study appear consistent with extant organizational performance measurement research, they have to be interpreted within the UAE institutional context. In the UAE, stakeholders, especially customers, exert relatively less pressure on organizations to behave in a socially responsible manner compared to organizations operating in Western countries (Rettab et al. 2009). Therefore measuring CSR impact for stakeholders’ support in the UAE may be driven by intrinsic internal desire to support stakeholders rather than extrinsic external pressure. Thus, organizations operating in an institutional context where stakeholder pressure is high may measure and report CSR performance as a response to stakeholders concerns. In such context where organizations measure CSR performance to meet the demands of stakeholders, the link between CSR performance measure and CSR investment may be different.

This research also has implications for policy and practice. As Bititci et al. (2012:320) argued in their review of the performance measurement literature, a key future challenge for practitioners and academics is how to meaningfully include “the sustainability agenda as part of the whole performance measurement system within the organisation or the network”. For policy makers, this research shows that regulation alone will not suffice; indeed, it may trigger the perverse behaviours that various authors have already identified (see, e.g., Marquis et al. 2016). At the same time, regulation does play an important and positive role, as long as management support is also demonstrated. This finding suggests that efforts made by regulatory

bodies and institutions should continue, but management training and interventions within organisations and supply chains should accompany them.

Our findings have direct managerial implications. First, our findings suggests that *reactive* organizations that measure and report the performance of their CSR initiatives to meet regulation requirements do not translate potentially valuable information from the process of measuring CSR performance into managerial decisions such as investment in CSR. As a result, they are missing out on opportunities to improve their CSR initiatives. CSR performance measurement, regardless of why it is performed, provides important data for managers that can be used to improve their CSR practices. But for this to happen, managers must themselves be convinced of the potential value of CSR and use the findings to enhance their practices.

Second, from a performance measurement point of view, a greater stakeholder-based approach to the design, implementation and review of measures (Neely *et al.*, 2002) could enable a better development and integration of CSR measures in organisation-wide measurement systems. As noted above customers' and suppliers' pressure is relatively low and organizations, especially SMEs, carry out little research to identify stakeholders' needs. Therefore, organizations need to develop market intelligence about stakeholders needs and measure their CSR performance in terms of responding to stakeholders' needs. Measuring CSR performance for *assumed* stakeholders' needs does not ensure that the organizations is meeting *actual* stakeholders' needs.

This research has limitations that could be addressed in future studies. Firstly, this study exclusively focused on firms operating in Dubai. Companies based in other parts of the Middle East may show other approaches to CSR implementation, as managerial exposure to different legal and regulatory systems may explain inter-country variations of CSR implementation (Kock *et al.* 2012; Mellahi and Rettab 2019). Secondly, this research has examined different approaches to CSR measurement, but has not delved into the specific performance measures used by organisations. Therefore, future studies may look at CSR measures and how they are integrated into organisational performance measurement systems. Finally, the comprehensive view of CSR measurement adopted has allowed to bring together different perspectives that are often treated separately in the literature: internal and external views, and performance improvement and legitimacy-seeking arguments. Future research should consider these aspects conjointly, and longitudinal studies could look at the interplay and changes in regulation and internal management support towards CSR measurement over time.

CONCLUSION

Drawing on the results of a survey of 307 companies based in Dubai, this research examines the link between the drivers of CSR performance measurement and CSR investment. We identified five clusters of companies characterised by different levels of perceived regulation, senior management support, and uses of performance information to support stakeholders. Specifically, the latter two factors go hand in hand, whereas perceived regulation follows a different path, as some organisations regard CSR measurement mainly as a legitimisation mechanism (and therefore driven mainly by external pressure), whereas others consider it as part of their wider performance measurement systems.

Concerning the effects of CSR measurement, three approaches emerge as significantly different: inactive, reactive and proactive. The first is characterised by low perceived regulation, senior management support, and uses of performance information by different stakeholders, and its effects on CSR investments are lowest. In the reactive approach, perceived regulation is much higher, but investments in CSR still low. The proactive approach has the highest impact on CSR investments, and it is distinguished by proportional degrees of perceived regulation, senior management support, and uses of performance information by different stakeholders. This research therefore identifies CSR measurement to provide management support and use of CSR information by different stakeholders as triggers of investments in CSR. It also reconciles findings from two different streams of literature on CSR reporting, by shedding light on the role of regulation, and its interplay with the other two factors. Moreover, the findings demonstrate that CSR measurement can be a significant driver of CSR investments and performance. Overall, this research shows that regulatory bodies and institutions can positively contribute to the successful introduction of CSR measurement and of CSR initiatives more broadly, but managerial interventions and greater use of CSR-related data should be associated with them.

REFERENCE

- Adams, C. 2002. "Internal Organizational Factors Influencing Corporate Social and Ethical Reporting: Beyond Current Theorizing." *Accounting, Auditing and Accountability Journal* 15(2): 223-250.
- Aguinis, H. and A. Glavas. 2012. "What We Know and Don't Know about Corporate Social Responsibility: A Review and Research Agenda." *Journal of Management* 38(4): 932-968.
- Al-Abdin, A., Roy, T., and Nicholson, J. D. 2018. Researching corporate social responsibility in the Middle East: The current state and future directions. *Corporate Social Responsibility and Environmental Management*, 25(1): 47-65.
- Al-Jenaibi, B. 2017. "Corporate Social Responsibility: Case Study in UAE Organizations." *International Journal of Knowledge Society Research* 8(4): 85-100.
- Almatrooshi, S., M. Hussain., M. Ajmal, and M.Tehsin. 2018. "Role of public policies in promoting CSR: empirical evidence from business and civil society of UAE." *Corporate Governance: The International Journal of Business in Society* <https://doi.org/10.1108/CG-08-2017-0175>
- Anadol, Y., M.A.Youssef, and E. Thiruvattal. 2015. "Consumer reaction towards corporate social responsibility in United Arab Emirates." *Social Responsibility Journal* 11(1):19-35
- Aras, G. and D. Crowther. 2009. "Corporate Sustainability Reporting: A Study in Dis- ingenuity?" *Journal of Business Ethics* 87(S1): 279-88.

- Arjalies, D. L. and J. Mundy. 2013. "The use of management control systems to manage CSR strategy. A levers of control perspective." *Management Accounting Research* 24: 284-300.
- Awaysheh, A., Heron, R. A., Perry, T., & Wilson, J. I. 2020. "On the relation between corporate social responsibility and financial performance." *Strategic Management Journal*, 41(6): 965-987.
- Azzone, G. and G. Noci. 1998. "Identifying effective PMSs for the deployment of "green" manufacturing strategies." *International Journal of Operations & Production Management* 18 (4): 308-335.
- Barrese, J., Phillips, C., and Shoaf, V. 2020. "Why do US public companies continue to join the UN global compact: Ethics or economics?". *International Studies of Management & Organization*, 50(3): 209-231.
- Bebbington, J. and I. Thomson. 2013. "Sustainable development, management and accounting: Boundary crossing." *Management Accounting Research* 24(4): 277-283.
- Beske-Janssen, P., M. Johnson., and S. Schaltegger. 2015. "20 years of performance measurement in sustainable supply chain management—what has been achieved?" *Supply Chain Management: An International Journal* 20(6): 664-680.
- Bititci U., P. Garengo., V. Dörfler and S. Nudurupati. 2012. "Performance measurement: Challenges for tomorrow." *International Journal of Management Reviews* 14(3): 305–327.
- Bourne, M.C.S., J.F.Mills., M.O.Wilcox., A.D. Neely, and K.W. Platts. 2000. "Designing, implementing and updating performance measurement systems." *International Journal of Production & Operations Management* 20 (7): 754-771.
- Briscoe, M.C.S., J.F.Mills., M.O.Wilcox., A.D. Neely, and K.W. Platts. 2000. "Designing, implementing and updating performance measurement systems." *International Journal of Production & Operations Management* 20 (7): 754-771.
- Budhwar, P., Pereira, V., Temouri, Y. and Do, H. 2021. "International Business Research and Scholarship in the Middle East: Developments and Future Directions, *International Studies of Management and Organizations*. In press.
- Burritt, R. L. and S. Schaltegger. 2010. "Sustainability accounting and reporting: fad or trend?" *Accounting, Auditing & Accountability Journal* 23(7): 829–846.
- Cho, C. H., M. Laine., R.W. Roberts, and M. Rodrigue. 2015. "Organized hypocrisy, organisational façades, and sustainability reporting." *Accounting, Organizations and Society* 40(1): 78-94.
- Clarkson, M. E. 1995. "A stakeholder framework for analyzing and evaluating corporate social performance." *Academy of Management Review* 20(1): 92-117.
- Comoglio, C. and S. Botta. 2012. "The use of indicators and the role of environmental management systems for environmental performances improvement: A survey on ISO 14001 certified companies in the automotive sector." *Journal of Cleaner Production* 20(1): 92-102.

- Contrafatto, M. 2014. "The institutionalization of social and environmental reporting: An Italian narrative." *Accounting, Organizations and Society* 39(6): 414-432.
- Crane, A., I. Henriques., B.W. Husted, and D. Matten. 2017. "Measuring corporate social responsibility and impact: Enhancing quantitative research design and methods in business and society research." 787-795.
- De Geuser, F., S. Mooraj, and D. Oyon. 2009. "Does the Balanced Scorecard add value? Empirical evidence on its effect on performance." *European Accounting Review* 18(1): 93-122.
- Delmas, M., D. Etzion, and N. Nairn-Birch. 2013. "Triangulating environmental performance: What do corporate social responsibility ratings really capture?" *Academy of Management Perspectives* 27(3): 255-267.
- Epstein, M. 2008. "Making Sustainability Work: Best Practices in Managing and Measuring Social and Environmental Impacts", Greenleaf, Sheffield.
- Figge, F., T. Hahn., S. Schaltegger, and M. Wagner. 2002. "The sustainability balanced scorecard—linking sustainability management to business strategy." *Business Strategy and the Environment* 11(5): 269-284.
- Gimbert, X., J. Bisbe, and Mendoza, X. (2010), "The Role of Performance Measurement Systems in Strategy Formulation Processes." *Long Range Planning* 43(4): 477-497.
- Gjølberg, M. (2009). "Measuring the immeasurable?: Constructing an index of CSR practices and CSR performance in 20 countries". *Scandinavian Journal of Management* 25(1): 10-22.
- Gond, J.P., S. Grubnic., C. Herzig, and J. Moon. 2012. "Configuring management control systems: Theorizing the integration of strategy and sustainability." *Management Accounting Research* 23(3): 205-223.
- González, P., J. Sarkis, and B. Adenso-Díaz. 2008. "Environmental management system certification and its influence on corporate practices." *International Journal of Operations & Production Management* 28(11): 1021-1041.
- Gray, R. 2010. "Is accounting for sustainability actually accounting for sustainability ... and how would we know? An exploration of narratives of organizations and the planet." *Accounting, Organizations and Society* 35(1): 47-62.
- Gray, R. and Milne, M. 2002. "Sustainability reporting: Who's kidding whom?", *Chartered Accountants Journal of New Zealand*, 81 (6): 66-70.
- Gray, R., R. Kouhy, and S. Lavers. 1995. "Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure." *Accounting, Accounting, Auditing & Accountability Journal* 8(2): 47-77.
- Grosvold, J., Hoejmose, S. U. and Roehrich, J. K. 2014. "Squaring the circle: Management, measurement and performance of sustainability in supply chains", *Supply Chain Management: An International Journal* 19(3):, 292-305.
- Gualandris J., R.D. Klassen., S. Vachon, and M. Kalchschmidt. 2015. "Sustainable evaluation and verification in supply chains: Aligning and leveraging accountability to stakeholders." *Journal of Operations Management* 38: 1-13.

- Hahn, R. and M. Kuehnen. 2013. "Determinants of sustainability reporting: A review of results, trends, theory, and opportunities in an expanding field of research." *Journal of Cleaner Production* 59(15): 5-21.
- Hansen, E. G. and S. Schaltegger. 2016. "The Sustainability Balanced Scorecard: A systematic review of architectures." *Journal of Business Ethics* 33(2): 193-221.
- Hardjono, T. and P. de Klein. 2004. "Introduction on the European Corporate Sustainability Framework (ECSF)." *Journal of Business Ethics*, 55(2): 99-113.
- Hartigan, J. A. and M.A. Wong. 1979. "Algorithm AS 136: A K-Means Clustering Algorithm", *Journal of the Royal Statistical Society. Series C (Applied Statistics)*. 28(1): 100-108.
- Hassan Al-Tamimi, H. A. 2014. "Corporate social responsibility practices of UAE banks." *Global Journal of Business Research* 8(3): 91-108.
- Henri, J. F. 2006. "Eco-control: The influence of management control systems on environmental and economic performance." *Accounting, Organizations and Society* 35(1): 63-80.
- Henri, J.-F. and M. Journeault. 2008. "Environmental performance indicators: An empirical study of Canadian manufacturing firms." *Journal of Environmental Management* 87(1): 165-176.
- Henri, J.-F. and M. Journeault. 2010. "Eco-control: The influence of management control systems on environmental and economic performance." *Accounting Organizations and Society* 35(1): 63-80.
- Idemudia, U., and N. Osayande. 2018. "Assessing the effect of corporate social responsibility on community development in the Niger Delta: a corporate perspective." *Community Development Journal*, 53(1):155-172.
- Khan, H. Z., Bose, S., and Johns, R. 2020. "Regulatory influences on CSR practices within banks in an emerging economy: Do banks merely comply?" *Critical Perspectives on Accounting*, 71, 102096.
- Kock, C. J., J. Santaló, and L. Diestre. 2012. "Corporate governance and the environment: What type of governance creates greener companies?" *Journal of Management Studies* 49(3): 492-514.
- Kukunuru, S., and S. Singh. 2017. "Corporate Social Responsibility and Impact on Profitability of Banks in the United Arab Emirates". *Middle East Journal of Business* 55(4022): 1-11.
- Latif, K. F., and Sajjad, A. 2018. "Measuring corporate social responsibility: A critical review of survey instruments". *Corporate Social Responsibility and Environmental Management* 25(6): 1174-1197.
- Lisi, E. 2015. "Translating environmental motivations into performance: The role of environmental performance measurement systems." *Management Accounting Research* 29: 27-44.
- Longoni, A. and R. Cagliano. 2015. "Environmental and social sustainability priorities: Their integration in operations strategies." *International Journal of Operations and Production Management* 35(2): 216-245.

- Marquis, C., M.W. Toffel and Y. Zhou. 2016. "Scrutiny, norms, and selective disclosure: A global study of greenwashing." *Organization Science* 27(2): 483-504.
- Mellahi, K and Rettab, B. 2019. "CSR in the Middle East: From Philanthropy to Modern CSR". In Rettab, B. and Mellahi, K. *Practicing CSR in the Middle East* (pp. 39051). Palgrave Macmillan, Cham.
- Mellahi, K., J.G. Frynas, J. G., P. Sun. and D. Siegel. 2016. "A review of the nonmarket strategy literature: Toward a multi-theoretical integration." *Journal of Management* 42(1): 143-173.
- Melnik, S., U. Bititci., K. Platts., J. Tobias and B. Andersen. 2014. "Is performance measurement and management fit for the future?" *Management Accounting Research* 25(2): 173-186.
- Mura, M., M. Longo., P. Micheli, and D. Bolzani. 2016. "Measuring and managing sustainability. A literature review and research agenda", *Proceedings of the Performance Measurement Association Conference*, 27-29 June 2016, Edinburgh, UK.
- Neely, A., C. Adams, and M. Kennerley. 2002. "The Performance Prism: The scorecard for measuring and managing business success", Pearson Education, London.
- Orlitzky, M., F.L. Schmidt, and S.L. Rynes. 2003. "Corporate social and financial performance: A meta-analysis." *Organisation Studies* 24(3): 403-441.
- Parmigiani, A., R.D. Klassen, and M.V. Russo. 2011. "Efficiency meets accountability: Performance implications of supply chain configuration, control, and capabilities", *Journal of Operations Management* 29(3): 212-223.
- Pedersen, E. R. and P. Neergaard. 2008. "From periphery to center: How CSR is integrated in mainstream performance management frameworks." *Measuring Business Excellence* 12(1): 4-12.
- Porter, M. E. and M.R. Kramer. 2006. "Strategy and society: The link between competitive advantage and corporate social responsibility." *Harvard Business Review* 84(12): 74-92.
- Porter, M. E. and M.R. Kramer. 2011. "Creating Shared Value: How to reinvent capitalism—and unleash a wave of innovation and growth." *Harvard Business Review* 89(1/2): 62-77.
- Rettab, B. and Mellahi, K. 2019. "CSR and Corporate Performance with Special Reference to the Middle East". In Rettab, B. and Mellahi, K. *Practising CSR in the Middle East* (pp. 101-118). Palgrave Macmillan, Cham.
- Rettab, B. and Mellahi, K. 2019. *Practicing CSR in the Middle East* (pp. 39051). Palgrave Macmillan, Cham.
- Rettab, B., A. Ben Brik, and K. Mellahi. 2008. "A study of management perceptions of the impact of corporate social responsibility on organizational performance in emerging economies: The case of Dubai." *Journal of Business Ethics* 89(3): 371-390.
- Searcy, C. 2012. "Corporate sustainability performance measurement systems: A review and research agenda." *Journal of Business Ethics* 107: 239-253.

- Semenova, M. and L.G. Hassel. 2015. "On the validity of environmental performance metrics." *Journal of Business Ethics* 132(2): 249-258.
- Simpson, D. and R. Sroufe. 2014. "Stakeholders, reward expectations and firms' use of the ISO14001 management standard.", *International Journal of Operations & Production Management* 34(7): 830-852.
- Székely, F. and M. Knirsch. 2005. "Responsible leadership and corporate social responsibility: Metrics for sustainable performance." *European Management Journal* 23(6): 628-647.
- Van den Bosch, F. A. J., H.W. Volberda, and M. de Boer. 1999. "Coevolution of firm absorptive capacity and knowledge environment: Organizational forms and combinative capabilities." *Organization Science* 10(5): 551-568.
- Wiersma, E. 2009. "For which purposes do managers use Balanced Scorecards? An empirical study." *Management Accounting Research* 20(4): 239-251.
- Yang, Y., and C. Stohl. 2020. "The (in) congruence of measures of corporate social responsibility performance and stakeholder measures of corporate social responsibility reputation." *Corporate Social Responsibility and Environmental Management* 27(2): 969-981.
- Zhu, Q., and Q. Zhang. 2015. "Evaluating practices and drivers of corporate social responsibility: The Chinese context." *Journal of Cleaner Production* 100: 315-324.

Appendix – Questionnaire

Management support

Q.1: CSR-related performance goals are explicitly linked to long-term strategy (1 = Strongly disagree and 7 = Strongly agree)

Q.2: To what extent was/is the development of your CSR measures supported by senior management? (1 = No support and 7 = Excellent support)

Q.3: Please rate the use of CSR performance information by the following stakeholders: (a) Corporate management; (b) Business unit management (1 = No at all and 7 = To a great extent)

Q.4: To what extent does the senior management currently uses CSR performance indicators for the following? a) Justify decisions related to CSR; (b) Verify management assumptions about CSR; (c) Support CSR actions; (d) Reinforce beliefs about CSR; (e) Increase CSR focus; (f) Validate the organisation's point of view about CSR (1 = No at all and 7 = To a great extent).

Stakeholder reporting and impact

Q.5: To what extent are CSR measures used for the following: (a) To deal more strategically with internal and/or external customers; (b) To serve internal and/or external customers; (c) To improve the quality of customer service; (d) To more creatively serve customers; (e) To exchange information with internal/or external customers (1 = Not at all and 7 = To a great extent).

Q.6: How useful is CSR measurement to the organisation in accomplishing the following? (a) Work environment and employee satisfaction; (b) Working conditions; (c) Suppliers' CSR policies; (d) Responsible client relations; (e) Responsible marketing, branding and innovation; (f) Environmental impact; (g) Process efficiency (from an environmental sustainability point of view) (1 = Not at all useful and 7 = Extremely useful).

Perceived regulation

Q.7: Please rate the influence of regulators in the introduction of CSR-related measures in your organisation (in rating, please use the scale of 1 to 7 with 1 = Little influence and 7 = Very large influence)

CSR impact

Q.8: How has your investment/spending in CSR changed over the last three years? (1 = Decreased; 2 = Marginally increased; 3 = Stayed the same; 4 = Increased significantly)

Q.9: How would you compare your expenditure on CSR against your competitors? (1 = We spend more; 2 = About the same; 3 = We spend less).

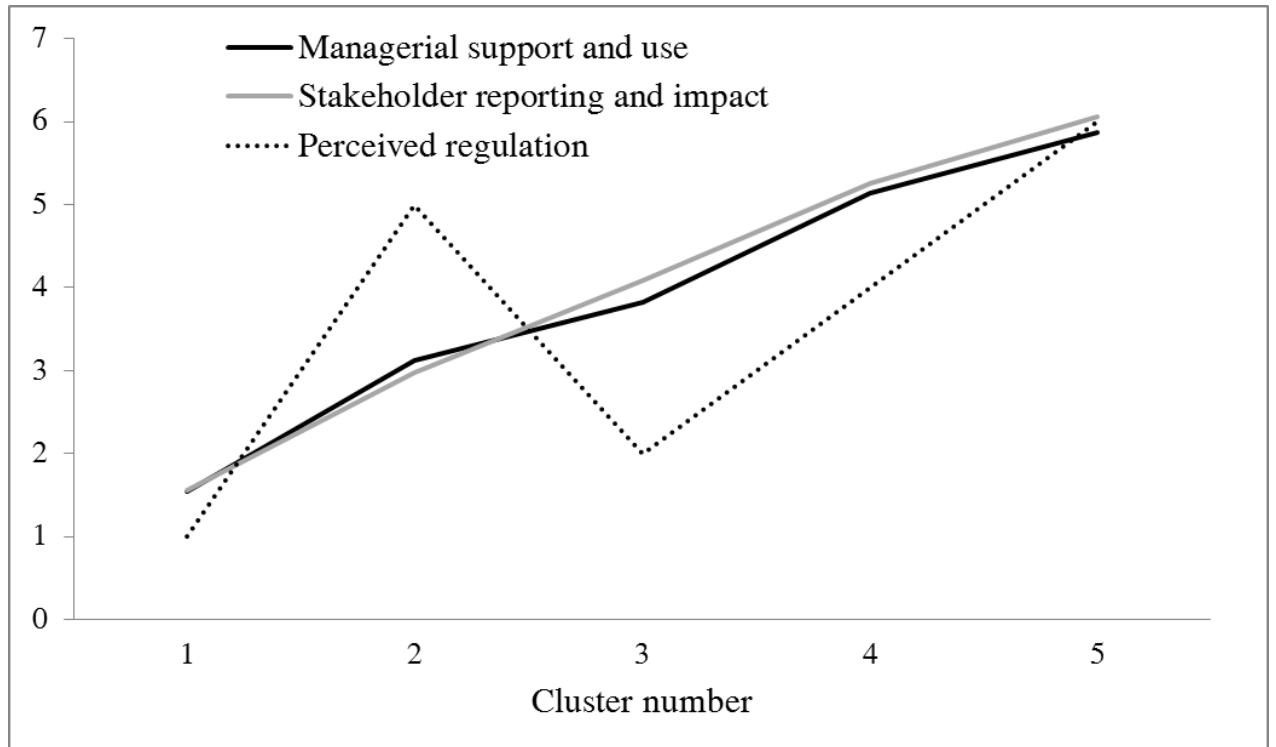


FIGURE 1. Results of the cluster analysis

Table 1.

Results of the exploratory factor analysis (Only two digits after the decimal point).

Short presentation of item	Component	
	1	2
Q.1	.59	.24
Q.2	.679	.152
Q.3a	.759	.126
Q.3b	.703	.212
Q.4a	.948	-.005
Q.4b	.921	.030
Q.4c	.948	-.018
Q.4d	.956	.005
Q.4e	.994	-.046
Q.4f	.925	.028
Q5.a	.134	.800
Q.5b	.115	.811
Q.5c	.136	.805
Q.5d	.120	.810
Q.5e	.127	.785
Q.6a	.027	.890
Q.6b	.029	.896
Q.6c	-.160	.978
Q.6d	-.015	.929
Q.6e	.072	.845
Q.6f	.129	.806
Q.6g	.107	.816
Cronbach's alpha	.97	.98

Table 2.

Results of the cluster analysis

	Cluster				
	1	2	3	4	5
Managerial support and use	1.55	3.12	3.83	5.14	5.87
Stakeholder reporting and impact	1.66	2.98	4.09	5.25	6.06
Influence of regulation	1	5	2	4	6
Number of organisations	47	30	48	76	90

Table 3.

Results of the ANOVA analyses

Q.8 - Investments in CSR over the last three years	N	Subset for alpha = 0.10 (Why not .5?)	
		1	2
Cluster1	31	2.06	
Cluster 2	28	2.11	
Cluster 3	44		2.75
Cluster 4	68		2.96
Cluster 5	80		3.01
Sig.		.80	.28

Q.9 - Spending in CSR compared to competitors	N	Subset for alpha = 0.10 (.5?)		
		1	2	3
Cluster1	29	1.55		
Cluster 2	24		1.92	
Cluster 3	42			2.19
Cluster 4	67			2.22
Cluster 5	75			2.25
Sig.		1.000	1.000	.902