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The associations between management control systems, market orientation and CSR use

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Abstract

This study contributes to the management control system (MCS) literature by examining the association between MCSs, specifically Simons' (Levers of control: how managers use innovative control systems to drive strategic renewal, Harvard Business School Press, Boston, 1995) four levers of control (i.e. belief, boundary, diagnostic and interactive) and CSR use, and the mediating role of market orientation on this association in a developing economy, Bangladesh. The study also develops a six-dimensional model of CSR use, utilising the principles of CSR use provided by the OECD. Data was collected using a survey of 201 Bangladeshi firms. The findings indicate that the boundary, diagnostic use and interactive use of levers of control exhibit a direct positive influence on the use of specific dimensions of CSR use. In addition, market orientation mediates the specific positive associations between the interactive use of controls and two different dimensions of CSR use: 'accountability to external stakeholders' and 'environmental, occupational, and public health and safety'. Accordingly, the findings indicate that the influence of MCSs (i.e. the interactive use of control) on the use of CSR occurs both directly and indirectly (through market orientation) and consequently firms need to consider the role of MCSs in enhancing both market orientation and CSR use. Practitioners can use the findings of this study to implement appropriate MCSs and develop their market orientation in a manner which is conducive to CSR use.

Keywords Management control systems · Levers of control · Market orientation · Mediation · CSR use

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1 Introduction

Management Control Systems (MCSs) play an important role in managing change and innovation through shaping and implementing CSR strategies in firms (Hosoda, 2018; Laguir et al., 2019; Lueg & Radlach, 2016; Riccaboni & Leone, 2010) i.e. plans to implement "socially and environmentally responsible actions throughout the organisation" (Arjaliès & Mundy, 2013, 284). For instance, Arjaliès and Mundy (2013) provide an insight into the role of MCSs (all four levers of control (LOC)) in managing CSR strategy, while Laguir et al. (2019) examine the role of Simons' (1995) LOC and other controls in implementing and managing CSR. However, while the extant literature highlights the importance of using MCSs to manage CSR strategies in firms (Hosoda, 2018; Laguir et al., 2019; Lueg & Radlach, 2016; Riccaboni & Leone, 2010), there is a gap in the literature examining the antecedent role of MCSs in influencing the extent of use of CSR in firms (Hosoda, 2018; Riccaboni & Leone, 2010). In addition, the few existing studies examining the relationship between MCSs and CSR use have tended to be case study based (Hosoda, 2018; Laguir et al., 2019; Riccaboni & Leone, 2010), thereby limiting the generalisability of the findings.

Consequently, this study aims to address the calls in the literature to empirically examine the association between different MCSs and CSR use (Hosoda, 2018), specifically the extent to which specific dimensions of CSR are used by organisations. Our focus here on the extent of CSR use is pertinent as it facilitates an empirical insight into the success of CSR strategies (Kaplan & Kinderman, 2019) and meets the increasing demands of various stakeholders who require organisations to exhibit socially responsible behaviour (Endrikat et al., 2017; Eweje & Sakaki, 2015; Gallhofer, 2018; Michaels & Grüning, 2017). Further, we contribute to the CSR and management control literature by providing an empirical insight into the role of Simon's levers of control as an underlying factor which can influence the extent of of CSR use. In doing so, we extend the current MCS literature which considers the role of controls in managing and implementing CSR, to focus instead on the influence of Simons' (1995) levers of control on the overall extent of CSR use.

Therefore, we examine the direct and indirect (through market orientation) associations between Simons' (1995) four LOC (beliefs, boundary, diagnostic and interactive) and the use of CSR. We utilise Simons' (1995) LOC framework here as it provides top level managers with a complete package of MCSs (Mundy, 2010) i.e. four different types of control and hence, provides a broad perspective of controls (Ferreira & Otley, 2009; Tessier & Otley, 2012), thereby enabling a comprehensive insight into how the different LOCs influence the extent of use of CSR. Simon's (1995) LOC framework is considered by scholars to be extremely useful in "explaining how MCS[s] are used in organisations" (Martyn et al., 2016, p. 299) and has been used extensively in the accounting and management literature either in theoretical integration and/or in the empirical examination of associations (Kruis et al.,

2016; Tessier & Otley, 2012), including in relation to CSR (Arjaliès & Mundy, 2013; Laguir et al., 2019).

The study provides a unique perspective on the association between MCSs, specifically Simons' (1995) LOC and the extent of use of CSR, by focusing on the mediating role of market orientation,[1] the purpose of which is to create the "necessary behaviour for the creation of superior value for buyers and, thus continuous superior performance for the business" (Narver & Slater, 1990, 21). The focus on market orientation here is pertinent for while firms primarily pursue economic performance, more market-oriented firms will place greater emphasis on satisfying their customer needs, which will inherently involve a greater focus on CSR related initiatives to fulfil the increasing social expectations of their customers (Jebarajakirthy et al., 2016). Hence, the extent of use of CSR will be dependent upon market orientation i.e. the extent to which firms are committed to understanding and fulfilling the needs of their customers. For instance, it is suggested that the use of CSR may be an effective strategy to build customer satisfaction as customers respond positively to the use of CSR by businesses (Singh, 2009). Given the sparse empirical evidence concerning the influence of market orientation on the use of CSR (Jebarajakirthy et al., 2016; Kiessling et al., 2016), the study aims to extend the research in this area.

Therefore, we integrate the market orientation and MCS literature to advocate that the association of MCSs with CSR use occurs indirectly through market orientation. Specifically, we argue and hypothesise that the influence of the LOC on CSR use transpires due to the influence of such controls on market orientation, which in turn results in greater emphasis being placed on CSR use. Therefore, in examining the mediating role of market orientation on the association between MCSs, specifically Simons' (1995) four LOC (namely, belief, boundary, and the diagnostic and interactive use of control) and CSR use, we discuss and develop hypotheses in respect to the association between each of the four LOC and market orientation, and between market orientation and CSR use.

The study uses a survey questionnaire with data collected from 201 firms across various industries located in Bangladesh. We focus on Bangladesh, which is characterised by family-dominant ownership structures, managerial profit imperatives, and widespread corruption and human rights violations (Hossain & Alam, 2016; Belal et al., 2015; Belal & Cooper, 2011), due to its low levels of CSR use, and hence the potential to provide an insight into how to improve the uptake of CSR. In assessing CSR use in Bangladesh, we provide an enhanced insight into the use of CSR through developing a new comprehensive six-dimensional model of CSR. This measure was developed in accordance with the Organisation of Economic Cooperation and Development guidelines (OECD, 2011) for CSR use and embeds diverse issues relating to employees, customers, suppliers, competitors, investors, people, environment, governments, multinational firms, and local culture. This new CSR model overcomes the criticism levelled at previous measures of CSR, in particular that they only encapsulate some of the multiple aspects of CSR and/or provide

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[1] While market orientation is recognised is a part of Quinn and Rohrbaugh's (1983) Competing Value Framework of organisational culture, this study focuses exclusively on market orientation.

incongruent measures of CSR use (Gjølberg, 2009; Jackson & Apostolakou, 2010; Lozano et al., 2008; van Tulder et al., 2009).

Our study contributes to the MCS literature examining the interrelationship between MCSs and CSR. In particular, while previous studies have focuses on the role of MCSs in managing and implementing CSR inititiatives, the study provides a novel insight into this relationship by focusing on the effect of Simons' (1995) levers control on the extent of CSR use. As such, the study contributes to the MCS literature, adopting a cartesian congruence mediation approach (Gerdin & Greve, 2004, 2008) to examine the relationship between the LOC, market orientation and CSR use. The results provide evidence of the direct influence of MCSs in enhancing the use of CSR and highlight the crucial role of market orientation as a mediator of the association between the LOC and the use of CSR. Specifically, there is evidence that market orientation mediates the associations between the interactive use of control with two of the six specific dimensions of CSR use. Such findings provide practitioners with new insights into the role of market orientation in enhancing CSR use, and the important role of MCSs, specifically the LOC in influencing market orientation, and enhancing CSR use, both directly and indirectly through market orientation. Finally, the findings suggest that future studies examining the antecedent role of MCSs in influencing CSR use should consider the mediating role of market orientation.

The remainder of this paper is structured as follows. The next section discusses the relevant literature and develops the relevant hypotheses. Section 3 then provides information on the research method adopted which is followed by the results in Sect. 4. Finally, the discussion of the results and conclusion including limitations of the study are provided in Sects. 5 and 6 respectively.

2 Literature review and hypotheses development

2.1 Management control systems and CSR use

A Management Control System can be defined as "the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organisation's objectives" (Anthony, 1965, 17). In this study, we operationalise the MCS in respect to Simons' (1995) formal LOC framework, which consists of belief systems, boundary controls, the diagnostic use of controls and the interactive use of controls. Belief systems here consist of "the explicit set of organisational definitions that senior managers communicate formally and reinforce systematically to provide basic values, purpose, and direction for the organisation" (Simons, 1995, 34). Boundary systems delineate "the acceptable domain of strategic activity for organisational participants" (Simons, 1995, 39), thereby restricting business practices to defined product markets and limiting the level of risk taken. The diagnostic use of controls refers to "formal systems that are designed to monitor the progress of objectives in the implementation of strategic and related plans" (Witcher & Chau, 2010, 307). The diagnostic use of controls focuses on monitoring performance to ensure that performance expectations are met (Simons, 2000). Finally, the

interactive use of controls focuses on discussion, dialogue and debate with a view to promoting flexibility and creativity. Hence, the interactive use of controls "facilitate creative dialogues and information sharing amongst top management and subordinates through maintaining regular communication" (Baird et al., 2018, 259).

In order to explain the dual role of controls, Tessier and Otley (2012) categorised Simons' (1995) four LOC into enabling and constraining controls. Enabling controls here refer to the controls that exert a positive force, promoting creativity and flexibility (i.e. beliefs and interactive), while the constraining controls (boundary and diagnostic), provide "structure by placing limits on inappropriate behaviours, setting clear targets and expectations, and monitoring feedback" (Speklé et al., 2017, 74), thereby increasing predictability (Tessier & Otley, 2012).

While the extant literature is sparse in relation to the empirical examination of the association between these formal controls and the extent of CSR use, the previous MCS literature, which is mostly based on case studies, highlights the role of MCSs in implementing and managing CSR. For instance, Hosoda (2018) found evidence of the usefulness of the interactive use of controls (a formal control) in translating the opinions of stakeholders into CSR actions, Laguir et al. (2019) found that large French firms use social MCSs[2] to communicate CSR values and evaluate CSR, while Arjaliès and Mundy (2013) found that firms use belief systems, CSR documentation and other MCSs in order to convey firms' purpose and vision, and communicate CSR strategies to employees. Similarly, Battaglia et al. (2016) highlight the importance of the development and use of various sustainability control systems such as the sustainability report, sustainability annual plan and participatory social plan in integrating sustainability within a firm's strategy. These studies provide evidence of and highlight the importance of using different MCSs to communicate, manage, and translate CSR strategies into action.

All four LOC are expected to exhibit a positive influence on the extent of use of CSR. First, belief systems are useful in communicating, informing and providing guidelines to employees regarding CSR, and establishing a CSR culture (Laguir et al., 2019). For example, an empirical study conducted by Arjaliès and Mundy (2013) finds evidence of the use of belief systems, in France's largest listed firms, to communicate firms' CSR mission and associated values in order to achieve their CSR targets and meet stakeholders' expectations. Hence, while we acknowledge that an individual firm's extent of CSR use represents a conscious decision by management, it is anticipated that CSR use will be greater when there is a stronger emphasis on belief systems due to their role in establishing, communicating, and unifying employees in respect to their firm's core CSR values (Arjaliès & Mundy, 2013).

Similarly, the other enabling control, the interactive use of controls, is likely to facilitate greater CSR use, with the higher levels of communication, discussion and debate regarding corporate social responsibilities expected to result in higher levels of CSR innovation (Arjaliès & Mundy, 2013; Laguir et al., 2019) and the establishment of CSR performance targets and measures. Support here is

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[2] Social MCSs refer to "those control processes that play a significant role in ensuring that CSR activities are incorporated into an organization's strategic plans and objectives (Laguir et al., 2019, 535).

provided by Hosoda (2018) who refers to the role of the interactive use of controls in promoting CSR use through facilitating the communication between top level managers and other employees and translating stakeholders' opinion into firm CSR use.

In respect to the constraining controls, both boundary controls and the diagnostic use of controls are expected to play a role in enhancing the use of CSR, through establishing clear guidelines in regard to the corporate social responsibilities of a firm, and monitoring CSR performance. In respect to boundary controls, firms "mobilize boundary systems to implement employee CSR activities through ethics guides, codes of conduct, guidelines on agreed upon social activities, and diversity guidelines" (Laguir et al., 2019, 547). Passetti et al. (2020) here provide evidence to support the positive influence of boundary controls (health and safety action controls) on the use of CSR, specifically the integration of health and safety issues. Hence, boundary controls are expected to enhance the use of CSR through establishing clear expectations regarding the specific CSR activities that employees need to engage with and the manner in which such activities are to be provided.

The diagnostic use of controls involves establishing clear performance expectations regarding CSR and monitoring and evaluating the performance of employees in respect to CSR outcomes. Researchers allude that the diagnostic use of controls helps managers to manage the costs of CSR and find ways to improve CSR performance through measuring CSR outcomes/performance (Gond et al., 2012; Laguir et al., 2019). Such performance measures "allow organizations to control compliance with regulations and standards, [and] enable CSR decision-making" (Laguir et al., 2019, 535). Laguir et al. (2019) find evidence of the role of the diagnostic use of controls in implementing employee CSR. In particular, large firms in France used the diagnostic use of controls to implement environmental CSR, through incorporating environmental indicators or environmental management systems, thereby providing managers with the information to evaluate and monitor employee environmental CSR performance and to assist in finding ways to improve environmental CSR performance. Given the importance of the diagnostic use of controls in measuring and monitoring CSR and performance, it is expected that the establishment of such CSR based performance evaluation systems will result in greater emphasis being placed on CSR use.

Therefore, based on these arguments we hypothesise that all four LOC will be positively associated with CSR use.

H1a The emphasis on belief systems is positively associated with the emphasis on the use of CSR.

H1b The emphasis on boundary controls is positively associated with the emphasis on the use of CSR.

H1c The emphasis on the diagnostic use of controls is positively associated with the emphasis on the use of CSR.

Levers of Control
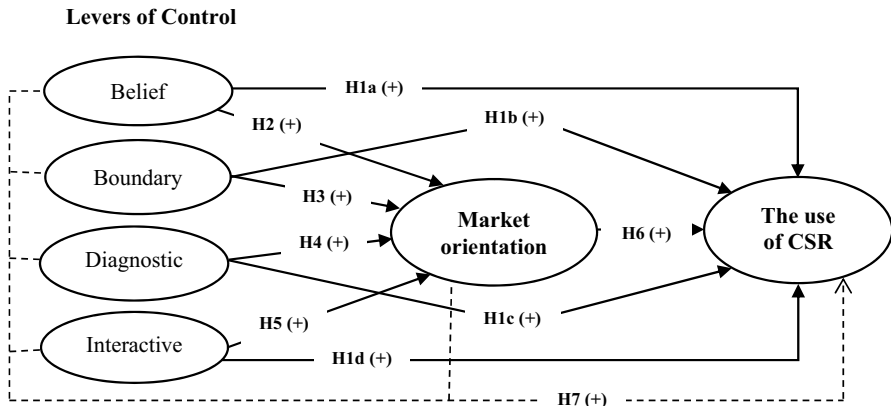
Fig. 1 A conceptual model on the association between the LOC, market orientation and the use of CSR. *Note*: Dotted lines indicate mediation

H1d The emphasis on the interactive use of controls is positively associated with the emphasis on the use of CSR.

As discussed in the introduction section, in examining the association between the four LOC and the use of CSR, we consider the mediating role of market orientation. Accordingly, the next section provides an overview of the nature of the mediating variable, market orientation, and develops hypotheses in respect to the association between each of the four LOC and market orientation. This is then followed by Sect. 2.3 which discusses and develops a hypothesis in respect to the association between market orientation and CSR use. Finally, Sect. 2.4 discusses and develops a hypothesis in respect to the mediating role of market orientation on the association between the four LOC and CSR use. A summary of our conceptual model is depicted in Fig. 1.

2.2 The association between MCSs and market orientation

The theory of market orientation refers to "a business philosophy or a policy statement which addresses how organisations adapt to their customer environment to develop competitive advantages" (Kiessling et al., 2016, 271). Market orientation indicates the ability to perform three sorts of activities. First, it is the ability to listen to customers and deliver them expected solutions based on their interests and demands (Desphandt et al. 1993; Slater & Narver, 1995) i.e. customer orientation. Customer orientation refers to the degree to which firms seek to understand customers and satisfy them accordingly (Theoharakis & Hooley, 2008; Donavan et al., 2004; Slater & Narver, 1995; Desphandt et al., 1993). The sellers of customer oriented firms should understand the entire value chain of both existing and potential customers (Narver & Slater, 1990). To satisfy customers and, in turn, to be a customer oriented firm, a firm should deliver customers safe and reliable products,

assist them in making the best purchase decisions, and ensure responsive, fair and friendly after-sale services (Kirca et al., 2005; Liao & Subramony, 2008).

Secondly, competitor orientation refers to the ability of a firm to keep track of competitors' actions and moves, and to share information on competitive forces, thereby preventing market position erosion (Peteraf & Bergen, 2003). In other words, it indicates the extent to which a firm monitors the activities, resources, and capabilities of its rivals, and seeks ways to outperform them in a competitive arena (Brik et al., 2011). Competitor orientation also focuses on the creation of superior values for customers by understanding the actions of existing and potential competitors better (Levitt, 1960; Narver & Slater, 1990).

Finally, it is the ability of a firm to follow and maintain specific and identifiable routines and processes to create superior value for customers (Kohli & Jaworski, 1990; Narver & Slater, 1990), i.e. interfunctional coordination, which refers to "the coordinated utilization of company's resources in creating superior value for target customers" (Narver & Slater, 1990, 22). Research indicates that communication and interaction amongst firm members is essential to create and offer superior value to customers (Brik et al., 2011). Collective and idiosyncratic support from each individual employee is crucial for the creation of superior customer value (Porter, 1985). In particular, having interfunctional coordination enables firms to acquire, integrate, and disseminate market intelligence systematically, resulting in better-designed customer oriented marketing programs, which in turn, helps firms to achieve customer satisfaction (Brik et al., 2011; Narver & Slater, 1990). Accordingly, firms should focus on the entire business rather than single departments, functions, units, or levels (Webster, 1988).

Our examination of the mediating role of market orientation is considered pertinent due to its effect on CSR use, and the literature which alludes to a relationship between each of Simons' LOC and market orientation. Specifically, as discussed below, there are arguments pointing to the positive influence of belief systems (Narver & Slater, 1990; Simons, 1995), boundary controls (Journeault et al., 2016), the diagnostic use of controls (Bastini et al., 2021), and the interactive use of controls (Theriou et al. 2017; Kennedy et al., 2003) on market orientation. Our study will provide the initial empirical investigation of these relationships. In addition, in acknowledging these relationships and the importance of market orientation in satisfying the expectations of customers regarding CSR, we will provide the initial empirical examination of the mediating role of market orientation on the association between the LOC and CSR use, thereby contributing to the MCS literature in this area by highlighting the important role of market orientation in facilitating such relationships.

Initially, we now discuss the role of the MCS, i.e. each of the four LOC, in influencing market orientation.

2.2.1 Belief systems

Belief systems "are used to communicate the principles of organisational culture to every employee of the organisation" (Baird et al., 2018, 259), and hence reflect a crucial source of instilling and/or reinforcing market orientation, which itself is

recognised as a part of firm culture (Currey, 2015; Van den Steen, 2011; Schein, 1990, 2010; Harris & Watkins, 1998; Harris, 1996; Narver & Slater, 1990). While it is acknowledged that the effect of such controls is inherently dependent upon the focus of the beliefs installed (i.e. if top managers emphasise focusing on customers then customer orientation will be enhanced) and/or the specific beliefs of senior managers (Currey 2015; Schein, 2010), on a broader level we argue that firms that have a greater focus on belief systems will place a greater emphasis on market orientation due to the establishment of a stronger firm culture.

Therefore, firms which communicate their core values through their mission statement and top management, will be more likely to have established a culture in which employees clearly understand their customer needs (Jaworski & Kohli, 1993) i.e. stronger customer orientation. Simons (2000) here stresses the positive effect of belief systems on the innovativeness and creativity of employees, which is likely to improve their understanding of customers' needs (Shurafa & Mohamed, 2016) and enhance their ability to search for, initiate, create and engage in actions which support customers. For instance, Currey (2015) suggests that the beliefs of senior level managerial staff influence the way employees collect market intelligence information on firm's markets, including customers.

The use of belief systems may also prompt employees, especially sales staff, to better understand the strengths and weaknesses, strategies, and actions of a firm's key competitors', and to respond strategically to their strategies and actions. This occurs as belief systems drive employees to search for opportunities in their firm's external environment and find solutions to respond to such opportunities (Mundy, 2010). For example, Currey (2015) found evidence of the influence of the beliefs of top management on planning and coordinating firm responses towards market opportunities and threats, thereby influencing firm competitor orientation. In addition, the application of belief systems supports sales staff through the discussion of necessary information on competitors' strategies and actions with managerial staff, which in turn, guide managerial staff in devising supportive policies, values, and ensuring a free flow of top-down communication (Narver & Slater, 1990). Hence, it is expected that belief systems will be positively associated with building and strengthening competitor orientation.

Finally, it may be argued that the culture of sharing beliefs with employees and a free flowing and effective firm wide communication system fosters the process of coordination among all functional units (Mintzberg, 1996). Specifically, the application of belief systems assists in the process of educating each individual employee about firm values, goals, and directions, and hence, fosters interactions and communication among them (Slater & Narver, 2000). Hence, employees with a clear understanding of firm beliefs, policies and directions and an effective communication system are more likely to interact and maintain coordination across firm wide departmental units. Accordingly, it is expected that the application of belief systems will be positively associated with achieving firm wide interfunctional coordination.

These theoretical arguments are supported by the limited empirical evidence on the role of belief systems in building and enhancing firm's market orientation. For instance, Currey (2015) found that the beliefs of senior management team members were related with market orientation with such beliefs influencing the way they

gather and share market intelligence and respond towards market opportunities and threats. Similarly, Jaworski and Kohli (1993) found that top management's emphasis on market orientation is one of the factors that determines the extent to which a firm is market oriented.

Therefore, it is hypothesised that there will be a positive association between the application of belief systems and market orientation.

H2 The emphasis on belief systems is positively associated with the level of market orientation.

2.2.2 Boundary controls

Boundary controls, through developing a code of business conduct and communicating the code and acceptable levels of risk to employees, delineate boundaries within which innovative and creative employees must operate (Narayanan & Boyce, 2019; Simons, 1995). More specifically, boundary controls formally define the desirable standard behaviour of employees, thereby encouraging them to: behave in line with the prescribed codes, principles, and procedures; to be cautions before acting; to advise others of inappropriate behaviour; and to contact the appropriate authority and report undesirable behaviour (Journeault et al., 2016; Widener, 2007). Hence, it is expected that customer oriented organisations can use boundary controls to (1) communicate an organisation's code of conduct so as to ensure customer oriented behaviour, (2) encourage employees to convince other organisational members not to demonstrate off-limit behaviour, and (3) encourage employees to report any such off-limit behaviour which threatens their objective of creating superior values for customers. Therefore, as it is envisaged that firms with clear codes of employee conduct will be better equipped to support customers' ever changing needs, to protect customer rights, and to convince organisational members not to engage in unauthorised off limit behaviour, it is expected that they will be more willing to accommodate the demands of their customers, and hence be more customer oriented.

Boundary controls are also expected to be useful in driving employees to develop market intelligence (Levitt, 1960; Narver & Slater, 1990), thereby enhancing their competitor orientation. For instance, as formally defined standards of behaviour require sales staff to seek knowledge on their industry rivals, employees will be more likely to develop knowledge on the strategies and actions of existing and potential rivals. In particular, a pre-established standard of employee behaviour drives employees to develop knowledge on competitors and to share competitors' information with managerial staff. Accordingly, it is expected that the application of boundary controls will enable firms to build competitor orientation.

The application of boundary controls may also be useful for the process of coordination through specifying the pre-set code of conduct which is to be consistently applied across units and functions. Such controls may also reduce the amount of unacceptable behaviour and promote the reporting of unacceptable behaviour, thereby enabling the standardisation of principles and procedures within the organisation and assisting top managers in the coordination process across the organisation (Journeault et al., 2016). Hence, it is expected that the application of boundary

controls will facilitate the process of achieving and strengthening inter-functional coordination with managers utilising boundary controls to facilitate the process of inter-functional coordination through influencing employees behaviour.

We therefore hypothesise that the application of boundary controls will be positively associated with market orientation.

H3 The emphasis on boundary controls is positively associated with the level of market orientation.

2.2.3 Diagnostic use of controls

As a traditional feedback control system, diagnostic controls perform four important functions including reviewing pre-set performance standards, monitoring progress, correcting deviations from the pre-set standards, and rewarding employees who reach performance targets (Bastini et al., 2021; Journeault et al., 2016; Henri, 2006; Simons, 1995). The use of diagnostic controls may enhance the market orientation of organisations by creating superior values for customers through motivating employees to better understand the expectations of current and potential customers (i.e. customer orientation), developing knowledge on existing and potential industry rivals (i.e. competitor orientation), and enhancing coordination across departments (i.e. interfunctional coordination).

First, diagnostic controls force organisations to review standards and performance, thereby ensuring that they pay attention to customer satisfaction and ensuring that employees' ongoing behaviour aligns with the strategic objectives of being customer oriented. Furthermore, diagnostic controls reward those employees who satisfy customers and hence, achieve the organisational strategic goal of being customer oriented (Brik et al., 2011; Witcher & Chau, 2010). Second, organisation can use diagnostic controls to monitor the activities, resources and capabilities of its rivals, and seek ways to outperform them in a competitive arena (Brik et al., 2011), thereby leading organisations to be more competitor oriented. Finally, the application of the diagnostic use of controls is also expected to facilitate the achievement of coordination across functional units as such controls reduce the scope of activities, thereby increasing predictability (Tessier & Otley, 2012) and motivating employees to pursue the achievement of pre-set performance targets (Henri, 2006; Narver & Slater, 1990).

A review of the literature supports the positive association between the use of diagnostic controls and organisational market orientation with Bastini et al. (2021) finding that diagnostic controls support the process of sustainable organisational market orientation, innovation and learning. Therefore, in line with this study and the above discussion, we hypothesise a positive association between the diagnostic use of controls and market orientation.

H4 The emphasis on the diagnostic use of controls is positively associated with the level of market orientation.

2.2.4 Interactive use of controls

The interactive use of controls enables senior managers to be involved regularly and personally in the decision activities of subordinates, which in turn, motivates and encourages employees to seek new and unique ways to satisfy customer needs (Simons, 2000). Furthermore, the use of controls in an interactive manner is considered to be a positive force (Simons, 1995) which encourages employees' opportunity-seeking and learning behaviour, and thereby increases a firm's customer orientation (Theriou et al., 2017; Henri, 2006).

The interactive use of controls also facilitates and encourages the free flow of communication among firm members, both downwards to subordinates and upwards to managers (Mundy, 2010), including the discussion of competitors' information. The interactive use of controls facilitates dialogue and debate regarding the firm's external environment, thereby enhancing employees' understanding of a firm's threats and opportunities relating to competitors' strategies and actions (Guenther & Heinicke, 2019). As a result, firms will be better placed to understand and respond promptly to competitors' strategies and actions in an effective manner.

Finally, the interactive use of controls is characterised by open channels of communication (Burns & Stalker, 1961) which is essential to achieving effective coordination across functional units (Kennedy et al., 2003). For instance, researchers argue that managing employee behaviour in an interactive manner facilitates and fosters firm dialogue, and the exchange of information amongst employees, resulting in effective organisational wide coordination (Haas & Kleingeld, 1999; Malina & Selto, 2001; Simons, 1995). Alternatively, the absence of a free flow of communication between managers and subordinates may provoke both interfunctional and individual role conflicts, which has the potential to inhibit firm interfunctional coordination (Jaworski & Kohli, 1993; Kirca et al., 2005).

The empirical evidence in respect to the influence of the interactive use of controls on market orientation is limited to Henri (2006) who found a positive association between the interactive use of controls with firm outcomes, including market orientation. Hence, in line with this finding and the above discussion we hypothesise a positive association between the interactive use of control and market orientation.

H5 The emphasis on the interactive use of controls is positively associated with the level of market orientation.

2.2.5 The association between market orientation and CSR use

Consumers in the twenty-first century are increasingly becoming more socially conscious, and favour socially responsible firms (Cone, 2010; Mohr et al., 2001; Podnar & Golob, 2007). For example, most consumers (83%) from the US market expect socially responsible behaviour from firms (Cone, 2010). Consequently, firms have to respond accordingly in order to satisfy consumers' social expectations and retain them (Tang & Tang, 2018). In line with consumers increasing demands for socially responsible firms, and consistent with Kiessling et al. (2016) and Kohli and Jaworski (1990) who suggest that firms need to gather knowledge about the current and future

needs of their customers and act upon this knowledge by developing and implementing appropriate strategies to meet their needs (Kiessling et al., 2016; Ruekert, 1992), it is expected that market oriented firms are more likely to use CSR. Brik et al. (2011) here argues that the firm pre-disposition to meet customers' needs (i.e. market orientation) sits comfortably in its quest to be a socially responsible firm. Specifically, since customers have social expectations of their providers including ethics in firm behaviour, fair employee treatment, community involvement, environmental protection, and the provision of adequate occupational and health and safety procedures (Creyer & Ross, 1997; Dawkins & Lewis, 2003; Jebarajakirthy et al., 2016), it is expected that market oriented firms will employ CSR to a greater extent. Similarly, since CSR represents a tool that can be used to outperform rivals in the market, competitive pressures urge managers to use CSR (Dentchev, 2004; Werther & Chandler, 2006). Werther and Chandler (2006) suggest that firms should generate sufficient knowledge of their competitors' strategies and actions to use CSR in their own business, while Graafland (2003) suggests that marketers must be aware of competitors and their CSR so that they may employ distinctive CSR activities. Hence, it may be assumed that more market oriented firms, will place greater emphasis on the use of CSR, either for the purpose of satisfying customers and/or competitive purposes.

H6 The level of market orientation is positively associated with the emphasis on the use of CSR.

2.2.6 The mediating role of market orientation in the associations between MCSs and CSR use

Researchers argue that mediation occurs when a variable (exogenous) can influence an outcome variable (endogenous) directly and indirectly through another variable (mediator) (Fan et al., 2016; Nitzl, 2016). In line with this, we argue that while H1 predicts the direct effect of the different LOC including belief systems, boundary controls, the diagnostic use of controls, and the interactive use of controls (exogenous variables) on CSR use (endogenous variable), an indirect effect is also enacted through the different components of market orientation (customer, competitor, and interfunctional coordination). Specifically, in line with H2 to H5 which highlight the positive associations between the different LOC with the level of market orientation, and H6 which hypothesises the positive association between a firm's market orientation and CSR use, market orientation is expected to mediate the association between the LOC and CSR use. Specifically, we argue that the effect of MCSs on CSR use occurs due to the effect that MCSs, in our case the LOC, have on a firm's market orientation and the subsequent effect that such market orientation components have on CSR use. Accordingly, we hypothesise that market orientation mediates the associations between the MCSs and CSR use.

H7 The level of market orientation mediates the positive association between different levers of controls (belief systems, boundary controls, and the diagnostic and interactive use of controls) and CSR use.

3 Method

3.1 Sample selection and process

The study targeted middle and higher level managers employed in both local and multinational enterprises listed on the two stock exchanges in Bangladesh, the Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE), and non-listed firms across various industries (manufacturing and service-oriented industries) in Bangladesh. Respondents' details were identified in the Dun & Bradstreet (D&B) Hoovers database (One Source Information Service 2016). Initially, a list of 522 respondents, one from each firm, was selected based on (i) the designations of employees i.e. middle to higher-level managers such as Directors/Chief Executive Officers (CEOs), Chief Financial Officers (CFOs), General Managers (GMs) or similar titles and Senior Executives, and (ii) firms that had 50 or more full time employees. The list of 522 firms was then reduced by eliminating those respondents whose contact's details were incomplete, with the questionnaires (see Appendix 2) distributed to a final sample of 460 firms in Bangladesh (see Table 1, Panel A). These firms were representative of different sized firms in Bangladesh with an approximately equal proportion of small (33.4% with less than 250 employees), medium (31.8% with between 250 and 999 employees) and larger sized (34.8% with above 1000 employees) firms, amongst the 425 firms for whom the number of employees could be identified.

Dillman et al.'s (2014) Tailored Design Method was followed to design the survey questionnaire and to administer the survey. Specifically, in designing the questionnaire we followed Dillman et al.'s (2014) guidelines in respect to the format, style, order of questions, and visual features to encourage completion of the questionnaire. We also employed a personalised approach (Dillman et al., 2014), including hand-written and personally addressed mail-out envelopes. The questionnaire was also pretested with academics, corporate experts and target respondents and revised in accordance with the minor issues they raised.

The data was collected in two phases; the initial distribution was sent at the beginning of January 2018, with a total of 143 complete responses received, and the follow-up was distributed four weeks later which resulted in a further 58 responses. Therefore, a total of 201 complete questionnaires were returned, a response rate of 43.70%. An ANOVA comparison of the size (number of employees) of these 201 firms compared to the size of the non-responding firms was not significant, thereby indicating that the responding firms are representative of the sample of 460 firms. In respect to firms operating in the manufacturing industry, 140 responses were received (46.51%), with 57 (41.61%) complete responses received from firms operating in the service industry, and four (18.19%) from firms that indicated that they operated in both the manufacturing and service industries (see Table 1, Panel B). Most respondents (176) were from domestic based firms with only 25 of the respondents from multinational firms. In respect to the size of the firms, the majority had more than or equal to 250 employees [95 (47.20%)], of which 48 firms (23.90%) had more than or equal to 1000

Table 1 A summary of response rates and respondents' job titles

	No. of firms	Percentage
Panel A: Response rate and time		
Total surveyed	460	–
Usable responses	201	43.70
Early received (out of usable responses)	143	31.09
Late received (out of usable responses)	58	12.61

	Total surveyed	No. of firms responded	Percentage
Panel B: Respondents' firms profile (n=201)			
Industry type			
Manufacturing	301	140	46.51
Service	137	57	41.61
Both	22	4	18.19
Total	460	201	
Firm type			
Domestic	388	176	45.36
Multinational	72	25	34.72
Total	460	201	

	No. of firms	Percentage
Firm size (number of employees)		
50–249	71	35.30
250–499	26	12.90
500–999	21	10.40
1000 and above	48	23.90
Missing	35	17.40
Total	201	100.00

	Firm Type	Firm size (number of employees)
Chi-square statistics to assess association between demographic categorical variables		
Industry type (compared to:)	$\chi^2 = 3.669$ $p = 0.453$	$\chi^2 = 89.606$ $p = 0.136$
Firm size (compared to:)	$\chi^2 = 31.580$ $p = 1.000$	N/A

	No. of employees	Percentage
Panel C: Respondents' titles (n=201)		
Designation		
Director/Chief Executive Officer	46	22.89
Chief Financial Officer	13	6.47
General Manager or similar titles	87	43.28
Senior Executive	20	9.95
Other	16	7.96
Details not disclosed	19	9.45
Total	201	100.00

employees, 26 (12.90%) had 250 to 499 employees, and 21 (10.40%) had 500 to 999 employees. The other 71 (35.30%) firms that completed the 'number of employees' question had 50 to 249 employees. A Chi-square test was conducted by comparing the responses received from the different types of industry with the responses from the different types and sizes of firms. The Chi-square statistics provide no significant variance between the variables (see Panel B, Table 1).

In order to identify the likelihood of nonresponse bias, a non-response bias test, specifically an independent sample t-test comparing the mean values of the demographic variables and all of the independent and dependent variables between the initial and follow-up respondents was conducted (Armstrong & Overton, 1977; Podsakoff et al., 2003; Roberts, 1999). No significant ($p > 0.05$) deviations between samples were observed, thereby providing evidence of the absence of non-response bias, and hence support for the representativeness of the sample. Further, in an attempt to overcome common method bias we applied the various techniques advised by Jordan and Troth (2020) including ensuring the brevity of the questionnaire, using varying Likert scale anchors, providing concise questions, and mixing up the order of the independent and dependent variables. The success of these approaches in overcoming common method bias is supported by the results of Harman's single factor test which showed that the highest variance explained by any one factor was only 33.06% (see Table 2) which is below the 50% threshold considered to indicate a common method bias problem (Podsakoff et al., 2003).

The exploratory factor analysis provides a preliminary insight into the constructs with six CSR dimensions formed. In line with Gaskin (2012) items with cross-loadings were generally excluded with the exception of a few items (shown by an asterix in Table 2) whose nature clearly reflected specific dimensions. Table 2 shows that the loadings of the market orientation and levers of control items was a little erratic and consequently, as explained below and shown in Appendix 1, we measured these dimensions in line with previous studies.

3.2 Measurement of variables

3.2.1 Levers of control

Widener's (2007) four-item measures were used to measure the extent of the application of belief systems and boundary controls. Similarly, the items used to measure the diagnostic and interactive use of controls are based on those mentioned in Henri (2006) and Widener (2007). First, in respect to the diagnostic use of control, while Widener (2007) found that 11 items loaded onto the diagnostic use of control measure, Henri (2006) found that these same 11 items loaded onto the diagnostic (4 items) and interactive (7 items) use of control constructs. Accordingly, consistent with Su et al. (2015), we measure the diagnostic use of control based on the four items that were identified as representing the diagnostic use of control in both Henri (2006) and Widener (2007). Secondly, in respect to the interactive use of control, we acknowledge the distinction in the items used by Henri (2006) (7 items) and Widener (2007), with the latter classifying all of Henri's (2006) seven interactive items

Table 2 Exploratory factor analysis for the reflective constructs

Question Number as shown in Appendices 1 and 2	(1) CSR—Accountability to external stakeholders	(2) CSR—Environmental, occupational and public health and safety	(3) CSR—Human Rights	(4) Items combined with Human rights	(5) CSR—Consumer rights	(6) CSR—Disclosure of information	(7) CSR—Compliance with science, technology and competition requirements	(8) Market orientation—Customer orientation	(9) Market orientation—Competitor orientation	(10) Lever of control—Beliefs	(11) Lever of control—Diagnostic / Interactive	(12) Lever of control—Boundary	(13) Not relevant**	(14) Not relevant**	(15) Not relevant**	(16) Not relevant**	(17) Not relevant**
Panel A: CSR related items																	
1.5	**.556**																
1.19	**.587**																
1.21	**.750**																
1.31	**.605**																
1.32	**-.659**																
1.40	**.719**																
1.42	**.525**																
1.43	**.755**																
1.47	**.628**																
1.48	**.732**																
1.15		**.591**															
1.23		**.692**															
1.24		**.627**															
1.25		**.664**															
1.26		**.689**															
1.27		**.605**															
1.28		**.691**															
1.29		**.617**															

Table 2 (continued)

Question Number as shown in Appendices 1 and 2	(1) CSR—Accountability to external stakeholders	(2) CSR—Environmental, occupational and public health and safety	(3) CSR—Human Rights	(4) Items combined with Human rights	(5) CSR—Consumer rights	(6) CSR—Disclosure of information	(7) CSR—Compliance with science, technology and competition requirements	(8) Market orientation—Customer orientation	(9) Market orientation—Competitor orientation	(10) Lever of control—Beliefs	(11) Lever of control—Diagnostic/Interactive	(12) Lever of control—Boundary	(13) Not relevant**	(14) Not relevant**	(15) Not relevant**	(16) Not relevant**	(17) Not relevant**
1.30		.659															
1.6*			.538*														
1.7				.602													
1.8			.634														
1.9				.610													
1.10*			.560*														
1.11*			.392*	.498													
1.12			.642														
1.13*	.421		.365*														
1.14*	.351		.449*														
1.37					.649												
1.38					.474												
1.39					.628												
1.41					.588												
1.1*						.515*											
1.3						.689											
1.4						.694											
1.44*							.346*								.404		
1.46							.698										

Table 2 (continued)

Question Number as shown in Appendices 1 and 2	(1) CSR—Accountability to external stakeholders	(2) CSR—Environmental, occupational and public health and safety	(3) CSR—Human Rights	(4) Items combined with Human rights	(5) CSR—Consumer rights	(6) CSR—Disclosure of information	(7) CSR—Compliance with science, technology and competition requirements	(8) Market orientation—Customer orientation	(9) Market orientation—Competitor orientation	(10) Lever of control—Beliefs	(11) Lever of control—Diagnostic / Interactive	(12) Lever of control—Boundary	(13) Not relevant**	(14) Not relevant**	(15) Not relevant**	(16) Not relevant**	(17) Not relevant**
1.50*							.408*				.399						
% variance explained	33.06		2.05	1.54	1.86	1.76	1.36	3.83	1.27	2.70	2.36	1.42	1.65	3.23	1.34	1.22	1.13
Panel B: CSR related items excluded due to cross loadings																	
1.2	.555					.458											
1.16	.351												.481				
1.17	.519													.436			
1.18													.464				
1.20	.559												.431				
1.22			.308														
1.33															.377		
1.34														.346			.740
1.35					.421								.442				
1.36						.320											
1.45	.432													.391	.529		
1.49													.363				
1.51													.544				
1.52																	
1.53													.791				

Table 2 (continued)

Question Number as shown in Appendices 1 and 2	(1) CSR—Accountability to external stakeholders	(2) CSR—Environmental, occupational and public health and safety	(3) CSR—Human Rights	(4) Items combined with Human rights	(5) CSR—Consumer rights	(6) CSR—Disclosure of information	(7) CSR—Compliance with science, technology and competition requirements	(8) Market orientation—Customer orientation	(9) Market orientation—Competitor orientation	(10) Lever of control—Beliefs	(11) Lever of control—Diagnostic / Interactive	(12) Lever of control—Boundary	(13) Not relevant**	(14) Not relevant**	(15) Not relevant**	(16) Not relevant**	(17) Not relevant**
1.54													.407	.438			
1.55														.722			
1.56													.477	.358			
% variance explained	33.06		2.05	1.54	1.86	1.76	1.36	3.83	1.27	2.70	2.36	1.42	1.65	3.23	1.34	1.22	1.13

Panel C: Market orientation and lever of control items

Question Number as shown in Appendices 1 and 2	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
2.1								.528									
2.2								.605									
2.3								.674									
2.4								.745									
2.5								.708									
2.6								.734									
2.7								.546									
2.8	.468								.608								
2.9	.452								.509								
2.10																	
2.11	.642																
2.12									.319								
2.13	.497																

Table 2 (continued)

Question Number as shown in Appendices 1 and 2	(1) CSR—Accountability to external stakeholders	(2) CSR—Environmental, occupational and public health and safety	(3) CSR—Human Rights	(4) Items combined with Human rights	(5) CSR—Consumer rights	(6) CSR—Disclosure of information	(7) CSR—Compliance with science, technology and competition requirements	(8) Market orientation—Customer orientation	(9) Market orientation—Competitor orientation	(10) Lever of control—Beliefs	(11) Lever of control—Diagnostic / Interactive	(12) Lever of control—Boundary	(13) Not relevant**	(14) Not relevant**	(15) Not relevant**	(16) Not relevant**	(17) Not relevant**
2.14								.496									
3.1										.524							
3.2										.789							
3.3										.588							
3.4										.664							
3.5										.582		.414					
3.6												.666					
3.7												.372			.385		
3.8					.321							.408*					
3.9											.697						
3.10											.397*	.467					
3.11											.427*	.380					
3.12											.716						
3.13						.241					.431						
3.14											.518						
3.15											.365						
3.16	.559															.368	
3.17	.358						.349										

Table 2 (continued)

Question Number as shown in Appendices 1 and 2	(1) CSR—Accountability to external stakeholders	(2) CSR—Environmental, occupational and public health and safety	(3) CSR—Human Rights	(4) Items combined with Human rights	(5) CSR—Consumer rights	(6) CSR—Disclosure of information	(7) CSR—Compliance with science, technology and competition requirements	(8) Market orientation—Customer orientation	(9) Market orientation—Competitor orientation	(10) Lever of control—Beliefs	(11) Lever of control—Diagnostic/Interactive	(12) Lever of control—Boundary	(13) Not relevant**	(14) Not relevant**	(15) Not relevant**	(16) Not relevant**	(17) Not relevant**
% variance explained	33.06		2.05	1.54	1.86	1.76	1.36	3.83	1.27	2.70	2.36	1.42	1.65	3.23	1.34	1.22	1.13

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

[a] Rotation converged in 31 iterations

*Despite cross-loadings these items were still included as they clearly reflect these dimensions

**In line with Pallant (2011) these dimensions were excluded as there were less than 3 items which only loaded on these dimensions (i.e. excluding cross-loadings)

as the diagnostic use of control and utilising 6 different measures which focused on top management's and operating manager's focus on the performance measurement system to operationalise the interactive use of control. Given this variation in the items used to measure the interactive use of controls, we relied on the Su et al. (2015) five-item measure of the interactive use of control, although one item was adjusted ('our company's top management regularly pays attention to the firm's CSR activities') in an attempt to customise the measure to the CSR environment. We chose this measure given its emphasis on the communication between top managers and subordinates. This approach is consistent with Simon's (1994, 171) description of the interactive use of controls as "formal systems used by top managers to regularly and personally involve themselves in the decision activities of subordinates".

Respondents were asked to indicate the extent to which each of the seventeen items (see Appendix 2) were applied in firms on a five-point Likert scale with anchors of 1 'Strongly disagree' and 5 'Strongly agree.' Confirmatory factor analysis (CFA) was conducted, and resulted in the removal of two items due to low loadings, one each in respect to the boundary ('our code of business conduct informs our workforce about off-limits behaviour') and interactive use of control ('our company's senior managers often use controls personally to discuss changes that are occurring within the firm') measures. Appendix 1 shows that the remaining 15 items exhibited a good model fit[3] to the dataset with goodness-of-fit indices of CMIN/DF = 2.584; GFI = 0.884; AGFI = 0.826; CFI = 0.919; RMSEA = 0.089 and factor loading scores that exceed the standard regression weight of 0.5 (Hair et al., 2006). The Cronbach alpha scores for all four dimensions exceed the minimum cut-off of 0.7 (Nunnally & Bernstein, 1994) and the average variance extracted (AVE) scores and the composite reliability scores exceed the required cut-offs of 0.5 (Chin, 1998) and 0.7 (Werts et al., 1974), thereby providing support for the reliability of these LOC measures.

3.2.2 Market orientation

Market orientation was measured using Narver and Slater's (1990) fourteen item measure (see Appendix 1) which captures three dimensions of market orientation: customer orientation (six items), competitor orientation (four items) and interfunctional coordination (four items). Respondents were asked to indicate the extent to which they agreed that each of the fourteen items reflected practices within their firm on a five-point Likert scale with anchors of 1 'Strongly disagree' and 5 'Strongly agree.' The CFA resulted in one item being removed for the customer orientation and competitor orientation dimensions, and two items being removed for the interfunctional coordination dimension of market orientation, due to low loadings. As this resulted in only two remaining items for the interfunctional coordination measure, in line with Pallant's (2011) specification that three items are required to consider a dimension, this dimension was excluded from further analysis. The

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[3] The recommended threshold scores for the assessment of good SEM model fit to the data set are CMIN/DF < 5.0; GFI > 0.90; AGFI > 0.80; CFI > 0.90; RMSEA < 0.08; SRMR < 0.08 (Hair et al., 2010).

Table 3 KMO and Bartlett's Test

Kaiser–Meyer–Olkin measure of sampling adequacy		0.914
Bartlett's test of sphericity	Approx. Chi-Square	7941.042
	df	1540
	Sig	0.000

model indicated a good model fit (CMIN/DF = 2.193; GFI = 0.941; AGFI = 0.888; CFI = 0.964; RMSEA = 0.077) and the reliability scores (α = 0.86 and 0.701) of the customer orientation and competitor orientation scales exceeded the required cut-off of 0.7 (Nunnally & Bernstein, 1994).

3.2.3 CSR use

To measure the use of CSR, we developed a 56-item measure (see Appendix 1) in accordance with the 2011 guidelines of CSR use provided by the OECD. Respondents were asked to indicate on a five-point Likert scale, ranging from 1 'Not at all' to 5 'To a great extent', the extent to which each item explained current firm practices. A principal component factor analysis (PCA), with Varimax rotation, was conducted based on the responses from the 201 firms across all of the constructs (see Table 2). To test the factorability of the data, we have generated two statistical measures: the Kaiser–Meyer–Olkin (KMO) measure of sample adequacy and Bartlett's test of sphericity. Table 3 shows that the KMO score (0.914) exceeds the minimum cut off of 0.6 which is indicative of a good factor analysis (Tabachnick & Fidell, 2007), while the Bartlett's test of sphericity is significant at the level of 0.01, thereby indicating that the data is appropriate for factor analysis. The PCA resulted in 17 dimensions (explaining 70.24% of the total variance) having eigenvalues greater than 1, with 12 of these dimensions relating to CSR. Two of these twelve items (CSRD10 and CSRD11) were not interpretable as they failed to comprise the minimum three items to be considered as a dimension for further analysis (Pallant 2011) while three other CSR related dimensions (CSRD7, CSRD8 and CSRD9) were not considered as the items did not combine to represent a logical dimension. This left seven CSR related dimensions, two of which (3 and 4) were combined to measure human rights (see Table 2). A total of 38 items loaded onto the remaining six dimensions which were labelled as follows: accountability to external stakeholders (10 items); environmental, occupational, and public health and safety (9 items); human rights (9 items); consumers rights (4 items); disclosure of information (3 items); and compliance with science, technology, and competition requirements (3 items). The CFA then resulted in the removal of a further 13 items due to low loadings with the model exhibiting a good fit (CMIN/DF = 1.992; GFI = 0.840; AGFI = 0.794; CFI = 0.911; RMSEA = 0.070). The Cronbach alpha (α) scores of each of the six dimensions exceeded the minimum cut-off of 0.7 (see Table 4).

Table 4 Inter-construct correlations, descriptive statistics and reliability scores

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Inter-correlations												
1. Beliefs	**0.733**											
2. Boundary	0.669	**0.709**										
3. Diagnostic	0.589	0.720	**0.747**									
4. Interactive	0.566	0.627	0.721	**0.731**								
5. Customer orientation	0.545	0.616	0.525	0.588	**0.766**							
6. Competitor orientation	0.440	0.574	0.548	0.601	0.636	**0.722**						
7. Accountability to external stakeholders	0.167	0.276	0.327	0.517	0.333	0.456	**0.725**					
8. Environmental, occupational, and public health and safety	0.445	0.556	0.565	0.631	0.580	0.540	0.529	**0.750**				
9. Human rights	0.462	0.554	0.549	0.581	0.529	0.516	0.348	0.695	**0.747**			
10. Consumer rights	0.460	0.583	0.572	0.503	0.511	0.498	0.409	0.627	0.615	**0.767**		
11. Disclosure of information	0.379	0.459	0.502	0.569	0.436	0.364	0.438	0.638	0.599	0.502	**0.759**	
12. Compliance with science, technology, and competition requirements	0.373	0.553	0.608	0.548	0.462	0.528	0.498	0.548	0.530	0.506	0.492	**0.723**
*NB: The diagonal figures in bold represent the square root of the average variance extracted scores												
Descriptive statistics												
Mean	3.881	4.033	4.016	3.974	4.074	3.922	3.808	3.967	4.157	4.118	4.023	4.087
Standard deviation	0.617	0.680	0.648	0.718	0.653	0.678	0.769	0.709	0.716	0.708	0.805	0.718
Theoretical range	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5	1–5
Minimum	2.00	1.33	2.00	2.00	1.40	1.67	1.68	1.00	1.67	2.00	1.00	2.00
Maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Reliability scores												
Cronbach alpha	0.809	0.747	0.856	0.809	0.863	0.701	0.844	0.913	0.813	0.774	0.805	0.767
Composite reliability	0.915	0.911	0.939	0.892	0.875	0.901	0.898	0.986	0.948	0.957	0.965	0.955
Average variance extracted	0.537	0.503	0.558	0.534	0.587	0.521	0.525	0.562	0.559	0.588	0.577	0.523

3.2.4 Construct measurement

Reflective constructs were used in the Structural Equation Model (SEM) analysis, thereby allowing for the simultaneous estimate of the measurement model and the structural model. The use of reflective constructs is appropriate given the high correlations between the manifest items used to depict each of the LOC, market orientation, and use of CSR constructs.[4] This approach is commonly used by scholars (Coltman et al., 2008).

4 Results

4.1 Reliability and validity

Initially, the face validity of the scales was tested by pre-testing the questionnaire among a number of academic and corporate experts in the field of study. The reliability of the scales used in the study was then assessed based on the Cronbach alpha scores, with the estimated Cronbach alpha scores (0.701–0.913) (see Table 4) exceeding the required cut-off of 0.7 (Nunnally & Bernstein, 1994). In addition to the construct validity supported by the CFA statistics in Sect. 3.2, the validity of the scales was also tested in respect to their convergent, discriminant, and face validity. In line with Anderson and Gerbing (1988), there is evidence of the presence of convergent validity in all of the scales as the estimated factor loadings (patterns co-efficient) for each of the scales, given in the measurement model, is more than twice their standard errors and their t-values (t> 2) are significant (see Appendix 1 for all constructs).

Further evidence of the convergent validity of the scales is provided by the composite reliability scores which exceeded 0.70 (Hair et al., 2014) (0.875–0.986), and the Average Variance Extracted (AVE) scores which exceeded 0.50 (Fornell & Larcker, 1981) for all of the constructs. Following the recommendation of Fornell and Larcker (1981), we used the AVE scores to test the discriminant validity of the scales. The discriminant validity is supported as the square root of the average variance extracted scores are higher than their correlations with the rest of the other scales (see Table 4).

4.2 Structural equation modelling

The structural model was tested using the maximum likelihood estimation method employing AMOS 25 standalone software and following the analytical procedures recommended by Hair et al. (2006). Six separate models (base model) were constructed by examining the associations between the four LOC, two components of market orientation (customer and competitor orientation) and CSR use for each of the six dimensions of CSR use. The results are shown in Table 5. We initially

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[4] Formative constructs were not considered appropriate as the manifest items are expected to move simultaneously in the same direction (i.e. be highly correlated) and reflect the underlying latent variable (Coltman et al., 2008).

examine the direct associations between the LOC with CSR use and then consider the indirect paths through market orientation.

4.3 The association between the levers of MCSs and CSR use

Table 5 shows that the four LOC are directly associated with different dimensions of CSR use. First, belief systems exhibit a significant negative association with two dimensions of CSR use, accountability to external stakeholders ($\beta=-0.180$; $p=0.021$) and compliance with science, technology and competition requirements ($\beta=-0.171$; $p=0.021$), while boundary controls exhibit a positive association with the human rights ($\beta=0.173$; $p=0.045$), consumer rights ($\beta=0.357$; $p=0.003$), disclosure of information ($\beta=0.217$; $p=0.080$), and compliance with science, technology and competition requirements ($\beta=0.284$; $p=0.006$) dimensions of CSR use. The diagnostic use of controls is positively and significantly associated with five dimensions of CSR use [environmental, occupational and public health and safety ($\beta=0.208$; $p=0.004$); human rights ($\beta=0.130$; $p=0.004$); consumer rights ($\beta=0.386$; $p<0.001$); the disclosure of information ($\beta=0.247$; $p=0.009$); and compliance with science, technology, and competition requirements ($\beta=0.416$; $p<0.001$)]. Finally, the interactive use of controls is significantly and positively associated with five dimensions of CSR use [accountability to external stakeholders ($\beta=0.417$; $p<0.001$); environmental, occupational, and public health and safety ($\beta=0.391$; $p<0.001$); human rights ($\beta=0.237$; $p=0.001$); the disclosure of information ($\beta=0.473$; $p<0.001$); and compliance with science, technology and competition requirements ($\beta=0.185$; $p=0.021$)]. These findings provide partial support for H1a to H1d with all four LOC found to be associated with specific dimensions of CSR use, although contrary to the hypothesis, belief systems were negatively associated with the accountability to external stakeholders dimension of CSR.

4.4 The association between the levers of MCSs and the components of market orientation

Table 5 and Fig. 2 show that the associations between the LOC and the two dimensions of market orientation are consistent across the six models. First, belief systems are positively and significantly associated with customer orientation ($\beta=0.216$; $p=0.004$) in all six models. However, no association is found between belief systems and competitor orientation. Hence, hypothesis H2 is partially supported.

In respect to boundary controls, the results indicate that they are positively and significantly associated with both the customer orientation ($\beta=0.440$; $p=0.000$) and competitor orientation ($\beta=0.331$; $p=0.000$) dimensions of market orientation. Hence, hypothesis H3 is supported.

Table 5 reveals that while the diagnostic use of controls was not associated with customer orientation, it was significantly positively associated with competitor orientation ($\beta=0.177$; $p=0.012$) in all six models. Hypothesis H4 is therefore partially supported. Finally, in respect to the interactive use of controls, the study found a positive significant association between the interactive use of controls with both

the customer oriented ($\beta=0.375$; $p=0.000$) and competitor oriented ($\beta=0.307$; $p=0.000$) dimensions of market orientation. Hence, hypothesis H5 is supported.

4.5 The associations between the components of market orientation and CSR use

Figure 2 and Table 5 show a positive significant association between customer orientation and two dimensions of CSR use [environmental, occupational and public health and safety ($\beta=0.239$; $p=0.047$) and consumer rights ($\beta=0.232$; $p=0.080$)]. In addition, competitor orientation was significantly positively associated with the accountability to external stakeholders ($\beta=0.647$; $p=0.049$) dimension of CSR use. Hence, hypothesis H6 is partially supported.

4.6 Mediation analysis

The study further analysed the mediation effects of the significant associations between the exogenous and endogenous variables that were found in the SEM using the AMOS 25 bootstrapping procedures recommended byZhao et al. (2010).[5] Hence, mediation analysis was applied in respect to the associations between the LOC and the three dimensions of CSR use (accountability to external stakeholders; environmental, occupational and public health and safety; and consumer rights) influenced by market orientation (either customer or competitor orientation).[6] The bootstrapping results (lower bounds and upper bounds, and P values) of the indirect effect (mediation effects) analysis were generated with 5000 bootstrapping samples with a 95% confidence interval (Zhao et al., 2010). The results are shown in Table 6 and explained using the bootstrapping with bias-corrected Confidence Intervals Method suggested by McKinnon et al. (2004).[7]

The results from Panel A (Table 6) indicate that customer orientation mediates the positive associations between the interactive use of controls and the 'environmental, occupational, and public health and safety' (LB, 0.000–UB, 0.293) and 'consumer rights' (LB, 0.002–UB, 0.292) dimensions of CSR use. As the interactive use of controls is also significantly positively associated with the 'environmental, occupational, and public health and safety' dimension of CSR ($\beta=0.391$; $p<0.001$), the mediation of customer orientation between these variables is partial. However,

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[5] Additional data analysis was conducted to explore whether the two observed dimensions of market orientation moderated the effects of each of the four levers of control on the use of each of the 6 dimensions of CSR. There were no observed interactions in respect to 4 of the 6 dimensions of CSR use, and minimal findings (1 out of 8 possible interactions) in respect to the other 2 dimensions of CSR use. Accordingly, given the findings in respect to the mediating effects of the two market orientation dimensions (customer orientation and competitor orientation), and the weak findings in respect to moderation we continue to present the mediating models.

[6] NB we did not consider mediation in respect to the other three dimensions of CSR use as mediation assumes a significant relationship between the mediator and the outcome (MacKinnon & Luecken, 2011).

[7] Mediation is confirmed when confidence intervals (bootstrapping lower and upper bound) do not include or cross zero (0) (McKinnon et al., 2004; Zhao et al., 2010).

Table 5 Results of the structural equation models for each CSR use dimension

CSR use dimensions	Accountability to external stakeholders		Environmental, occupational, and public health and safety		Human rights		Consumer rights		Disclosure of information		Compliance with science, technology, and competition requirements	
	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)
Belief → Customer orientation	0.216	0.004***	0.220	0.003***	0.205	0.005***	0.212	0.004***	0.208	0.005***	0.208	0.005***
Belief → Competitor orientation	0.034	0.585	0.043	0.390	0.043	0.379	0.045	0.374	0.043	0.381	0.044	0.398
Boundary → Customer orientation	0.440	<0.001***	0.442	<0.001***	0.460	<0.001***	0.456	<0.001***	0.453	<0.001***	0.454	<0.001***
Boundary → Competitor orientation	0.331	<0.001***	0.344	<0.001***	0.336	<0.001***	0.338	<0.001***	0.332	<0.001***	0.337	<0.001***
Diagnostic → Customer orientation	−0.017	0.820	−0.027	0.670	−0.056	0.420	−0.062	0.375	−0.051	0.460	−0.051	0.456
Diagnostic → Competitor orientation	0.177	0.012**	0.112	0.020**	0.152	0.009**	0.149	0.010**	0.141	0.012**	0.149	0.009***
Interactive → Customer orientation	0.375	<0.001***	0.378	<0.001***	0.438	<0.001***	0.433	<0.001***	0.420	<0.001***	0.435	<0.001***
Interactive → Competitor orientation	0.307	<0.001***	0.201	<0.001***	0.197	<0.001***	0.206	<0.001***	0.203	<0.001***	0.220	<0.001***
Beliefs → CSR dimension	−0.180	0.021**	−0.025	0.751	0.064	0.293	0.087	0.307	−0.024	0.788	−0.171	0.021**

Table 5 (continued)

CSR use dimensions	Accountability to external stakeholders		Environmental, occupational, and public health and safety		Human rights		Consumer rights		Disclosure of information		Compliance with science, technology, and competition requirements	
	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)
Boundary→CSR dimension	−0.155	0.158	0.072	0.504	0.173	0.045**	0.357	0.003***	0.217	0.080*	0.284	0.006***
Diagnostic→CSR dimension	−0.104	0.276	0.208	0.004***	0.130	0.044**	0.386	<0.001***	0.247	0.009***	0.416	<0.001***
Interactive→CSR dimension	0.417	<0.001***	0.391	<0.001***	0.237	0.001***	0.005	0.952	0.473	<0.001***	0.185	0.021**
Customer orientation→CSR dimension	−0.162	0.307	0.239	0.047**	0.071	0.448	0.232	0.080*	0.161	0.244	0.040	0.725
Competitor orientation→CSR dimension	0.647	0.049**	0.127	0.417	0.120	0.321	−0.022	0.900	−0.296	0.110	0.200	0.195
Industry→Customer orientation	−0.050	0.501	−0.047	0.525	−0.040	0.590	−0.040	0.596	−0.045	0.548	−0.041	0.586
Industry→Competitor orientation	−0.102	0.127	−0.057	0.279	−0.053	0.308	−0.056	0.296	−0.057	0.281	−0.059	0.275
Industry→CSR dimension	0.053	0.497	0.067	0.400	0.024	0.688	0.091	0.279	0.047	0.598	0.128	0.074*
Size→Customer orientation	0.000	0.062*	0.000	0.060*	0.000	0.045**	0.000	0.046**	0.000	0.052*	0.000	0.048**
Size→Competitor orientation	0.000	0.586	0.000	0.574	0.000	0.516	0.000	0.522	0.000	0.541	0.000	0.523

Table 5 (continued)

CSR use dimensions	Accountability to external stakeholders		Environmental, occupational, and public health and safety		Human rights		Consumer rights		Disclosure of information		Compliance with science, technology, and competition requirements	
	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)	Path Coeffi	P (Sig)
Size → CSR dimension	0.000	0.475	0.000	0.404	0.000	0.460	0.000	0.516	0.000	0.829	0.000	0.957
Goodness of fit measures (based on significant paths only)[a]												
CMIN/DF	1.826		1.780		1.742		1.830		1.737		1.798	
GFI	0.825		0.804		0.839		0.828		0.835		0.826	
AGFI	0.782		0.760		0.794		0.779		0.796		0.782	
CFI	0.898		0.902		0.917		0.907		0.913		0.907	
RMSEA	0.064		0.062		0.061		0.064		0.061		0.063	
SRMR	0.070		0.060		0.058		0.058		0.058		0.059	

*Significant at 10% level **significant at 5% level ***significant at 1% level

[a]These models considered the covariances between the four levers of control which were all significant. As informed by the modification indices, the significant covariances between items were also considered
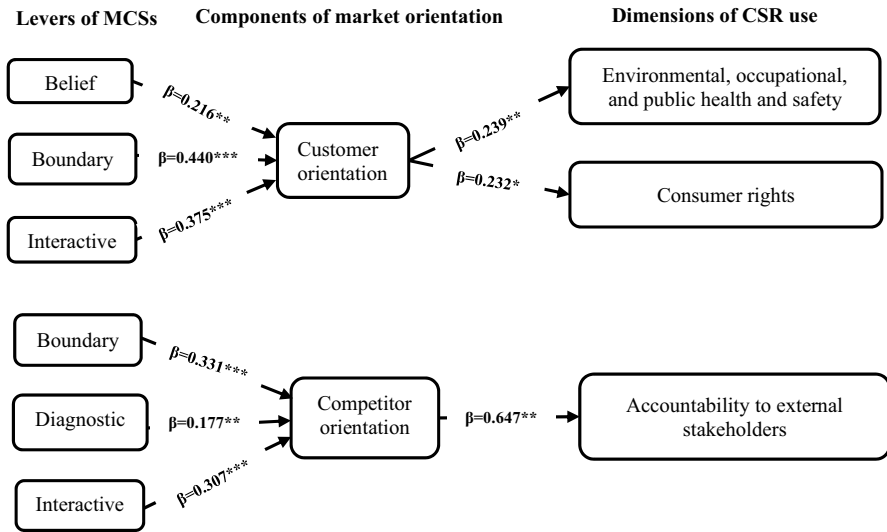
Fig. 2 Results of SEM on the associations between the levers of control, market orientation, and CSR use. **NB** Only significant findings are shown with ***, **, and * indicating paths are statistically significant at the level of 0.01, 0.05, 0.10 respectively (2-tailed)

customer orientation fully mediates the association between the interactive use of control and 'consumer rights' dimension of CSR use as there is no evidence of a direct significant association between these two variables ($\beta=0.005$; $p=0.952$). While the SEM also revealed significant paths between both belief and boundary controls with customer orientation and between customer orientation with the 'environmental, occupational, and public health and safety' and 'consumer rights', Table 6 reveals that this mediation path is not significant.

The information in Panel B indicates that competitor orientation mediates the positive association between the interactive use of controls with the 'accountability to external stakeholders' (LB, 0.001–UB, 0.885) dimension of CSR use. As the interactive use of controls was found to be directly positively associated with the 'accountability to external stakeholders' dimension ($\beta=0.417$; $p<0.001$), this mediation is partial. Table 6 shows that competitor orientation does not significantly mediate the association between boundary controls and the diagnostic use of controls with the 'accountability to external stakeholders' dimension of CSR use.

In addition to the bootstrapping procedures, similarly to Knauer et al. (2020) we conducted the Sobel (1987) test to further consider the mediation effects of market orientation (customer and competitor orientation). The Sobel test evaluates mediating effects through examining the total, direct and indirect effects of each independent variable with Table 7 providing the results in respect to these total effects. While the bootstrapping procedures found evidence of the mediating role of customer orientation on the association between the interactive use of controls and the 'consumer rights' dimension of CSR use, the results from Table 7 (Panel A) indicate that customer orientation does not mediate this association as the total effect of the

Table 6 The 95% confidence interval bootstrapped results of indirect effect (mediation effect) analysis

CSR dimensions	Accountability to external stakeholders			Environmental, occupational, and public health and safety			Consumer rights		
	LB	UB	*P* value	LB	UB	*P* value	LB	UB	*P* value
PANEL A: customer orientation									
Belief				−0.005	0.251	0.072	−0.003	0.234	0.080
Boundary				−0.004	0.309	0.056	−0.001	0.319	0.052
Interactive				0.000	0.293	0.049**	0.002	0.292	0.043**
PANEL B: competitor orientation									
Boundary	−0.002	1.343	0.055						
Diagnostic	−0.088	0.526	0.292						
Interactive	0.001	0.885	0.048**						

**Statistically significant at the level of 0.05 respectively (2-tailed)

interactive use of controls ($\beta=0.057$, $p=0.633$) and its direct effect (see Table 5 for all direct effects) are insignificant. However, the remaining total effects shown in Table 7 are all significant, thereby providing support for the mediations shown in Table 6 using the bootstrapping procedures. Specifically, customer orientation partially mediates the association between the interactive use of controls and the 'environmental, occupational, and public health and safety' dimensions as the total effect is significant ($\beta=0.446$, $p=0.001$) and the indirect and direct effects of the interactive use of controls is also significant.

Table 7 (Panel B) also provides evidence of a significant total effect between the interactive use of controls, through competitor orientation, with the 'accountability to external stakeholders' ($\beta=0.558$, $p=0.001$) dimension of CSR use. Hence, given the evidence of the significant total effects, the significant indirect effects, and the significant direct effects between the interactive use of controls and the 'accountability to external stakeholders' CSR dimensions, we conclude that competitor orientation partially mediates the association between the interactive use of controls and the 'accountability to external stakeholders'.

The Sobel test provides further support for the mediation effects of customer orientation and competitor orientation on the association between the interactive use

Table 7 Total effects of independent variables with significant mediations reported in Table 6

CSR dimensions	Accountability to external stakeholders		Environmental, occupational, and public health and safety		Consumer rights	
	β	*P* value	β	*P* value	β	*P* value
PANEL A: customer orientation						
Interactive			0.446	0.001***	0.057	0.633
PANEL B: competitor orientation						
Interactive	0.558	0.001***				

***P* value is significant at 1% level (Two tailed)

of controls with specific dimensions of CSR use, thereby corroborating the results found using the bootstrapping procedures. While the positive mediating role of both customer and competitor orientation in respect to the influence of the interactive use of controls on specific dimensions of CSR provides support for H7, this hypothesis is only partially supported as market orientation does not mediate the association between three of the LOC (belief systems, boundary controls and the diagnostic use of controls) with any dimension of CSR use.

5 Discussion

This study extends the MCS literature by providing an empirical investigation of the association between Simons' (1995) four LOC (beliefs, boundary, interactive and diagnostic) and the use of CSR, and adopting a cartesian congruence based approach (Gerdin & Greve, 2004) to examine the mediating role of market orientation (customer orientation and competitor orientation) on this relationship. In examining these relationships, the study develops a comprehensive new six dimensional model of CSR use: (1) 'accountability to external stakeholders' which focuses on the extent to which firms are aware of their social and environmental responsibilities and are accountable for such responsibilities to various members of the community; (2) 'environmental, occupational, and public health and safety' which focuses on the extent to which firms abide by and inform their employees of environmental, occupational, and public health safety procedures and issues; (3) 'human rights' which relates to the extent to which firms uphold human rights and mitigate adverse effects on their employees; (4) 'consumer rights' which relates to the provision of high quality goods and services and the protection of consumer rights; (5) 'the disclosure of information' which relates to the disclosure of adequate information on performance, related party transactions, and social, environmental and risk management practices; and (6) 'compliance with science, technology, and competition requirements' which relates to the extent to which the firm operates in a way that complies with the science and technological policies of the country in which they are operating.

The importance of the different LOC is highlighted by the results in relation to their direct and indirect effect on the use of CSR. First, in respect to the direct effect of beliefs on CSR use, while Arjaliès and Mundy (2013) found that firms use belief systems to communicate CSR values to employees and meet their CSR targets and stakeholders' expectations, our findings surprisingly indicated that belief systems exhibited a negative direct effect on CSR use, in respect to the 'accountability to external stakeholders' and 'compliance with science, technology, and competition requirements' dimensions of CSR use. Such findings suggest that as the emphasis on belief systems increases and the core values are propagated throughout the organisation, there is less accountability to external stakeholders and less compliance with science, technology and competition requirements. This negative association is difficult to interpret due to the broad operationalisation of the belief system construct, and accordingly future

studies may consider providing a more comprehensive insight into this relationship through examining how beliefs are disseminated throughout the firm and the extent to which such beliefs emphasise firm CSR based objectives. Specifically, future research could seek to provide a more in-depth analysis of the nature of the beliefs communicated to staff and their effect on the use of CSR.

Secondly, in line with our hypotheses we found a positive association between boundary controls with market orientation and the use of CSR. Hence, through developing a code of business conduct organisations can motivate employees to pay attention to customer needs, develop market intelligence and facilitate organisational interfunctional coordination, with our results showing that the boundary controls exhibited a positive effect on both components of market orientation (customer orientation and competitor orientation). Boundary controls also exhibited a positive direct effect on 4 of the 6 dimensions of CSR use (all except 'accountability to external stakeholders' and 'environmental, occupational and public health and safety'). Evidence of the direct association implies that the strict code of conduct and risk analysis process (i.e. boundary controls) facilitates the use of CSR, through enhancing control (Mundy, 2010). Accordingly, in an attempt to enhance CSR use, it is recommended that firms design their code of business conduct to define appropriate employee behaviour, and use the code to make employees aware of their business code of conduct and what is considered 'off-limit behaviour'. Future research may aim to explore the precise nature of this interrelationship between boundary controls, such as the code of conduct, and the use of CSR.

Thirdly, in respect to the diagnostic use of controls, in contrast to previous studies which have reported a negative asssociation between the diagnostic use of controls and firm outcomes (Guenther & Heinicke, 2019) including market orientation (Henri, 2006), we found that the diagnostic use of control was positively associated with five of the six dimensions of CSR use (all except the 'accountability to external stakeholders' dimension). Such findings are consistent with Laguir et al.'s (2019) finding that large French firms use the diagnostic use of controls in order to enhance firms' use of CSR in respect to the environment, and imply that the diagnostic use of controls can facilitate CSR through focusing employees' performance expectations on CSR. Hence, similarly to our conclusions in respect to boundary controls, this result further reinforces the role of these constraining controls in facilitating the use of CSR, through establishing clear performance expectations and control mechanisms. Such findings may reflect the increasing infriltation of CSR thinking and manager's regard for such practices in defining the acceptable domain of activities (i.e. boundary controls) and establishing performance expectations (i.e. diagnostic use of controls). While future studies may investigate the underlying causes of these associations further, based on our findings it is recommended that in an attempt to enhance the use of CSR, firms should enhance their diagnostic use of controls i.e. focus on critical success factors, evaluate and review actual performance, compare the performance with pre-set performance standards, and take appropriate corrective measures if there are any significant deviations.

Finally, in respect to the interactive use of controls, in addition to their indirect influence on CSR use through the two components of market orientation, they exhibit a direct significant influence on five of the six dimensions of CSR use (all except 'consumer rights'). The findings here are compatible with Hosoda (2018) who found that the interactive use of controls is useful in translating stakeholders' opinions into CSR use. Accordingly, in an attempt to enhance CSR use, firms should ensure that there is regular communication, interaction, and face-to-face meetings amongst all managerial staff. Further, senior managers are encouraged to discuss concurrent issues, and the changes occurring within their firm, and pay attention to the formulation and implementation of CSR policies.

The findings provide evidence of the mediating effects of both components of market orientation (customer and competitor orientation) on the association between one of the four LOC, the interactive us of controls, and two dimensions of CSR use, the 'accountability to external stakeholders' and 'environmental, occupational, and public health and safety' dimensions. Such findings extend previous assertions in the literature which infer that MCSs directly influence the use of CSR (Hosoda, 2018; Riccaboni & Leone, 2010) by providing evidence of the crucial role of market orientation in mediating the association between MCSs and the use of CSR. Specifically, our findings suggest that the effect of MCSs on the use of CSR occurs indirectly due to the effect that MCSs have on market orientation, which in turn influence the use of CSR. Additionally, our findings indicate that market orientation influences the use of CSR, which conforms with the findings of Jebarajakirthy et al. (2016) who concluded that market orientation practices influence a firm's CSR involvement.

The findings reinforce the literature highlighting the importance of MCSs in influencing CSR and suggest that future studies should consider the mediating role of market orientation on this association. Therefore, from a practical perspective, managers should both endeavour to create a firm culture which encourages market orientation, due to its importance in promoting an emphasis on the use of CSR, and focus on the role of MCSs in facilitating the enhancement of market orientation.

The mediating role of the two types of market orientation differs with the customer orientation component of market orientation found to mediate the associations between the interactive use of controls and the 'environmental, occupational, and public health and safety' dimension. Specifically, customer orientation partially mediates the association between the interactive use of controls and the 'environmental, occupational, and public health and safety' dimension of CSR. Such findings highlight the importance for firms to enhance their customer orientation. In addition, given customer orientation is found to be influenced by three LOC (belief, boundary, and interactive), firms can use any or all of these three levers to facilitate the enhancement of customer orientation. Hence, firms should consider the indirect influence of the interactive use of controls on the use of CSR in respect to 'environmental, occupational, and public health and safety' due to its role in influencing customer orientation.

Competitor orientation mediates the associations between the interactive use of controls and the 'accountability to external stakeholders' dimension of CSR use. Specifically, competitor orientation partially mediates the association between the interactive use of controls with the 'accountability to external stakeholders'

dimension of CSR use. Such findings highlight the significance of building competitor orientation to enhance CSR use. Accordingly, firms should develop a culture which encourages the free flow of information and timely communication between salespeople and senior-level managers, responds to the strategies and actions of competitors in a timely fashion, and involves regular discussion of competitors' strength and weaknesses. It is evident from the findings that competitor orientation is positively influenced by the use of boundary and the diagnostic and interactive use of controls. Hence, firms should focus on building their competitor orientation by considering the influence of boundary, the diagnostic use of controls and the interactive use of controls in order to enhance the use of CSR in respect to the protection of external stakeholders' interests.

Our findings highlight the significance of market orientation in enhancing the use of CSR and mediating the association between MCSs and CSR use. In doing so, the findings reinforce the crucial role of MCSs, in our study the LOC, in influencing market orientation. Hence, the findings in respect to the associations between the LOC and market orientation contribute to the management accounting literature by providing an important insight into the influence of MCSs in building a firm's market orientation. Specifically, the findings reveal that different LOC have distinctive roles in building market orientation. Therefore, it is imperative for market oriented firms to impose the ideal MCS, in particular, boundary and the interactive use of controls, due to their ability to strengthen market orientation in terms of both customer and competitor orientation and the diagnostic use of controls (belief systems) due to their effect on customer (competitor) orientation.

6 Conclusion

Our findings in respect to the influence of the different LOC on CSR use are compatible with the findings of Arjaliès and Mundy (2013) who report that firms use various controls to promote CSR use including belief systems, through the mission statement to encourage a shared vision of CSR, boundary controls through the code of business conduct, and the interactive use of controls through arranging formal meetings at the corporate level.

While these findings extend the management accounting literature with knowledge of the influence of the diverse use of controls in promoting CSR use, and practitioners need to be aware of the unique influence of the different LOC, the findings also contribute to the literature through highlighting the important role of market orientation in mediating the association between MCSs and CSR use. Specifically, while controls are clearly important in enhancing the use of CSR, the findings enable us to conclude that this effect is both direct and indirect (through market orientation) and consequently firms need to consider the role of such controls in enhancing market orientation.

This study is subject to the usual limitations relating to the survey method including social desirability bias, the cross-sectional nature of the study, and common method bias. While every attempt was made to minimise these effects, and as stated earlier common method bias was not considered to be a problem with Harman's

single factor test revealing that only 34.26% of the variance was explained by one factor, nonetheless future studies may corroborate the hypothesised relationships using alternative research methods. In addition, the study developed a new measure of CSR use, based on the OECD, 2011 guidelines for CSR use. This measure is not yet established in the extant CSR literature, and hence future studies may be used to further confirm the validity of this measure. Furthermore, future studies may examine how different conceptualisations of control interrelate with market orientation and the observed six dimensions of CSR use. Finally, while all measures were taken to ensure the reliability and validity of the constructs, including convergent, discriminant, and face validity tests, and tests for non-response and common method bias, it is acknowledged that the study develops and measures the constructs based on survey data from Bangladesh, and hence, care needs to be taken in generalising the results to other developing and developed country contexts (Pasch, 2019). Accordingly, future studies may seek to confirm the study's findings in different developing and developed countries.

Appendix 1: Questionnaire items and CFA statistics

[These are the retained items after confirmatory factor analysis. The first item of each scale has no t-value and the value of S. E. since it has a fixed parameter in AMOS.]

Constructs and items	Factor loading	t-value	S. E	Cronbach's alpha
CSR USE				
Accountability to external stakeholders:				0.844
1.19 Our company employs local workers and provides training in co-operation with workers representatives and, where suitable, relevant government authorities	0.711*	NA	NA	
1.31 Our company contributes to the development of environmentally meaningful and economically efficient public policy to enhance environmental awareness	0.736*	9.406	0.125	
1.43 Our company considers the needs of vulnerable and disadvantages consumers and the specific challenges that e-commerce may pose for consumers	0.739*	9.439	0.133	
1.47 Our company uses/transfers intellectual property rights/technology in a long-term sustainable manner	0.723*	9.247	0.125	
1.48 Our company develops ties with local universities, public research institutions and participates in joint research projects with local industry or industry associations	0.724*	9.262	0.157	
NB: The following five items were removed due to low loadings:				

Constructs and items	Factor loading	t-value	S. E	Cronbach's alpha
1.5 Our company follows high quality standards of accounting including financial and non-financial disclosures				
1.21 Our company doesn't influence the workers' representative unfairly in bona-fide negotiations or hinder the exercise of a right to organise				
1.32 Our company offers, gives or accepts undue financial, non-monetary or other advantage to/from public officials or the employees of business partners				
1.40 Our company doesn't engage/omit/represent any practices that are deceptive, misleading, fraudulent or unfair				
1.42 Our company co-operates fully with public authorities to prevent and combat marketing which is deceptive and/or impacts the environment				
Environmental, occupational, and public health and safety:				0.913
1.15 Our company provides workers' representatives the necessary information for effective collective agreements, meaningful negotiations on conditions of employment and ontaining a true and fair view of performance of the entity or company as a whole	0.785*	NA	NA	
1.24 Our company provides the public and workers with adequate, measurable, verifiable and timely information on the potential environmental, health and safety impact of our activities	0.729*	10.887	0.073	
1.25 Our company communicates and consults in a timely manner with the community directly affected by its environmental, health and safety policies and executes these policies	0.741*	11.122	0.071	
1.26 Our company assesses and addresses the foreseeable environmental health and safety-related impacts associated with the processes, goods and services of the enterprise over their full life cycle	0.765*	11.524	0.075	
1.27 Our company is aware of the scientific and technical understanding of the risks of serious damage to the environment, human health and safety	0.714*	10.530	0.069	
1.28 Our company maintains contingency plans for preventing, mitigating and controlling serious environmental and health damage in respect to operations	0.773*	11.611	0.077	
1.29 Our company continually seeks to improve its environmental performance	0.725*	10.805	0.068	
1.30 Our company provides adequate education and training to workers in environmental health and safety matters	0.767*	10.284	0.085	
NB: The following item was removed due to a low loading:				

Constructs and items	Factor loading	t-value	S. E	Cronbach's alpha
1.23 Ourcompany has established an environmental management system for the collection, monitoring, evaluation and verification of adequate and timely information regarding the environmental, health, and safety impact of our activities				
Human rights:				0.813
1.6 Our company respects international human rights obligations, and laws and regulations of the countries in which we operate	0.680*	NA	NA	
1.8 Our company seeks ways to prevent or mitigate adverse human rights impacts that are directly linked to our business operations, products or services	0.755*	10.868	0.123	
1.10 Our company provides for or co-operates through legitimate processes in the remediation of adverse human rights impacts	0.807*	9.634	0.152	

NB: The following six items were removed due to low loadings:

1.7 Our company avoids causing or contributing to adverse human rights impacts and addresses such impacts when they occur

1.9 Our company has a policy commitment to respect human rights

1.11 Our company respects the rights of workers to establish or join trade unions and representative organisations of their own choice

1.12 Our company contributes to the effective abolition of child labour and takes immediate and effective action

1.13 Our company contributes and takes adequate steps to the elimination of all forms of forced or compulsory labour

1.14 Our company complies with the principles of equal opportunity of employment or occupation

Consumer rights:				0.774
1.39 Our company provides consumers dispute resolution services without unnecessary cost or burden	0.710*	NA	NA	
1.37 Our company's goods/services meet legal standards for consumer health and safety	0.723*	8.050	0.102	
1.38 Our company provides accurate, verifiable and clear information that is sufficient to enable consumers to make informed decisions	0.868*	9.042	0.134	
NB: The following item was removed due to a low loading:				
1.41 Our company respects consumer privacy and ensures the security of personal data that we collect, store, process or disseminate				
Disclosure of information:				0.805
1.1 Our company discloses timely and accurate information on all corporate material matters, including the financial situation, performance, ownership and governance of the company	0.815*	NA	NA	
1.3 Our company discloses information on related party transactions (transactions with subcontractors, suppliers or joint venture partners) and material foreseeable risk factors	0.724*	10.261	0.095	

Constructs and items	Factor loading	t-value	S. E	Cronbach's alpha
1.4 Our company discloses information on non-financial, social, environmental and risk management activities		0.740*	10.509	0.093
Compliance with science, technology, and competition requirements:				0.767
1.44 Our activities are compatible with the science and technology policies and plans of the country	0.768*	NA	NA	
1.46 Our company employs local personnel to perform science and technological development work	0.712*	9.136	0.111	
1.50 Our company refrains from carrying out anti-competitive agreements among competitors	0.689*	8.871	0.111	

Goodness of fit: CMIN/DF=1.992; GFI=0.840; CFI=0.911; AGFI=0.794; RMSEA=0.070

NB: In line with Gaskin (2012) the following 15 items were removed prior to the CFA analysis above due to cross-loadings:

1.2 Our company discloses sufficient information on the remuneration of board members and key executives (either individually or in aggregate) for investors

1.16 Our company promotes consultation and co-operation between employers and workers

1.17 Our company provides the best possible wages, benefits and conditions of work within the framework of government policies and our economic position

1.18 Our company takes adequate steps to ensure compliance with occupational health and safety requirements

1.20 Our company provides notice of collectivelay-offs or dismissals to the workers' representative prior to the final decision being made

1.22 Our company enables authorised representatives of the workers to negotiate in collective bargaining or labour-management relations issues

1.33 Our company has developed / adopted adequate internal controls, ethics and compliance programs or measures for preventing and detecting bribery

1.35 Our company takes adequate measures to minimize the likelihood of bribery

1.36 Our company promotes employee awareness of and compliance with company policies and management control mechanisms against bribery

1.45 Our company permits the transfer and rapid diffusion of technologies and know-how with due regard to the protection of intellectual property rights

1.49 Our company complies with all applicable competition laws and regulations

1.51 Our company co-operates with investigating competition authorities by providing responses as promptly and completely as practicable to requests for information

1.52 Our company regularly promotes employee awareness of and trains senior management in relation to the importance of compliance with competition laws and regulations

1.54 Our company provides the relevant authorities with timely information for the purpose of the correct determination of taxes

1.56 Our corporate boards adopt tax risk management strategies to ensure that the financial, regulatory and reputational risks associated with taxation are fully identified and evaluated

NB: The following 3 items loaded on the dimensions with less than 3 items and hence were not included in the above CFA analysis

1.34 Our company prohibits or discourages the use of small facilitation payments and accurately records these, if occurred, in books and financial records

1.53 Our company complies with both the letter and spirit of the tax laws and regulations of the countries in which our company operates

Constructs and items	Factor loading	t-value	S. E	Cronbach's alpha
1.55 Our company pays our tax liabilities in a timely manner				
Market orientation				
Customer orientation:				0.863
2.2 Our company is highly committed to serve customer needs	0.682*	NA	NA	
2.3 Our company focuses on understanding customers' needs to gain competitive advantage	0.732*	9.183	0.129	
2.4 Our business strategies focus on creating customer value	0.799*	10.086	0.121	
2.5 Our company regularly measures the level of customer satisfaction	0.800*	8.871	0.160	
2.6 Our company pays close attention to the quality of after sales-services	0.817*	10.115	0.139	
NB: One item (2.1), 'our business objectives are driven by customer preferences' was removed due to a low loading				
Competitor orientation:				0.701
2.10 Our company focuses on specific groups of customers to gain competitive advantage	0.761*	NA	NA	
2.7 Our sales staff share competitor information with senior level managers	0.825*	8.307	0.127	
2.8 Our company responds promptly towards competitor's actions	0.581*	6.784	0.111	
NB: One item (2.9), 'our company's competitors' strengths and weaknesses are regularly discussed at our corporate level meetings' was removed due to a low loading				
Interfunctional coordination:				0.856
2.14 Our business functions coordinate with each other to serve the needs of the target market	0.838*	NA	NA	
2.12 Our company's managers understand how employees can contribute to customer value	0.745*	10.657	0.100	
NB: Two items, (2.11) 'our company shares resources among different business units' and (2.13) 'our senior managers from each business function regularly consult with customers' were removed due to low loadings				
Goodness-of-fit: CMIN/DF=2.193; GFI=0.941; CFI=0.964; AGFI=0.888; RMSEA=0.077				
Management control systems				
Belief systems:				0.809
3.1 Our mission statement clearly communicates the organisation's core values to our workforce	0.792*	NA	NA	
3.2 Our company's top level managers communicate core values to our workforce	0.623*	8.475	0.088	
3.3 Our employees are well aware of the organisation's core values	0.738*	10.024	0.086	
3.4 Our mission statement inspires our workforce	0.781*	9.516	0.098	
Boundary controls:				0.747
3.5 Our company relies on a code of business conduct to define appropriate behaviour for our workforce	0.741*	NA	NA	

Constructs and items	Factor loading	t-value	S. E	Cronbach's alpha
3.7 Our company has a system that communicates to our workforce about the risks that should be avoided	0.726*	9.864	0.101	
3.8 Our workforce is aware of the company's code of business conduct	0.661*	0.952	0.108	
NB: One item (3.6), 'our code of business conduct informs our workforce about off-limits behaviours' was removed due to a low loading				
Diagnostic use of controls:				0.856
3.9 Our company uses controls to plan how operations are to be conducted in accordance with the strategic plan	0.741*	NA	NA	
3.10 Our company uses performance measures to track progress towards goals and monitor results	0.751*	10.193	0.107	
3.11 Our company uses controls to review performance	0.780*	10.612	0.100	
3.12 Our company uses controls to compare outcomes to expectations and take appropriate actions	0.716*	11.681	0.093	
1.4 Interactive use of controls:				0.809
3.13 Our company often uses controls as a means of developing action plans	0.744*	NA	NA	
3.14 Our company has a system of continuous interaction between top management and junior managers	0.707*	8.505	0.122	
3.15 Our company regularly uses controls in scheduled face-to-face meetings between top management and junior managers	0.755*	10.022	0.115	
3.17 Our company's top management regularly pays attention to the organisation's CSR activities	0.717*	9.539	0.116	
NB: One item (3.16), 'Our company's senior managers often use controls personally to discuss changes that are occurring within the organisation' was removed due to a low loading				
Goodness-of-fit: CMIN/DF = 2.584; GFI = 0.884; CFI = 0.919; AGFI = 0.826; RMSEA = 0.089				

*Significant at 5% significance level

Appendix 2: Survey instrument

CORPORATE SOCIAL RESPONSIBILITY SURVEY		
Please indicate your (a) Gender: ☐ Male ☐ Female (b) Highest educational qualification: ☐ BA/B. Com ☐ MA/M. Com/MBA ☐ CA/CPA/FCPA/CIMA/CMA ☐ Ph. D. ☐ Other Please indicate what industry your organisation belongs to: ☐ Manufacturing ☐ Service Please indicate the type of your organisation: ☐ Domestic/Local ☐ Multinational How many years have you worked in your current position (job)? …………………………. years What is the total number of employees (approximately) in your organisation? …………………...		
1.	**Please, indicate the extent to which the following statements on corporate social responsibilities (CSR) reflect current practices in your organization. Please tick (√) one box only.**	

		Not at all				To a great extent
1.1	Our company discloses timely and accurate information on all corporate material matters, including the financial situation, performance, ownership and governance of the company.	☐ 1	☐2	☐3	☐4	☐5
1.2	Our company discloses sufficient information on the remuneration of board members and key executives (either individually or in aggregate) for investors.	☐ 1	☐2	☐3	☐4	☐5
1.3	Our company discloses information on related party transactions (transactions with subcontractors, suppliers or joint venture partners) and material foreseeable risk factors.	☐ 1	☐2	☐3	☐4	☐5
1.4	Our company discloses information on non-financial, social, environmental and risk management activities.	☐ 1	☐2	☐3	☐4	☐5
1.5	Our company follows high quality standards of accounting including financial and non-financial disclosures.	☐ 1	☐2	☐3	☐4	☐5
1.6	Our company respects international human rights obligations, and laws and regulations of the countries in which we operate.	☐ 1	☐2	☐3	☐4	☐5
1.7	Our company avoids causing or contributing to adverse human rights impacts and addresses such impacts when they occur.	☐ 1	☐2	☐3	☐4	☐5
1.8	Our company seeks ways to prevent or mitigate adverse human rights impacts that are directly linked to our business operations, products or services.	☐ 1	☐2	☐3	☐4	☐5
1.9	Our company has a policy commitment to respect human rights.	☐ 1	☐2	☐3	☐4	☐5
1.10	Our company provides for or co-operates through legitimate processes in the remediation of adverse human rights impacts.	☐ 1	☐2	☐3	☐4	☐5
1.11	Our company respects the right of workers to establish or join trade unions and representative organisations of their own choice.	☐ 1	☐2	☐3	☐4	☐5
1.12	Our company contributes to the effective abolition of child labour, and takes immediate and effective action.	☐ 1	☐2	☐3	☐4	☐5
1.13	Our company contributes and takes adequate steps to the elimination of all forms of forced or compulsory labour.	☐ 1	☐2	☐3	☐4	☐5

	Not at all			To a great extent	
1.14 Our company complies with the principle of equal opportunity of employment or occupation.	☐1	☐2	☐3	☐4	☐5
1.15 Our company provides workers' representatives the necessary information for effective collective agreements, meaningful negotiations on conditions of employment and obtaining a true and fair view of performance of the entity or company as a whole.	☐1	☐2	☐3	☐4	☐5
1.16 Our company promotes consultation and co-operation between employers and workers.	☐1	☐2	☐3	☐4	☐5
1.17 Our company provides the best possible wages, benefits and conditions of work within the framework of government policies and our economic position.	☐1	☐2	☐3	☐4	☐5
1.18 Our company takes adequate steps to ensure compliance with occupational health and safety requirements.	☐1	☐2	☐3	☐4	☐5
1.19 Our company employs local workers and provides training in co-operation with worker representatives and, where suitable, relevant governmental authorities.	☐1	☐2	☐3	☐4	☐5
1.20 Our company provides notice of collective lay-offs or dismissals to the workers' representative prior to the final decision being taken.	☐1	☐2	☐3	☐4	☐5
1.21 Our company doesn't influence the workers' representative unfairly in bona-fide negotiations or hinder the exercise of a right to organise.	☐1	☐2	☐3	☐4	☐5
1.22 Our company enables authorised representatives of the workers to negotiate in collective bargaining or labour-management relations issues.	☐1	☐2	☐3	☐4	☐5
1.23 Our company has established an environmental management system for the collection, monitoring, evaluation and verification of adequate and timely information regarding the environmental, health, and safety impact of activities.	☐1	☐2	☐3	☐4	☐5
1.24 Our company provides the public and workers with adequate, measurable, verifiable and timely information on the potential environment, health and safety impact of our activities.	☐1	☐2	☐3	☐4	☐5
1.25 Our company communicates and consults in a timely manner with the community directly affected by its environmental, health and safety policies and executes these policies.	☐1	☐2	☐3	☐4	☐5
1.26 Our company assesses and addresses the foreseeable environmental, health and safety-related impacts associated with the processes, goods and services of the enterprise over their full life cycle.	☐1	☐2	☐3	☐4	☐5
1.27 Our company is aware of the scientific and technical understanding of the risks of serious damage to the environment, human health and safety.	☐1	☐2	☐3	☐4	☐5
1.28 Our company maintains contingency plans for preventing, mitigating and controlling serious environmental and health damage in respect to operations.	☐1	☐2	☐3	☐4	☐5
1.29 Our company continually seeks to improve its environmental performance.	☐1	☐2	☐3	☐4	☐5
1.30 Our company provides adequate education and training to workers in environmental health and safety matters.	☐1	☐2	☐3	☐4	☐5
1.31 Our company contributes to the development of environmentally meaningful and economically efficient public policy to enhance environmental awareness.	☐1	☐2	☐3	☐4	☐5

		Not at all				To a great extent
1.32	Our company offers, gives or accepts undue financial, non-monetary or other advantage to/from public officials or the employees of business partners.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.33	Our company has developed/adopted adequate internal controls, ethics and compliance programs or measures for preventing and detecting bribery.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.34	Our company prohibits or discourages the use of small facilitation payments.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.35	Our company takes adequate measures to minimize the likelihood of bribery.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.36	Our company promotes employee awareness of and compliance with company policies and management control mechanisms against bribery.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.37	Our company's goods/services meet legal standards for consumer health and safety.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.38	Our company provides accurate, verifiable and clear information that is sufficient to enable consumers to make informed decisions.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.39	Our company provides consumers dispute resolution services without unnecessary cost or burden.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.40	Our company doesn't engage/omit/represent any practices that are deceptive, misleading, fraudulent or unfair.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.41	Our company respects consumer privacy and ensures the security of personal data that we collect, store, process or disseminate.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.42	Our company co-operates fully with public authorities to prevent and combat marketing which is deceptive and/or impacts the environment.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.43	Our company considers the needs of vulnerable and disadvantaged consumers and the specific challenges that e-commerce may pose for consumers.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.44	Our activities are compatible with the science and technology policies and plans of the country.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.45	Our company permits the transfer and rapid diffusion of technologies and know-how with due regard to the protection of intellectual property rights.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.46	Our company employs local personnel to perform science and technological development work.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.47	Our company uses/transfers intellectual property rights/technology in a long term sustainable manner.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.48	Our company develops ties with local universities, public research institutions and participates in joint research projects with local industry or industry associations.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.49	Our company complies with all applicable competition laws and regulations.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
1.50	Our company refrains from carrying out anti-competitive agreements among competitors.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

		Not at all			To a great extent	
1.51	Our company co-operates with investigating competition authorities by providing responses as promptly and completely as practicable following requests for information.	☐ 1	☐2	☐3	☐4	☐5
1.52	Our company regularly promotes employee awareness of and trains senior management in relation to the importance of compliance with competition laws and regulations.	☐ 1	☐2	☐3	☐4	☐5
1.53	Our company complies with both the letter and spirit of the tax laws and regulations of the countries in which our company operates.	☐ 1	☐2	☐3	☐4	☐5
1.54	Our company provides the relevant authorities with timely information for the purpose of the correct determination of taxes.	☐ 1	☐2	☐3	☐4	☐5
1.55	Our company pays our tax liabilities in a timely manner.	☐ 1	☐2	☐3	☐4	☐5
1.56	Our corporate boards adopt tax risk management strategies to ensure that the financial, regulatory and reputational risks associated with taxation are fully identified and evaluated.	☐ 1	☐2	☐3	☐4	☐5
2	**Please indicate the extent to which the following statements describe your organisation.**					
		Strongly disagree			Strongly agree	
2.1	Our business objectives are driven by customer preferences.	☐ 1	☐2	☐3	☐4	☐5
2.2	Our company is highly committed to serve customer needs.	☐ 1	☐2	☐3	☐4	☐5
2.3	Our company focuses on understanding customers' needs to gain competitive advantage.	☐ 1	☐2	☐3	☐4	☐5
2.4	Our business strategies focus on creating customer value.	☐ 1	☐2	☐3	☐4	☐5
2.5	Our company regularly measures the level of customer satisfaction.	☐ 1	☐2	☐3	☐4	☐5
2.6	Our company pays close attention to the quality of after sale-services.	☐ 1	☐2	☐3	☐4	☐5
2.7	Our sales staff share competitor information with senior level managers.	☐ 1	☐2	☐3	☐4	☐5
2.8	Our company responds promptly towards competitor's actions.	☐ 1	☐2	☐3	☐4	☐5
2.9	Our company's competitors' strengths and weaknesses are regularly discussed at our corporate level meetings.	☐ 1	☐2	☐3	☐4	☐5
2.10	Our company focuses on specific groups of customers to gain competitive advantage.	☐ 1	☐2	☐3	☐4	☐5
2.11	Our company shares resources among different business units.	☐ 1	☐2	☐3	☐4	☐5
2.12	Our company's managers understand how employees can contribute to customer value.	☐ 1	☐2	☐3	☐4	☐5
2.13	Our senior managers from each business function regularly consult with customers.	☐ 1	☐2	☐3	☐4	☐5
2.14	Our business functions coordinate with each other to serve the needs of the target market.	☐ 1	☐2	☐3	☐4	☐5

3	Please indicate to what extent you agree with the following statements.					
		Strongly disagree				Strongly agree
3.1	Our mission statement clearly communicates the organisation's core values to our workforce.	☐ 1	☐2	☐3	☐4	☐5
3.2	Our company's top level managers communicate core values to our workforce.	☐ 1	☐2	☐3	☐4	☐5
3.3	Our employees are well aware of the organisation's core values.	☐ 1	☐2	☐3	☐4	☐5
3.4	Our mission statement inspires our workforce.	☐ 1	☐2	☐3	☐4	☐5
3.5	Our company relies on a code of business conduct to define appropriate behaviour for our workforce.	☐ 1	☐2	☐3	☐4	☐5
3.6	Our code of business conduct informs our workforce about off-limits behaviours.	☐ 1	☐2	☐3	☐4	☐5
3.7	Our company has a system that communicates to our workforce about the risks that should be avoided.	☐ 1	☐2	☐3	☐4	☐5
3.8	Our workforce is aware of the company's code of business conduct.	☐ 1	☐2	☐3	☐4	☐5
3.9	Our company uses controls to plan how operations are to be conducted in accordance with the strategic plan.	☐ 1	☐2	☐3	☐4	☐5
3.10	Our company uses performance measures to track progress towards goals and monitor results.	☐ 1	☐2	☐3	☐4	☐5
3.11	Our company uses controls to review performance.	☐ 1	☐2	☐3	☐4	☐5
3.12	Our company uses controls to compare outcomes to expectations and take appropriate actions, if required.	☐ 1	☐2	☐3	☐4	☐5
3.13	Our company often uses controls as a means of developing action plans.	☐ 1	☐2	☐3	☐4	☐5
3.14	Our company has a system of continuous interaction between top management and junior managers.	☐ 1	☐2	☐3	☐4	☐5
3.15	Our company regularly uses controls in scheduled face-to-face meetings between top management and junior managers.	☐ 1	☐2	☐3	☐4	☐5
3.16	Our company's senior managers often use controls personally to discuss changes that are occurring within the organization.	☐ 1	☐2	☐3	☐4	☐5
3.17	Our company's top management regularly pays attention to the organisation's CSR activities.	☐ 1	☐2	☐3	☐4	☐5

Thank you for taking the time to complete this survey. Your assistance in providing this information is very much appreciated. If there is anything else you would like to tell us in relation to your experience with CSR, management control systems, market orientation, culture, and performance in your organisation please do so in the space provided below.

Please ensure that the completed survey is returned in the enclosed sealed envelope to ………….

Declarations

Conflict of interest We (the authors) declare that we do not have any conflict (financial or non-financial) of interest.

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