An empirical examination of the relationship between business strategy and socially responsible supply chain management

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Abstract
Purpose – This paper aims to explore the effect of business strategy on socially responsible supply chain management (SR-SCM).

Design/methodology/approach – This study draws on data from 178 UK-based companies, and 340 buyer-supplier relationships. A novel data collection approach is used, which minimizes social desirability and common methods bias, to capture socially responsible supply chain management. The data are analysed through a set of OLS regressions.

Findings – Business strategies significantly influence socially responsible supply chain management. Low-cost producers largely neglect their social responsibilities in the supply chain. In contrast, firms pursuing differentiation strategies are considerably more engaged with these issues, partly because they have better supply chain processes.

Practical implications – Practitioners should carefully consider the fit between strategic position and level of engagement with SR-SCM, since our results emphasise the relationship between SR-SCM and business strategy. Proactive engagement with SR-SCM, however, also implies sound supply chain processes, which must also be aligned with business strategy. Policy-makers should consider the low engagement with SR-SCM of low-cost producers and the implications for SR-SCM in cost sensitive and competitive global markets.

Originality/value – This is the first systematic cross-sectional study of the relationship between business strategy and socially responsible supply chain management (SR-SCM). These results suggest that there is a clear relationship between the strategic position of the firm and their SR-SCM practices. These results contribute to the on-going debate on relationships between strategy and supply chain management, and the emerging debate on the relationships between strategy and SR-SCM.

Keywords Business strategy, Supply chain, Social responsibility, Supply chain management, United Kingdom

Paper type Research paper

1. Introduction
Recent work has identified a clear relationship between business strategy and supply chain practices (González-Benito, 2010; Cousins, 2005) and there is considerable evidence that firm success is dependent on the match between supply chain practices and business strategy (Baier et al., 2008; Tamas, 2000). However, while earlier studies...
suggest that social responsibility may be closely related with the firm’s business strategy (McWilliams and Siegel, 2001; Van De Ven and Jeurissen, 2005), relatively little is known about the relationship between business strategy and responsible supply chain management (Preuss, 2009; Park and Dickson, 2008). Firms are coming under increasing pressure from a wide range of stakeholders, including regulators, customers, shareholders and NGOs to implement responsible supply chain practices (Andersen and Skjoett-Larsen, 2009; Ciliberti et al., 2009; Pedersen, 2009). Nonetheless, recent evidence suggests that competitive and cost pressures are forcing firms to pursue low-cost strategies with potentially negative consequences for their socially responsible behaviour (Barrientos and Smith, 2007). This study investigates the relationship between business strategy and SR-SCM, within an empirical study which examines both the direct relationship between business strategy and SR-SCM, and the extent to which SR-SCM is mediated by the relationship between business strategy and supply chain processes.

Earlier studies have highlighted the role of business strategy in shaping both firm- and supply-level activities (Ward et al., 1996). Business strategy should therefore be considered a starting point for the assessment of capabilities needed by suppliers (Watts et al., 1995), and practitioners should establish supply chain activities that reflect business strategy (Cox, 1999). Empirical evidence has also shown that business strategies shape attitudes, engagement, type and level of cooperation with suppliers (Cousins, 2005; Narasimhan and Carter, 1998). This suggests that business strategy has a fundamental role in shaping a firm’s investment in supply chain partners, which in turn has been associated with improved social responsibility (Carter, 2005; Koplin et al., 2007; Spence and Bourlakis, 2009). As such, SR-SCM may also reflect overall supply chain sophistication, which may itself be influenced by the firm’s business strategy.

Although responsible supply chain management has been subject to considerable research in recent years (Awaysheh and Klassen, 2010; Lee and Kim, 2009; Svensson, 2007), the relationship between business strategy and SR-SCM remains largely unexplored. Recent studies have shown that responsible supply chain practices are driven by top management support (Park and Stoel, 2005), organisational values (Carter and Jennings, 2002), regulation (Walker and Brammer, 2009), customer expectations (Carter and Jennings, 2004), and a desire to reduce risk (Welford and Frost, 2006). Others have viewed SR-SCM through a specific conceptual lens, such as power-dependency (Millington, 2008), complexity theory (Matos and Hall, 2007), institutional theory (Darnall and Edwards, 2006), and stakeholder theory (De Bakker and Nijhof, 2002; Maignan et al., 2002). While some authors have mentioned the linkage between firm strategy and responsible supply chain management (Preuss, 2009; Cruz and Boehe, 2008) the quantitative literature is restricted to a single study of the apparel and footwear industry that focuses on the implications of strategy for the relationship between partnership behaviour and fair labour management. The results provide tentative support for a relationship between strategy and fair labour management (Park and Dickson, 2008).

This study investigates the direct and indirect impact of strategy on the implementation of SR-SCM processes. Following existing research in the field (Cousins, 2005; Van De Ven and Jeurissen, 2005), we capture business strategy through Porter’s (1980) generic strategies. We focus on SR-SCM, because relatively little is known about the nature and extent of engagement with social issues in the supply chain,
and because social issues represent a significant threat and opportunity from both a firm (Phillips and Caldwell, 2005) and supply chain (Carter, 2005) perspective.

The definition and composition of SR-SCM has been extensively discussed in the literature (Awaysheh and Klassen, 2010; Klassen and Vereecke, 2012). Consistent with earlier studies we define SR-SCM as the integration of social issues within the supply chain (Carter and Rogers, 2008) and suggest that it is concerned with those issues, which lie within the “control of operations and supply chain managers” (Awaysheh and Klassen, 2010, p. 1248). The focus of SR-SCM is, therefore, on social issues in the workplace (e.g. working conditions, human rights, safety and diversity) rather than the external manifestations of social responsibility (e.g. philanthropy, community involvement) which lie within broader definitions of corporate social responsibility (Dahlsrud, 2008). As such, our central concern is with the processes through which buyers manage socially responsible supply chain performance, rather than the measurement of social performance in suppliers. Klassen and Vereecke (2012) suggest that “process” is concerned not only with the social issues that are addressed but crucially with how they are addressed (Klassen and Vereecke, 2012). In the context of our research, “process” captures the extent to which buyers implement and engage with SR-SCM practices (Lee, 2010), while also emphasising their commitment to such practices and processes (Pedersen, 2009; Pedersen and Andersen, 2006).

This study is based on a cross-sectional analysis of 340 buyer-supplier relationships drawn from semi-structured interviews with 178 UK-based companies. Both the head of procurement and a procurement manager with responsibility for particular supply chain relationships were interviewed, in order to minimise common methods bias, and we also develop and adapt a novel data collection approach (Bloom and Van Reenen, 2007) in order to capture SR-SCM processes in the buyer and reduce social desirability bias.

Our study makes three contributions to the literature. This is the first systematic study of the relationship between business strategy and SR-SCM. We investigate the relationship between business strategy and SR-SCM, drawing on earlier studies of the relationship between business strategy and supply chain management (Cousins, 2005), and contribute to a growing literature on the relationship between strategy and corporate social responsibility (Burke and Logsdon, 1996; Porter and Kramer, 2006; Van De Ven and Jeurissen, 2005). Second, we distinguish between the direct effect of business strategy on SR-SCM, where SR-SCM is undertaken as a direct consequence of business strategy, and the indirect effect, which flows from the relationship between business strategy and the sophistication of supply chain practices in the firm. This allows us to investigate the extent to which the implementation of SR-SCM is dependent on the presence of pre-existing supply chain processes and structures, which may be dependent on the broad strategic position of the company. Third, we focus on the practice and implementation of SR-SCM within a broad cross-sectional sample. Thereby complementing earlier studies, which have often focused on policy rather than implementation (Pedersen and Andersen, 2006; Preuss, 2009; Winstanley et al., 2002) and are largely restricted to firm and industry case studies (Park and Dickson, 2008).

The paper is structured as follows: the next section provides the reader with a literature review covering the role of business strategy and its influence on both supply chain management and social responsibility. We then develop a set of testable hypotheses drawn from earlier conceptual and empirical literature. Following on from this, we present our methodology, which incorporates both qualitative and
quantitative methods in order to reduce social desirability and common methods bias. Next we present our statistical analysis, before we initiate a discussion of our findings and their implications for researchers, practitioners and policy-makers.

2. Theoretical background

A growing body of literature has noted the relationship between supply chain practices and business strategy (Cousins, 2005). As such, it is clear that the supply chain function cannot be viewed in isolation from the firm and its competitive advantage (Knudsen, 2003, p. 720; Watts et al., 1995). This, in turn, suggests that organisational goals guide supply chain practices (Power, 2005), and that the two must be coordinated (Tamas, 2000). Narasimhan and Carter (1998) argue that supply chain strategy must support product and market characteristics, in order for firms to achieve competitive advantages. They observe that firms, whose competitive position is differentiation/customisation, tend to prioritise suppliers who are characterised by product innovation, technological leadership, total quality management and internal organisational integration. In contrast, firms pursuing traditional and manufacturing-oriented strategies (low-cost) prioritise rapid volume change, fast delivery, low prices and external organisational integration (Narasimhan and Carter, 1998). Similarly, Cousins (2005) suggests that cost-focused firms generally consider the role of the supply chain function to be one of cost reduction, whereas firms pursuing differentiation strategies view supply chain management as a central function of the firm. As a consequence, firms pursuing differentiation strategies engage more actively with their suppliers and develop highly collaborative relationships with them, in order to align customer requirements and develop joint market strategies (Cousins, 2005). Baier et al. (2008) find that firms that focus on innovation emphasise supplier management, talent management, integration and core processes, compared to low-cost firms who prioritise information and knowledge management, rather than cross-functional collaboration. Furthermore, Baier et al. (2008) show that if there are inconsistencies between specific business strategies and supply chain practices, firms will consistently underperform. Such findings support earlier work by González-Benito (2007) who argues that the fit between business strategy and purchasing strategy significantly moderates the relationship between purchasing efficacy, as measured by the fit between purchasing strategy and capabilities, and firm performance. As such, empirical research suggests that business strategies are associated with distinctive supply chain practices, where the engagement with suppliers appears to be stronger and deeper when the firm pursues differentiation strategies. In these cases, focal firms invest and develop suppliers in order to improve their effectiveness and to gain potential collaborative advantages. In contrast, low-cost producers emphasise the supply chain as a source of cost savings and invest less in supplier development.

Earlier literature has also emphasised the link between business strategy and corporate social responsibility (Porter and Kramer, 2011; Lamberti and Lettieri, 2009). Recent work suggests that corporate social responsibility may be an important component of business strategy and that the benefits of CSR may be influenced by the alignment between business strategy and CSR strategy. Thus, in the first case, socially responsive activities have been used to signal a positive corporate image (McWilliams and Siegel, 2001; Bagnoli and Watts, 2003), enhance corporate reputation (Brammer and Millington, 2005; Fombrun and Shanley, 1990); and influence consumer choices and purchasing intentions (Siegel and Vitaliano, 2007; Mohr and Webb, 2005).
While, in the second case, recent conceptual studies suggest that the alignment of socially responsible activities, with business strategy, will enhance the strategic benefits of CSR (Sirsly and Lamertz, 2008; McElhaney, 2009; McManus, 2008).

Although the relationship between business strategy and SR-SCM remains relatively under researched (Gallear et al., 2012), SR-SCM forms the basis of a significant emerging literature. While earlier, largely case based studies, focused on social performance in suppliers (Egel-Zanden, 2007; Yu, 2008), and the consequences of irresponsible social practices for buyers (Roberts, 2003; Phillips and Caldwell, 2005), recent research is increasingly concerned with the processes through which buyers manage social issues in the supply chain, rather than the social performance of suppliers (Awaysheh and Klassen, 2010; Klassen and Vereecke, 2012). This “process” literature has provided considerable insight into the role of capabilities (Klassen and Vereecke, 2012), barriers and enablers (Faisal, 2010; Walker et al., 2008; Walker and Jones, 2012), supply chain structure (Awaysheh and Klassen, 2010), inter-organizational resources (Gold et al., 2010), and third-party certification standards (Ciliberti et al., 2009; Lee and Kim, 2009). Other work has investigated inter-buyer cooperation (Lu et al., 2012) and the impact of institutional factors on the adoption of socially responsible supply chain practices (Park-Poaps and Rees, 2010). With respect to the relationship between business strategy and SR-SCM recent work has acknowledged that SR-SCM may form a component of business strategy, since socially responsible supply chain performance may be expected to influence reputation, image, consumer choices and stakeholder management (Tate et al., 2010). Similarly, Carter and Rogers (2008) suggest that socially responsible supply chain issues must be interwoven with the strategy of the firm. Boehe and Cruz (2010) further argue that if firms intend to use social responsibility as a differentiator, they must ensure that such issues apply to the supply chain, in order to both protect and enhance corporate image and reputation. Finally, recent studies have also argued that engagement with SR-SCM may be contingent upon the firm’s business strategy (Park and Dickson, 2008; Lim and Phillips, 2008), because different priorities and incentives influence the propensity to invest in socially responsible practices (Van De Ven and Jeurissen, 2005).

3. Conceptual framework and hypotheses
This study is concerned with the buyer’s SR-SCM processes, and we view the level of implementation and engagement with SR-SCM as being contingent upon a firm’s business strategy. In this context, business strategy is concerned with the positioning of the firm to achieve a competitive advantage over competitors (Dess et al., 1995; Schendel and Hofer, 1979). In this section we start by presenting our conceptual model, which shows the direct and indirect effects of business strategy on SR-SCM, and then develop a set of testable hypotheses that relates the different types of business strategy to expected level of SR-SCM engagement.

Our conceptual framework (Figure 1) draws upon previous work in both the supply chain and social responsibility literature. From the supply chain literature, we draw on the work of Cousins (2005), but also the work of González-Benito (2007) and Narasimhan and Carter (1998). These studies have two common features with this paper. On the one hand, they explicitly relate business strategy, in particular differentiation and low-cost, to supply chain activities. On the other hand, they clearly acknowledge that supply chain activities are contingent upon business strategy and...
that there needs to be an alignment between the two in order to maximise competitive performance. From the social responsibility literature, we draw on the work of Burke and Logsdon (1996), Dentschev (2004), McWilliams and Siegel (2001), Van De Ven and Jeurissen (2005) and Porter and Kramer (2006, 2011), who argue: first, that social responsibility and social initiatives can be a source of competitive and first-mover advantage (Sirsly and Lamertz, 2008); and second, that business strategy and firm positioning influence the propensity of firms to engage in socially responsible and discretionary activities.

In order to understand the role of business strategy on SR-SCM, we draw on the work of Porter’s (1980) generic strategies, and explicitly analyse how low-cost (cost leader), innovation (differentiation), and niche (focus) influence SR-SCM. We use Porter’s generic strategies because they are based on cross-industry observations and have been subject to significant empirical testing (Dess et al., 1995; Miller and Dess, 1993). In this paper, we argue that a low-cost strategy is negatively related to SR-SCM (Park and Dickson, 2008; Lim and Phillips, 2008). In contrast, a differentiation (innovation) strategy is positively related to SR-SCM (McWilliams and Siegel, 2001; Van De Ven and Jeurissen, 2005). We also argue that a niche strategy is negatively related to SR-SCM given its narrow market scope (Pedersen, 2009).

Given this body of literature, our conceptual framework (Figure 1) suggests that business strategy influences social responsibility in the supply chain through a direct relationship between business strategy and SR-SCM. At the same time, our framework indicates that this relationship may be mediated by the level of supply chain sophistication, where business strategy influences a firm’s attitudes and investment in the supply chain, which in turn influences SR-SCM.

4. Hypothesis development
The direct effect of business strategy on SR-SCM
Following the work of Van De Ven and Jeurissen (2005), we argue that low-cost producers neglect SR-SCM because it is costly and not core to their business strategy. We then argue that firms that pursue differentiation strategies implement and develop SR-SCM practices in order to protect their reputation, improve stakeholder relations, and enhance their risk management strategies (Husted and Allen, 2001; McWilliams and Siegel, 2001).

Furberg and Schullström (2008) argue that many firms refrain from investing in social responsibility because it is costly. This is echoed by Van De Ven and Jeurissen (2005), who argue that when the market environment is fierce, firms tend to pursue
low-cost strategies. Under such conditions firms will have “no financial room to bear the costs” associated with social responsibility engagement, as it will result in “costs structurally higher than those of competitors” (p. 306). This in turn has implications for the involvement with SR-SCM of low-cost producers, who seek to exploit all sources of cost advantage and tend not to engage in discretionary activities.

Evidence from the US apparel and footwear industry has also shown that firms that focus on price “have lower degrees of two-way communication, conflict resolution, and shared responsibility for resolving labor issues with their suppliers” (Park and Dickson, 2008, p. 52). Park and Dickson (2008) suggest that this may either be because low-cost producers are less concerned with social responsibility or because they actively exploit labour in search of low prices. Therefore, low-cost firms are unlikely to manage labour issues properly in the supply chain as this would increase costs. Such findings have also been found in the UK, where the NGO “Labour Behind the Label” (2006) reviewed five low-cost retailers, and noted that their supply chains were characterised by pressure to lower prices and increase flexibility. This study also revealed that low-cost retailers often have “fickle” relationships with suppliers and a tendency to change suppliers frequently, while also making them bid against one another. This “reduce the incentive for suppliers to make real efforts to comply” with retailers’ codes of conduct (Labour Behind the Label, 2006, p. 37). Similarly, the UK’s Competition Commission (2000) investigated the behaviour of supermarkets and their relationship with suppliers. Their findings indicated that some of the largest supermarkets in the UK, many of which pursue low-cost strategies, exploit suppliers and, as a result of their power over suppliers, often force them to bear cost increases in the supply chain. There is, therefore, evidence to indicate that social responsibility is not only neglected in low-cost sourcing contexts (Andersen and Skjoett-Larsen, 2009; Boyd et al., 2007; Gugler and Shi, 2009; Hughes, 2011), but that implementing social requirements is problematic for many businesses because they operate in highly competitive environments, where the focus is on price (Barrientos and Smith, 2007) and where such pressures suppress a collaborative buyer-supplier approach to social responsibility (Lim and Phillips, 2008). This suggests that firms that pursue low-cost strategies neglect SR-SCM. Therefore, it is hypothesised that:

**H1.** A low-cost strategy will be negatively related with SR-SCM.

SR-SCM may be used as a mechanism that supports a differentiation strategy, or as a differentiation strategy per se. In this paper our focus is on the former rather than the latter. Earlier studies suggest that social responsibility can contribute to a credible image (McWilliams and Siegel, 2001), and an improved corporate reputation (Husted and Allen, 2007; Waldman et al., 2006). Because credibility and reputation are important to firms with differentiation strategies, as they often produce branded goods, it has been suggested that a stronger engagement with social responsibility enables these firms to manage exposure to risk (Fan, 2005; Power, 2005), such as negative media attention and consumer boycotts (Fan, 2005; Van De Ven and Jeurissen, 2005). Indeed, firms that pursue differentiation strategies will often use socially responsible activities, along with other marketing activities, such as advertising, as a signalling tool (McWilliams and Siegel, 2001). Van De Ven and Jeurissen (2005) argue that firms that pursue differentiation strategies will engage more proactively with social responsibility, compared to low-cost producers. They argue that for firms pursuing differentiation strategies, the role of social responsibility is not only to prevent or limit
negative media and consumer attention, but also to complement existing business strategy, by improving product image, signalling quality and trustworthiness (McWilliams and Siegel, 2001; Van De Ven and Jeurissen, 2005). Therefore, from a market-based perspective, social responsibility can add value to the firm’s existing activities, and help enhance its differentiation strategy, which may allow the firm to charge a premium for its products (Avram and Kahne, 2008).

Focusing specifically on SR-SCM, Cruz and Boehe (2008) note how social responsibility in the supply chain is increasingly being used as a product differentiation strategy, but that its success relies on the promotion of activities and recognition by consumers. Similarly, it also appears that managers make an explicit link between SR-SCM and business strategy because, as Preuss (2009) reports, the most common instrumental justification for adopting an ethical sourcing code is with reference to a differentiation strategy or reputational gains. Crane (2001) and Palazzo and Basu (2007) also note the potential for enhancing products market positioning through the use of social responsibility and SR-SCM. Taken together, this suggests that firms that pursue differentiation strategies will proactively engage in SR-SCM, and therefore we hypothesis:

H2. A differentiation strategy will be positively related with SR-SCM.

For firms that operate in narrow markets and pursue a niche strategy, engagement with social responsibility has remained relatively unexplored, and their engagement is somewhat uncertain (Van De Ven and Jeurissen, 2005; Weitzner and Darroch, 2010). Similarly, the supply chain literature has often ignored how niche firms develop supply chain strategies (Baier et al., 2008; Cousins, 2005), and it is therefore problematic to propose a specific relationship between niche strategy and SR-SCM. On the one hand, their SR-SCM may be highly proactive if they are targeting a socially conscious consumer group (Weitzner and Darroch, 2010); while on the other, SR-SCM may be something that is not a part of the firm’s strategy (Weitzner and Darroch, 2010). Weitzner and Darroch (2010) note the difficulties in positioning niche firms in a socially responsible context, as there are many niche strategies, and there will inevitably be conflicts between some of them. However, niche strategies are often associated with relatively high cost structures (Galbraith and Schendel, 1983), with informal and reactive decision making processes (Miller and Toulouse, 1986). As such, it may be argued that the typical niche firms do not have the necessary resources, or expertise, to implement SR-SCM, which often requires formal processes and a proactive approach. It may therefore be suggested that firms pursuing niche strategies, as with small and medium sized companies, will find it difficult to fully engage with the SR-SCM concept and face a set of unique challenges when attempting to implement them in their supply chains (Ciliberti et al., 2008; Russo and Perrini, 2010). Therefore, the narrower the market the less we should expect firm to invest in SR-SCM (Pedersen, 2009) and hence it is hypothesised that:

H3. A niche strategy will be negatively related with SR-SCM.

The mediating role of supply chain process sophistication

Earlier work suggests that developed and integrated supply chain processes in the buying firm are critical for supply chain performance (Fearne and Hughes, 1999). In this paper, we suggest that sophistication of supply chain processes in the buying
firm will have a positive effect on SR-SCM and that the effect of business strategy on SR-SCM will be mediated through the relationship between strategy and supply chain process sophistication (SUP SOPH) in the buying firm.

With respect to the direct effect, existing research suggests that greater sophistication of supply chain processes is positively associated with successful SR-SCM implementation (Carter, 2005; Koplin et al., 2007; Reuter et al., 2010), since SR-SCM relies on the integration and development of the supply chain (Park and Dickson, 2008; Spence and Bourlakis, 2009). Therefore, in line with this body of literature, we hypothesise that:

\[ H4. \] The level of supply chain sophistication is positively related with SR-SCM.

Recent research has also made an explicit link between business strategy and SUP SOPH. For example, earlier work has suggested that low-cost producers often take a short-term tactical approach to the supply chain function (Cousins, 2005). In contrast, firms that pursue differentiation strategies are more likely to develop collaborative relationships with their suppliers (Cousins, 2005) and prioritise suppliers with technical leadership with the potential for internal integration (Narasimhan and Carter, 1998). Firms pursuing niche strategies also face a set of unique supply chain challenges (Binet and Wilson, 1997) and often fail to include appropriate supply chain management within their operations (Vaaland and Heide, 2007).

This implies that the direct effect of strategy on SR-SCM will be supported by a mediated effect, which flows from the relationship between strategy and SUP SOPH. Therefore, we suggest that:

\[ H5. \] The relationship between business strategy and SR-SCM is mediated by the relationship between strategy and SUP SOPH.

5. Research method

Sample and data collection

The sample frame consisted of the FTSE all-share; the thousand largest (by turnover) unlisted firms; and the thousand largest foreign holding firms with operations in the UK. In each case the organisation was invited to participate in the study through a letter addressed to the director of procurement, supported by an e-mailed reminder. The final sample consisted of 178 UK-based firms. Although the resulting response rate was below 10 per cent, the broad industry composition of our sample roughly mirrors that of the UK economy, with industrial, consumer goods, and financial (including professional services) making up the majority of our sample[1]. More importantly, we followed Armstrong and Overton (1977) and tested for non-response bias, by comparing early and late respondents, and found no evidence of significant difference (\( p = 0.73 \)). Since our research involved interviews with top-executive respondents (director of procurement), a relatively low response rate may be expected given that it is often difficult to obtain a response from this group (Baruch and Holton, 2008). The low response rate may also be partly explained by the sensitive nature of the issues discussed (Buchman and Tracy, 1982; Randall and Gibson, 1990).

Once the participating companies had been identified, data was collected through a two-part survey in order to minimise the problems associated with common methods bias. The issue of common source bias is an important one, and can occur when the same respondent determines the dependent and independent variable. It creates a problem as the respondent may have an “explicit or implicit theory” about the relationships
(King *et al.*, 2007, p. 459), thereby biasing the true relationships between the two variables (Doty and Glick, 1998, p. 376). Interviewing two people from the same company may be expected to minimise such issues (Podsakoff *et al.*, 2003).

The first part of the survey sought to capture general organisational characteristics, such as the size of the company, the competitive environment of the firm, the firm’s competitive strategy, and also information on the firm’s emphasis on responsible supply chain policies. This part was administered through an online questionnaire and was usually completed by a senior procurement officer, such as the director of procurement, who had relevant knowledge of the strategies and policies of the firm and the purchasing department. The second part consisted of a set of closed and open-ended questions dealing with specific buyer-supplier relationships in the focal firm[2]. This part was administered through a telephone interview and was usually completed by a purchasing manager[3] who was asked to identify and discuss two different buyer-supplier relationships (i.e. supply chain relationships)[4]. This resulted in an effective sample of 340 supply chain relationships, which forms the basis of the empirical analysis. In each case the supply chain managers were asked to comment on specific aspects of the buyer-supplier relationship, including questions pertaining to the nature of the product being procured and power-dependency issues within the relationship. More importantly, the supply chain managers were also asked to comment in-depth on the socially responsible supply chain practices in respect of the particular supplier.

**Dependent variable – SR-SCM**

In line with recent studies (Awaysheh and Klassen, 2010; Klassen and Vereecke, 2012), our study is concerned with buyers’ SR-SCM practices, and our dependent variable (SR-SCM) captures the buyer’s engagement with SR-SCM within specific individual buyer-supplier relationships. Since our focus is on the implementation of SR-SCM practices in the buying firm, rather than social performance in the supplier, we deploy a novel data collection approach, adapted from earlier work on managerial practices by Bloom and Van Reenen (2007). This method also has the advantage that it minimises social desirability bias and common methods bias (Crane, 1999; Randall and Fernandes, 1991). Bloom and Van Reenen (2007) use 18 different types of “practice” in order to capture the entire spectrum of management practices. As we are only concerned with operational and supply chain issues, we adopt five of these “practices”, and adapt them to the context of SR-SCM. The five practices include:

1. socially responsible supply requirements, which considers the policies and codes of practice applied to the supplier;
2. socially responsible supply rationale, which considers the buyer’s motives for introducing socially responsible supply chain policies and practices in the supplier;
3. socially responsible problem process documentation, which is concerned with how social issues and problems within the particular supplier come to the buyer’s attention;
4. socially responsible monitoring, which addresses the buyer’s efforts to monitor, track and verify social performance in the supplier; and
5. socially responsible performance improvement, which examines how the buyer improves the social performance of the supplier.
These dimensions capture an array of issues related to the implementation of SR-SCM processes, which have been discussed extensively in earlier studies (Miemczyk et al., 2012). For example, Awaysheh and Klassen (2010) consider codes of conduct (requirements) and social audits (monitoring). Klassen and Vereecke (2012) consider monitoring (monitoring). Park and Dickson (2008) consider codes of conduct and policies (requirements), third-party intervention (monitoring), and goal congruence (performance dialogue). Similarly, Lim and Phillips (2008) and Yu (2008), within case studies of Nike and Reebok, respectively, implicitly consider requirements, problem process documentation, monitoring, and performance dialogue. Preuss (2009) explicitly considers both the content of policies (requirements) and also the rationale for these.

Data was collected through a set of open-ended questions on each of the five dimensions of social supply chain management. In each company respondents were asked to identify a particular supply relationship and the responses refer to this relationship. Respondents were asked broad, open-ended questions about each dimension of responsible supply chain management. Subsequent detailed questions were designed to generate an evidential database drawn from actual practices and examples. Questioning on each dimension continued until the interviewer could form an accurate assessment of the firm’s typical practices following the methods outlined by Bloom and Van Reenen (2007). For “requirements” typical questions included: “can you describe the social requirements that you apply to this supplier?” If the respondent referred to a specific type of accreditation, or a code of conduct, the interviewer would investigate the buyer’s actual engagement with SR-SCM, by asking the respondent to describe the specific issues within the accreditation or code of conduct, which they attempted to address in the supplier. For “rationale” typical questions included: “can you take me through the rationale for introducing these processes”, and “What factors led you to adopt these processes?”. For “problem process documentation” typical questions included: “how do social issues in this supplier come to your attention?”, “Can you talk me through the process of a recent social problem with this supplier?”. For monitoring typical questions included: “tell me how you track the social performance in this supplier?”, “What kind of indicators would you use to assess this suppliers social performance”, “How do you go about auditing this supplier?”. Finally, for “performance dialogue” typical questions included: “how would you go about improving the social performance of this supplier?” and “What happens if this supplier isn’t achieving your agreed social performance targets?”.

The responses were then evaluated by scoring each of the five dimensions on a scale 1 (worst practice) to 5 (best practice). To illustrate the scoring and evaluation process of the buying firm’s SR-SCM processes, we highlight a set of interview quotes taken from the “monitoring” category. For example, both researchers scored a firm “1”, because there was no evidence of a monitoring or auditing process in place. When questioned whether they (i.e. the buying firm) were tracking or monitoring the supplier’s social performance, the respondent simply replied “no”. Another firm was also scored “1” for “monitoring”, as the respondent replied that there was “not yet” any monitoring process in place. Another firm was scored 3 because “a program of risk-based audit” verified the supplier’s social performance, but the respondent also said that the principal way of monitoring social performance was a “supplier self-assessment”. One firm was scored “5” by both researchers because there was a formal system in place, supported by evidence from actual events, where the buyer would visit the supplier and assess
their social standards. The respondents noted that the monitoring processes consisted of “a series of site audits”, which “includes [a] full day of one of [the] audit team going in, [and a] series of individual private [meetings] to understand exactly what was going on inside the company”. In addition, the audits were conducted as part of due diligence and continuously thereafter. Furthermore, there was evidence of a formal escalation process, which, if the supplier “failed a red item they would immediately be re-audited within the next month”.

In order to ensure that the SR-SCM scoring of each firm was valid, ten interview transcripts were studied and independently scored by two subject experts and the two researchers who carried out the interviews. The scores were then compared and discussed in order to generate a consistent approach to question scoring. Both of the interviewers then independently evaluated and scored all of the interview responses. The correlation and concordance (inter-rater reliability) between the two researchers was very high with coefficients of 0.91 and 0.89, respectively. The average score, across the five categories, of the two researchers was used as the dependent variable. Factor analysis suggests that the five dimensions load onto a single factor. In line with Bloom and Van Reenen (2007) we acknowledge that the questionnaire may only capture a subset of factors that constitute SR-SCM activities, but given that all of the five dimensions loaded on a single factor, and their correlations with each other ranged from 0.71 to 0.86, with an average correlation of 0.78, they represent a reliable proxy for firms’ engagement with socially responsible supply chain processes.

Utilizing this approach reduces the likelihood of social desirability bias, and coupled with data collected at different levels in the organisation also mitigates against the problem of common methods bias, where the respondent determines both the dependent and independent variables (Podsakoff et al., 2003[5]). Since the researchers converted the open-ended discussion into quantitative data, social desirability bias is limited because the researcher decided the appropriate value or scoring rather than the respondent (Podsakoff et al., 2003). In addition the respondents were not told about the procedure used to evaluate their social responses and were, therefore, unaware that answers would be quantified at a later stage. Finally, the two-stage interview process, which was implemented in most cases, effectively separated the dependent and independent variables largely removing the difficulties associated with common methods bias (Podsakoff et al., 2003).

Business strategy
We use Porter’s generic strategies as the point of reference when considering business strategy, as it is a “parsimonious, yet robust” typology of business strategy (Williams et al., 1995, p. 25), whilst also capturing much of “the complexity inherent in strategic gestalts” (Miller and Dess, 1993, p. 553). To this end, we use the approach and questions of Parnell (1997) and Powell (1992) to evaluate firm generic strategy in terms of cost, differentiation, and niche. These questions were anchored in seven point scales where: 1 – strongly disagree and 7 – strongly agree. Principal component analysis (Appendix 1) established the presence of three distinctive strategies: three of the questions loaded on a single factor, with a Cronbach’s $\alpha$ of 0.68 and can be categorized as low-cost. Typical questions were: “we primarily seek to provide our goods and services at the lowest possible price” and “Our prices are among the lowest in the industry: two questions, “we spend more heavily on R&D than our competitors”
and “we are often first to introduce innovative products” loaded on a single factor with a Cronbach’s $\alpha$ of 0.65 and we categorise this variable as differentiation. The final strategic type that was evident from our factor analysis was Niche; two questions: “we focus on a narrow, specific customer group” and “we provide products and services primarily to a well-defined customer group”, loaded on a single factor with a Cronbach’s $\alpha$ of 0.65.

Supply chain process sophistication
To capture the level of SUP SOPH, we use three established questions adapted from Krause (1997) and Lee and Humphreys (2007)[6]. A typical question included: “we use established guidelines and procedures when evaluating supplier performance”. All three questions loaded on single factor, with an acceptable (Nunally, 1978) Cronbach’s $\alpha$ of 0.75 (See Appendix 1 for full details).

Additional control variables
Since our focus is on implementation and this is measured through SR-SCM in individual supply chain relationships it is necessary to control for a range of industry, firm and relationship specific factors which may also effect the implementation of SR-SCM within the buyer-supplier relationship. Controlling for industry is a delicate issue in strategic management (Dess et al., 1990). Often, categorising industries through the traditional approach relies on the standard industry classification (SIC), but such industry categorisations often have little conceptual grounding. In contrast, this study uses a set of binary variables that are designed to capture industry pressure for social responsibility at both the firm- and supplier-level. Drawing on the arguments by Amaeshi et al. (2008), Blowfield (2003), Maloni and Brown (2006), Neef (2004), Roberts (2003), and Seuring and Müller (2008), we identify the following industries as being socially sensitive: apparel, textile, leather, food, drink, agriculture, light goods manufacturing (including merchandise), and retailers of food, drink and textile items. Subsequently, we develop three binary variables that capture whether a firm “operates in”, “procures from” or “operates in AND procures from” a socially sensitive industry. Each of the variables takes the value 1 if the firm operates in, and/or procures from, a socially sensitive industry, and 0 otherwise.

The relationship between strategy and SR-SCM is also likely to be influenced by proximity to consumers. More specifically, we argue that business strategy has a greater influence in business-to-consumer (B2C) markets because SR-SCM sends a signal to consumers (McWilliams and Siegel, 2001), influences decisions where limited product information is available (Siegel and Vitaliano, 2007), entices consumer purchase (Mohr et al., 2001) and prevents negative media attention and consumer boycotts (Phillips and Caldwell, 2005). We define whether a given firm was active in a B2C or a business-to-business (B2B) sector on the basis of a firms’ primary activity as provided by Bureau Van Dijk’s FAME database. The variable takes a value 1 when the firm operates in a B2C sector, and 0 otherwise.

We also control for firm size, because it may influence financial resources (Brammer and Millington, 2006) and visibility (Bowen, 2002). Firm size is captured by taking the natural logarithm of the number of employees. In addition, as this research focuses on buyer-supplier transactions in a global context, where responsibilities may converge from West to East (Krueger, 2008), we control for the supplier’s country of location.
Binary variables were created for the following regions: the USA, the UK, Europe, China, India, and “other”. We also control for relationship length by taking the natural logarithm of the number of years of trading between the buyer and supplier, because this may capture the phenomena of legacy relationships (Doney and Cannon, 1997), which in turn may affect firms’ decisions to invest and implement SR-SCM practices in a supplier. Furthermore, to account for Kraljic’s (1983) strategic supply arguments, we control for product complexity and importance. Both complexity and importance were measured using three-item scales adapted from Cannon and Perreault (1999) and Stump and Heide (1996): both sets of questions loading on single factors, with Cronbach’s α of 0.91 and 0.85, respectively. Similarly, we control for power-dependency, as this has been suggested to be critical in the implementation of SR-SCM (Millington, 2008), and we measure this element of the buyer-supplier relationship by capturing supplier dependence (buyer power), through a three-item scale, and buyer dependence (supplier power) through a four-item scale, adapted from Ganesan (1994). All three supplier dependence questions loaded on a single factor with a Cronbach’s α of 0.88. Similarly, the four buyer dependence questions loaded on a single factor with a Cronbach’s α of 0.86. The power imbalance variable was subsequently created following the approach of Casciaro and Piskorski (2005)[7]. Factor analyses for all variables are provided in Appendix 1.

6. Results
We start our analysis by considering the Pearson correlation coefficients, presented in Table I, in order to determine if multicollinearity is an issue for our results. The level of correlation between the independent variables is relatively low, and the variance inflation factors (VIF), suggest that there is no cause for concern regarding multicollinearity, with the VIF’s ranging between 1.1 and 1.5.

To test the research hypotheses, seven hierarchical ordinary least square regression models were estimated[8], and are presented in Table II. Models 1-3 are based on the entire model (n = 340), and include a binary variable to control for firms operating in the B2C sector. Model 1 is our base model. In Model 2, the three business strategy variables of low-cost, differentiation and niche are added to the base model. To examine any potential mediating effect, SUP SOPH is added to Model 3.

The base model (Model 1) has an adjusted $R^2$ of 0.35, and provides a satisfactory level of explanatory power compared to cross-sectional models of this type. Model 2 includes the three business strategy variables and we observe a significant increase in the explanatory power of the model. In addition, we find strong support for H1; low-cost is significant and negative ($p < 0.01$), suggesting that firms pursuing a low-cost strategy have lower levels of SR-SCM engagement. Neither differentiation nor niche appears to be related to SR-SCM and hence Model 2 provides no evidence in support of H2 or H3.

In Model 3, we add SUP SOPH to the model, which results in a significant increase in the explanatory power of the model. The results show that SUP SOPH has a strong positive effect on SR-SCM ($p < 0.01$), thus supporting H4. Model 3 also suggests that once we account for SUP SOPH, niche firms tend to neglect SR-SCM ($p < 0.01$). The increase in the explanatory power of the model, following the inclusion of the business strategy (low-cost, differentiation, niche) and SUP SOPH variables provides compelling evidence that strategy has a direct and indirect effect on SR-SCM. The results from the first three models also show that firms in B2C markets
|       | Mean | SD  | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   |
|-------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 SR-SCM | 2.24 | 1.00 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2 Firm size | 8.95 | 2.06 | 0.19 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 3 B2C binary | 0.52 | 0.50 | 0.32 | 0.04 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 4 USA | 0.07 | 0.26 | 0.04 | 0.06 | 0.05 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 5 UK | 0.51 | 0.50 | 0.24 | 0.05 | 0.05 | 0.29 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 6 West Europe | 0.16 | 0.37 | 0.11 | 0.11 | 0.06 | 0.12 | 0.44 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 7 China | 0.10 | 0.30 | 0.22 | 0.02 | 0.06 | 0.09 | 0.34 | 0.15 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 8 India | 0.05 | 0.21 | 0.00 | 0.02 | 0.02 | 0.06 | 0.22 | 0.10 | 0.07 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 9 South East Asia | 0.06 | 0.24 | 0.23 | 0.17 | 0.10 | 0.07 | 0.26 | 0.11 | 0.09 | 0.06 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10 Others | 0.05 | 0.22 | 0.07 | 0.09 | 0.06 | 0.06 | 0.23 | 0.10 | 0.08 | 0.05 | 0.06 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 11 Service binary | 0.19 | 0.30 | 0.09 | 0.12 | 0.16 | 0.04 | 0.08 | 0.07 | 0.14 | 0.11 | 0.03 | 0.01 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 12 Relationship length | 1.81 | 0.96 | 0.01 | 0.00 | 0.01 | 0.07 | 0.03 | 0.10 | 0.09 | 0.07 | 0.07 | 0.03 | 0.10 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.01 |
| 13 Product complexity | 0.00 | 1.00 | 0.04 | 0.02 | 0.07 | 0.18 | 0.17 | 0.07 | 0.10 | 0.05 | 0.07 | 0.06 | 0.11 | 0.08 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 14 Product importance | 0.00 | 1.00 | 0.17 | 0.19 | 0.11 | 0.07 | 0.27 | 0.17 | 0.09 | 0.01 | 0.09 | 0.02 | 0.18 | 0.19 | 0.36 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 15 Power imbalance | 0.00 | 1.28 | 0.03 | 0.15 | 0.07 | 0.13 | 0.27 | 0.05 | 0.10 | 0.13 | 0.09 | 0.03 | 0.03 | 0.03 | 0.32 | 0.26 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |      |
| 16 Socially impactful product | 0.08 | 0.28 | 0.03 | 0.13 | 0.03 | 0.00 | 0.17 | 0.10 | 0.03 | 0.07 | 0.03 | 0.07 | 0.03 | 0.07 | 0.12 | 0.11 | 1.00 |      |      |      |      |      |      |      |      |      |      |      |
| 17 Socially impactful industry | 0.08 | 0.27 | 0.06 | 0.07 | 0.25 | 0.00 | 0.00 | 0.05 | 0.06 | 0.01 | 0.06 | 0.07 | 0.09 | 0.01 | 0.02 | 0.04 | 0.05 | 0.09 | 1.00 |      |      |      |      |      |      |
| 18 Socially impactful product and industry | 0.13 | 0.34 | 0.29 | 0.19 | 0.32 | 0.11 | 0.10 | 0.03 | 0.13 | 0.05 | 0.04 | 0.23 | 0.19 | 0.01 | 0.04 | 0.18 | 0.10 | 0.12 | 0.11 | 1.00 |      |      |      |      |      |      |      |
| 19 Low price strategy | 0.00 | 1.00 | 0.04 | 0.22 | 0.17 | 0.04 | 0.02 | 0.03 | 0.03 | 0.01 | 0.07 | 0.04 | 0.07 | 0.05 | 0.01 | 0.09 | 0.05 | 0.03 | 0.07 | 0.03 | 1.00 |      |      |      |      |      |      |
| 20 Differentiation/innovation strategy | 0.00 | 1.00 | 0.10 | 0.19 | 0.08 | 0.13 | 0.02 | 0.07 | 0.04 | 0.05 | 0.01 | 0.01 | 0.04 | 0.03 | 0.08 | 0.11 | 0.09 | 0.01 | 0.05 | 0.15 | 0.04 | 1.00 |      |      |      |      |      |
| 21 Niche strategy | 0.00 | 1.00 | 0.13 | 0.22 | 0.21 | 0.08 | 0.05 | 0.00 | 0.01 | 0.00 | 0.03 | 0.07 | 0.08 | 0.02 | 0.07 | 0.10 | 0.09 | 0.05 | 0.00 | 0.09 | 0.08 | 0.11 | 1.00 |      |      |      |      |      |
| 22 Supply chain sophistication | 0.00 | 1.00 | 0.31 | 0.08 | 0.18 | 0.04 | 0.08 | 0.03 | 0.17 | 0.13 | 0.01 | 0.06 | 0.16 | 0.07 | 0.09 | 0.15 | 0.03 | 0.05 | 0.12 | 0.20 | 0.08 | 0.19 | 0.07 | 1.00 |      |
### Regression Results

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<td>Low price (cost leadership)</td>
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<tr>
<td>Differentiation</td>
<td>0.06</td>
<td>0.02</td>
<td>0.21***</td>
<td>0.14*</td>
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<td>(0.06)</td>
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<tr>
<td>Niche</td>
<td>-0.06</td>
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<td>-0.15**</td>
<td>-0.04</td>
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<tr>
<td></td>
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<td>(0.05)</td>
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<td>Supply chain sophistication</td>
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<td>$R^2$</td>
<td>0.38</td>
<td>0.41</td>
<td>0.43</td>
<td>0.46</td>
<td>0.48</td>
<td>0.32</td>
<td>0.36</td>
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<tr>
<td>Adjusted $R^2$</td>
<td>0.35</td>
<td>0.37</td>
<td>0.40</td>
<td>0.40</td>
<td>0.42</td>
<td>0.23</td>
<td>0.27</td>
</tr>
<tr>
<td>$p$-value for $R^2$ change</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
<td>0.63</td>
<td>0.01</td>
</tr>
</tbody>
</table>

**Notes:** Significant at: *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$
are considerably more likely to implement SR-SCM. In order to further examine relationships across the B2B and B2C markets, we divide our sample into B2C and B2B depending on the firms primary market segment, and subsequently run four additional hierarchical OLS regressions that replicate Models 1-3 and apply them to the B2C and B2B market, as represented by Models 4-5 and 6-7, respectively.

Considering first the B2C sector, Model 4 includes the three business strategy variables, and we observe a significant increase in explanatory power, and it is therefore clear that strategy plays a significant role in the B2C sector. More specifically we observe that low-cost has a strong and negative \((p < 0.01)\) influence on SR-SCM and that differentiation significantly and positively influences SR-SCM \((p < 0.01)\). No relationship was found between NICHE and SR-SCM. As such, we find support for \(H1\) and \(H2\), but no support, within B2C markets, for \(H3\). The inclusion of SUP SOPH in Model 5 provides support for \(H4\); SUP SOPH is positively and significantly related to SR-SCM \((p < 0.01)\). Model 5 also provides strong support for \(H5\), as the inclusion of SUP SOPH reduces the effect of differentiation on SR-SRM, indicating that the relationship between differentiation strategies and SR-SCM is partly explained, and mediated, by the association between differentiation strategies and sophisticated supply chain processes. At the same time niche becomes negative and significant \((p < 0.05)\), suggesting that firms pursuing a niche strategy are more likely to have sophisticated supply chain processes, which in turn is associated with an increase in SR-SCM.

Moving on to discuss the results of the B2B sector (Models 6 and 7), Model 6 include the three strategy variables and we observe no significant effect on the explanatory power provided by the model compared to the base model which exclude the three business strategy variables. The results do not, therefore, provide support for \(H1\)-\(H3\) in B2B markets. Inclusion of SUP SOPH in Model 7 results in a significant increase in explanatory power. \(R^2\) increases to 0.27, but this clearly reflects the direct, rather than mediated, effect of SUP SOPH, as the inclusion of SUP SOPH does not significantly affect the coefficients of the strategy variables.

To further analyse the mediating effect, the Sobel-Goodman mediation test was conducted in order to examine the direct, indirect, and total effect of the three business strategy variables on SR-SCM. The results are shown in Table III. These results provide compelling support for \(H5\). Therefore, in accordance with the analysis above, we observe that there is only a direct relationship between low price and SR-SCM in the aggregate sample. In contrast, the relationship between differentiation and SR-SCM is fully mediated by SUP SOPH. Similarly, niche positively influences SR-SCM through SUP SOPH, but otherwise NICHE is negatively related to SR-SCM. For the B2C sample, we observe a similar, but stronger, picture. More specifically, there is a negative and direct relationship between low price and SR-SCM. However, both differentiation and niche indirectly influence SR-SCM, where their effect on SR-SCM is positively mediated by SUP SOPH. Differentiation and niche also have a direct, respectively, positive and negative, effect on SR-SCM. There is, however, no mediating effect in the B2B sample, further supporting the argument that business strategy only plays a role in the context of firms operating in B2C settings.

The results for the control variables are consistent across the full set of Models (1-7) and broadly supportive of earlier work. Firms operating in B2C environments are much more proactive in the SR-SCM area \((p < 0.01)\) and, if firms operate in a socially
Table III. Direct and indirect effects

<table>
<thead>
<tr>
<th></th>
<th>Low price</th>
<th>Entire sample Differentiation</th>
<th>Niche</th>
<th>Low price</th>
<th>B2C sample Differentiation</th>
<th>Niche</th>
<th>Low price</th>
<th>B2B sample Differentiation</th>
<th>Niche</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect</td>
<td>0.01</td>
<td>0.04***</td>
<td>0.02*</td>
<td>0.01</td>
<td>0.07**</td>
<td>0.04*</td>
<td>0.00</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.03)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Direct effect</td>
<td>-0.14***</td>
<td>0.02</td>
<td>-0.08*</td>
<td>-0.19***</td>
<td>0.14*</td>
<td>-0.15**</td>
<td>-0.00</td>
<td>-0.08</td>
<td>-0.05</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Total effect</td>
<td>-0.14***</td>
<td>0.06</td>
<td>-0.06</td>
<td>-0.18***</td>
<td>0.21***</td>
<td>-0.10</td>
<td>-0.01</td>
<td>-0.07</td>
<td>-0.04</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Proportion of total</td>
<td>-0.05</td>
<td>0.70</td>
<td>-0.35</td>
<td>-0.06</td>
<td>0.34</td>
<td>-0.40</td>
<td>0.44</td>
<td>-0.17</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

Notes: Significant at: *p < 0.1; **p < 0.05; ***p < 0.01
7. Discussion

This study has examined the impact of business strategy on firm propensity to engage in SR-SCM. To this end, we adapted a novel data collection approach, which minimized social desirability and common methods bias. We subsequently developed a set of hypotheses, and empirically assessed these on a sample of 178 companies and 340 buyer-supplier transactions.

Our results provide three key findings. First, there is clear evidence that there is a direct relationship between business strategy and SR-SCM. This is true at both the aggregate and B2C level. As such, our results add validity to previous conceptualizations about the relationship between social responsibility and business strategy (Husted and Allen, 2001; McWilliams and Siegel, 2001; Van De Ven and Jeurissen, 2005), and extend the findings of Park and Dickson (2008) to a broader cross-sectional sample. Second, the results suggest that the relationship between strategy and SR-SCM is mediated by SUP SOPH. More specifically, we observe that business strategy is related to firm-level SUP SOPH (Baier et al., 2008; Cousins, 2005) and this, in turn, is critical for the implementation of SR-SCM. Third, the level of engagement with SR-SCM is significantly different between B2C and B2B markets. The results show a strong relationship between business strategy and SR-SCM in the B2C sector but there is no evidence of a similar relationship for firms in the B2B sector. These results support earlier arguments which have indicated that social responsibility is particularly important for firms in B2C markets (Mohr et al., 2001; Van De Ven and Jeurissen, 2005). In addition, it indicates that the nature of supply chain practices and priorities are significantly across B2B and B2C markets (Gereffi, 2001).

These findings have considerable relevance for both the supply chain and social responsibility literature, and emphasise the strategic importance of SR-SCM. Our study suggests that earlier work, which has shown a link between business strategy and supply chain processes (Cousins, 2005; Narasimhan and Carter, 1998), can be extended to SR-SCM. Low-cost producers tend to neglect SR-SCM (Siegel and Vitaliano, 2007), either because they cannot afford it (Van De Ven and Jeurissen, 2005), or because there are no strategic incentives for them to do so (McWilliams and Siegel, 2001). The evidence also suggests that firms pursing differentiation strategies will engage more actively with SR-SCM. This may be because reputation and branding is central for firms pursuing a differentiation strategy, and SR-SCM is contributing to the protection and development of reputation and brand (Hull and Rothenberg, 2008; Siegel and Vitaliano, 2007).

Our results also indicate that the level of SUP SOPH is an important factor for SR-SCM. Although aligning business strategy with involvement in SR-SCM may be an important starting point, when planning SR-SCM, the implementation of such decisions will be at least partially dependent on the sophistication of supply chain processes. Particularly for firms pursuing differentiation strategies, such processes may be the critical element needed in order to achieve a real competitive advantage over competitors. Therefore, the appropriate alignment of SR-SCM with business strategy also needs to be supplemented with the appropriate alignment of supply chain strategy with SR-SCM.
Our results raise two concerns for corporate engagement with SR-SCM. First, we observe that low-cost producers broadly speaking neglect SR-SCM, which is a particular concern given the emphasis on price and low-cost production, which reflects globalization and the recent credit crunch. Globalization and the opening of world markets may cause increased competition, in particular in socially sensitive industries, such as the apparel and textile industry, which rely heavily on low-cost labour. This may force firms to focus on price at the expense of SR-SCM. Similarly, the recent financial turmoil may emphasize low-cost strategies and hence corporate attention may be drawn away from social issues, towards more immediate and pressing issues, such as firm survival. This in turn may lead to firms losing sight of long-term sustainable competitive advantage, where reputation, image and risk management is critical.

Second, it is clear that SR-SCM firms in B2B markets typically have lower engagement with SR-SCM and do not align their business strategy with SR-SCM to the same extent as firms in B2C markets. Given the prominence of firms operating in B2B markets, and the fact that the upstream supply chain consists almost exclusively of B2B firms, this is worrying. Part of the reason for the relative re-activeness of B2B firms SR-SCM engagement may be because they are not as visible and not subject to the same level of stakeholder scrutiny as B2C firms. As such, it may also be that firms in B2B markets cannot utilize their SR-SCM practices to achieve competitive advantages through signalling and building a reputation, to the same extent as firms in B2C markets.

Our findings have implications for both practitioners and policy makers. Practitioners need to carefully consider the fit between industry context and their business strategy when deciding their level of engagement with SR-SCM since our results suggest that SR-SCM may be related to strategic and industry risks. However, the significant direct relationship between SUP SOPH and SR-SCM implementation emphasizes the need for strong supply chain processes in the buying company when implementing SR-SCM. Policy-makers should consider the generally low engagement of firms in B2B with SR-SCM and the implications of the observed relationship between low-cost strategies and SR-SCM for the implementation of SR-SCM in an increasingly cost sensitive and competitive global market.

Limitations and further research opportunities
Although this research has contributed significantly to our understanding of the extent to which business strategy plays a role in shaping socially responsible practices in supply chain activities, it does have a number of limitations. Our study is centred on SR-SCM practices amongst firms with significant operations in the UK, and thus focuses on supply chain transactions into UK-based firms. However, further research is needed to establish whether business strategy influences SR-SCM to the same extent in other contexts, based on SR-SCM within purchasing and supply activities into other countries. For example, one interviewer from a global food and drink manufacturer, commented that SR-SCM was of particular importance when importing into the UK given expectations from retailers, whilst in mainland Europe there was much less pressure for validating the social responsibility of the supply chain. This may imply that the link between strategy and SR-SCM may be weaker at the aggregate and B2C levels in other national contexts.

While we sought to obtain two participants from each company, one at the firm level and one at the supply relationship level, this was not possible in all cases, partly because...
the “senior manager” was also responsible for day-to-day supply chain transactions, and was therefore best able to report on issues at both the firm- and supply-level. Although this may have resulted in some increase in common methods bias we found no evidence of common methods bias in the results and no evidence that single respondent cases produced significantly different results. Similarly, we acknowledge that our response rate is relatively low, but given the broad industry composition, the sensitive nature of the issue, the involvement of top-level executives, and no statistical evidence of non-response bias, we do not believe this is a major concern.

Following earlier work (Powell, 1992; Dess and Davis, 1984), we have argued that niche strategy is a competitive strategy associated with the breadth of the market. However, we acknowledge that the relationship between niche strategy and SR-SCM warrants further attention. Existing studies have highlighted considerable confusion with respect to the interpretation Porter’s niche strategy (Murray, 1988). For example, some authors view niche as being associated with low-cost (Parnell, 1997), while others view it as a differentiation strategy (Galbraith and Schendel, 1983). It is therefore difficult to identify exactly what constitute a niche strategy, as a firm pursuing a niche strategy may use multiple techniques, involving both low-cost and differentiation, to reach its market (Dess and Davis, 1984). As a robustness test, we excluded niche from our OLS models and re-ran the models. Omitting niche had little effect of the estimated coefficients and associated significance levels of the explanatory variables. We are therefore confident that the inclusion of niche does not in any way invalidate the observed relationship between low-cost, differentiation and SR-SCM. Future work could, however, usefully explore the elements of niche strategy in the context of SR-SCM.

In addition, a higher Cronbach’s $\alpha$ for the three business strategy constructs would have been ideal but given that they range from 0.65 to 0.68, they can be considered acceptable (Nunally, 1978), and Cronbach’s $\alpha$ is in the 0.6-0.7 region is not unusual in the supply chain and operations literature (e.g. Aranda, 2003; Chen and Paulraj, 2004). Similarly, our measure of “supply chain sophistication” warrants further attention. Although it is likely to be a reasonable proxy of a firm’s attitudes and approaches towards the supply chain function, it may not capture the full dynamic of such activities. An alternative approach may involve the work of Cousins (2005), assessing how business strategy is related to operational, marketing and strategic collaboration between buyer and supplier, and how this in turn influences SR-SCM.

8. Conclusions
This study investigated the relationship between business strategy and SR-SCM within an empirical study which examines both the direct relationship between business strategy and SR-SCM, and the extent to which SR-SCM is mediated by the relationship between business strategy and supply chain processes. Drawing on data from 340 buyer-supplier relationships we found compelling evidence of both a direct relationship between business strategy and SR-SCM, and an indirect, or mediated effect, which flows from the relationship between strategy and the sophistication of supply chain practices in buying firms. Low-cost producers tend to neglect SR-SCM while firms pursuing differentiation strategies are more actively engaged with SR-SCM. Partly due to a direct relationship between strategy and SR-SCM, but also because firms pursuing differentiation strategies tend to have more sophisticated supply chain processes in place, and are able therefore to support SR-SCM in their suppliers. In contrast, the niche
strategy does not result in a direct increase in SR-SCM, but because niche firms tend
to have stronger ties with their suppliers, they may be relatively proactive in SR-SCM.
The use of a broad cross-section has also highlighted the significant inter-industry
variations in SR-SCM that characterise buyer behaviour. For example, the relationship
between strategy and SR-SCM is largely a phenomenon, which is present at the aggregate
level and within the B2C sector. This emphasises the links between reputational risk,
strategy and SR-SCM in B2C markets and suggests that B2B firms fail to align strategy
with SR-SCM.

Notes
1. Compared to the data presented by Paul Wetherill in the “UK Business: Activity, Size and
Location” report of 2010 compiled for the Office of National Statistics.
2. The focus of the study was on on-going relationships, involving an external vendor, which
was not a part of the focal firms’ core operations, and which did not have a common owner.
3. In some cases, usually within small and medium-sized businesses, the same person
completed the firm- and supply-level part of the survey. We tested for statistical significance
between the dependent and independent variables (at both the firm- and supply-level),
to assess whether there were any significant differences between the cases where we had one
and two respondents. No evidence was found of any statistical difference for either the
dependent or independent variables between the two groups.
4. Within the 178 participating firms, two relationships were identified in 160 cases, one
relationship in 17 cases and three relationships in one case.
5. Common methods bias was tested for using the methodology developed by Podsakoff et al.
6. Supply chain process sophistication was captured at the firm, rather than the relationship,
level and the questions were addressed to a senior procurement manager in the company.
7. Casciaro and Piskorski (2005) capture “power imbalance” by subtracting “buyer dependence”
from “supplier dependence”.
8. As our data is multilevel in nature, we also estimated seven hierarchical linear models
(HLM). The HLM results were similar to those of the OLS results, but OLS is presented here,
because it allows us to estimate direct and indirect effects. The HLM results are available
from the authors.

References
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supply chains”, Supply Chain Management: An International Journal, Vol. 14 No. 2,
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No. 11, pp. 1401-1421.


Further reading


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### Appendix

#### Factor loading

<table>
<thead>
<tr>
<th>Generic strategies – adapted from Parnell (1997) and Powell (1992)</th>
<th>Likert scale 1-7: strongly disagree vs strongly agree</th>
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</thead>
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<tr>
<td>We command a higher price than other firms by making a distinctive, high quality product</td>
<td>0.70 0.40 0.15</td>
</tr>
<tr>
<td>Our prices are among the lowest in the industry</td>
<td>0.83 0.24 0.01</td>
</tr>
<tr>
<td>We primarily seek to provide our goods and services at the lowest possible price</td>
<td>0.81 0.07 0.02</td>
</tr>
<tr>
<td>We are often first to introduce innovative products</td>
<td>0.02 0.83 -0.04</td>
</tr>
<tr>
<td>We spend more heavily on R&amp;D than our competitors</td>
<td>0.07 0.84 -0.07</td>
</tr>
<tr>
<td>We focus on a narrow, specific customer group</td>
<td>-0.06 -0.15 0.85</td>
</tr>
<tr>
<td>We provide products and services primarily to a well-defined customer group</td>
<td>0.00 0.04 0.87</td>
</tr>
</tbody>
</table>

#### Product complexity – adapted from Cannon and Perreault (1999)

| Compared to other purchases your firm makes, the product/service is: simple vs complex | 0.94 |
| Compared to other purchases your firm makes, the product/service is: complicated vs uncomplicated (reversed) | 0.95 |
| Compared to other purchases your firm makes, the product/service is: technical vs non-technical (reversed) | 0.87 |

#### Product importance – adapted from Stump and Heide (1996)

| This item represents a major proportion of the end product’s value | 0.88 |
| This item represents an unimportant element of the end product (reversed) | 0.89 |
| This item’s specification and quality have a large impact on the performance of the end product | 0.86 |

#### Supplier dependence – adapted from Ganesan (1994)

| We are important to this supplier | 0.89 |
| We account for a large proportion of this suppliers’ total sales | 0.93 |
| If we stopped buying from this supplier they would find it difficult to fill the gap in their order book | 0.89 |

#### Buyer Dependence – Adapted from Ganesan (1994)

| This supplier is crucial to our future performance | 0.84 |
| It would be difficult for us to replace this supplier | 0.9 |
| We are dependent on this supplier | 0.88 |
| We do not have a good alternative to this supplier | 0.72 |

#### Supplier development – adapted from Lee and Humphreys (2007)

| We use established guidelines and procedures when evaluating supplier performance | 0.82 |
| We perform site visits to supplier premises to help improve their performance | 0.85 |
| We invite supplier personnel to our premises to increase awareness of how their product is used | 0.78 |

Cronbach’s α: 0.91
Cronbach’s α: 0.85
Cronbach’s α: 0.88
Cronbach’s α: 0.86
Cronbach’s α: 0.75

Table AI.