

Stakeholder pressure in sustainable supply chain management

A systematic review

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Abstract

Purpose – The purpose of this paper is to summarize and analyze what is known regarding the ways in which stakeholder pressure may influence supply chain sustainability. The authors extend this understanding to develop a number of research questions and propositions for future investigation on this topic.

Design/methodology/approach – The authors used a systematic review process to study the empirical evidence pertaining to how a stakeholder perspective helps to understand sustainability in the supply chain management domain.

Findings – The review has three main findings: stakeholder pressure on sustainability in supply chain management may result in sustainability awareness, adoption of sustainability goals, and/or implementation of sustainability practices; different types of stakeholders have dissimilar influence in the sustainable supply chain decision areas; different stakeholders appears to be more or less influential depending on whether the sustainability issue is environmental or social.

Originality/value – This synthesis contributes to the literature by developing insight into the processes by which stakeholder pressure influences SSCM decisions.

Keywords Literature review, Triple bottom line, Supply management, Sustainability, Social responsibility, Green purchasing, Green logistics, Stakeholder pressure

Paper type Literature review

Introduction

Sustainability has emerged as an important issue affecting firms and society. Globalization and the rapid development of third world economies are putting significantly increased pressure on the earth's natural resources. Increased transparency and the free flow of information have enabled faster awareness of what is happening around the globe with businesses and their suppliers and customers. Business and societal stakeholders (e.g. governments, consumers, activists, environmentalists, employees, etc.) are demanding that businesses uphold a higher standard. These demands create pressures on companies to provide not only economic benefits but to also address environmental and social concerns, also known as triple bottom line (TBL) or corporate social responsibility (CSR).

Sustainability came to the forefront of attention when the Brundtland Commission of the United Nations defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987). This raised the importance of sustainability in



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business and paying attention to environmental and societal concerns along with economic performance. The term TBL was coined by John Elkington (1999) and made popular through his book *Cannibals with Forks: Triple Bottom Line of 21st Century Business*. The operationalization of sustainable business models requires a paradigm shift from a focus solely on maximizing profit to one that addresses social and environmental performance goals as well (Dyllick and Hockerts, 2002; Stormer, 2003). One way in which firms recognize the importance of sustainable business models is through their supply chain.

Supply chain management is in the frontline of sustainability in business as it provides a valuable opportunity for the firm to incorporate the objectives of TBL performance into its decision making processes. Sustainable supply chain management (SSCM) extends the basic concept of supply chain management by broadening performance to consider sustainability dimensions as in the TBL. SSCM can be defined as in Seuring and Müller (2008a) as “the management of material, information, and capital flows, as well as cooperation among companies along the supply chain, while taking goals from all three dimensions of sustainable development into account” (p. 1700). Thus, SSCM involves the wider set of performance objectives identified by the TBL approach - economic, environmental, and social (Seuring and Müller, 2008b; Carter and Easton, 2011). The TBL explicitly directs managers to identify and perform activities that improve performance on all three dimensions, with the expectation of greater firm performance overall.

The firm’s stakeholders play an important role in facilitating, and sometimes hindering, this aspect of effective supply chain management. Stakeholders are defined as any individual or group that can affect or be affected by an organization (Freeman, 1984). Stakeholder theory suggests there should be a fit between the “values of the corporation and its managers, the expectations of stakeholders and the societal issues which will determine the ability of the firm to sell its products” (Freeman, 2004, p. 5). A stakeholder approach emphasizes active management of the business environment, relationships, and the promotion of shared interests which in turn is a matter of long-term survival (Freeman and McVea, 2001).

Stakeholders play key roles in a number of ways in the supply chain. The SSCM literature identifies varied types of stakeholders that create pressures for sustainability and influence firms to adopt sustainable thinking or goals (Zhu *et al.*, 2005; Gonzalez-Benito and Gonzalez-Benito, 2006; Wolf, 2013). External stakeholders can regulate or mobilize public opinion (Zhu and Sarkis, 2006); employee and managerial stakeholder pressure can result in a virtuous circle of proactive environmental strategies (Sarkis *et al.*, 2010). Delmas (2001) found a strong and positive impact of external stakeholder involvement (customers/clients, shareholders, community members, distributors, and regulatory agencies) on competitive advantage. Some of the stakeholders that are influential inside the firm include employees and mid-level managers.

A considerable amount of research has been reported in the literature over the last 20 years on SSCM. Literature reviews on the general topic of SSCM have been conducted by several research teams in recent years, including (Srivastava, 2007; Seuring and Müller, 2008a; Carter and Easton, 2011; Sarkis *et al.*, 2011; Miemczyk *et al.*, 2012). There have also been special issues on sustainability and SSCM in *Journal of Operations Management*, *International Journal of Production Economics*, *Journal of Supply Chain Management*, *Supply Chain Management: An International Journal*, and *Journal of Cleaner Production*. Additionally, the development of this literature in

management, ethics, and strategy journals is increasing prominent. Recent articles on SSCM have appeared in the *Business and Society Review* (Mefford, 2011) in the *Journal of Business Ethics* (Mueller *et al.*, 2009; Wolf, 2011, 2013) and in *Corporate Social Responsibility and Environmental Management* (Beske *et al.*, 2008; Wittstruck and Teuteberg, 2012).

Similarly, researchers have investigated the broader scope of stakeholder contributions to the long-term value of the firm (Kacperczyk, 2009), and to the influence of stakeholders on the firm's responses to environmental requirements (Kassinis and Vafeas, 2006). Indeed, some of this literature has used stakeholder theory when addressing the issues faced by supply chain managers when incorporating sustainability goals into their operations (Matos and Hall, 2007; Schneider and Wallenburg, 2012). It is this intersection of the literatures of the stakeholder perspective and SSCM where we focus in this research. The contribution of this paper is to advance understanding of sustainability in supply chain management by viewing it from the perspective of the stakeholder and the TBL. Specifically, we ask: when and where does stakeholder pressure influence the implementation of sustainability practices in the supply chain? In particular, when do: sustainability focus, stakeholder type, and supply chain decision area have an effect on this relationship between pressure and implementation?

In the next section, we explain our review methodology, followed by the conceptual model we develop based on this literature. We then analyze this literature in terms of the dimensions of the model, and discuss our findings. A synthesis of the interrelationships of the model constructs leads to several propositions. We then close the paper with insights derived on the themes, missing themes and research questions relating to the role of stakeholders in SSCM.

Methodology

This investigation follows a systematic review approach, as prescribed in Denyer and Tranfield (2009) and Rousseau *et al.* (2008). In this type of review, the investigator "locates existing studies, selects and evaluates contributions, analyses and synthesizes data, and reports the evidence in such a way that allows reasonably clear conclusions to be reached about what is and is not known," (Denyer and Tranfield, 2009, p. 671). This type of review is transparent in the processes employed, inclusive but quality conscious in article selection, explanatory in the synthesis of the descriptive data, and heuristic in that a good but not perfect understanding of the literature results. Importantly, a systematic review is positioned relative to a clearly articulated research question that serves as an aid in establishing the focus. This section describes the use of these methodological principles here, and specifically addresses article selection, coding, and the resulting quantitative and qualitative analyses.

The selection process for this review was accomplished with a database search followed by assessment to ensure both fit and quality. The initial search of multiple databases (ABI/Proquest, Science Direct, and Emerald) identified approximately 250 articles, using search terms congruent with the decision-making domain and closely relating to the focus areas of this research: stakeholder, sustainability, and the supply chain decision areas. We began with the year 1994, as TBL first appeared in the literature around that time. From this initial set, we individually evaluated fit and chose only those articles that addressed the research questions, limiting the selection to empirical papers that studied business organizations providing evidence for understanding the role of stakeholders in the supply chain in practice. Case study research was selected if the authors followed a thorough case study protocol, consistent

with a method such as Yin (2008) or Eisenhardt and Graebner (2007). Furthermore, we vetted the journals for this review based on two sources: a purchasing-discipline journal list that rated several of the selected journals (Zsidisin *et al.*, 2007), and an additional well-recognized rating source for all business discipline journals (Australian Business Dean's Council, 2013). To this list, an interdisciplinary journal was included because of its importance in publishing sustainability research (*Journal of Cleaner Production*). In total, 20 journals met the requirements as final sources for stakeholder-focussed SSCM literature. Special issues account for higher article frequency in 2008 in the *Journal of Cleaner Production* and in 2012 in *Supply Chain Management: An International Journal*, and two special issues in the *International Journal of Production Economics*. This pruning resulted in 49 source articles, which are listed separately in the reference section at the end of the paper.

Each article was read by two of three readers. Any discrepancies in ratings were discussed and reconciled resulting in consensus ratings for each study. The factors coded from the articles were selected to provide evidence in the areas of: supply chain decision, stakeholder type, sustainability focus, as measured by the TBL or component thereof, theoretical approach, methodology, and region of study. Numerous classification systems for supply chain decisions can be found in the literature. For this review, we refer to Sarkis (2003) and use order fulfillment and product development as general categories, with sub-categories that include: purchasing (i.e. procurement), operations (i.e. production), logistics (including reverse logistics), product design, location, and packaging. Similarly, we used Clarkson's (1995) stakeholder classification scheme of primary and secondary stakeholders, as we used a firm-level unit of analysis for this study. Clarkson's classification is appropriate for studies using this unit of analysis. Primary stakeholders are defined as essential for the business to exist and/or have some kind of formal contract with the business. Secondary stakeholders include social and political stakeholders who play an important role in achieving business credibility and acceptance of its activities, such as non-governmental organizations (NGOs), activists, communities, and competitors (Ayuso *et al.*, 2006). Note that the unit of analysis in this body of literature varied, sometimes at the firm level, and other times the supply chain.

The focus of the sustainability study is a key consideration in this research. Additionally, researchers sometimes used the term CSR, either in combination or in lieu of TBL. Significant discussion has occurred in the literature regarding the definition and relationships of TBL, sustainability and CSR (Marrewijk, 2003; Carroll and Shabana, 2010; Ahi and Searcy, 2013). The literature on CSR dates back several decades, e.g. Bowen (1953), and refers to the obligations of the corporation toward society which extend beyond its economic and legal obligations. Early CSR was motivated by social considerations rather than economic considerations (Carroll and Shabana, 2010). Corporate sustainability (CS) has focussed on environmental policies, while TBL is a more recent concept, as described earlier. We coded TBL along with each of its components, as well as CSR. The standard dimensions typical in literature reviews were also analyzed, such as the methodology employed by the author(s), and the industry and region of the study. Table I provides a summary of the coding rules used in this review.

In the next section, we report on the analysis, which includes both quantitative and qualitative components. These results form the basis for both the model and the propositions that follow. In this way, the selected literature provided empirical evidence to build theory on stakeholder pressure in the domain of SSCM.

Coding family	Description
Study methodology	Methodology types included case study, survey, interviews, and secondary data. If the researchers conducted interviews as part of their survey construction or conducted interviews to do their case study, study was coded as both survey and case study. If interviews were the only method used to collect data from respondents, then interview was coded as the methodology
Theoretical lens(es)	Theory was assessed based on whether the authors use one or more theories in developing their models or hypotheses. Commonly used theories include stakeholder, resource-based view, resource dependence theory, and institutional theory, etc.
Supply chain decision	Supply chain decisions were coded according to a main classification scheme that is based on two primary processes: order fulfillment and product design. Subcategories within order fulfillment include purchasing, operations, and logistics; product design includes location, product design, and packaging choice
Stakeholder	If stakeholders were a variable or outcome in the study, the type of stakeholder was coded according to Clarkson's (1995) primary or secondary stakeholder classification. Stakeholders were not coded if they were only discussed in the introduction or background, but not included in the study's model or results
Sustainability focus	A study was coded as TBL if they reported findings in all three areas: environmental, social, economic. If all three areas were not covered by the study, then a box was checked for each individual topic in sustainability. Corporate social responsibility (CSR) was coded separately

Table I.
Coding scheme

Results of analysis

In this section, we report on the quantitative findings pertaining to the key concepts in the review: Stakeholders, sustainability focus, supply chain decision, and theory. A descriptive analysis of the data for these categories is reported in Table II and described in this section.

A variety of stakeholders are considered in this empirical research; the most common were customers, which were included in 88 percent of the studies. Suppliers were second (82 percent), followed by government as a stakeholder (65 percent), then NGOs (49 percent), and employees (41 percent). Top managers together with employees represent 67 percent of the studies. Community (31 percent), shareholders (24 percent), competitors (22 percent), and the media (22 percent) were also commonly analyzed in this literature. Other stakeholders beyond those listed in the table and included infrequently include: universities, technology consortiums, complementary innovators, safety advocates, external evaluators and rating indexes, alliance partners, and society or the public at large. Two studies considered stakeholders in general terms (Wolf, 2011, 2013) without referring to specific categories of stakeholders. These articles were included because they contribute significant empirical evidence pertaining to stakeholder pressure in the supply chain.

Stakeholders

An irregularity noted in this literature is how top managers are treated in the literature. Several studies have found that top managers are a primary internal driving force behind the adoption of SSCM practices (Foerstl *et al.*, 2010; Ageron *et al.*, 2012; Walker and Jones, 2012). Top managers might be motivated by a number of factors including desire for a particular corporate image with customers and other stakeholders (Ageron *et al.*, 2012), or because sustainability is an integral part of the company's vision and

	Count	%
<i>Stakeholders</i>		
Primary stakeholders		
Customers	43	88
Suppliers	37	82
Employees	20	41
Top managers	13	27
Shareholders	12	24
Secondary stakeholders		
Government	32	65
Non-governmental organizations (NGOs)	24	49
Community	15	31
Media	11	22
Competitors	11	22
Trade associations	6	12
Owners/investors	3	6
Other	13	22
<i>Sustainability focus</i>		
Triple bottom line	18	37
Environmental/green only	10	22
Environmental/green and economics	10	20
Environmental/green and social/people	7	14
Social/people only	3	6
Social/people and economics	1	2
<i>Supply chain decision(s)</i>		
Order fulfillment		
Purchasing	29	59
Internal operations	15	31
Logistics	9	18
Product development process		
Product design	13	26
Packaging choice	10	20
Location	2	4
General SC decisions	15	31
<i>Theoretical lens(es)</i>		
Stakeholder theory	15	31
Resource dependence theory	10	20
Institutional theory	5	10
Resource-based view	3	6
None	15	31
Other	14	29
<i>Methodology in study</i>		
Survey	25	51
Case study	20	40
Secondary data	1	2
Interviews	2	4
Other	2	4
<i>Regions of study</i>		
Europe	21	42
North America	8	16
Asia	8	16
South America	3	6
Australia	1	2
Multi-region	8	16

Table II.
Summary of results:
primary dimensions

mission (Foerstl *et al.*, 2010), or because top managers' own values support sustainability (Walker and Jones, 2012). However, some researchers regard top managers as stakeholders, while others embody them in the organization's actions and responsibilities. This is an important inconsistency in the literature we reviewed. Future research in stakeholders and SSCM could explore how to clarify the role of top managers with regard to the firm and stakeholders.

Sustainability focus

Another key element in this review is sustainability focus, which refers to the TBL dimension(s) investigated in the article. TBL in its complete state considering all three dimensions was most common, studied in 37 percent of the papers. For papers reporting on combinations of two sustainability dimensions, 20 percent of the studies reported on environmental and economic vs 14 percent on environmental and social and only 2 percent (one paper) on social and economic. Of the studies reporting in only one sustainability dimension, environmental was found in 22 percent whereas 6 percent was found in social. It appears that relatively few researchers undertake social sustainability issues using a stakeholder focus, in contrast to environmental sustainability, which suggests a fruitful avenue for future research.

Although over half of the studies investigated economic performance, we note that most studies reporting on economic results used self-reported data from respondents, or considered the implications of economic performance through case study analysis only. Rarely was economic performance measured using first hand data.

We also note some contradictions in this literature regarding the terminology used to study sustainability. As noted earlier, much of the research treats TBL and sustainability as interchangeable terms, or uses TBL as the measurement framework for sustainable practice. Also significant is the use of the term CSR. Based on the history and development of the field of CSR one might expect this research to take a more social emphasis (Carroll and Shabana, 2010). While eight papers used the term CSR to describe their sustainability approach, two took a TBL approach (Foerstl *et al.*, 2010; Tate *et al.*, 2010), two focussed on environmental sustainability only (Gonzalez-Benito and Gonzalez-Benito, 2006; Caniato *et al.*, 2012). Schrader *et al.* (2012) focussed on social sustainability, and three addressed environmental and social sustainability (Andersen and Skjoett-Larsen, 2009; Mont and Leire, 2009; Peters *et al.*, 2011).

Interestingly, of the eight papers using a CSR approach, all studied the purchasing decision in the supply chain. The Institute for Supply Management's (ISM) (2012) guide provides separate and distinct definitions for sustainability and social responsibility. The guide states: "Social responsibility is a framework of measurable organization policies and procedures and resulting behavior designed to benefit the workplace and, by extension, the individual, the organization and society" (ISM, 2012, p. 4). The guide then defines sustainability, as does the WCED (1987), as "the ability to meet current needs without hindering the ability to meet the needs of future generations in terms of economic, environmental and social challenges" (ISM, 2012, p. 4). The ISM Principles of Sustainability and Social Responsibility include dimensions that pertain to both the environmental and social aspects of sustainability. Thus, while there are differences in academic perspectives and approaches defining sustainability, there may also be differences in practice across various professional organizations in supply management.

Supply chain decision

We also see from Table II that most of the studies (59 percent) addressed purchasing decisions; in particular, there is a fairly large body of literature on green purchasing and supply management. Other studies addressed internal operations as part of a supply chain (31 percent) or product design (27 percent). Some of the literature considered general supply chain decisions (31 percent) without mentioning a specific area. Also, we note that a large percentage of the studies (37 percent) addressed supply chain decisions in two or more areas (as in Bowen *et al.*, 2001; Sarkis *et al.*, 2010; Caniato *et al.*, 2012).

Note that a great deal of SSCM research can be found that does not utilize a stakeholder perspective. While it may not always be beneficial to use a stakeholder lens in a particular SCM context, perhaps more of the research community would benefit from using this as a related theoretical perspective, especially when addressing the awareness, adoption and implementation questions as we have done here. In particular, we note that few logistics studies are reported in this literature selection, even though ample research is reported on reverse logistics and the closed loop supply chain design problem. Perhaps the eco-efficiency that often exists in logistics sustainability initiatives minimizes the impact of stakeholder pressure on the supply chain.

Theoretical perspectives

While stakeholder theory was the predominant theoretical lens used in this research (31 percent), other theoretical perspectives may be used to study the influence of stakeholders in SSCM, depending on the purpose of the study. Other theories that were frequently used are the resource-based view (20 percent), institutional theory (10 percent), and resource dependence theory (6 percent). Some authors (31 percent) did not base the work on an established theory; others used two or more theories in their study (16 percent). Other theories used less frequently include contingency theory, complexity theory, variations of the resource-based view (e.g. natural RBV, contingency RBV), dynamic capabilities, and transaction cost economics. These findings are consistent with previous research showing that various theoretical perspectives can be used to study SSCM and stakeholders (Sarkis *et al.*, 2010, 2011; Tate *et al.*, 2012).

In conjunction with stakeholder theory, some research reviewed here has also drawn from institutional theory, to help explain how firms adapt to or adopt sustainable practices due to potential coercive, normative, or mimetic pressures. Institutional theory may be used to explain the influence of various stakeholder types under these differing institutional conditions (Delmas and Toffel, 2004; Sarkis *et al.*, 2010). Sarkis *et al.* (2010) consider stakeholder pressures as forms of institutional pressures that influence firms to implement certain environmental practices.

The resource-based view has been employed to address the ability of firms to adopt sustainable practices resulting from internal capabilities/resources. Delmas (2001) suggests that firms may be responsive to stakeholder pressure that brings access to resources to the firm. Supplier capability/collaboration can enhance a firm's ability to adopt sustainable practices if a well-developed system is in place (Ehrgott *et al.*, 2011). Building on the resource-based view of the firm, Hart (1995) suggests that stakeholder integration may be seen as a capability arising from product stewardship which requires the integration of the perspectives of key external stakeholders (Hart, 1995; Delmas, 2001). Hollos *et al.* (2012) integrate both RBV and RDT to look at how supplier cooperation can lead to increased sustainability. This analysis also showed that the most common methodologies in this literature were survey and case study, and that the most frequent region of study was Europe (see Table II for details).

A model of stakeholder pressure and SSCM

This systematic literature review clearly shows that the influence of stakeholders on firms and their supply chains is complex. Table II lists the wide variety of primary and secondary stakeholders that create pressure on firms for sustainability in the supply chain, and the literature identifies numerous mechanisms for doing so. These mechanisms include: regulatory pressure from the government, customer requirements, consumer pressure (Carter and Dresner, 2001; Bjorklund, 2011), successful competitors (Sarkis *et al.*, 2010), investor pressure, employee commitment, owner/manager values (Walker *et al.*, 2008), supplier collaboration initiatives, and attention from NGOs (Hall and Matos, 2010).

We offer up three main findings from the review: stakeholder pressure on sustainability in SCM may result in awareness of sustainability, adoption of sustainability goals, and implementation of sustainability practices; different types of stakeholders appear to have dissimilar influence in the sustainable supply chain decision areas; different stakeholders appear to be more or less influential depending on whether the sustainability issue is environmental or social. The next sections describe how stakeholder pressure varies by position in the sustainability progression, by stakeholder type, and by supply chain decision.

No doubt, stakeholders who pressure firms toward sustainability aim for the implementation of specific SSCM actions, but not all stakeholder pressure results in implementation. Stakeholder pressure may result in the firm becoming aware of the stakeholder’s interest in sustainability or may result in the firm adopting a sustainability goal or objective, rather than resulting in implementation of a practice. We found articles in support of each of these, where stakeholder pressure may create awareness of sustainability issues, may influence the adoption of sustainability goals, and where stakeholder pressure may influence sustainability implementation. Figure 1 depicts these relationships.

The first opportunity where stakeholder pressure influences sustainability is in the creation of awareness in the firm. Awareness is defined as knowing about a sustainability issue or being informed a sustainability issue exists. This may include general awareness of an environmental or social issue, or a particular type of sustainability practice. There are many potential stakeholders that can exert pressure to affect the creation of sustainability awareness, e.g. the news media can raise awareness by creating a fear of being featured (Wong and Fryxell, 2004). Awareness does not necessarily translate into adoption, as was noted for general SC decisions in a study of manufacturing firms in China (Zhu *et al.*, 2005), and for managerial environmental awareness through governmental pressure for logistics decisions (Gonzalez-Benito and Gonzalez-Benito, 2006). These and other examples suggest that stakeholder influence

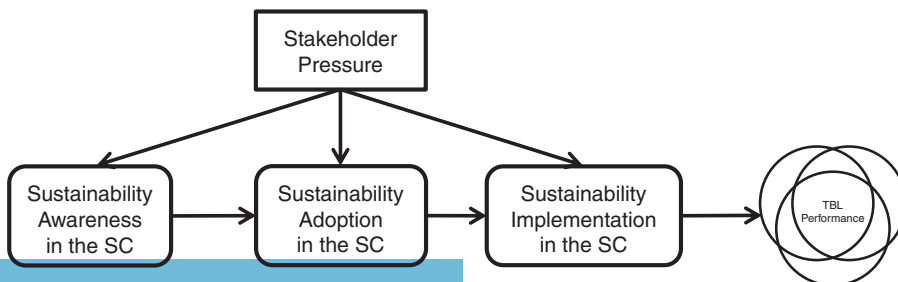


Figure 1. Conceptual model of sustainability awareness, adoption and implementation

or pressure can start a firm thinking about sustainability in SCM, or a specific type of SSCM activity, if it has not yet done so.

The second opportunity where stakeholder pressure influences sustainability in the firm is in adoption of goals. Adoption is when the firm takes on or adopts a sustainability goal or objective. This point logically follows awareness, because in order to adopt a sustainability goal, there has to be awareness that sustainability is an issue. But, stakeholder pressure may also directly influence the adoption of sustainability goals, as with customers (Carter and Dresner, 2001; Bjorklund, 2011), investors and NGOs (Hall and Matos, 2010), employees (Bjorklund, 2011; Ehrgott *et al.*, 2011), and government (Bremmers *et al.*, 2007).

The third opportunity in the progression is stakeholder pressure to implement a sustainability practice. Different sets of internal and external stakeholder pressures influence implementation vs adoption or awareness. External stakeholders such as customers, government, shareholders, NGOs, and society in general (Sarkis *et al.*, 2010) have the ability to regulate or mobilize public opinion regarding the organization's environmental practices. However, not all of these stakeholders have the ability to influence the actual implementation of practices, a power that is possessed by primary supply chain stakeholders such as customers and clients (Sarkis *et al.*, 2010).

While there is a logical progression to a firm's movement from awareness to adoption to implementation, the movement does not necessarily occur in stages. A firm might move from awareness to adoption to implementation very quickly, or it might take years to implement a sustainability practice for which it had gained awareness from a stakeholder previously. Further, the stakeholder pressure that results in the firm's implementation of SSCM may be different from the one that created awareness.

The relationship between stakeholder pressure and each of the three types of outcomes of sustainability leads to the following propositions:

- P1a.* As stakeholder pressure increases, firms' awareness of sustainability issues in the supply chain will increase.
- P1b.* As stakeholder pressure increases, firms that are aware of sustainability are more likely to adopt sustainability as a goal.
- P1c.* As stakeholder pressure increases, firms that have adopted sustainability as a goal are more likely to implement sustainable supply chain practices

As noted above, there are different types of stakeholders (external, internal, primary, secondary) and they vary in their ability to influence firms in SSCM. For example, Matos and Hall (2007) state that it is common for secondary stakeholders to show up unexpectedly and affect the company's performance. Thus, we state the following proposition:

- P2.* Stakeholder pressure on sustainability awareness, adoption, or implementation will vary by type of stakeholder.

A final relationship in the model is the link between the implementation of sustainable practices and firm performance, in this case measured by TBL. There are a number of studies that empirically link environmentally sustainable supply chain practices and firm performance (as in Zhu and Sarkis, 2004; Rao and Holt, 2005; Reuter *et al.*, 2010; Hollos *et al.*, 2012; Wong *et al.*, 2012). Carter *et al.* (2000) found that environmental purchasing has a positive effect on firm performance, and is significantly related to

both net income and cost of goods sold. Hollos *et al.* (2012) also show that supplier sustainability positively affects all three aspects of the TBL. The effect depends on numerous other factors including sustainability focus and the type of performance measurement (Pullman *et al.*, 2009).

There is, however, little support in the literature to link stakeholder pressure to performance (Wolf, 2013). This may be due to the wide variety of conditions and factors as well as the type of stakeholder and their power, influence, or legitimacy with the firm (Mitchell *et al.*, 1997). Additionally, since stakeholder pressure occurs in awareness, adoption, or implementation, stakeholders have minimal impact on performance as the desired sustainability practice would have been implemented. Hence stakeholder pressure does not appear to be directly linked to TBL performance, although SSCM practice may influence performance, as stated earlier.

Stakeholder type and SC decision in SSCM

A second finding from our literature review relates to a recurrent theme concerning the question of which stakeholders are influential. We found that these stakeholders differed in part based on the SC decision being addressed. In this section, we discuss both quantitative and qualitative analysis relating to the interrelationships of these two factors in SSCM.

The two-dimensional data analysis in Table III provides insights into the influence of particular stakeholders in specific types of SSCM decisions. Note that this table reports on counts of stakeholder mentions in the reviewed literature, so the totals are larger than the study count as most studies mentioned multiple stakeholder types. The table displays stakeholder type and SC decision as percentages; for example, the top left cell shows that 33 percent of all mentions of top managers in SSCM studies were in purchasing. As 32 percent of all stakeholder counts appeared in purchasing studies, we can conclude that top managers are proportionally represented in purchasing. Most of the values are in-line with expectations, but there are a few stakeholders that are disproportionately represented in certain SCM decision areas. In particular, media as a stakeholder appears to be over-represented in purchasing (46 percent actual vs 32 percent expected) and under-represented in operations (8 percent actual vs 14 percent expected), packaging decisions (0 percent actual vs 9 percent expected), and product design (8 percent actual vs 15 percent expected). One possible explanation for this apparent over emphasis on media in purchasing decisions is the attention and controversy in recent decades over global sourcing and outsourcing concerns in the media such as factory accidents, labor conditions, product safety, etc.

A qualitative review of the study literature speaks to the nature of this influence, again, in the context of specific SC decisions. Special interest groups and NGOs are often attributed with considerable influence in SSCM decisions. Matos and Hall (2007) investigated product design and found that “the NGO relationship provides strategically valuable attributes such as enhanced legitimacy for LCA results” (p. 1093). Schrader *et al.* (2012) found from their case studies that all companies stressed the importance of stakeholder involvement including NGOs. In their study of green logistics decisions in Spanish firms, Gonzalez-Benito and Gonzalez-Benito (2006) found that non-governmental pressure does influence both awareness and implementation of environmentally friendly practices. Other decision types, such as packaging, found less influence of NGOs as reflected in Table III.

Table III.
Occurrence of
stakeholder type (%)
in supply chain
decision context

	Totals	Purchasing (%) 126	Operations (%) 56	Logistics (%) 47	Location (%) 4	Packaging choice (%) 34	Product decisions (%) 57	General SC design (%) 67
Top managers	21	32	14	12	1	9	15	17
Employees	37	33	10	10	5	10	19	14
Customers	79	35	16	14	3	5	14	14
Suppliers	66	32	15	10	1	9	14	19
Shareholders	19	33	15	9	0	11	14	18
Government	64	37	11	21	0	5	16	11
NGOs	40	30	14	13	2	11	14	17
Community	26	35	15	13	0	5	13	20
Media	13	23	12	15	0	8	19	23
Competitors	26	46	8	15	0	0	8	23
		27	19	12	0	15	19	8

Another perspective in this literature relates to the importance of employees as a stakeholder group that influences implementation of select SSCM decisions. Ehrgott *et al.* (2011) found this to be true for supplier selection and emphasized the importance of employee motivation in social sustainability in the supply management discipline. Likewise, Bjorklund (2011) found management employees had considerable influence on supplier selection for transportation services, as did Ehrgott *et al.* (2011) relative to middle manager pressure in socially sustainable supplier selection. Employees were also well represented as an influence in location decisions, but less so in packaging choice as reported in Table III.

Suppliers and customers can be influential stakeholders as well in select settings. Bjorklund (2011) included stakeholder type as part of her comprehensive study of factors that influence the purchase of transportation services, i.e. selection of the mode of transport and the carrier, where both customers and carriers had substantial influence in this decision. It was the customers' non-environmental demands, perhaps for cost and timeliness criteria, that served as a hindrance to green purchasing practice in transportation. On the other hand, Ehrgott *et al.* (2011) found that customer pressure was positively related to socially sustainable supplier selection.

Table III reports that the government stakeholder, typically in the form of regulation, appears in this literature in 62 percent of the studies. Again, the expectation that the government has influence as a stakeholder is not consistently realized. In some studies, such as Bremmers *et al.* (2007), government does influence environmental management system (EMS) implementation, especially for medium size firms, and for internally focussed EMS where operations decisions are central. In other research, however, government was found to have limited influence, as in Ehrgott *et al.* (2011), who reported no relationship between government pressure and the supplier selection decision. Polonsky *et al.* (1998) also found that the government generally had low influence on product development and design decisions in the USA, although the government had high indirect influence in Australia. Along similar lines, Gonzalez-Benito and Gonzalez-Benito (2006) found that although governmental pressure creates environmental awareness, it is not a factor in the logistics decision itself.

The preceding discussion on the interrelationships between stakeholder type and supply chain decision in SSCM implementation leads to the following proposition:

- P3. Stakeholder type, in combination with supply chain decision area, influences the degree to which stakeholder pressure causes a firm to become aware, adopt and implement sustainable supply chain practices.

Stakeholder type and sustainability focus in SSCM

The third finding from this review concerns the questions associated with sustainability focus (i.e. environmental or social) and stakeholders. In particular, several of the authors in this literature address the question of which stakeholders are influential in each setting. In this section, we discuss the interrelationships of these factors in SSCM.

Employees were noted in the social sustainability SCM literature to be a particularly influential group in their supply chains. Interestingly, employees appear in a variety of stakeholder perspectives in this literature. Andersen and Skjoett-Larsen (2009) describe the employee role in creating and implementing the code of conduct for the supply organizations at IKEA. In Awaysheh and Klassen (2010), the employees of the supplier firm are the stakeholders pushing for safe working conditions and payment of fair wages. Other perspectives are offered by Ehrgott *et al.* (2011), who investigate the role

of middle managers who are highly valued and so hold power in their firms. These authors found that the strength or intensity of the pressure exerted by these managers was positively associated with socially sustainable supplier selection. Finally, Mont and Leire (2009) reported that in the case of Levi Strauss, it was the employees who first pressured the firm to develop a code of conduct for suppliers of the firm's apparel products, and so served as the driver for socially responsible purchasing. The employees stated that social sustainability provided them peace of mind, and that they felt proud of their organization's practices. On the other hand, Mont and Leire (2009) found that the supplier's employees could serve as a barrier if the practice is one that the employees support (e.g. overtime) or was one that would cause increased work for the employees.

NGO pressure is also a significant factor in socially sustainable supply chains (Mont and Leire, 2009), seemingly more so than in environmentally focussed sustainability efforts. Certainly, NGOs, in concert with the media, have played an important role in identifying and reporting on unsustainable labor practices in factories in third world countries (Schrader *et al.*, 2012). Indeed, researchers in this genre have investigated transparency in supply chains, and attribute this increased exposure to NGOs (Awaysheh and Klassen, 2010). But the role of NGOs extends beyond that of a watchdog, and into that of a collaborative partner to firms. For example, Gold *et al.* (2013) indicated that the skills and abilities of NGOs and other non-traditional supply chain partners, are especially important in providing assistance in overcoming institutional barriers, creating legitimacy, and overcoming gaps between the focal companies and communities – especially in Base of the Pyramid food projects undertaken by multinational firms. NGOs also helped provide education on the mechanism and benefits of micro-insurance in rural areas where the MNCs were required by law to provide service Schrader *et al.* (2012).

For the environmental dimension, an analysis of the literature revealed that some of the same stakeholders were influential as with the social dimension of the TBL, but that there are differences. One difference involves the effects of internal capabilities vs external stakeholders. Some authors, and in some settings, found external stakeholders most important, as in Walker *et al.* (2008). These authors found that regulation, customers, competitors, and society were all influential as drivers of GSCM implementation in a variety of organizations from different industries in the UK. Similarly, Ageron *et al.* (2012) found that external factors have a positive impact on development and ultimate implementation of sustainable supply management practices, and that external is more influential than internal. This notion is also supported by Arimura *et al.* (2011) who reported that government programs have an effect in manufacturing firms in Japan, albeit indirect and specific to EMS implementation. An important contribution to this discussion is the work by Bowen *et al.* (2001) and Caniato *et al.* (2012) who argue that it is the internal and supplier capabilities and not so much the external pressure that are most influential in SSCM implementation.

Several stakeholders that appeared in these environmental studies as influential also appeared as important for the social dimension of TBL. These include management (Ageron *et al.*, 2012; Caniato *et al.*, 2012), and non-management employees (Arimura *et al.*, 2011), the final customer as representation of market forces (Bremmers *et al.*, 2007; Walker *et al.*, 2008; Ageron *et al.*, 2012; Caniato *et al.*, 2012), and government (Bremmers *et al.*, 2007; Ageron *et al.*, 2012). On the other hand, NGOs and media did not appear as influential stakeholders in this literature as they did in the research addressing the social dimension.

The review of this literature concerning stakeholders and sustainability focus leads to the following proposition:

- P4. Stakeholder type, in combination with sustainability focus, influences the degree to which stakeholder pressure causes a firm to become aware, adopt, and implement sustainable supply chain practices.

Conclusions and future research

In this systematic review of the stakeholder-focussed SSCM literature, we concentrated on the pressure and influence of stakeholders in SSCM. We used three primary dimensions for framing this literature: stakeholders, sustainability focus, and supply chain decision context, and used it to gain insight into how stakeholders influence sustainability in the supply chain. To date, the empirical evidence provided by the literature provides an incomplete picture. Stakeholders certainly can and do pressure firms in SSCM, sometimes with the effect of encouraging, and other times discouraging, sustainability practices. Whether or not the firm makes changes as a result of pressure presents a rich framework for future research. Furthermore, a set of pointed research questions results from a gap analysis of the descriptive data reported in this study. This section summarizes the findings of this systematic literature review, and identifies future research opportunities in this promising area.

A primary conclusion from this review and analysis is that stakeholder pressure may influence SSCM at three points in the sustainability progression: in the creation of awareness in the firm, in the adoption of sustainability goals, and in the implementation of a sustainable supply practice. Future research should explore under what circumstances stakeholder pressure creates influence in each of these areas, along with the additional factors that determine when a firm stops at awareness or adoption vs continuing on to implementation. Drivers, barriers, and enablers to SSCM have been investigated by several researchers (Carter and Dresner, 2001; Walker *et al.*, 2008; Mont and Leire, 2009; Mollenkopf *et al.*, 2010; Bjorklund, 2011). Additionally, supply chain characteristics (Awaysheh and Klassen, 2010), strategic supplier capabilities (Ehrgott *et al.*, 2011), and supplier collaboration (Vachon and Klassen, 2006) may also enhance or limit the influence of stakeholder relationship in SSCM.

Another conclusion from this research is that stakeholders influence SC decision areas differently. Some stakeholders are more predominant in certain SC decisions than others. For example, the media were seen to be influential in purchasing decisions, while shareholders were influential in logistics decisions. More research that further explores these relationships between stakeholder type and SSCM decision type is needed.

Also, this review shows that certain stakeholders play a larger role in social vs environmental sustainability. Employee and NGOs were influential in social sustainability, while external stakeholders (i.e. government, final customers) were found to be influential in environmental sustainability. Future research could explore the context of stakeholder influence considering sustainability focus.

Additionally, we point to the gaps observable from the descriptive data reported in this study. In particular:

- *Relatively few SSCM studies address all three areas of the TBL.* No doubt there is benefit to simplifying the problem by addressing a limited number of TBL dimensions, enabling a focus on the trade-offs specific to social or environmental concerns. However, follow-on research should address all three TBL dimensions

in concert. From a managerial standpoint, a comprehensive treatment would be beneficial as it best represents situations faced in the business world.

- *Relatively few SSCM studies use a stakeholder perspective to address SCM decisions outside of the purchasing realm.* In particular, we noted fewer logistics and product development studies in this stakeholder-oriented SSCM literature, even though ample research is reported on reverse logistics and the closed loop supply chain design problem.
- *Relatively few SSCM studies use a stakeholder perspective to address social objectives, either as a single concern or in combination with environmental and economic objectives.* More research could explore the questions surrounding the awareness, adoption, and implementation of social objectives in SSCM.
- *Relatively few SSCM studies directly address the trade-offs associated with conflicting TBL objectives within the firm when implementing SSCM practices in the supply chain.* This may in part be due to the challenges relating to differing scales which cannot be readily converted for computation, as might be the case with a community's goodwill when an industrial neighbor adopts sustainable practices. This type of value cannot be readily converted into monetary terms, yet, the value exists. Certainly, future research might address this and other TBL quantification research issues.
- *Relatively few SSCM studies that use a stakeholder perspective measure economic performance using first hand financial data.* Measuring firms on economic as well as sustainability performance is a relatively new field with many organizations and individuals working to develop reporting guidelines for sustainability and firm economic performance including TBL accounting (Elkington, 1999; Scerri and James, 2010), sustainable value, a values-based approach to sustainability assessment (Figge and Hahn, 2012), or comparing against performance benchmarks such as the Global Reporting Initiative (GRI) sustainability reporting guidelines provide an international reference for those interested in reporting on the environmental, social, and economic performance and impacts of organizations (GRI, www.globalreporting.org/reporting/reporting-framework-overview/Pages/default.aspx) among others.

Finally, future research might address definitional issues, including how top managers are treated in this literature. Some research regards top managers as stakeholders, others as decision makers responsible for the organization's actions in sustainability. Top managers certainly influence the values and strategy of their organizations and as stakeholders should have the most influence on SSCM decisions. Future research could explore and clarify the role of top managers with regard to the firm and stakeholders.

This systematic review of the stakeholder-oriented SSCM research has provided insight into the ways stakeholders play a role in sustainability in the supply chain, and highlighted several potentially worthy avenues for future research. Recognizing the complexity of a firm's progress toward sustainable practice is an important step, along with seeing the alignment between stakeholder and decision types, and between stakeholder and sustainability focus. Progress toward an improved scholarly understanding of stakeholder influence on SSCM will both provide rewarding research for academics, as well as provide guidance to managers on how to best advance their own organizations to adopt and implement sustainable practices in the supply chain.

References

- Ageron, B., Gunasekaran, A. and Spalanzani, A. (2012), "Sustainable supply management: an empirical study", *International Journal of Production Economics*, Vol. 140 No. 1, pp. 168-182.
- Ahi, P. and Searcy, C. (2013), "A comparative literature analysis of definitions for green and sustainable supply chain management", *Journal of Cleaner Production*, Vol. 52 No. 52, pp. 329-341.
- Andersen, M. and Skjoett-Larsen, T. (2009), "Corporate social responsibility in global supply chains", *Supply Chain Management: An International Journal*, Vol. 14 No. 2, pp. 75-86.
- Arimura, T., Darnall, N. and Katayama, H. (2011), "Is ISO 14001 a gateway to more advanced voluntary action? The case of green supply chain management", *Journal of Environmental Economics and Management*, Vol. 61 No. 2, pp. 170-182.
- Australian Business Dean's Council (2013) ABDC Journal Quality List, available at: www.abdc.edu.au/pages/abdc-journal-quality-list-2013.html
- Alwaysheh, A. and Klassen, R.D. (2010), "The impact of supply chain structure on the use of supplier socially responsible practices", *International Journal of Operations & Production Management*, Vol. 30 No. 12, pp. 1246-1268.
- Ayuso, S., Rodriguez, M.A. and Ricart, J.E. (2006), "Using stakeholder dialogue as a source for new ideas: a dynamic capability underlying sustainable innovation", *Corporate Governance*, Vol. 6 No. 4, pp. 475-490.
- Beske, P., Koplin, J. and Seuring, S. (2008), "The use of environmental and social standards by German first-tier suppliers of the Volkswagen AG", *Corporate Social Responsibility and Environmental Management*, Vol. 15 No. 2, pp. 63-75.
- Bjorklund, M. (2011), "Influence from the business environment on environmental purchasing – drivers and hinders of purchasing green transportation services", *Journal of Purchasing & Supply Management*, Vol. 17 No. 1, pp. 11-22.
- Bowen, F.E., Cousins, P.D., Lamming, R.C. and Faruk, A.C. (2001), "The role of supply management capabilities in green supply", *Production and Operations Management*, Vol. 10 No. 2, pp. 174-189.
- Bowen, H. (1953), *Social Responsibility of the Businessman*, Harper & Rowe, New York, NY.
- Bremmers, H., Omta, O., Kemp, R. and Haverkamp, D.J. (2007), "Do stakeholder groups influence environmental management system development in the Dutch agri-food sector?", *Business Strategy and the Environment*, Vol. 16 No. 3, pp. 214-231.
- Caniato, F., Caridi, M., Crippa, L. and Moretto, A. (2012), "Environmental sustainability in fashion supply chains: an exploratory case based research", *International Journal of Production Economics*, Vol. 135 No. 2, pp. 659-670.
- Carroll, A.B. and Shabana, K.M. (2010), "The business case for corporate social responsibility: a review of concepts, research and practice", *International Journal of Management Reviews*, Vol. 12 No. 1, pp. 85-105.
- Carter, C.R. and Dresner, M. (2001), "Purchasing's role in environmental management: cross-functional development of grounded theory", *Journal of Supply Chain Management*, Vol. 37 No. 3, pp. 12-27.
- Carter, C.R. and Easton, P.L. (2011), "Sustainable supply chain management: evolution and future directions", *International Journal of Physical Distribution & Logistics Management*, Vol. 41 No. 1, pp. 46-67.
- Carter, C.R., Kale, R. and Grimm, C.M. (2000), "Environmental purchasing and firm performance: an empirical investigation", *Transportation Research. Part E, Logistics & Transportation Review*, Vol. 36E No. 3, pp. 219-228.

- Clarkson, M.B.E. (1995), "A stakeholder framework for analyzing and evaluating corporate social performance", *Academy of Management Review*, Vol. 20 No. 1, pp. 92-117.
- Delmas, M.A. (2001), "Stakeholders and competitive advantage: the case of ISO 14001", *Production and Operations Management*, Vol. 10 No. 3, pp. 343-358.
- Delmas, M.A. and Toffel, M.W. (2004), "Stakeholders and environmental management practices: an institutional framework", *Business Strategy and the Environment*, Vol. 13 No. 4, pp. 209-222.
- Denyer, D. and Tranfield, D. (2009), "Producing a systematic review", in Buchanan, D. and Bryman, A. (Eds), *The Sage Handbook of Organizational Research Methods*, Sage Publications Ltd, London.
- Dyllick, T. and Hockerts, K. (2002), "Beyond the business case for corporate sustainability", *Business Strategy and the Environment*, Vol. 11 No. 2, pp. 130-141.
- Ehrgott, M., Reimann, F., Kaufmann, L. and Carter, C.R. (2011), "Social sustainability in selecting emerging economy suppliers", *Journal of Business Ethics*, Vol. 98 No. 1, pp. 99-119.
- Eisenhardt, K.M. and Graebner, M.E. (2007), "Theory building from cases: opportunities and challenges", *Academy of Management Journal*, Vol. 50 No. 1, pp. 25-32.
- Elkington, J. (1999), *Cannibals with Forks: Triple Bottom Line of 21st Century Business*, Capstone Publishing Ltd, Oxford.
- Figge, F. and Hahn, T. (2012), "Is green and profitable sustainable? Assessing the trade-off between economic and environmental aspects", *International Journal of Production Economics*, Vol. 140 No. 1, pp. 92-102.
- Foerstl, K., Reuter, C., Hartmann, E. and Blome, C. (2010), "Managing supplier sustainability risks in a dynamically changing environment-sustainable supplier management in the chemical industry", *Journal of Purchasing and Supply Management*, Vol. 16 No. 2, pp. 118-130.
- Freeman, R.E. (1984), *Strategic Management: A Stakeholder Approach*, Pitman, Boston, MA.
- Freeman, R.E. (2004), "The stakeholder approach revisited", *Zeitschrift Fur Wirtschafts - und Unternehmensethik*, Vol. 5 No. 3, pp. 228-241.
- Freeman, R.E. and McVea, J.A. (2001), "A stakeholder approach to strategic management", in Hitt, M., Freeman, R.E. and Harrison, J. (Eds), *The Blackwell Handbook of Strategic Management*, Wiley-Blackwell, Oxford, pp. 189-207.
- Gold, S., Hahn, R. and Seuring, S. (2013), "Sustainable supply chain management in 'Base of the pyramid' food projects - a path to triple bottom line approaches for multinationals?", *International Business Review*, Vol. 22 No. 5, pp. 784-799.
- Gonzalez-Benito, J. and Gonzalez-Benito, O. (2006), "The role of stakeholder pressure and managerial values in the implementation of environmental logistics practices", *International Journal of Production Research*, Vol. 44 No. 7, pp. 1353-1373.
- Hall, J. and Matos, S. (2010), "Incorporating impoverished communities in sustainable supply chains", *International Journal of Physical Distribution & Logistics Management*, Vol. 40 Nos 1/2, pp. 124-147.
- Hart, S. (1995), "A natural-resource-based view of the firm", *Academy of Management Review*, Vol. 20 No. 4, pp. 968-1014.
- Hollos, D., Blome, C. and Foerstl, K. (2012), "Does sustainable supplier co-operation affect performance? Examining implications for the triple bottom line", *International Journal of Production Research*, Vol. 50 No. 11, pp. 2968-2986.
- Institute for Supply Management (2012), *ISM Principles of Sustainability and Social Responsibility with a Guide to Adoption and Implementation*, Institute for Supply Management, Tempe, AZ.

- Kacperczyk, A. (2009), "With greater power comes greater responsibility? Takeover protection and corporation attention to stakeholders", *Strategic Management Journal*, Vol. 30 No. 3, pp. 261-285.
- Kassinis, G. and Vafeas, N. (2006), "Stakeholder pressures and environmental performance", *Academy of Management Journal*, Vol. 49 No. 1, pp. 145-159.
- Marrewijk, M.v. (2003), "Concepts and definitions of CSR and corporate sustainability: between agency and communion", *Journal of Business Ethics*, Vol. 44 No. 2, pp. 95-105.
- Matos, S. and Hall, J. (2007), "Integrating sustainable development in the supply chain: the case of life cycle assessment in oil and gas and agricultural biotechnology", *Journal of Operations Management*, Vol. 25 No. 6, pp. 1083-1102.
- Mefford, R.N. (2011), "The economic value of a sustainable supply chain", *Business and Society Review*, Vol. 116 No. 1, pp. 109-143.
- Miemczyk, J., Johnsen, T.E. and Macquet, M. (2012), "Sustainable purchasing and supply management: a structured literature review of definitions and measures at the dyad, chain and network levels", *Supply Chain Management: An International Journal*, Vol. 17 No. 5, pp. 478-496.
- Mitchell, R.K., Agle, B.R. and Wood, D.J. (1997), "Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts", *The Academy of Management Review*, Vol. 22 No. 4, pp. 853-886.
- Mollenkopf, D., Stolze, H., Tate, W.L. and Ueltschy, M. (2010), "Green, lean, and global supply chains", *International Journal of Physical Distribution & Logistics Management*, Vol. 40 Nos 1/2, pp. 14-41.
- Mont, O. and Leire, C. (2009), "Socially responsible purchasing in supply chains: drivers and barriers in Sweden", *Social Responsibility Journal*, Vol. 5 No. 3, pp. 388-407.
- Mueller, M., Santos, V.G.d. and Seuring, S. (2009), "The contribution of environmental and social standards towards ensuring legitimacy in supply chain governance", *Journal of Business Ethics*, Vol. 89 No. 4, pp. 503-523.
- Peters, N.J., Hofstetter, J.S. and Hoffmann, V.H. (2011), "Institutional entrepreneurship capabilities for interorganizational sustainable supply chain strategies", *International Journal of Logistics Management*, Vol. 22 No. 1, pp. 52-86.
- Polonsky, M.J., Rosenberger, P.J.III and Ottman, J. (1998), "Developing green products: learning from stakeholders", *Asia Pacific Journal of Marketing and Logistics*, Vol. 10 No. 1, pp. 22-43.
- Pullman, M.E., Maloni, M.J. and Carter, C.R. (2009), "Food for thought: social versus environmental sustainability practices and performance outcomes", *Journal of Supply Chain Management*, Vol. 45 No. 4, pp. 38-54.
- Rao, P. and Holt, D. (2005), "Do green supply chains lead to competitiveness and economic performance?", *International Journal of Operations & Production Management*, Vol. 25 No. 9, pp. 898-916.
- Reuter, C., Foerstl, K., Hartmann, E. and Blome, C. (2010), "Sustainable global supplier management: the role of dynamic capabilities in achieving competitive advantage", *Journal of Supply Chain Management*, Vol. 46 No. 2, pp. 45-63.
- Rousseau, D.M., Manning, J. and Denyer, D. (2008), "Evidence in management and organizational science: assembling the field's full weight of scientific knowledge through syntheses", *The Academy of Management Annals*, Vol. 2 No. 1, pp. 475-515.
- Sarkis, J. (2003), "A strategic decision framework for green supply chain management", *Journal of Cleaner Production*, Vol. 11 No. 4, pp. 397-409.
- Sarkis, J., Gonzalez-Torre, P. and Adenso-Diaz, B. (2010), "Stakeholder pressure and the adoption of environmental practices: the mediating effect of training", *Journal of Operations Management*, Vol. 28 No. 2, pp. 163-176.

- Sarkis, J., Zhu, Q. and Lai, K. (2011), "An organizational theoretic review of green supply chain management literature", *International Journal of Production Economics*, Vol. 130 No. 1, pp. 1-15.
- Scerri, A. and James, P. (2010), "Accounting for sustainability: combining qualitative and quantitative research in developing 'indicators' of sustainability", *International Journal of Social Research Methodology*, Vol. 13 No. 1, pp. 41-53.
- Schneider, L. and Wallenburg, C.M. (2012), "Implementing sustainable sourcing – does purchasing need to change?", *Journal of Purchasing and Supply Management*, Vol. 18 No. 4, pp. 243-257.
- Schrader, C., Freimann, J. and Seuring, S. (2012), "Business strategy at the base of the pyramid", *Business Strategy and the Environment*, Vol. 21 No. 5, pp. 281-298.
- Seuring, S. and Müller, M. (2008a), "From a literature review to a conceptual framework for sustainable supply chain management", *Journal of Cleaner Production*, Vol. 16 No. 15, pp. 1699-1710.
- Seuring, S. and Müller, M. (2008b), "Core issues in sustainable supply chain management – a delphi study", *Business Strategy and the Environment*, Vol. 17 No. 8, pp. 455-466.
- Srivastava, S.K. (2007), "Green supply-chain management: a state-of-the-art literature review", *International Journal of Management Reviews*, Vol. 9 No. 1, pp. 53-80.
- Stormer, F. (2003), "Making the shift: moving from 'ethics pays' to an inter-systems model of business", *Journal of Business Ethics*, Vol. 44 No. 4, pp. 279-287.
- Tate, W., Ellram, L. and Kirchoff, J. (2010), "Corporate social responsibility reports: a thematic analysis related to supply chain management", *Journal of Supply Chain Management*, Vol. 46 No. 1, pp. 19-43.
- Tate, W.L., Ellram, L.M. and Dooley, K.J. (2012), "Environmental purchasing and supplier management (EPSM): theory and practice", *Journal of Purchasing and Supply Management*, Vol. 18 No. 3, pp. 173-188.
- Vachon, S. and Klassen, R.D. (2006), "Extending green practices across the supply chain: the impact of upstream and downstream integration", *International Journal of Operations and Production Management*, Vol. 26 No. 7, pp. 795-821.
- Walker, H. and Jones, N. (2012), "Sustainable supply chain management across the UK private sector", *Supply Chain Management*, Vol. 17 No. 1, pp. 15-28.
- Walker, H., Di Sisto, L. and McBain, D. (2008), "Drivers and barriers to environmental supply chain management practices: lessons from the public and private sectors", *Journal of Purchasing and Supply Management*, Vol. 14 No. 1, pp. 69-85.
- WCED (1987), *Our Common Future*, Oxford University Press, Oxford.
- Wittstruck, D. and Teuteberg, F. (2012), "Understanding the success factors of sustainable supply chain management: empirical evidence from the electric and electronics industry", *Corporate Social-Responsibility and Environmental Management*, Vol. 19 No. 3, pp. 141-158.
- Wolf, J. (2011), "Sustainable supply chain management integration: a qualitative analysis of the German manufacturing industry", *Journal of Business Ethics*, Vol. 102 No. 2, pp. 221-235.
- Wolf, J. (2013), "The relationship between sustainable supply chain management, stakeholder pressure and corporate sustainability performance", *Journal of Business Ethics*, Vol. 119 No. 3, pp. 317-328.
- Wong, C.W.Y., Lai, K.-h., Shang, K.-C., Lu, C.-S. and Leung, T.K.P. (2012), "Green operations and the moderating role of environmental management capability of suppliers on manufacturing firm performance", *International Journal of Production Economics*, Vol. 140 No. 1, pp. 283-294.

- Wong, L.T. and Fryxell, G.E. (2004), "Stakeholder influences on environmental management practices: a study of fleet operations in Hong Kong (SAR), China", *Transportation Journal*, Vol. 43 No. 4, pp. 22-35.
- Yin, R.K. (2008), *Case Study Research: Design and Methods*, Sage Publications Inc., Thousand Oaks, CA.
- Zhu, Q. and Sarkis, J. (2004), "Relationships between operational practices and performance among early adopters of green supply chain management practices in Chinese manufacturing enterprises", *Journal of Operations Management*, Vol. 22 No. 3, pp. 265-289.
- Zhu, Q. and Sarkis, J. (2006), "An inter-sectoral comparison of green supply chain management in China: drivers and practices", *Journal of Cleaner Production*, Vol. 14 No. 5, pp. 472-486.
- Zhu, Q., Sarkis, J. and Geng, Y. (2005), "Green supply chain management in China: pressures, practices and performance", *International Journal of Operations & Production Management*, Vol. 25 No. 5, pp. 449-468.
- Zsidisin, G.A., Smith, M.E., McNally, R.C. and Kull, T.J. (2007), "Evaluation criteria development and assessment of purchasing and supply management journals", *Journal of Operations Management*, Vol. 25 No. 1, pp. 165-183.

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