How does social sustainability feature in studies of supply chain management? A review and research agenda

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Abstract

Purpose – The purpose of this paper is to examine how social sustainability is considered in the study of supply chain management, thereby identifying key areas for future researchers to develop.

Design/methodology/approach – A systematic literature review of 109 studies is conducted. The papers have been analysed with a particular focus on their definition of social sustainability, research methods used, the central themes covered and the evolution of the debate including theories and the main findings.

Findings – Findings show that, first, researchers have thus far focused on principles for managing social change, developing measures for performance, identifying drivers and barriers, with few studies considering the social practices, particularly at the micro level and in the context of small and medium-sized enterprises. Second, findings also reveal that there is less consideration of the suppliers', as opposed to the buyers', perspective.

Research limitations/implications – This review focuses only on social sustainability within supply chain management, without considering the economic and environmental dimensions.

Practical implications – This review provides the key themes and areas for managers/practitioners to consider when implementing social sustainability in supply chains. It also provides insights into under-researched areas together with the need for future researchers to move beyond frameworks and develop more tools and instruments for measuring social performance in practice.

Originality/value – This paper is one of the few studies that consider the social dimension of sustainability exclusively within the context of supply chains, providing insights and implications for further research.

Keywords Sustainability, SMEs, Supply-chain, Social sustainability, Systematic literature review

Paper type Literature review

1. Introduction

Social sustainability has lately become a prominent concept in the management of supply chains. In light of the changing business trends and stakeholder influence, organisations are required to address social sustainability issues not only in their operations but also in the wider supply chain networks in which they operate (Miemczyk *et al.*, 2012; Meixell and Luoma, 2015). A growing concern is the reported social problems related to decent working conditions, with failures to implement social sustainable practices evident in recent incidents. For example, poor working conditions found in Foxconn, implicating high-profile companies such as Apple, Nintendo and HP, have brought to the fore shortcomings in enforcing decent social standards across global supply chains (Duhigg and Barboza, 2012). More recently, the deaths of garment factory workers in Bangladesh have further illustrated health and safety lapses and exploitative working conditions (Manik and Yardley, 2013). These contemporary cases highlight the significance of, and need to consider, social aspects of supply chain management more seriously.

The growing demand for supply chains to improve social standards, along with strong pressures to avoid commercial and reputational damage (New, 2015) places social sustainability at the centre of the supply chain management debate. As a result, supply chain management has emerged as an important potential lens to consider how social sustainability can be addressed to achieve sustainability goals (Ashby *et al.*, 2012). While studies of supply chain management have started to address the concept of sustainability from economic and environmental

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standpoints, the social aspect remains an under-explored area (Mani *et al.*, 2016a, 2016b, 2016c).

Supply chain management scholars have only recently started to show an interest in addressing social sustainability. For example, Klassen and Vereecke (2012), using data from five European multinational buyers, examined how collaborations across the supply chain could lead to social improvements. Klassen and Vereecke (2012) highlighted how commitment on the part of the larger buying firm to provide financial incentives, training and development to suppliers could facilitate suppliers' adoption of social sustainability measures. Literature reviews on social sustainability and supply chain management have hitherto had a very narrow scope. For example, Ahi and Searcy (2015) and Yawar and Seuring (2017) examine literature on the measurement of performance in relation to social issues in supply chains. These authors recognise that, while social sustainability is a growing concept, reviews are limited to date in supply chain management, emphasising the need to systematically analyse the field to provide more insights (Yawar and Seuring, 2017).

In this paper, we take stock of the recent interest in social sustainability to examine how social sustainability has been considered in the study of supply chain management. This systematic review is guided by the following research questions:

RQ1. How has research to date defined and operationalised in their methods the concept of social sustainability?

RQ2. What are the main topics and trends in the debate on social sustainability in supply chain management?

RQ3. What are the potential avenues for research and practice in this area?

The paper is organised as follows. The next section outlines the methodology adopted for the systematic literature review, followed by a section reporting of the results from the review. The fourth section discusses the findings, and the last section presents the conclusion and future research directions.

2. Methodology

To answer the three research questions set out in the introduction, the literature on social sustainability in supply chain management was systematically reviewed and synthesised. Systematic reviews are transparent and evidence-based approaches that identify key scientific contributions to a field and differ from narrative reviews by adopting a replicable, scientific and transparent process (Tranfield *et al.*, 2003). Systematic reviews allow researchers to examine the strength of the published evidence while remaining as unbiased as possible. Despite sometimes taking considerable time and requiring attention to detail, a systematic review has been argued to provide the most efficient method for identifying and evaluating literature (Tranfield *et al.*, 2003). Furthermore, systematic reviews are important not only for advancing the field of study but also for informing management practice (Cummings and Daellenbach, 2009).

2.1 Systematic literature review approach

This review followed the steps of conducting a systematic literature review outlined by Tranfield *et al.* (2003), including the following:

- Identification of research;
- selection of studies;
- study quality assessment;
- data extraction and monitoring progress; and
- data synthesis.

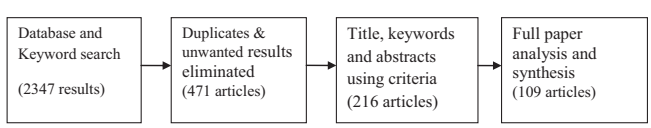
The summary of the steps is shown in Figure 1 and described in this section.

The first step in this review was the identification of research. To identify the literature, our search was limited to peer-reviewed articles published in English. This is common practice in systematic review studies, as these sources are considered as certified knowledge (Saggese *et al.*, 2016). We constructed the following combination of search string during our search: "Social Sustainability" OR "Social*" Or "Sustain*" AND "Supply Chain" OR "Supply*". The asterisk ("*") was used at the end of the search keyword to cover a broad range of results. For example, "Sustain*" was used in the search to fetch all the possible results focusing on sustainability and sustainable aspects. We applied the search string to the titles, keywords and abstracts of publications in academic databases. In particular, we used EBSCOhost, Scopus and Emerald databases to search for all publications whose topics cover at least one keyword from the selected sets of search string. These databases were chosen because they were considered to have a broad and multidisciplinary scope and are the most commonly used sources for review studies (Tachizawa and Yew Wong, 2014; Beske-Janssen *et al.*, 2015).

Using the search strings, 2,347 hits resulted from an initial search that contained any one instance of the phrase "social sustainability" or "supply chain". As the focus of this review was on peer-reviewed journal articles, all books, conference contributions, book chapters, citations, working papers and reports were omitted from the search. However, the search also produced some duplication, and it was essential to cross-check the search results from each database and delete the duplicate references. The search was performed in April 2017 and articles that were published up to April 2017 and appeared in the databases were considered in the study. A total of 471 articles were generated during the first step ("the identification of research"). To avoid missing any literature, we applied our search without any time restrictions.

In the second step of the review ("selection of studies"), we developed several inclusion and exclusion criteria to narrow

Figure 1 Systematic literature review process



down the selection of literature, based on related systematic reviews by Beske-Janssen *et al.* (2015). An overview of the inclusion and exclusion criteria is provided in Table I. In line with Kitchenham *et al.* (2009), the authors evaluated the articles independently to determine whether the selected papers addressed the topic under study. Following Tranfield *et al.*'s (2003) recommendation, the decisions regarding inclusion and exclusion remain relatively subjective and should be made by more than one reviewer. The titles, keywords and abstracts of the 471 articles were examined, and in some instances where the title, keywords and abstracts did not provide a clear focus of a study, the entire article was checked. The articles with a title and abstract beyond the scope of our review were removed, with 216 articles remaining. After full texts were checked, a final count of 109 articles published in 34 journals was selected for the systematic review, as shown in Table II (the details of the selected papers are presented in Appendix 2).

Most papers were excluded during the selection stage, as they did not focus on social sustainability from a supply chain management perspective. This was especially the case for articles merely focusing on environmental or economic dimensions of sustainability. While the importance of the environmental and economic dimensions was recognised, we considered them to be outside the scope of this review. Acknowledging the interdisciplinary and evolving nature of social sustainability research, we included all journals that covered sustainability within the context of supply chain where the social dimension was the main focus of research. By including all the journals, we sought to ensure that we included a broader scope of contributions, to address our research questions.

To assess the quality, as the third step of a systematic literature review, this review only included articles that underwent a peer-review process and were published in the English language. The fourth and fifth steps involved analysis and synthesis of the selected literature to identify any emerging categories. For the full paper analysis, we created a data extraction form in line with the

Table I Inclusion and exclusion criteria for the systematic review

Inclusion criteria	Exclusion criteria
Peer-reviewed journals produced in English	A lack of focus on social sustainability and supply chain, and instead a focus on environmental sustainability
Articles that emphasise social sustainability in supply chain management	Articles focusing on supply chain management only
Articles that address sustainability and supply chain management with a clear focus on social sustainability	Articles where social sustainability was not the core focus of the study, i.e. where the concept was merely mentioned in passing, e.g. in the abstract when discussing the environmental dimension
	Books, conference papers, citations, handbooks, working papers, reports and calls for papers

Table II Distribution of articles per journal

Journal type		Frequency
Core Journals		
1	*Journal of Cleaner Production*	24
2	*Supply Chain Management: An International Journal*	15
3	*International Journal of Production Economics*	12
4	*International Journal of Production Research*	9
Total number of papers in core journals		*60*
Next Related Journals		
5	*Journal of Business Ethics*	5
6	*International Journal of Operations and Production management*	5
7	*Business Strategy and the Environment*	3
8	*Journal of Purchasing and Supply Management*	4
9	*Journal of Operations Management*	2
10	*Production Planning & Control The Management of Operations*	2
11	*International Journal of Productivity and Performance Management*	2
12	*Resources, Conservation and Recycling*	2
13	*Journal of Supply Chain Management*	2
14	*International Journal of Physical Distribution & Logistics Management*	2
Total number of papers in next related journals		*29*
Other	**20 journals (with 1 relevant paper each)**	*20*
Total		*109*

recommendations by Denyer and Tranfield (2009). Such data extraction forms should include general information about the paper, such as author name(s), year of publication, title, source of publication (journal) and other aspects including research questions, methods and findings. Our analysis of the papers was based on the criteria shown in Figure 2.

Based on this classification framework, we first did a frequency analysis to analyse the articles according to the distribution of papers across journals, time of publication and the research methods. Second, in line with the three research questions (*RQ1*, *RQ2* and *RQ3*) set out in this study, we carried out a qualitative analysis of the papers focusing on the following areas:

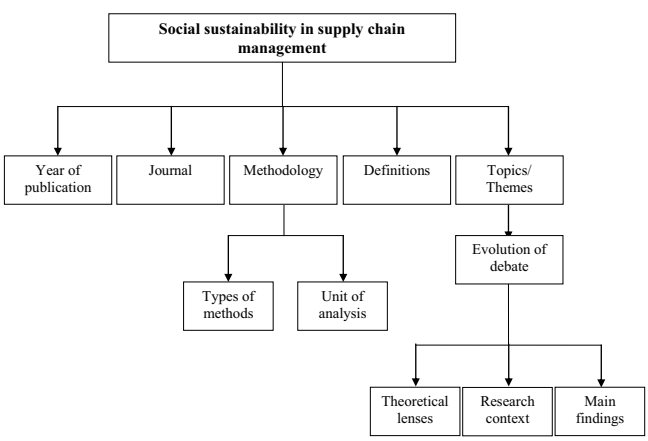
- definitions of social sustainability;
- main topics/themes; and
- the evolution of debate including research setting, theoretical frameworks and major findings.

The results of both the frequency and qualitative analyses are presented in Section 3.

With regards to the topic/themes addressed in the papers, codes were created to identify the central themes covered by the reviewed studies and recorded in an Excel spreadsheet. The coding was done inductively to cover all social aspects encountered in the literature. After coding individually, the authors then matched and discussed the codes and categories. Of the 109 papers reviewed, there were 12 papers where the authors did not agree on the coding, representing an inter-coder reliability of 0.88. To reconcile these differences, the authors re-read and re-coded the papers. The following final categories and subcategories of themes emerged:

- Performance: performance metrics; supply chain drivers; outcomes.
- Purchasing: decision-making (supplier selection).
- Principles for managing social sustainability.
- Prospects and problems: drivers influencing social sustainability; barriers.
- Practices and capabilities.

Figure 2 Literature classification framework



3. Results and findings

3.1 Frequency analysis

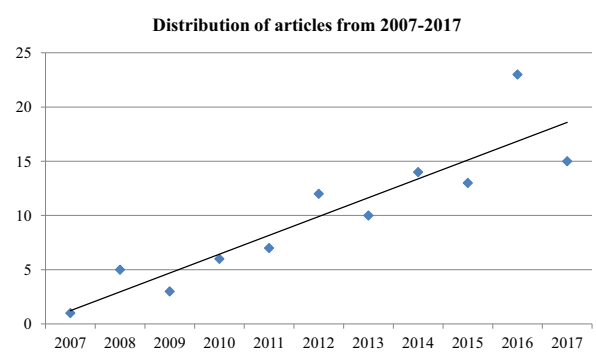
The frequency analysis provides descriptive results of the final sample of 109 articles. First, we analyse the sources of publications across different journals, with an overview presented in Table II. In total, 34 journals have published papers on social sustainability and supply chain management, of which 20 have only one paper each on the topic under review. These results show that the highest number of papers is found in the four journals:

1 *Journal of Cleaner Production*;
2 *Supply Chain Management: An International Journal*;
3 *International Journal of Production Economics*; and
4 *International Journal of Production Research*.

These can be regarded as core journals in the field, based on this analysis. The top four journals contributed to 55.1 per cent of the publications with 60 of the 109 papers. The next ten journals (Number 5 to 14) produced 29 of 109 papers (26.6 per cent). The remaining 20 journals with the least number of papers (with one paper each) contributed 20 of 109 papers (18.3 per cent). Social sustainability has received attention in the main field of supply chain management, operations management and economics including specialised sustainability journal such as *Journal of Business Ethics* and *Journal of Cleaner Production*.

Second, as shown in Figure 3, the spread of the reviewed papers across the years illustrates a growing trend in the articles since 2007, with steeper increase occurring from 2010 onwards. The distribution of the publications can be divided into three sub-periods. During the first sub-period (2007 to 2010), 15 articles were found; 43 articles were published in the second sub-period (2011 to 2014); and in the third sub-period (2015 to 2017), 51 articles were found. This distribution shows a three-fold increase in the literature between the first and the third sub-periods. In relation to the development of the number of publications across time, an area of research receives acknowledgement when the number of publication in the scientific community doubles in 10-20 years (Rider, 1944; De Solla Price, 1974; Beske-Janssen *et al.*, 2015). The literature on social sustainability and supply chain management exceeds this measure, which can be interpreted as a sign of an emerging academic interest to address social sustainability. Furthermore, this finding confirms that the topic is acknowledged in the field of supply chain management.

Figure 3 Yearly trends of publications



3.1.1 Research methods applied in the reviewed papers

Table III summarises the research methods used by the reviewed papers. Considering the methodological approaches also enabled us to examine the unit of analysis, and the results are shown in Table IV, with further details in Appendix 1. The research methods applied in relation to social sustainability and supply chains extended from empirical papers to literature reviews, to conceptual and theoretical papers. Importantly, not all papers focused on one method, as they covered both qualitative research methods and mathematical modelling tools. In such cases, we examined these papers as having a mixed-method approach.

As Table III shows, papers based on reviewing the literature, developing frameworks and mathematical modelling accounted for over 50 per cent of the articles reviewed. There has been a rapid increase in literature reviews and a gradual rise in the number of empirical research papers that use qualitative (e.g. case studies and interviews) and quantitative (e.g. surveys) methods. In line with a field that is emerging in importance, the number of papers seeking to develop theory has also grown. In terms of empirical studies, case study research (both through single and multiple cases), surveys and interviews contribute to 40 per cent of the reviewed papers. Experiments and mixed methods were found in 7 per cent of the articles.

Results from Table IV on the unit of analysis show that the majority of the papers (38 of 109) are focused on the plant/firm level (34.8 per cent). Fewer studies (10 of 109) take a multi-tier perspective, i.e. first-tier suppliers, second-tier suppliers and focal firms (9.2 per cent). Only nine studies (8.3 per cent) were found to focus on both the focal firm (e.g. manufacturers or buyers) and the distributors (wholesalers and retailers). Even fewer studies focused on the suppliers' perspective with only 4 of 109 (3.7 per cent) found. Surprisingly, a large number of studies, 48 of 109 (44 per cent), did not specify the unit of analysis. In many instances, these studies mention that their focus is on the supply chain but do not explicitly mention the supply chain actors or the levels examined, making it difficult to identify whether a multi-tier perspective was used.

3.2 Qualitative analysis

The presentation of the findings in this section follows the three research questions developed for this review. First, we

Table III Distribution of research methods in the reviewed papers

Research interval	2007-2010	2011-2014	2015-2017	Total no. of papers
Literature review	8	12	16	36
Case study	4	7	10	21
Survey	5	4	9	18
Theory/concept development	4	4	6	14
Mathematical modelling	2	2	3	7
Interviews	2	2	1	5
Mixed methods	0	3	2	5
Experiment	0	1	2	3

Table IV Units of analysis in the reviewed papers

Unit of analysis	Sample papers	No. of papers
Not Specified (just indicated supply chain)	Presley *et al.* (2007), Seuring and Müller (2008), Carter and Rogers (2008), Hutchins and Sutherland (2008), Sarkis *et al.* (2010), Dai and Blackhurst (2012), Ashby *et al.* (2012), Martínez-Jurado and Moyano-Fuentes (2014), Varsei *et al.* (2014), Moxham and Kauppi (2014), Ahi and Searcy (2015), Beske-Janssen *et al.* (2015), Ahi and Searcy (2015), Luthra *et al.* (2017), Stindt, (2017), Yawar and Seuring (2017)	48
Focal firm/plant level	Kortelainen (2008), Pullman *et al.* (2009), Awaysheh and Klassen (2010), Gold *et al.* (2013), Mani *et al.* (2014), Gualandris *et al.* (2014), Chen *et al.* (2014), Sancha *et al.* (2015), Sancha *et al.* (2016), Giannakis and Papadopoulos (2016), Agrawal *et al.* (2016), Brix-Asala *et al.* (2016), Gualandris and Kalchschmidt (2016), Mani *et al.* (2016a, 2016b, 2016c), Schöggl *et al.* (2017), Liu *et al.* (2017), Dubey *et al.* (2017)	38
Multi-tier supply chain	Ciliberti *et al.* (2009), Grimm *et al.* (2014), Govindan *et al.* (2014), Tachizawa and Wong (2014), Huq *et al.* (2014), Rodríguez *et al.* (2016a, 2016b), Huq *et al.* (2016), Wilhelm *et al.* (2016), Golini *et al.* (2017), Arampantzi and Minis (2017)	10
Distributors	Hall *et al.* (2012), Muller *et al.* (2012), MacCarthy and Jayarathne (2012), Hassini *et al.* (2012), Wright and Brown (2013), Marshall *et al.* (2015a, 2015b), Mota *et al.* (2015), Winter and Lasch (2016)	9
Suppliers	Yu (2008), Gimenez and Tachizawa (2012), Zorzini *et al.* (2015), New (2015)	4

examine the definitions related to social sustainability. Second, we identify the topics used to address social sustainability in the papers. Third, we examine how these topics have evolved in different publication periods, including the research context and the theoretical perspective.

3.2.1 How social sustainability is defined in supply chain management

While the supply chain management field has shown an increasing interest in researching social issues, few studies define social sustainability. Our review shows that only 5 of 109 articles provided definitions related to social sustainability in supply chains (Table V).

The results in Table V indicate that social sustainability is defined from a number of perspectives. For instance, Awaysheh and Klassen (2010) and Sloan (2010) introduce the concept of management practices, addressing both positive and negative aspects related to social sustainability. In addition, Klassen and Vereecke (2012) emphasise "social management capabilities" in their definition, which involves assessing and evaluating factors related to social issues for purchased goods; it also entails working collaboratively with suppliers, customers or other stakeholders to jointly improve social outcomes related to human welfare and community development.

The other aspects in the definitions of social sustainability further emphasise the concept of stakeholders within and beyond the supply chain community (Klassen and Vereecke, 2012; Huq *et al.*, 2014). Social sustainability principles entail that organisations provide equitable opportunities, encourage diversity and ensure quality of life while ensuring accountability in governing the supply chain (Pullman *et al.*, 2009). Sarkis *et al.* (2010) further highlight the concept of management of social resources that include "people's skills and abilities, institutions, relationships and social values". Pullman *et al.* (2009) argue that enhancing both the skills and the quality of life of workers leads to improved performance and subsequently better social participation and reputation (Gimenez *et al.*, 2012).

These definitions point to the idea that social sustainability is related to the management of practices, capabilities, stakeholders and resources to address human potential and welfare both within and outside the communities of the supply chain. There is a need for researchers to clarify the meaning of social sustainability from the supply chain management perspective.

3.2.2 Emerging themes

Five themes (with several sub-themes) emerged from the review, namely, performance measurement, principles, purchasing decision-making, prospects and problems, and practices. A classification of the themes is illustrated in Table VI with further details in Appendix 2.

The analysis of the literature by theme (Table VI) shows that the majority of the contributions focus on performance measurement (54 papers), followed by procurement decision-making (22 papers), principles for managing social sustainability (22 papers), and prospects and problems influencing adoption of social sustainability (21 papers), while practices for integrating social change have received limited attention (8 papers).

3.2.2.1 Performance measurement and social sustainability. With regards to growing research on measuring performance from a social sustainability perspective, our findings show that research on performance measurement can be split into the following four streams:

1. performance metrics (linked to frameworks for social measures);
2. performance drivers;
3. outcomes; and
4. trade-offs.

A majority of papers (26 of 54) focus on developing frameworks and metrics for social performance. These metrics cover diverse social issues including human rights (Mani *et al.*, 2016a, 2016b, 2016c; Luthra *et al.*, 2017), gender diversity (Erol *et al.*, 2011), community development (Presley *et al.*, 2007; Sarkis *et al.*, 2010) and product responsibility (Mani *et al.*, 2014; Nikolaou *et al.*, 2013). The most commonly discussed measure is health and safety management (Govindan *et al.*, 2013; Yusuf *et al.*, 2013). Further measures such as labour practices related to decent work (wages and working hours) have, despite their growing media attention, been addressed in only a few studies, e.g. Varsei *et al.* (2014). Additionally, very few researchers operationalised these

Table V Exemplary definitions of social sustainability

Authors	Definition
(Awaysheh and Klassen, 2010, p. 1248)	"Management practices that affect how a firm contributes to the development of human potential or protects people from harm, thereby capturing both positive and negative aspects, respectively"
(Huq *et al.*, 2014, p. 612)	"Social sustainability is a holistic concept that must be integrated with economic and environmental performance considerations, recognises stakeholders within and beyond the supply chain; and attempts to ensure long-term benefit for society"
(Sarkis *et al.*, 2010, p. 338)	"Social sustainability is related to management of social resources including people's skills and abilities, institutions, relationships and social values'
(Sloan, 2010, p. 8)	"Social dimension involves developing and maintaining business practices that are fair and favourable to the labour, communities, and regions touched by the supply chain"
(Klassen and Vereecke, 2012, p.105)	"Social sustainability is defined as encompassing three levels of stakeholders (who), focusing on the evolving set of social concerns for which the firm has influence in the supply chain (which issues), and involving management capabilities that respond to these concerns by mitigating risk or enhancing customer value (how)"

Table VI Summary of research themes covered in the reviewed papers

Area of category	Examples of areas covered	Key papers	Frequency
Performance			
Metrics	Occupational health and safety system, product responsibility, human rights, community development, gender diversity	Presley *et al.* (2007), Bai and Sarkis (2010), Erol *et al.* (2011), Lee and Saen (2012), Nikolaou *et al.* (2013), Varsei *et al.* (2014)	26
Outcome	Social initiative implication on economic outcomes: financial benefits, quality, impact on costs (labour and material costs)	Yu (2008), Pullman *et al.* (2009), Hollos *et al.* (2012), Gimenez *et al.* (2012), Goyal *et al.* (2013), Wang and Sarkis (2013), Rahman (2016)	13
Supply chain drivers	Collaboration, assessment, supplier development, auditing labour practices, supply chain relationships, lean supply chain	Gimenez and Tachizawa, (2012), Grimm *et al.* (2014), Gualandris *et al.* (2014), Govindan *et al.* (2014), Sancha *et al.* (2015), Marshall *et al.* (2015a, 2015b), Mani *et al.* (2016a, 2016b, 2016c)	11
Trade-offs	Cost versus social performance measures	Dou and Sarkis (2010), Reuter *et al.* (2012), Agrawal *et al.* (2016), Brix-Asala *et al.* (2016)	4
Purchasing decision-making	Supplier selection – social criteria and selection frameworks, outsourcing (criteria for global sourcing and facility location)	Hutchins and Sutherland (2008), Bai and Sarkis (2010), Ehrgott *et al.* (2011), Sarkis *et al.* (2012), Azadnia *et al.* (2015), Luthra *et al.* (2017)	22
Principles for managing social sustainability	Codes and social standards (SA-8000), health and safety standards (OHSAS 18001), inspection and social reporting	Kortelainen (2008), Carter and Rogers (2008), Ciliberti *et al.* (2009), Wright and Brown (2013), Gold *et al.* (2013), Mani *et al.* (2017)	22
Prospect and problems			
Drivers of social sustainability	Customer pressure, institutional pressure, trade unions, middle-level managers, skilled labour shortage, community influence	Ehrgott *et al.* (2011), Gopalakrishnan *et al.* (2012), Huq *et al.* (2014), Gualandris and Kalchschmidt (2014), Dubey *et al.* (2017)	13
Barriers	Lack of government enforcement and regulation, financial limitations, lack of investor pressure, lack of industrial obligations	Yu (2008), Awaysheh and Klassen (2010), Hall *et al.* (2012), Gopalakrishnan *et al.* (2012), Mani *et al.* (2016a, 2016b, 2016c)	8
Practices and capabilities	Monitoring capabilities, new product and process development, collaboration approaches	Klassen and Vereecke (2012), Sancha *et al.* (2015), Marshall *et al.* (2015a, 2015b), Huq *et al.* (2016)	8

measures to capture the actual performance in real-life cases. The majority of these papers address application of social measures using hypothetical and conceptual examples (Hutchins and Sutherland, 2008; Erol *et al.*, 2011; Nikolaou *et al.*, 2013).

In relation to the second stream, studies investigate performance outcomes resulting from social sustainability programmes; these outcomes include skills enhancement and compensation. Studies in this area particularly focus on whether social sustainability has a positive or negative impact on economic performance. Such positive outcomes may include improved quality (Pullman *et al.*, 2009). However, according to Wang and Sarkis (2013), the financial benefits from investing in social supply chain activities are uncertain or may not occur in the short run. Organisations that have cost pressures find it difficult to decide whether to invest in such activities (Wang and Sarkis, 2013).

Studies about the negative outcomes of social sustainability argue that enhancing skills and compensation increases labour costs (Pullman *et al.*, 2009). These findings were consistent with Gimenez *et al.* (2012) whose survey shows that improving employees' working conditions (flexible working hours) increases manufacturing costs. While these studies reveal a correlation between social sustainability and performance outcomes, other researchers, for example, Hollos *et al.* (2012), show no significant effect of improving social behaviour on cost performance (labour costs, material and service costs).

It is important to note that these studies show mixed findings, with some observing an increase in costs and others showing no significant correlation. Research should extend these findings by investigating what specific social activities influence economic performance and whether enhanced social sustainability results in financial performance benefits or otherwise.

The third stream of studies focuses on supply chain drivers and initiatives influencing social performance, such as supplier assessment (Gimenez *et al.*, 2012), auditing (Wright and Brown 2013) and supplier development (Sancha *et al.*, 2015). For example, Gimenez *et al.* (2012) found that assessment of suppliers' compliance improves social reputation of a manufacturing firm, while Sancha *et al.* (2015), using 120 Spanish manufacturing firms, found that supplier development (joint efforts, audits and training) results in better working conditions at the suppliers' premises.

Another focus of the performance literature is the trade-off between cost performance and social performance. Studies have begun to look at trade-offs as a useful tool in making decisions in supply chains, in particular, the importance of trade-offs in purchasing decisions such as supplier selection (Reuter *et al.*, 2012) and out-sourcing (Agrawal *et al.*, 2016).

Reuter *et al.* (2012) highlight that organisational focus on social issues is influenced by different stakeholders: where a manager's focus is on shareholders, cost is prioritised over social sustainability criteria. Given the importance of trade-off decisions, future studies could consider the extent to which such decisions influence how social issues are addressed in supply chains.

3.2.2.2 Principles for managing social issues in supply chains. Studies were found to emphasise the importance of managing social issues in supply chains, with codes of conduct, social standards, social reporting and auditing highlighted by Ciliberti *et al.* (2009), Yu (2008), Kortelainen (2008), Muller *et al.* (2012), Klassen and Vereecke (2012) and Sancha *et al.* (2015).

The implementation of social standards has been discussed by Ciliberti *et al.* (2009), Yu (2008) and Awaysheh and Klassen (2010). In their study of Italian small and medium-sized enterprises (SMEs), Ciliberti *et al.* (2009) found that standards such as SA8000 (the global social accountability standard) encouraged firms to develop and maintain acceptable workplace practices related to working conditions and human rights. Such standards facilitate coordination between immediate supply chain members to improve social performance, although these improvements may be limited, if only a minority of lead firms enforce the codes (Ciliberti *et al.*, 2009).

Sancha *et al.* (2015) identified inspection as a means for managing social issues in supply chains, which can pressure suppliers to consider social issues, resulting in better working conditions and reduction in the number of accidents at suppliers' premises. Similarly, Kortelainen (2008) argues that auditing improves labour conditions in labour markets, although it requires auditors to update their skills regularly. Using case study data from factory managers and workers in the Chinese electrical and mechanical sector, they found that auditing leads to better health and safety, remuneration and working hours (Kortelainen, 2008). Wright and Brown (2013) recognised that improvement of social aspects in supply chains may be limited when only a few lead firms implement auditing and social standards.

Among the contributions that focus on principles for managing social issues in supply chains, few studies address the levels of implementation of such codes and standards. In particular, further examination on the effectiveness of social standards in different social and economic contexts (developed versus developing countries) can be a fruitful area of future research.

3.2.2.3 Purchasing decision-making. As described by Miemczyk *et al.* (2012), the importance of purchasing decision-making is evident in supplier selection and evaluation including make-or-buy (outsourcing) activities. With regard to decision-making, the need to incorporate social sustainability is most commonly observed in the literature developing frameworks that propose the inclusion of social criteria in the supplier selection process. These, mainly conceptual, studies have developed multi-criteria frameworks to include not only economic criteria (time, cost, quality, technology and innovation) but also social criteria including health and safety, education, workers rights and working conditions (Bai and Sarkis, 2010).

Hutchins and Sutherland (2008) identified criteria for social sustainability using reviews of social sustainability frameworks, highlighting four key criteria of labour equity (distribution of employee wages and compensation), healthcare (health support for employees and their families), safety and philanthropy (a company's financial role within a community). They claimed that these criteria could allow organisations to incorporate the social dimension of sustainability into supplier selection decision-making, as the criteria address a range of human and social needs (Hutchins and Sutherland, 2008). Bai and Sarkis (2010) further differentiated between internal (employment stability and health and safety practices) and external (local community influence and stakeholder involvement) social criteria.

Among the studies that consider social sustainability in supplier selection, limited studies have shown how these frameworks have been put to work. The contribution by Ehrgott *et al.* (2011) is one of the few studies that examine the outcomes of implementing a socially sustainable supplier selection. Although their findings from a survey in the US and German companies suggest that the application of social criteria, such as workplace safety and working conditions, in supplier selection can significantly improve buyers' reputation, their study falls short of delving into the richness of how these companies have transformed practices at the micro-foundational level by using the social criteria.

3.2.2.4 Prospects and problems. In an emerging field of study, it is not surprising to find much scholarship that seeks to characterise what constitutes social sustainability in supply chains, especially in terms of the factors – drivers and barriers – that influence social sustainability in supply chains. The most commonly discussed driver influencing adoption of social practices is stakeholder pressure (Morali and Searcy, 2013; Wright and Brown, 2013), with other drivers including customers, employees, competitive pressure and civil society organisations.

Ehrgott *et al.* (2011) and Goebel *et al.* (2012) highlight the role of purchasing managers and employees in influencing suppliers to adopt social standards. In addition, Huq *et al.* (2014) emphasise internal stakeholder influence related to labour retention, showing in their study of Bangladesh garment suppliers that competition for skilled labour drives the improvement of social standards. According to Huq *et al.* (2014), a skilled labour shortage means employees will migrate to other factories, if suppliers do not improve working conditions.

Wright and Brown (2013) identify civil society organisations (such as trade unions) and the public media as major drivers for lead firms to improve labour standards, specifically for labour markets. Lead firms include social standards in response to trade union demands and to attract positive press coverage (ibid.). Other studies highlight customer pressure (Vachon and Mao, 2008; Gualandris and Kalchschmidt, 2014), institutional pressure (Dubey *et al.*, 2017), competitive pressure (Mani *et al.*, 2015) and local community influence (Reuter *et al.*, 2012). However, there is little consideration of the extent to which these drivers increase or decrease the adoption of social sustainability.

Given how social sustainability in supply chains is growing in popularity in research and practice, it is worth noting that there

are more studies that focus on drivers rather than on barriers to social sustainability in supply chains. Only eight papers (Yu, 2008; Awaysheh and Klassen, 2010; Hall *et al.*, 2012; Gopalakrishnan *et al.*, 2012) mention some of the barriers including financial limitation, lack of government enforcement and industry obligation (see Table VI). Yu (2008) shows that, although implementation of codes of conduct has resulted in suppliers' adopting minimum legal labour standards, factors inhibiting implementation include the buyer's focus on reducing costs and limited legislation to enforce labour laws. These findings are consistent with that of Gopalakrishnan *et al.* (2012) who pointed out that a lack of government and industry obligations leads to slow implementation of social sustainability.

The literature shows that barriers to social sustainability are dependent on context and sectoral conditions. Hall *et al.* (2012) in their study highlight that certain sectors are socially exclusive (i.e. they avoid implementing social programmes) because of high levels of training and capabilities needed, whereas others are potentially socially inclusive while lacking strong financial incentives.

3.2.2.5 Practices and capabilities. In addition to ensuring that the social sustainability aspects are embedded and integrated in an organisation's operations, it is important to identify specific practices facilitating social sustainability implementation. Klassen and Vereecke (2012) look at practices in terms of social management capabilities that can help organisation embed social sustainability into their operations. They and other authors (Muller *et al.*, 2012; Huq *et al.*, 2016) focus on collaboration (working with suppliers, customers or other stakeholders to jointly improve social outcomes related to human welfare and community development) and monitoring to include management capabilities to achieve social change (Huq *et al.*, 2016). Marshall *et al.* (2015a, 2015b) in their survey in Ireland identify two categories of socially sustainable practices: market practices (social innovation and developing new products that ensure health and safety) and process practices (monitoring supplier compliance). Many of these studies, claiming to look at "practices" tend to offer only prescriptions and rehearse rhetorical calls for more collaboration and stakeholder engagement without going deeper into the realities of what goes on in practice. Parmigiani and Howard-Grenville (2011) made the distinction between routines as capabilities and routines as practices. Much of the claimed practices in these studies on social sustainability practices in supply chain management focus on normative prescriptions of capabilities rather than on actual practices. Hence, researchers might want to begin examining the realities in terms of what organisations are doing in practicing social sustainability.

3.2.3 The evolution of the debate on social sustainability

This section analyses the evolution of debate on the topics including the theoretical frameworks, research context and major results as described in Table VII. To trace the patterns and trends, we split the time into three sub-periods and assign each article based on its publication year (i.e. sub-period I (2007-2010), sub-period II (2011-2014) and sub-period III (2015-2017).

3.2.3.1 Sub-period I (2007-2010). The early literature on social sustainability is seen to emerge from the implementation of codes of conduct and social standards. Research moves from

Table VII The evolution of the debate on social sustainability

Key aspects	Sub-period I (2007-2010)	Sub-period (2011-2014)	Sub-period (2015-2017)
Main Topic	Code of conduct and social standards, auditing and supplier selection	Supplier evaluation, barriers to social change and supply chain drivers	Practices and capabilities for social improvement), performance frameworks, stakeholder influence to social improvement
Theoretical framework	In this period, resource dependency theory, transaction cost economics and resource-based view are the most common conceptual lenses applied	Resource-based view and dependency theory is still the common used lenses to examine firm performance. Later, Stakeholder theory starts to be applied to emphasise social criteria in selecting suppliers	Resource-based view, agency theory, social network theory, contingency theory, critical success factors theory, institutional, stakeholder and social network theories and scholars start to apply multi-theoretical approach
Research setting	Asian settings (China) and European multiple context (e.g. Netherlands, Italy)	European settings still prevail (the UK, Germany, Belgium), North America (the US) and Japan	Most articles examine multiple contexts (e.g. European (United Kingdom, Germany, France and Spain) and Asian (Japanese and Indian) context. Scholars also start to adopt developing country settings (Bangladesh)
Results and findings	Theoretical research develops frameworks based on theory for supplier selection decisions. Empirical studies describe social standards and codes of conduct for auditing labour practices (e.g. health and safety, working hours and use of child labour)	Theoretical research develops models for performance evaluation based on social indicators. Empirical articles identify supply chain and initiatives (cooperation, collaboration and monitoring) and drivers (e.g. middle manager and customers)	Theoretical research develops drivers for performance and performance frameworks. Empirical papers explain drivers and factors to implement social issues (e.g. skilled labour and innovation) and supplier development practices/approaches (training) to improve social performance

social standards in general to examining the impact of implementing the standards on firm performance. Studies in this period focus on the Asian (e.g. China and India) and European (e.g. Netherlands and Italy) settings.

3.2.3.2 Sub-period II (2011-2014). In addition to social standards and performance outcomes explored in early studies, the research has broadened in this period to include supplier performance evaluation based on social indicators. While theoretical research develops models for social metrics and indicators, empirical articles provide evidence on the supply chain drivers (e.g. cooperation, collaboration) that influence social performance. In addition, articles begin to identify barriers to social improvement. The literature intensifies its focus on the European context (e.g. United Kingdom, Germany and Belgium). Some papers still examine the Asian settings (Japan and Korea), and North America (e.g. the US) is covered for the first time.

3.2.3.3 Sub-period III (2015-2017). In this sub-period, the research expands to consider the drivers of social sustainability. Empirical studies become the most common type of research, and theoretical research still focuses on developing performance frameworks, although on a broader basis to include multi-criteria frameworks covering both financial and social metrics. New lines of research emerge, where authors begin to address practices relating to capabilities and strategies. Most articles begin to examine multiple contexts together, and the European context (e.g. United Kingdom, France and Spain) and Asia (e.g. Taiwan and India) dominate the field. Scholars also start researching least developed country settings (e.g. Bangladesh) (Huq *et al.*, 2014).

In analysing the evolution of the debate, we also consider the theoretical perspectives to understand the main theories employed (Table VIII). The total number of theoretical contributions shows that 44 of 109 papers applied theoretical frameworks to their studies. The most frequently used theories were organisational theories, especially stakeholder theory (Ehrgott *et al.*, 2011; Varsei *et al.*, 2014; Huq *et al.*, 2016) and the resource-based view (Hollos *et al.*, 2012; Varsei *et al.*, 2014; Sancha *et al.*, 2016). Stakeholder theory is used to examine how firms address stakeholder interests and corporate interests towards social. For example, Ehrgott *et al.* (2011) used stakeholder theory to investigate the role of stakeholders (purchasing managers) to emphasise social criteria in the process of supplier selection. The resource-based view describes and examines how socially sustainable competitive advantage can be gained by organisations acquiring and controlling resources. This theory is the focus of research in the field, as social sustainability raises concerns about resource constraints (Hollos *et al.*, 2012). Other theories used included the rough set theory for studies developing multi-dimensional criteria for social sustainability evaluation (Nikolaou *et al.*, 2013; Shalke *et al.*, 2017). Institutional theory was also applied in studies looking at drivers and enablers of improving social performance (Marshall *et al.*, 2015a, 2015b) and in developing performance metrics (Varsei *et al.*, 2014).

Table VIII Theoretical lenses identified in the reviewed papers

Theoretical lenses	References	Topics covered	Frequency
Stakeholder theory	Hutchins and Sutherland (2008), Morioka and Carvalho (2016) Varsei *et al.* (2014), Hofmann *et al.* (2014), Antolin-Lopez *et al.* (2016), Ehrgott *et al.* (2011), Gualandris *et al.* (2014), Varsei *et al.* (2014), Huq *et al.* (2016)	Performance metrics, Performance drivers, Purchasing decision-making (supplier selection), Drivers of social sustainability	9
Resource-based theory	Carter and Rogers (2008), Pullman *et al.* (2009), Hollos *et al.* (2012), Klassen and Vereecke (2012), Marshall *et al.* (2015a, 2015b), Moxham and Kauppi (2014), Varsei *et al.* (2014), Sancha *et al.* (2016), Gualandris and Kalchschmidt (2016), Rodríguez *et al.* (2016a, 2016b)	Purchasing principles, Performance outcomes, Performance metrics, Practices	10
Rough set theory	Nikolaou *et al.* (2013), Bai and Sarkis (2010), Dai and Blackhurst (2012), Erol *et al.* (2011), Govindan *et al.* (2013), Goyal *et al.* (2013), Shalke *et al.* (2017)	Purchasing decision-making (supplier selection), Performance metrics	7
Institutional theory	Moxham and Kauppi (2014), Marshall *et al.* (2015a, 2015b), Varsei *et al.* (2014), Wilhelm *et al.* (2016), Martínez-Jurado and Moyano-Fuentes (2014), Morioka and Carvalho (2016)	Performance drivers, Metrics, Practices, Principles	6
Transaction cost economics	Carter and Rogers (2008), Huq *et al.* (2014), Klassen and Vereecke (2012), Sancha *et al.* (2016)	Drivers to social sustainability, Purchasing principles, Practices	4
Resource dependence theory	Carter and Rogers (2008), Hollos *et al.* (2012)	Purchasing principles, Performance outcomes	2
Critical success theory	Grimm *et al.* (2014)	Performance drivers	1
Population ecology	Carter and Rogers (2008)	Purchasing principles	1
Systems theory	Dubey *et al.* (2017)	Drivers to social sustainability	1
Contingency theory	Hall *et al.* (2012)	Barriers	1
Social network theory	Varsei *et al.* (2014)	Performance metrics	1
Agency theory	Wilhelm *et al.* (2016)	Practices	1

4. Discussion

The significant increase in the number of papers shown in Figure 2 indicates a growing academic interest in addressing social issues in supply chain management field. Scholars and practitioners in supply chain management are starting to consider how to address decent working standards for employees and social benefits to the community. To provide insights into these issues, we have conducted a systematic literature review, analysing 109 papers.

In addressing the first research question, our analysis indicates that social sustainability in supply chain management is an evolving and developing field of research, evidenced by the lack of a unifying accepted definition for the concept. A number of wide-ranging terms were used to describe social sustainability, including management of practices, capabilities, stakeholders and resources developed to address social sustainability in the supply chain communities. With only five papers explicitly defining social sustainability, this is a key area for future research to clarify the meaning of social sustainability from the supply chain management perspective.

The analysis of methodologies applied to studying social sustainability shows that theoretical/conceptual methods by far are the dominant methods used, while empirical research has been gradually progressing. The conceptual nature of research methods used shows an emphasis on literature reviews. As supply chain management is a practical discipline focusing on real-world issues, empirical research is needed for more practical insights on social sustainability. For example, in-depth case studies may inform practice on how different supply chains address social sustainability aspects. Furthermore, few studies define their unit of analysis; even fewer are looking at multi-tier supply chains. In this area, future research could focus on how the principles of social sustainability are being implemented across different actors in the supply chain. Owing to a rising pressure on suppliers to implement social standards in the management of social sustainability in multi-tier supply chains (Grimm *et al.*, 2014), examining the critical role of supplier (first and second tier) in a multi-tier supply chain could provide additional insights.

Our second research question relates to how supply chain management studies consider social sustainability issues. The results show an increase in the number of studies dealing with diverse aspects to address social sustainability. We have identified a number of themes revealing that the efforts of scholars have focused on performance measurement, principles for managing social sustainability, purchasing decision-making, prospects and problems influencing adoption of social sustainability, and practices implemented towards social change in supply chains.

There is agreement in the literature that performance should be measured not only by cost, quality, time, flexibility and innovation but also by social aspects (Bai and Sarkis, 2014). Although some existing literature has examined performance measurement frameworks and metrics for evaluating supply chain performance, the majority of research takes the focal firm perspective. Of particular interest to future research is the development of performance measures to address social performancees, especially for lower for lower-tier suppliers. There is a scope to further examine the role of lower-tier suppliers in delivering better social performance, and investigate issues of non-compliance with social standards.

According to our review, there is no unified approach for measuring social performance in supply chains, and not all aspects of social sustainability have been considered in developing measures. This finding is supported by Beske-Janssen *et al.* (2015) who argue that specific measurement units for social dimension in supply chains are limited, giving an opportunity to future researchers to explore aspects such as decent working conditions, including working hours, wages and other incentives. This research agenda could provide insights for companies seeking to measure performance to address social metrics that cover not only community issues but also employee welfare. Ahi and Searcy (2015) further argue that there are few standardised social metrics used within and between supply chains, which calls for tailored performance approaches for specific operations within the supply chains.

Research focusing on outcomes of performance measurement is extremely limited. Within empirical studies, the dominant focus is currently on economic outcomes, particularly cost-cutting. The use of other indicators of performance, especially non-financial outcomes, is scarce. Future research might explore measures such as employee and customer satisfaction, improved working conditions and other measures that can result from a product or service being perceived as socially sustainable in the supply chain. There is a growing interest in measuring "happiness at work" (work engagement, job satisfaction, well-being and positive attitude) (Fisher, 2010), with "happiness" extended to workplace experiences. Such measures could also provide future researchers with an opportunity to include non-performance measures on social sustainability issues in supply chains. This inclusion could provide insights to practitioners on whether social sustainability affects both financial and non-financial outcomes.

With the continuing trend towards global (out)sourcing, supplier selection process has become an important step for companies seeking to manage their corporate legitimacy and reputation (Bai and Sarkis, 2010) and ensuring suppliers' compliance with social standards (Ehrgott *et al.*, 2011). Scholars are questioning how social sustainability has been and can be incorporated into supplier selection process. Few studies are exploring how the consideration of social criteria in supplier selection can be influenced by trade-off decisions. Such trade-offs could occur where organisations favour cost over social sustainability criteria (Reuter *et al.*, 2012). These trade-offs could result in social risks, if minimal attention is paid to addressing issues such as child labour and poor working conditions. In light of the global attention and the impact that social sustainability issues have on leading firms' reputations, the implications of social risks can be as important as costs. Future research in this area could focus on tools and strategies to integrate social risk management in the sourcing and supplier selection decisions. There is also scope to examine how supply chain actors deal with contradictory pressures when undertaking trade-offs in practice.

Supply chains are facing pressures on their social sustainability performance; in particular, increasing demands from stakeholders have driven corporations to address the social implications of their supply chain activities (Morali and Searcy, 2013; Wright and Brown, 2013). Local governments,

non-governmental organisations and public media play an important role in prompting focal firms to extend social sustainability to suppliers. Studies in this area have provided a valuable contribution on factors influencing the efforts towards social sustainability. While researchers have paid much attention to stakeholder influence, an organisation's engagement in social sustainability may be influenced by a range of motivations. An area for future research could include motivations for pursuing social sustainability such as innovation and organisational values, to provide insights on why organisations choose to engage and not engage in social sustainability activities. Furthermore, there is a need to address such motivations at different levels of the supply chain.

The main contribution of this review is the categorisation of the evolution of the debate in terms of main themes, research contexts, theoretical frameworks and major findings. We find that the current debate emerged from implementing social standards, moving on to incorporate supply chain drivers influencing social sustainability and to evaluate supply chain performance. Recent trends are opening up new lines of enquiry covering stakeholder influence and practices.

The studies reviewed here focused predominantly on the developed economy context. Few papers considered the role of developing (and, in particular, least developed) countries, where social sustainability concerns are rampant. This consideration supports the findings of Zorzini *et al.* (2015) and highlights the need for further research to consider alternative contexts.

5. Conclusion

This systematic literature review considers the scope of social sustainability research in the field of supply chain management. A total of 109 peer-reviewed journal articles have been reviewed, showing that social sustainability has gained prominence but that there are areas requiring further development. Our review has highlighted a number of insights into the state-of-the-art of the literature on supply chain management including how social sustainability is defined, researched and operationalised.

The first contribution of this paper is to identify the definitions and methods used. The analysis shows that limited research is focused on defining social sustainability. With those that provide definitions, there is still no consensus on a unified definition, as studies conceptualise social sustainability according to the context of the study. Furthermore, the research methods used show variability in their unit of analysis. There are few studies empirically examining the supply chain level, and even fewer address social issues across multi-tier supply chains. A number of studies claim to focus on the activities of the whole supply chain, but tend to address the activities of a focal firm such as manufacturers and large buying firms on the downstream side.

The second main finding and contribution is the categorisation of the themes addressed, providing an overview of how social sustainability has been operationalised to date. Our analysis shows that scholarship focuses on measuring performance, supplier selection decisions and principles for managing social issues including drivers and barriers. However, further research is needed to understand how social sustainability is put to work in practice.

A third major contribution of this paper is in identifying the potential research gaps in the way that social sustainability has been researched in the field of supply chain management. These potential future avenues for research are discussed in the following subsection.

5.1 Implications and future research directions

The first possible research avenue comes from the finding that there is no unified approach to measuring and capturing actual performance in supply chain. A key research direction for progressing performance measurement is the need to develop tools to capture how organisations are performing in relation to social sustainability. Both academics and practitioners might want to explore practical social indicators such as those from the GRI that could be applied to measuring diverse social issues. A set of social metrics tested in detailed cases studies would provide a useful reference point for organisations seeking to measure their social sustainability efforts in supply chains. The practical implication is for researchers to move beyond frameworks and to develop tools and instruments for measuring social performance in practice.

The second research opportunity relates to the topics highlighting that research mainly focuses on the process of selection, monitoring and evaluation of suppliers. However, few papers address other activities and processes in purchasing and supply, such as buyer–supplier relationships and how these relationships influence the way social sustainability is practised. This area can offer an opportunity for future research to explore how supply chain relationships influence the extent to which firms engage in social sustainability activities.

The third possibility of future research is to consider micro-level practices towards achieving social sustainability, as existing literature still emphasises practices in terms of high-level principles, capabilities and strategies. There is a need to move beyond normative prescriptions to examine more deeply the ongoing accomplishment of everyday practices of social sustainability. Research also tends to focus predominantly on large organisations, rather than on developing practices and approaches in small organisations. Although there are many practices – both good and otherwise – taking place in SMEs, there is still little published research on smaller organisations. Addressing this area could help enhance the awareness of SME managers and owners on what social practices can be implemented by small businesses along their supply chains. Studying small organisations is particularly important for establishing how these organisations respond to pressures and demands to address social sustainability despite their constrained access to resources. In addition, the context of SME practices would help to determine whether practices adopted by SMEs differ from practices for large organisations.

The fourth avenue for future research comes from the finding that the use of theory in the studies of social sustainability is limited. Our review shows that both stakeholder theory and the resource-based view have become prominent in social sustainability research. However, more

theoretical perspectives are needed to strengthen the theoretical foundations of the emerging stream of research. The less frequently applied theories include agency and contingency theory, providing a better understanding of how supply chains play a role in advancing the social sustainability debate. For example, applying the agency theory in future research could reveal the role of first-tier suppliers in passing on the requirements of the lead firm's social standards and practices to the lower tiers, e.g. second-tier suppliers (Wilhelm *et al.*, 2016).

An additional avenue for future researcher stems from the finding that strategies aimed at improving practices at different tiers of supply chains are under-researched. Studies could further explore the challenges and strategies for different actors from a multi-tier perspective. This area of research could assist practitioners and academic researchers in being aware of the strategies that can address the constraints hindering social sustainability.

Finally, there is a need for scholars to focus on developing countries' context, as research to date has been focused on developed countries. In light of the dynamics in global sourcing, this research agenda could incentivise multinationals in developing countries to consider social sustainability in the sourcing decisions as a means to maintain their legitimacy and reputation (Huq *et al.*, 2014).

5.2 Implications for management and practice

Apart from academic use, this review has a number of implications for practice. The positioning and classification of the growing number of studies together with the themes will help managers to understand the strategic importance of social issues and how they can be addressed. With regard to the pressures on managers to integrate social sustainability in their business, this research will enhance managers' awareness on stakeholder interests in the social activities of the company, helping managers to deciding on specific social issues to be integrated in their corporate strategy. Finally, the practices, drivers and barriers presented in this paper will assist practitioners in being aware of the practices supply chains are adopting and of the issues faced in an effort to address social sustainability.

Drawing from these conclusions and implications, it is acknowledged that the analysis presented in this paper has limitations. First, our review focuses only on social sustainability within supply chain management, excluding the economic and environmental dimensions. Second, the conclusions are drawn by considering peer-reviewed journal articles in English. As a result, other languages and types of publications are excluded from our review. In future, additional insights may be gathered through a review of different bodies of literature such as reports on corporate sustainability, websites and academic books.

Despite these limitations, our analysis contributes to identifying the key themes used to address social sustainability in the field of supply chain management. It also highlights the underexplored aspects of this topic, thereby emphasising that the debate on social sustainability in supply chain management provides a promising future research agenda.

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Appendix 1

Table AI Unit of analysis

Unit of analysis	Papers	No. Of papers
Not specified (just indicated supply chain)	Presley *et al.* (2007), Seuring and Müller (2008), Vachon and Mao (2008), Carter and Rogers (2008), Hutchins and Sutherland (2008), Maon *et al.* (2009), Sarkis *et al.* (2010), Sloan (2010), Bai and Sarkis (2010), Haugh and Talwar (2010), Dou and Sarkis (2010), Erol *et al.* (2011), Dai and Blackhurst (2012), Ashby et al. (2012), Klassen and Vereecke (2012), Miemczyk *et al.* (2012), Sarkis *et al.* (2012), Xu *et al.* (2013), Wang and Sarkis (2013), Leppelt *et al.* (2013), Reefke and Trocchi, (2013), Yusuf *et al.* (2013), Nikolaou *et al.* (2013), Govindan *et al.* (2013), Goyal *et al.* (2013), Amann *et al.* (2014), Martínez-Jurado and Moyano-Fuentes (2014), Varsei *et al.* (2014), Moxham and Kauppi (2014), Ahi and Searcy (2015), Beske-Janssen *et al.* (2015), Ahi and Searcy (2015), Marshall *et al.* (2015a, 2015b), Zimmer *et al.* (2016), Trapp and Sarkis (2016), Rodríguez *et al.* (2016a, 2016b), Quarshie *et al.* (2016), Fletcher *et al.* (2016), Grivins *et al.* (2016), Antolin-Lopez *et al.* (2016), Kumar and Rahman (2016), Akhavan and Beckmann (2017), Abbasi (2017), Papadopoulos *et al.* (2017), Stindt (2017), Luthra *et al.* (2017), Yawar and Seuring (2017), Chen *et al.* (2017)	48
Focal firm/plant level	Kortelainen (2008), Pullman *et al.* (2009), Awaysheh and Klassen (2010), Chiouy *et al.* (2011), Ehrgott *et al.* (2011), Gimenez *et al.* (2012), Goebel *et al.* (2012), Gopalakrishnan *et al.* (2012), Hollos *et al.* (2012), Lee and Saen (2012), Reuter *et al.* (2012), Morali and Searcy (2013), Gold *et al.* (2013), Mani *et al.* (2014), Gualandris *et al.* (2014), Gualandris and Kalchschmidt (2014), Gattiker *et al.* (2014), Chen *et al.* (2014), Azadnia *et al.* (2015), Husgafvel *et al.* (2015), Mani *et al.* (2015), Sancha *et al.* (2015), Sancha *et al.* (2016), Morioka and Carvalho (2016), Giannakis and Papadopoulos (2016), Agrawal *et al.* (2016), Brix-Asala *et al.* (2016), Gualandris and Kalchschmidt (2016), Mani *et al.* (2016a, 2016b, 2016c), Shalke *et al.* (2017), Schöggl *et al.* (2017), Mani *et al.* (2017), Liu *et al.* (2017), Abdul-Rashid *et al.* (2017), Dubey *et al.* (2017)	38
Multi-tier supply chain	Ciliberti *et al.* (2009), Grimm *et al.* (2014), Govindan *et al.* (2014), Tachizawa and Yew Wong (2014), Huq *et al.* (2014), Rodríguez *et al.* (2016a, 2016b), Huq *et al.* (2016), Wilhelm *et al.* (2016), Golini *et al.* (2017), Arampantzi and Minis (2017)	10
Distributors	Hofmann *et al.* (2014), Hall *et al.* (2012), Muller *et al.* (2012), MacCarthy and Jayarathne (2012), Hassini *et al.* (2012), Wright and Brown (2013), Marshall *et al.* (2015a, 2015b), Mota *et al.* (2015), Winter and Lasch (2016)	9
Suppliers	Yu (2008), Gimenez and Tachizawa (2012), Zorzini *et al.* (2015), New (2015)	4

Appendix 2

Table AII Major categories of the themes and sub-themes

Classification of themes	Examples of areas covered	Key papers	Frequency
Performance			
Metrics	Occupational health and safety system, product responsibility, stakeholder influence, child/forced labour, employee satisfaction, excessive working time, social reputation, human rights, community development, gender diversity, employee empowerment, compensation, employee training, discrimination	Presley *et al.* (2007), Hutchins and Sutherland (2008), Bai and Sarkis (2010), Sloan (2010), Sarkis *et al.*, (2010), Erol *et al.* (2011), Hassini *et al.* (2012), Lee and Saen (2012), Miemczyk *et al.* (2012), Nikolaou *et al.* (2013), Yusuf *et al.* (2013), Reefke and Trocchi (2013), Varsei *et al.* (2014), Govindan *et al.* (2013), Beske-Janssen *et al.* (2015), Ahi and Searcy (2015), Ahi and Searcy (2015), Husgafvel *et al.* (2015), Mota *et al.* (2015), Antolin-Lopez *et al.* (2016), Mani *et al.* (2016a, 2016b, 2016c), Grivins et al. (2016), Sudarto *et al.* (2016), Morioka and Carvalho (2016), Schöggl *et al.* (2017), Yawar and Seuring (2017)	26
Outcome	Social initiative implication on economic outcomes: financial benefits, quality, impact on costs (labour costs, material and service costs and manufacturing)	Yu (2008), Pullman *et al.* (2009), Awaysheh and Klassen (2010), Hollos *et al.* (2012), Gimenez *et al.* (2012), Goyal *et al.* (2013), Wang and Sarkis (2013), Govindan *et al.* (2014), Kumar and Rahman (2016), Mani *et al.* (2016a, 2016b, 2016c), Abdul-Rashid *et al.*, (2017), Arampantzi and Minis (2017), Yawar and Seuring (2017)	13
Supply chain drivers for performance	Collaboration, assessment, supplier development, auditing labour practices, supply chain relationships, risk management, lean and resilient supply chain	Gattiker *et al.* (2014), Gimenez and Tachizawa, (2012), Grimm *et al.* (2014), Wright and Brown (2013) Gualandris *et al.* (2014), Govindan *et al.* (2014), Sancha *et al.* (2015), Marshall *et al.* (2015a, 2015b), Mani *et al.* (2016a, 2016b, 2016c), Gualandris and Kalchschmidt (2016) and Papadopoulos *et al.* (2017)	11
Trade-offs	Cost versus social performance	Dou and Sarkis (2010), Reuter *et al.* (2012), Agrawal *et al.* (2016), Brix-Asala *et al.* (2016)	4
Purchasing decision making	Supplier selection- social criteria and selection frameworks; and outsourcing (criteria for global sourcing and facility location)	Hutchins and Sutherland (2008), Bai and Sarkis (2010), Hofmann *et al.* (2014), Dou and Sarkis (2010), Ehrgott *et al.* (2011), Dai and Blackhurst (2012), Chiouy *et al.* (2011), Reuter *et al.* (2012), Sarkis *et al.* (2012), Goebel *et al.* (2012), Leppelt *et al.*, (2013), Xu *et al.* (2013), Mani *et al.* (2014), Chen *et al.* (2014), Azadnia *et al.* (2015), Kumar and Rahman (2016), Winter and Lasch (2016), Trapp and Sarkis (2016), Zimmer *et al.* (2016), Luthra *et al.*, (2017), Shalke *et al.* (2017), Chen *et al.* (2017)	22
Principles for managing social sustainability	Codes and social standards for guidelines and structure (SA -8000, health and safety standards (OHSAS 18001); social auditing; inspection and social reporting – including framework GRI	Kortelainen (2008), Carter and Rogers (2008), Ciliberti *et al.* (2009), Maon *et al.* (2009), Haugh and Talwar (2010), Muller *et al.* (2012), MacCarthy and Jayarathne (2012), Ashby *et al.* (2012), Klassen and Vereecke (2012), Wright and Brown (2013), Gold *et al.* (2013), Martínez-Jurado and Moyano-Fuentes (2014), Moxham and Kauppi (2014), New, (2015), Zorzini *et al.* (2015), Mani *et al.* (2016a, 2016b, 2016c), Quarshie *et al.* (2016), Giannakis and Papadopoulos (2016), Rodríguez *et al.* (2016a, 2016b), Mani *et al*. (2017), Stindt (2017) and Akhavan and Beckmann (2017)	22

(*continued*)

Table AII

Classification of themes	Examples of areas covered	Key papers	Frequency
Prospect and problems			
Drivers of social sustainability	Stakeholder influence including, customer pressure, institutional pressure, trade unions, purchasing managers (middle-level managers), employees (skilled labour shortage), public media and local community influence	Vachon and Mao (2008), Ehrgott *et al.* (2011), Reuter *et al.* (2012), Gopalakrishnan *et al.* (2012), Goebel *et al.* (2012), Amann et al. (2014), Huq *et al.*, (2014), Gualandris and Kalchschmidt (2014), Grimm *et al.* (2014), Mani *et al.* (2015), Dubey *et al.*, (2017), Golini et al. (2017) and Liu *et al.* (2017)	13
Barriers	Lack of government enforcement and regulation; financial limitations, lack of investor and customer pressure, lack of industrial obligations on social issues, high levels of training and capabilities	Yu (2008), Awaysheh and Klassen (2010), Hall *et al.* (2012), Gopalakrishnan *et al.* (2012), Morali and Searcy (2013), Mani *et al.* (2016a, 2016b, 2016c), Wilhelm *et al.* (2016) and Abbasi, (2017)	8
Practices and capabilities	Monitoring capabilities; new product and process development; Collaboration capabilities; innovation	Klassen and Vereecke (2012), Muller *et al.* (2012), Tachizawa and Yew Wong (2014), Sancha *et al.* (2015), Marshall *et al.* (2015a, 2015b), Fletcher *et al.*, (2016), Sancha *et al.* (2016) and Huq *et al.* (2016)	8

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