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Stakeholder roles in sustainable supply chain management: a literature review

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Abstract

Since ecological deterioration and social discrepancy are intensifying, multiple stakeholders are driving companies to incorporate sustainability in their supply chains. Thus, integrating non-traditional supply chain stakeholders, such as non-governmental organizations and competitors, in supply chain practices is essential for achieving a more sustainable supply chain. Hence, this research aims to show how stakeholders and their roles are related to sustainable supply chain management practices. A systematic literature review including 78 peer-reviewed English journal articles published between 2000 and 2020 was conducted. The results suggest that multiple supply chain external and internal stakeholders drive, facilitate, or inspect the implementation of sustainable supply chain management practices. While governmental and non-governmental organizations are key drivers for implementing sustainable supply chain management practices, they can also support their implementation. Moreover, proactive engagement with external supply chain stakeholders facilitates the organizational learning process through capability development, increasing understanding and awareness of sustainability, and creating knowledge. This study strengthens the value of proactive and collaborative measurements to deal with stakeholder issues before putting pressure on a company, which can result in reputation and legitimacy loss. These insights enrich the theoretical debate while explaining stakeholders' relevance and roles in the sustainable supply chain management context. However, the study has some limitations regarding the chosen sustainable supply chain management and stakeholder constructs and potential within-study bias, offering possibilities for further research.

Keywords Sustainable supply chain management · Stakeholder roles · Collaboration · Engagement · Systematic literature review

JEL codes M1

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1 Introduction

Although sustainable supply chain management (SSCM) can be a significant source of competitive advantage, implementing the underlying SSCM practices typically requires more resources and knowledge than a single focal firm possesses (Beske and Seuring 2014; Oelze et al. 2016). SSCM means that organizations and their supply chain (SC) partners aim to meet economic, environmental, and social requirements stemming from stakeholders by managing SC flows accordingly (Seuring and Müller 2008). Thus, Pagell and Wu (2009) proposed that working with non-traditional SC members, such as non-governmental organizations (NGOs), competitors, or other stakeholders, is essential for SSCM. So far, multiple studies have perceived stakeholders as drivers rather than taking an integrative approach with a more differentiated view toward stakeholders in the SSCM debate (e.g., Hörisch et al. 2014; Meixell and Luoma 2015; Rebs et al. 2019). For example, Meixell and Luoma (2015) conducted a literature review and analyzed stakeholder pressure in the context of awareness, adoption, and integration of SSCM practices to show how stakeholder pressure affects SC sustainability. According to Maas et al.'s (2018) quantitative analysis, stakeholder pressure leads to the integration of environmental practices and enhancement of the company's financial performance. While Maas et al. (2018) only considered the environmental dimension, Rebs et al.'s (2019) study indicated that stakeholders' pressure impacts SSCM performance cross-dimensionally. Furthermore, Fritz et al. (2018) suggested an iterative process to reveal SC stakeholders and how they identify and manage their concerns. Stakeholder engagement, thus, facilitates the detection of further stakeholders along the SC. Hence, although these studies consider stakeholders as drivers or recipients of initiatives taken by companies, additional stakeholder roles remain indistinct.

According to Liu et al. (2018), stakeholders can take the valuable role of driver, facilitator, or inspector within the process of supplier development, a sub-component of SSCM, to close knowledge or resource gaps. We argue that the same is likely to hold for SSCM practices in general (e.g., Busse et al. 2017; Meixell and Luoma 2015; Oelze et al. 2016). For instance, Busse et al. (2017) proposed that stakeholders can support companies in detecting SC sustainability risks, particularly when they face low SC visibility. However, to the best of our knowledge, no study has analyzed different stakeholders and their roles within SSCM practices so far.

By taking this into account, the following research question was derived:

- How are stakeholders and their roles related to SSCM practices?

Several SSCM concepts deal with the question of how a sustainable SC might be achieved (Pagell and Wu 2009; Seuring and Müller 2008) and even what a truly sustainable SC means (Gold and Schleper 2017). Beske and Seuring's (2014) conceptual framework offers a starting point because it incorporates pivotal SSCM studies, such as Pagell and Wu (2009), and operationalizes SSCM through a generic list of SSCM practices. Furthermore, it is well accepted in the current debate and has been used in multiple studies (e.g., Khalid et al. 2015; Sauer and Seuring 2017).

As this paper seeks to enrich the theoretical debate on stakeholder roles in SSCM, the literature is analyzed with the help of Beske and Seuring's (2014) and Liu et al.'s (2018) frameworks. These frameworks serve as the theoretical starting point for assessing the roles of stakeholders as drivers of SSCM practices with the help of a literature review (e.g., Meixell and Luoma 2015). This research is relevant for at least two reasons. First, it extends the stakeholder perspective in SSCM and explores the current state of research concerning stakeholders and their roles in an SSCM context. Second, the aggregated view ensured by reviewing the literature will guide both academics and business practitioners, as shown by other literature reviews in SSCM (e.g., Meixell and Luoma 2015; Rebs et al. 2019; Siems et al. 2021). Thus, exploring the current state of research concerning stakeholder roles in SSCM could identify research gaps and future research directions in the academic debate. Academics can learn about so far unexplored stakeholder roles to foster the implementation of SSCM practices. For practitioners, this study is important to identify stakeholders and the roles they take in the implementation of SSCM practices.

For this purpose, the next section of this paper builds the underlying terminological foundation. The methodology section outlines the literature review grounded in qualitative content analysis and contingency analysis. This is followed by the presentation of the results and discussion of the identified issues. Lastly, we outline our research limitations and propose possible future research opportunities.

2 Conceptualization

2.1 Stakeholder theory

In general, stakeholder theory describes how organizations deal and interact with individuals or groups (i.e., stakeholders) that exert an influence or are influenced by their business operations (Freeman 2010). As SSCM aims to meet sustainability requirements stemming from stakeholders, it is crucial to identify them. Yet multiple definitions of stakeholders exist—either broad and inclusive ones or narrow and pragmatic ones (Donaldson and Preston 1995). For example, Donaldson and Preston (1995) defined stakeholders as "persons or groups with legitimate interests in procedural and/or substantive aspects of corporate activity" (p. 85). This definition emphasizes that an actor needs at least a legitimate claim or stake in the organization to be considered a stakeholder. Scholars have identified various stakeholders for a firm (Meixell and Luoma 2015; Parmar et al. 2010). While some studies have clustered stakeholders against generic classes, such as NGOs, citizens, or employees (e.g., Busse et al. 2017; Freeman 2010), other researchers have classified stakeholders even more broadly, resulting in fuzzy and unclear subdivisions (e.g., Rebs et al. 2019). According to Park-Poaps and Rees (2010), firms' stakeholders vary depending on different factors, such as their perceived importance, the time, or the context. However, Svensson et al. (2016) proposed the five dimensions of the focal company, downstream stakeholders, societal stakeholders, market stakeholders, and upstream stakeholders to frame the different stakeholders for the sustainable SC context (see Table 1). For example, the focal company contains top management, middle

Table 1 Stakeholder dimensions adapted from Svensson et al. (2016)

Dimension	Stakeholder construct example	Example in the analyzed literature
Upstream stakeholders	This group contains upstream internal SC stakeholders such as raw material producers, suppliers, and suppliers' suppliers	(Busse et al. 2017; Camargo et al. 2019)
Focal company	This group contains internal stakeholders of the focal company, such as top leadership, middle management, and employees	(Meqdadi et al. 2020; Roy et al. 2020)
Downstream stakeholders	This group contains downstream internal SC stakeholders such as retailers, wholesalers, and logistical intermediaries	(Chkanikova 2016; Nayak et al. 2019)
Market stakeholders	This group contains stakeholders such as unions, competitors, and financial intermediaries	(Camargo et al. 2019; Sajjad et al. 2019)
Societal stakeholders	This group contains social stakeholders such as NGOs, governmental actors, and research institutes/universities	(Aboelmaged 2012; Stekelorum et al. 2020)
Stakeholder without specification*	This item covers the general mentioning of the term stakeholder	(Roscoe et al. 2020; Silva and Schaltegger 2019)

*During the coding process, we identified the need to add "Stakeholder without specification" since multiple studies proposed SSCM practices but only linked to stakeholder as a broad term

management, or employees as subordinated stakeholders. Norris et al.'s (2021) conceptual study emphasized that employees can provide knowledge capital and creativity to create value for all involved stakeholders at a more comprehensive level.

Although we consider the five dimensions to be a good starting point to frame stakeholders in the SC context, according to our SC understanding, the subordinated stakeholders differ from the original suggestion. For example, customers are separated from end-users—when the underlying study allows such a precise separation—to enable a more precise analysis. Both stakeholders are shifted to downstream stakeholders instead of market stakeholders since they are frequently considered essential SC actors (e.g., Fritz et al. 2018; Rebs et al. 2019; Seuring and Müller 2008).

Different stakeholder approaches have emerged over the years (Hörisch et al. 2014). According to Donaldson and Preston (1995), these can be traditionally distinguished into descriptive/empirical, instrumental, and normative approaches. A descriptive/empirical approach seeks to describe the extent to which organizations and stakeholders' interests are managed and to link theoretical assumptions in reality and practice (Donaldson and Preston 1995; Richter and Dow 2017). An instrumental approach strives to analyze how the management of stakeholder interests can be linked to achieving conventional business objectives, such as economic growth or profitability. This has been criticized because of the indication that more ethical actions should contribute to better financial performance (Hörisch et al. 2014; Richter and Dow 2017). A normative approach defines moral and philosophical values and advice according to the management's behavior and the company (Donaldson and Preston 1995). However, Hörisch et al. (2014) and Parmar et al. (2010) proposed integrating the three different approaches (integrative stakeholder theory), as they are directly linked to each other and cannot be considered in isolation.

Stakeholder theory was generally criticized for having a weak normative basis; thus, Richter and Dow (2017) proposed a deliberative approach emphasizing the relevance of dialogue and participation to reach corporate legitimacy. This allows "to (…) understand the role of legitimacy for a stakeholder claim, (…) provide insights into the operationalization of stakeholder dialogues, and (…) enhance the understanding of the responsibilities of corporations toward stakeholders in times of globalization" (p. 440).

Based on these five different approaches, different understandings of SSCM emerge. The derivation of the stakeholders' SSCM requirements and resulting objective can be accomplished through a more descriptive, instrumental, normative, integrative, or deliberative approach. Thus, these approaches are taken up in the analysis of the coding material (see Table 6).

2.2 Stakeholder roles and sustainable supply chain management

Interest in sustainable SCs has been growing for over a decade and has become mainstream in academic discourse (Ahi and Searcy 2013; Ansari and Kant 2017). According to Touboulic and Walker (2015), SSCM definitions include more aspects and perspectives and have become more precise and multifaceted since 2000, but

most contain similarities. We follow the well-cited definition put forward by Seuring and Müller (2008) of SSCM 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, i.e., economic, environmental and social, into account which are derived from customer and stakeholder requirements" (p. 1700). In addition to emphasizing stakeholders' crucial role through the definition, stakeholder theory is one of the most applied theories in the SSCM field (Touboulic and Walker 2015). For example, Maas et al. (2018) used stakeholder theory to argue why stakeholders' pressure triggers companies to adopt environmental practices.

Most recent research has examined how several sustainability practices can address different stakeholder claims and how different strategies might impact an organization's economic, environmental, or social performance (e.g., Busse et al. 2017; Maas et al. 2018; Rebs et al. 2019). For example, Rebs et al. (2019) used a system dynamics model to analyze stakeholder influence (governmental and other external stakeholders' pressure) on sustainable SC performance.

Thus, the intersection of stakeholders and the SC itself and how stakeholders may contribute to a more sustainable SC are rarely analyzed or defined. Scholars have recently identified the link between stakeholders and sustainable risk management in SCs as a major research opportunity for the future (Reefke and Sundaram 2017).

Carmagnac (2021) proposed four roles of non-traditional SC stakeholders: instigating a change, supporting training or the development of standards, facilitating the organization of actors, and leading the SC transformation. Unlike traditional stakeholders such as buyers and suppliers, non-traditional stakeholders comprise NGOs, social enterprises, local communities, or multi-stakeholder initiatives (Carmagnac, 2021). Liu et al.'s (2018) study also covered the aforementioned roles. Hence, the instigating and leading role is framed as the driver while the facilitator embraces the supporter and facilitator role. Furthermore, Liu et al. (2018) suggested the additional role of an inspector for stakeholders in the context of supplier development (see Table 2). Nevertheless, other studies indicated stakeholders' possible contributions to SSCM practices (e.g., Busse et al. 2017; Meixell and Luoma 2015; Siems and Seuring 2021).

By taking different roles, stakeholders can act as a driver, facilitator, or inspector to ensure the implementation of SSCM practices. The aforementioned framework of Beske and Seuring (2014) comprehensively operationalized SSCM and has been used multiple times already and been extended to different contexts, such as the mineral (Sauer and Seuring 2017) or Base of the Pyramid (Khalid et al. 2015). The framework contains five categories and several subordinated practices. While a category is defined as "an umbrella term to group and sort the different practices and link them to relevant issues,"a practice is understood as "the customary, habitual or expected procedure or way of doing something" (Beske and Seuring, p. 323). The five main categories are (1) orientation, (2) continuity, (3) collaboration, (4) risk management, and (5) proactivity (see Table 3). We refrain from offering a pure repetition of the framework and present it later in the order of the findings. Nevertheless, to underline the suitability of these constructs and their line of argumentation, the following section elaborates on how stakeholders can be linked to these categories.

Table 2 Overview of stakeholder roles adapted from Liu et al. (2018)

Categories and constructs	Description	Example in the analyzed literature
Stakeholder roles		
Drivers	Stakeholders who drive awareness for sustainability (e.g., pressure or incentives)	(Camargo et al. 2019; Foerstl et al. 2015)
Facilitators	Facilitators provide knowledge and resources in order to support a company when implementing SSCM practices	(Dahlmann and Roehrich 2019; León-Bravo et al. 2019)
Inspectors	Inspectors might evaluate or assess the implemented SSCM practices along with the SC subsequently	(Chen and Kitsis 2017; Silvestre et al. 2018)

Table 3 Overview of SSCM practices (adapted from Beske and Seuring [2014])

Categories and constructs	Description	Example in the analyzed literature
SSCM practices		
Orientation		
SCM	The orientation to a TBL approach means taking a more holistic SCM view by the top management and is of strategic relevance	(Gualandris et al. 2015; Sajjad et al. 2019)
TBL		
SC continuity		
Long-term relationships	Due to supplier development or selection by incorporating non-traditional SC actors, long-term relationships are favored and result in a more stable SC member continuity	(Busse 2016; Dahlmann and Roehrich 2019; Silvestre et al. 2018)
Partner development		
Partner selection		
Collaboration		
Joint development	Implementing sustainability leads to increased collaboration between internal (e.g., supplier, focal firm) and external (e.g., communities, NGOs) SC actors, for instance, by enhancing communication and striving for technical and logistical integration	(Camargo et al. 2019; Köksal et al. 2017; Oelze et al. 2016)
Technical integration		
Logistical integration		
Enhanced communication		
Risk management		
Individual monitoring	For addressing pressure by groups such as media or customers, selective monitoring or certification and standards provided, for example, by NGOs, are common ways to manage risks	(Paulraj et al. 2017; Wilhelm et al. 2016)
Pressure group management		
Standards and certificates		
Proactivity		
Learning	Acting more proactive by, e.g., the involvement of stakeholders (management) and the willingness to understand their environmental and social issues and learn(ing) from them can also lead to innovation	(León-Bravo et al. 2019; Padhi et al. 2018; Rodríguez et al. 2016)
Stakeholder management		
Innovation		
Environmental proactivity*		
Social proactivity*		

*During the coding process, we identified the need to split the original item "life-cycle assessment" into environmental and social proactivity, which we have added

(1) The orientation to a triple-bottom-line (TBL) approach means the top management taking a more holistic supply chain management (SCM) view and is of strategic relevance (Sauer and Seuring 2017). SC external stakeholders, such as NGOs, can drive awareness for the adoption of SSCM practices due to pressure, incentives, or detection of sustainability blind spots/vulnerabilities, such as in the case of low SC visibility (Meixell and Luoma 2015).

(2) Due to supplier development or selection, long-term relationships are favored and result in more stable supplier continuity (Beske and Seuring 2014). Seuring and Müller (2008) suggested that companies should engage in supplier development to enhance overall performance and capabilities (e.g., via training or technical investment). Supplier selection is equally important to ensure high SC performance owing to suppliers organizational values or capabilities (Pagell and Wu 2009; Siems et al. 2021). Different stakeholders can support the focal firm in evaluating and assessing suppliers' sustainability performance, especially when facing the challenge of having no direct access to a supplier (Beske and Seuring 2014; Siems and Seuring 2021). According to Busse et al. (2017), stakeholders can support companies to detect SC sustainability risks, while "gatekeeper instruments" (e.g., codes of conduct or third-party standards) can help to select suitable suppliers, monitor risks, and impact suppliers' behavior (Rebs et al. 2019). Moreover, cooperation with NGOs can lead to the sharing of knowledge, skills, and other resources (Wankmüller and Reiner 2020).

(3) Furthermore, implementing sustainability leads to increased collaboration between the SC actors, for instance, by enhancing communication and striving for technical and logistical integration (Beske and Seuring 2014; Gold et al. 2010; Wankmüller and Reiner 2020). Due to SC complexity, transparency issues, and limited resources, focal firms sometimes have limited access to their suppliers. Therefore, they might be unable to implement the demanded SSCM practice despite their willingness to tackle it. Thus, Pagell and Wu (2009) proposed that working with non-traditional SC members is essential for achieving a more sustainable SC. For example, Siems and Seuring (2021) suggested that a focal firm could integrate SC external and internal stakeholders into SSCM practices in its internal and external dimensions to gain a more sustainable SC. Therefore, stakeholders also help facilitate SSCM practices by orchestrating resources, such as knowledge or capital (Busse et al. 2017; Liu et al. 2018).

(4) To address stakeholder pressure, selective monitoring or certification and standards are common for managing risks. While standards and certification are commonly used as minimum requirements (Khalid et al. 2015; Seuring and Müller 2008), companies install monitoring systems to control the desired performance outcomes.

Pressure groups, such as NGOs, or the media might launch campaigns and boycotts against targeted companies, but they are also a valuable source of knowledge (Busse et al. 2017; Siems and Seuring 2021). According to Fritz et al. (2018), SC internal and external stakeholders can support the process of identifying further stakeholders and their concerns. Collaborating with those stakeholder groups might facilitate identifying and avoiding potential sustainability risks (Beske and Seuring 2014; Pagell and Wu 2009).

(5) Additionally, acting more proactively by, for example, involving stakeholder(s) (management) and being willing to understand their issues and

learn(ing) from them can also lead to innovation (Pagell and Wu 2009; Seuring and Müller 2008; Siems and Seuring 2021). Consequently, a set of possible practices is helpful to identify opportunities for stakeholders to occupy different roles to contribute to a more sustainable SC.

Therefore, the different roles of stakeholders proposed by Liu et al. (2018), their specific issues, and SSCM practices proposed by Beske and Seuring (2014) frame the further research process. Tables 2 and 3 merge those deductively derived categories and constructs. The references in the third column in both tables provide evidence that the presented constructs are still relevant in the current SSCM debate. These constructs are used to evaluate the body of literature.

3 Methodology

Analyzing scientific literature in SSCM provides an aggregated view and is a valuable way to contribute to theory development (Seuring et al. 2021). The role of literature reviews can be seen in multiple studies in the SSCM context (e.g., Khalid et al. 2015; Sauer and Seuring 2017; Siems et al. 2021). To reduce the researchers' bias, strengthen rigorousness, and meet practitioners' and policymakers' operational needs, it is essential that the literature is synthesized "in a systematic, transparent, and reproducible manner" (Tranfield et al. 2003, p. 207). Thus, this research follows a replicable and transparent process, as recommended for literature reviews (e.g., Meixell and Luoma 2015). The purpose is to gain an extensive overview of the SSCM practices and stakeholder roles inherent in in the SSCM research context.

First, we conducted a literature review grounded in qualitative content analysis (Seuring and Gold 2012). This expedient approach encompasses a systematic, rule-governed, and reproducible design while being guided by theory to identify, evaluate, and interpret the existing body of literature (Mayring 2015). A qualitative content analysis-based literature review is a recommended way to anchor a research idea in the body of existing knowledge (Seuring et al. 2021; Seuring and Gold 2012). It is also a valid tool for consolidating and developing an existing theory by, for instance, outlining current research gaps. The applied structured literature review approach suggested by Seuring and Gold (2012) also includes the more generic qualitative content analysis by Mayring (2015) and encompasses a four-stage process comprising material gathering, descriptive analysis, category definition, and material analysis and evaluation. This approach is well in line with the five-phase cycle according to Yin (2016), who suggested compiling, dis- and reassembling, and iteratively interpreting qualitative data before conclusions can be derived.

The first step was to gather literature using the Web of Science and Scopus search engines, two of the largest databases for peer-reviewed journals. As several studies concluded that the SSCM discourse started around 2000 (e.g., Seuring and Müller 2008; Touboulic and Walker 2015), the search targeted the time scope of 2000–2020. 2020 was set as the end date because the research started in 2021, and only entire years were considered. While this bears the risk of missing some recent

studies, it ensures that the most important debates are analyzed in a consistent and complete set of 20 years of data.

After limiting the number of articles by keywords, the identified articles from both databases were merged and duplicates were removed. The abstracts of the remaining articles were screened manually by following the exclusion criteria, resulting in 78 articles (see Table 4). Excluded were articles restricted to only one dimension of sustainability because we recognized the concept of SSCM as a holistic view within all three dimensions that needed to be considered. For instance, few authors used the term "sustainability" while being restricted in their investigations to economic issues. Since we were exploring the intersection of stakeholder roles and SSCM, we ruled out articles that did not make stakeholders of a company the core purpose of the analysis, articles where stakeholders were only mentioned as receivers of the results, or articles that applied the term "stakeholder" as a synonym for selected groups, for example, by referring exclusively to internal SC actors.

The descriptive analysis presents formal characteristics to explain the analyzed materials' background. For instance, the kinds of journals in which the articles were published, the geographic and SC foci, and the applied stakeholder approaches were further categories for the descriptive analysis. Using existing theoretical frameworks (see Tables 1, 2, and 3) contributes to external validity within a qualitative content analysis. Two researchers worked through a portion of the sample and discussed their results to achieve additional validity and reliability. Subsequently, one researcher coded the remaining articles and exchanged them with other researchers to resolve potential ambiguities.

Second, we conducted a contingency analysis to add further insights to these more qualitative results to reveal additional connections between the items. Gold et al. (2010) claimed that a contingency analysis seeks to extract "association patterns between categories, i.e. […] pairs of categories which occur relatively more [or less] frequently together in one paper than the product of their single probabilities would suggest" (p. 235). The actual occurrence of category pairs can be referred

Table 4 Search and reduction steps during the material collection

Search and limiting steps	Identified/remaining articles	
Initial search (string)	Web of Science	Scopus
("SSCM" OR "sustainable supply chain*" OR "sustainable supply chain management" OR "supply chain sustainability") AND TOPIC: ("stakeholder*" OR "pressure*" OR "third-party" OR "third party" OR "non-traditional")	442	490
	Identified/remaining articles after merging	
Manual screening of abstracts by considering the following inclusion criteria: only peer-reviewed English articles; clear focus on stakeholders; clear SC-focus; clear sustainability focus	156	
Manual screening of the full paper vis-à-vis the research objective	78	

to as the observed frequency and the product of their single probabilities as the expected frequency.

A chi-squared test was undertaken by using the calculated constructs' frequencies to identify possible relationships between constructs. To be valid and relevant, a set of two relationships must meet two criteria. First, the pair of relationships must appear in no less than 10% of the entire literature sample. Thus, a distraction due to construct correlations only occurring in a minor number of articles could be avoided. Second, the phi value must exceed |0.299|, because a lower value indicates little strength of the pair's relationship (Gold et al. 2010). To understand a correlation of a pair, their theoretical interpretation is essential because a contingency analysis only points out a connection between them. A transparent and documented research process obtains further validity. For example, repeatability is possible, as databases and keywords are given. However, this study also has its limitations. For example, a literature review involves several biases that we aimed to minimize but might not have entirely avoided. Furthermore, different methods exist to conduct a contingency analysis that might lead to varying results.

4 Results

The results are structured into the descriptive analysis, qualitative content analysis, and quantitative contingency analysis. We acknowledge that our analysis represents a one-shot picture, since the analyzed studies show particular stakeholders at one moment rather than presenting an analysis that provides evidence of changing stakeholders and their roles over time.

4.1 Descriptive analysis

To provide further information on the data context to understand the reviewed material better, the first part of the analysis is a descriptive analysis. Figure 1 shows a steady increase in the number of scientific publications over the years until the peak in 2016. Interestingly, this chart shows the decrease in published articles at the intersection of stakeholder and SSCM starting in 2019. Yet different authors acknowledged the potential for more research on using stakeholder theory in the context of SSCM (Rebs et al. 2019; Silva and Schaltegger 2019).

Table 5 provides an overview of the distribution of reviewed publications across the journals. *Journal of Cleaner* Production (JCLP) has the most published articles, followed by *Business Strategy and the Environment* (BSE), and with four publications each, *Sustainability*, *International Journal of Physical Distribution and Logistics Management* (IJPDLM), *International Journal of Production Economics* (IJPE), and *Journal of Business Ethics* (JBE).

The majority of the analyzed publications did not apply or discuss a specific stakeholder approach as proposed by Donaldson and Preston (1995). This can be attributed to the fact that stakeholders' appearance often per se is considered, and no precise approaches are chosen to reconcile interests. Nonetheless, eight articles
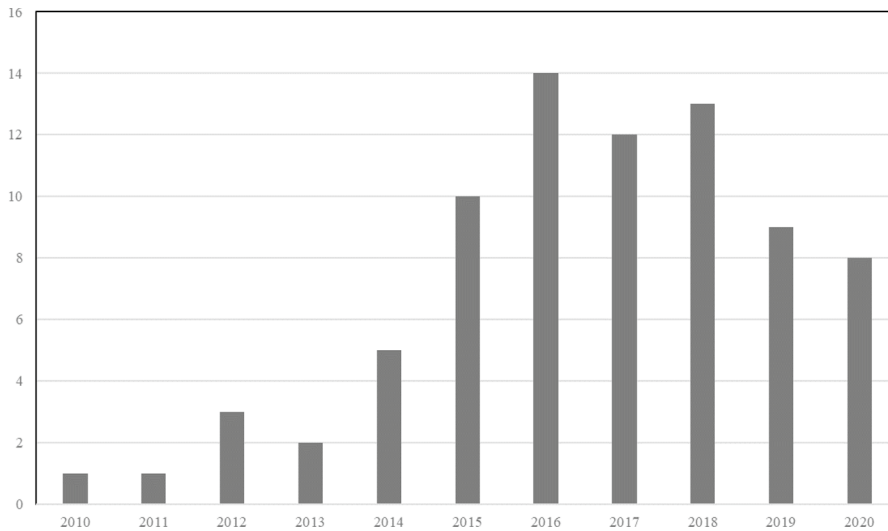
Fig. 1 Distribution of reviewed articles over time (n = 78)

Name	Number
JCLPRO	12
BSE	7
SUSTAINABILITY	4
IJPDLM	4
IJPE	4
JBE	4
JSCM	2
RCR	2
IMM	2
IJOPM	2
PPC	2

Table 5 Distribution of reviewed articles over journals (*n* = 78)

Rest appeared less than two times

used an instrumental approach, and five articles adopted a descriptive and integrative approach as discussed by Hörisch et al. (2014) (see Table 6). While the studies with an instrumental stakeholder view focused on why companies should consider stakeholders to achieve a competitive advantage (e.g., Awan et al. 2017; Maas et al. 2018; Roscoe et al. 2020), those with a descriptive view sought to distinguish different stakeholders from each other (e.g., Gualandris et al. 2015).

The studies with an integrative approach analyze the relationships between companies and their stakeholders where the involved actors work collaboratively to increase mutual benefit for all parties instead of purely seeking to augment the company's economic return (e.g., Matos and Silvestre 2013; Sajjad et al. 2019).

Table 6 Distribution of reviewed articles over stakeholder approaches ($n=78$)

Approach	Number
No approach	59
Instrumental approach	8
Descriptive approach	5
Integrative approach	5
Normative approach	1
Deliberative approach	0

Furthermore, the only study with a normative approach argues that organizations must continuously realign their capabilities and sustainability practices to align with their stakeholders' expectations since they build their foundation.

Although most articles did not explicitly mention an approach, some indicated somewhat descriptive ideas to explain specific constructs from the SSCM (stakeholder) debate (Kumar and Rahman 2017; Silvestre et al. 2018). However, instead of a differentiated discussion, as put forward by, for example, Busse (2016) or Sajjad et al. (2019), those studies with no stakeholder approach referred to stakeholder pressure as the reason for incorporating sustainability into SCs. In contrast to the already listed approaches, normative and deliberative approaches are (almost) not considered. This is owing to the fact that approaches based on moral behavior and the principles of deliberative democracy are not considered valid approaches to address stakeholder interests.

The following section presents the results of the content analysis-based literature review.

4.2 Qualitative content analysis of stakeholder roles in the sustainable supply chain management context

Only those codings with a clear overlap between one construct from each debate—that is, stakeholders, their role, and SSCM practices—were considered in the qualitative content analysis.

Table 7 shows the distribution of identified stakeholders in their roles coded against the dimensions proposed by Svensson et al. (2016). Although Svensson et al. (2016) suggested different stakeholders for their dimensions, Table 7 considers only the identified stakeholders, inductively extended on the basis of the findings (e.g., financial intermediaries). Stakeholders were only considered in the case of a clear link between a role and an SSCM construct.

The analysis reveals that "societal stakeholders" show the highest occurrence in the entire sample. As expected, many articles presented NGOs as one of the biggest contributors to a more sustainable SC. For example, NGOs, owing to their on-the-ground understanding, can bridge the expectations of upstream SC stakeholders, such as consumers, with the downstream SC stage (Gurzawska 2020). Hence, they can facilitate the process of translating consumer expectations into an appropriate SC measurement. Furthermore, they pressure focal firms by making public

Table 7 Distribution of stakeholders to their roles

	Drivers	Facilitators	Inspectors
Upstream stakeholders			
Suppliers	14	15	9
The focal company			
Shareholder	12	0	1
Top leadership/management	22	14	3
Employees	20	9	2
Downstream stakeholder			
Customers	45	5	3
End users	19	1	1
Retailer	2	2	2
Market stakeholders			
Financial intermediaries	5	3	0
Unions	7	1	1
Competitor	19	5	1
Industry association	5	8	4
Societal stakeholders			
NGO	35	31	16
Research institute / universities	2	7	0
(local) Communities	14	4	4
Media	20	5	2
Governmental entities	44	17	11
Stakeholder without specification	23	7	1

Appearance of a combination of a particular stakeholder and a role is only counted one time per paper for avoiding a distraction by a high number of occurrences of a specific combination in one single paper

unsustainable business practices, such as environmental pollution or child labor (Roy et al. 2020; Sajjad et al. 2019). In her case study, Wolf (2011) showed that NGOs' pressure focuses on upstream SC practices rather than all stages.

Governmental entities are also well distributed across the roles (see Table 7). Both governmental organizations and NGOs are key drivers and facilitators for implementing SSCM practices (Roy et al. 2020; Sajjad et al. 2019; Wolf 2011). While NGOs rather support single SCs (e.g., Busse et al. 2017; Stekelorum et al. 2020), governmental actors can establish a coherent policy framework to stimulate the industry-wide development of SSCM (Brix-Asala et al. 2018; Govindan 2018). Noteworthy, once NGOs are well-organized and powerful, they might also be able to shape an entire industry by, e.g., industry standards or benchmark reports.

However, Table 7 demonstrates that customers are most frequently identified in the role of driver of SSCM. While the high occurrence of customers and end-users was expected, the analysis reveals only retailers in the role of further down-stream stakeholder in a few articles. Even though some studies reported retailers as the driver, facilitator, or inspector of SSCM practices (e.g., Chkanikova 2016; Roy

et al. 2020), other scholars suggested that retailers are the recipient of external stakeholder pressure (Köksal et al. 2017; León-Bravo et al. 2019). Both groups of scholars assign a core role to retailer in achieving a more sustainable SC (Chkanikova 2016; León-Bravo et al. 2019; Roy et al. 2020). Surprisingly, other stakeholders, such as wholesalers or logistic intermediaries, could not be observed in a particular role for driving, facilitating, or inspecting SSCM practices.

Regarding the role-specific distribution of stakeholders, the inspector role appears underrepresented compared to the other two roles. Thus, it can be questioned why inspector-related SSCM practices remain underrepresented to date and whether stakeholders could play this role in the SSCM context.

Table 8 shows the distribution of stakeholder roles in the different SSCM practices. Their occurrence is calculated at the category and individual levels. Since an article can be assigned to more than one item per category, a category's frequency can be lower than the sum of its subordinated frequencies (see Table 8).

For example, the constructs in the category "continuity" are linked to stakeholders in the role of "driver" in 22 articles, to "facilitator" in 23 articles, and to

Table 8 Results from the qualitative content analysis for stakeholder roles linked to SSCM

SSCM Categories and construct	Stakeholder role	Driver	Facilitator	Inspector
Orientation	**26**	25	4	0
TBL		18	4	0
SCM		7	0	0
Continuity	**31**	22	24	9
Long-term relationships		3	4	0
SC partner selection		15	9	4
SC partner development		4	11	5
Collaboration	**35**	16	21	10
Technological integration		2	0	0
Logistical integration		0	1	0
Enhanced communication		11	10	8
Joint development		3	10	2
Risk management	**55**	40	23	16
Standards and certificates		15	9	6
Selective monitoring		12	9	9
Pressure groups		13	5	1
Proactivity	**78**	49	49	21
Learning		4	13	3
Stakeholder management		13	11	7
Innovation		9	9	4
Environmental pro-activity		13	10	4
Social proactivity		10	6	3

[*] Appearance of a combination of a particular stakeholder role and SSCM construct is only counted one time per paper for avoiding a distraction by a high number of occurrences of a specific combination in one single paper

"inspector" in nine articles. While 16 articles contain one corresponding combination, nine articles have two combinations, four articles have three combinations, one article has four combinations, and one article has five combinations. Therefore, the resulting sum is 31 instead of 55.

A holistic orientation toward SCM and TBL is the first category derived from Beske and Seuring's (2014) framework. The analysis reveals a link between this category and one of the three stakeholder roles in the literature sample, as shown in Table 8. The most commonly identified role of a stakeholder is as a driver of a TBL orientation.

However, according to the analyzed material, stakeholders drive companies toward a TBL orientation in various ways. While governmental actors use regulations or tax incentives (e.g., Roscoe et al. 2020), internal stakeholders, such as employees, pressure their employers for a more holistic consideration of sustainability (Chen and Kitsis 2017). The analysis also indicates that companies, driven by external stakeholders (e.g., media and NGOs), were described as more reactive and as having already faced reputation loss before incorporating a TBL orientation into their SC (Busse 2016). On the contrary, focal firms, driven by customer demands and an awareness of future trends due to changing needs, were described as more proactive than reactive (Govindan 2018). Overall, the research has neglected how stakeholders could be integrated into the process of defining/determining a coherent corporate sustainability policy. However, the analysis reveals that a TBL orientation is a holistic view that hampers the assignment to specific stakeholder roles. This finding strengthens our decision to distinguish between environmental proactivity and social proactivity, as Sauer and Seuring (2017) suggested.

Table 8 shows that 31 out of 78 articles mentioned stakeholder roles in the debate on SC continuity. The results indicate that multiple studies revealed that SC partner selection is regularly linked to customer pressure; companies tend to drop suppliers instead of cooperating or developing them (e.g., Busse 2016; Chen and Kitsis 2017). As Padhi et al. (2018) stated, "it may be because the firms prefer to select a supplier with a better TBL performance than to collaborate and develop sustainability practices with existing suppliers" (p. 11). Conversely, the analysis discloses several possibilities for stakeholders to assist focal firms with supplier development. For example, NGOs can support focal firms to identify best practices or provide resources, such as knowledge and assistance with training programs (Govindan 2018; Rodríguez et al. 2016). In addition, governmental bodies can drive and facilitate SSCM practices in the SC with the help of regional development funds for the certification process or suppliers' training (Wilhelm et al. 2016). Thus, more participatory/action research approaches with multi-stakeholder networks might support companies in achieving more sustainable SCs.

Collaborating with non-traditional SC members (e.g., universities), as suggested by Pagell and Wu (2009), allows the spread of superior SSCM practices across the industry to interchange knowledge or education and identify risks (Oelze et al. 2016; Silvestre 2015). In fact, nearly half the sample discussed stakeholder roles in the context of collaboration constructs. Enhanced communication shows the highest number of assigned roles (driver, facilitator, and inspector) within the collaboration category. On the one hand, consumers drive enhanced communication between SC

partners due to changing (product) expectations (León-Bravo et al. 2019). On the other hand, enhanced communication with SC internal stakeholders is required to fulfill transparency expectations and inform them about applied sustainability practices (Chen and Kitsis 2017; Paulraj et al. 2017). Once enhanced communication with internal SC stakeholders is established, these stakeholders can facilitate identifying and addressing proactive sustainability risks or compliance violations (Sodhi and Tang 2017). Thus, this is closely linked to risk management constructs (Oelze et al. 2016).

However, stakeholders can join the development of projects and facilitate, for example, the improvement of products' environmental impact (Wilhelm et al. 2016). Even though Beske and Seuring (2014) outlined the importance of technological and logistical integration in the SSCM context, Table 8 shows a low frequency of both constructs when considering stakeholders' contributions. This contrasting result is somewhat unexpected and might call for further research. However, Oelze et al. (2016) stated "that there are different approaches to supplier knowledge platforms" (p. 248) to improve organizational understanding. Besides, the analysis provides some indications of collaboration with stakeholders. For example, Stekelorum et al. (2020) proposed that SMEs should collaborate with international NGOs because they have the expertise and experience regarding other stakeholders and their expectations in different geographical settings and can assist in bridging existing knowledge and resource gaps.

At the same time, the total number of findings is still relatively low compared to other SSCM domains (i.e., risk management and proactivity). However, according to Busse et al. (2017), focal firms need to balance and evaluate the contributions of their stakeholders carefully. Otherwise, they might be distracted and consider only issues that are relevant to them.

Risk management shows the second-highest frequency (see Table 8). It incorporates the detection of risks and requires knowledge and transparency of the SC (Beske and Seuring 2014), which SC internal and external stakeholders can provide once companies collaborate with them (e.g., Rodríguez et al. 2016). According to Table 8, the most significant (risk management) practice is standards and certifications; several studies identified stakeholders as the main driver of standards and certifications (e.g., Seuring et al. 2019). For example, customers or end-users demand standards and certifications especially for the upstream SC (Sodhi and Tang 2017). Furthermore, multiple studies indicated that companies start to apply SSCM practices once they face pressure from stakeholders, such as media and NGOs (Wilhelm et al. 2016). Wolf (2014) described responding to pressure as a reactive (SSCM) strategy. Yet Roy et al. (2020) showed that "by being simply reactive to stakeholder pressures, apparel manufacturing firms can obtain only fragmented leads when implementing sustainability practices" (p. 11).

However, "engagement with some stakeholders can provide an early warning system for emerging sustainability risks, anticipating unexpected negative outcomes before they occur" (Gualandris et al. 2015, p. 8). Thus, engagement facilitates the selective monitoring of critical SC stages due to third-party involvement in executing audits and assessing SC performance (Seuring et al. 2019; Sodhi and Tang

2017), strengthening the value of proactive and collaborative measurements to deal with pressure (Oelze et al. 2016).

The analysis uncovers at least one result for the proactivity category regarding underlying practices and stakeholder roles for each article of the sample (see Table 8). Within this category, stakeholder management, a core instrument for building a reputation (Sauer and Seuring 2017), dominates the other practices, which can be explained by the study's research purpose in focusing on stakeholder-related SSCM literature. However, the analyzed studies suggest that proactive engagement with SC external stakeholders, such as research institutes or NGOs, facilitates the learning process due to capability development, increased understanding, and knowledge creation (Govindan 2018; Oelze et al. 2016). This engagement can trigger joint innovations (Padhi et al. 2018). Furthermore, León-Bravo et al. (2019) found that collaborating with NGOs can foster environmental awareness, cut costs, and contribute to higher natural resource efficiency. According to Wolf (2011), focal firms need a stakeholder integration capability to achieve a more sustainable SC. Additionally, Chen and Kitsis (2017) proposed that social or environmental proactivity can create a competitive advantage and, thus, drive competitors toward sustainability. Therefore, the results mentioned above, particularly the aforementioned calls for more research on social aspects in SSCM, might be a promising pathway for further studies (Meqdadi et al. 2020; Roy et al. 2020). To promote proactive engagements, particular attention should be paid to its interaction with collaboration and integration capabilities which is crucial to overcome reactive stances (León-Bravo et al., 2019; Wolf, 2011).

4.3 Quantitative contingency analysis

To better understand the stakeholder-related SSCM literature and examine which constructs have significant relationships, we conducted a quantitative contingency analysis via SPSS. This exploration of potential correlations between particular SSCM practices, stakeholders, and their roles allows us to distinguish pairs that appear disproportionately together in a portion of the sample. Table 9 contains for each pair the one-sided significance value, phi value (showing the soundness of the correlations), observed occurrence, and expected occurrence. It is structured from the highest to lowest phi values. In total, the sample contains 21 pairs with significant relationships, as shown in Fig. 2.

Looking at Fig. 2, the first observation is the nexus around "upstream stakeholder," which shows the highest number of contingencies (9). Despite this, "market stakeholder," "focal firm," and "social proactivity" show no further connections to other constructs, while the remaining six constructs are further linked. For example, "focal firm" and "market stakeholders" are connected to "upstream stakeholders" (i.e., supplier and supplier's supplier), which are further linked to all collaboration practices. This nexus emphasizes the line of argumentation that powerful stakeholders, such as customers or end-users, demand and drive the integration of SSCM practices, particularly for the upstream SC (Meixell and Luoma 2015).

Table 9 Results from the contingency analysis

Pair	X^2 - significance	φ – coefficient	Observed Frequency	Expected frequency
Societal stakeholders * Drivers (role)	0.000	0.698	74	72
Long-term relationships * Logistical integration	0.000	0.466	11	4
Upstream stakeholders * Enhanced communication	0.000	0.465	37	28
Joint development * Stakeholder management	0.000	0.460	28	19
Technological integration * Logistical integration	0.000	0.424	8	3
Upstream stakeholders * Technological Integration	0.000	0.413	16	10
Technological integration * Enhanced communication	0.000	0.413	16	10
Upstream stakeholders * Market stakeholders	0.000	0.410	45	39
Joint development * Learning	0.000	0.399	22	14
Logistical integration * Joint development	0.000	0.397	12	6
Enhanced communication * Joint development	0.000	0.397	28	20
Upstream stakeholders * Stakeholder management	0.000	0.396	34	27
Upstream stakeholders *Llong-term relationships	0.001	0.389	22	15
Upstream stakeholders * The focal company	0.001	0.388	35	28
Stakeholder Management * Innovation	0.001	0.386	26	19
Upstream stakeholders * Logistical Integration	0.001	0.380	14	8
Upstream stakeholders * Social proactivity	0.002	0.352	29	22
Drivers * Logistical integration	0.002	0.347	12	14
Joint Development * Innovation	0.002	0.346	21	14
Upstream stakeholders * Joint development	0.002	0.344	27	20
Enhanced communication * Stakeholder management	0.002	0.343	33	27

"Technological integration" is contingent on "enhanced communication," the core construct of the second cluster, which is connected to "upstream stakeholder."

The second observation is that the other constructs, clustered around "enhanced communication," have different relationships. Figure 2 shows that "enhanced communication" directly connects to all other collaboration constructs (i.e., "joint development" and "technical integration") except for logistical integration, which is indirectly threefold linked. This finding underlines that collaboration with stakeholders is essential to achieve a more sustainable SC, in line with the established SSCM literature (Pagell and Wu 2009). "Joint development" is also contingent on three proactivity practices ("learning," "innovation," and "stakeholder management") and "logistical integration." The latter is connected to "upstream stakeholder," "technical integration," and "long-term relationships." This composition aligns with arguments in the SSCM literature that striving toward sustainability means building long-term relationships with suppliers and firmly integrating them (Beske and Seuring 2014).

Third, the line of argument around "stakeholder management" has four significant contingencies. Two contingencies are collaboration practices ("joint development"
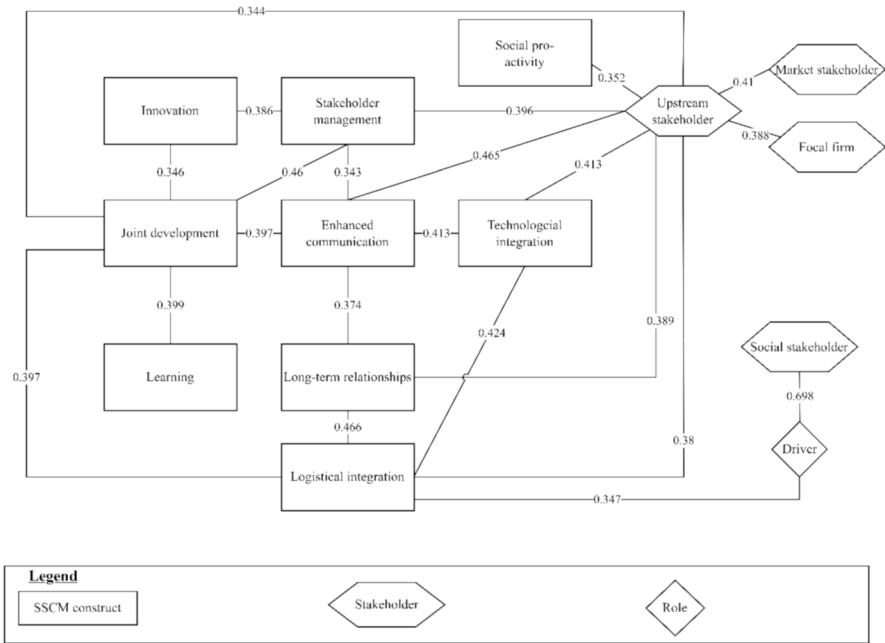
Fig. 2 (Sustainable) SC model with stakeholder consideration

and "enhanced communication"), and one is the link mentioned above to "upstream stakeholder." The remaining connection is another proactivity practice, "innovation," which strengthens the value of proactive and collaborative measurements to integrate stakeholders into SC activities (Oelze et al. 2016). Thus, integrating and learning from stakeholders facilitate the process of innovation and can result in joint development of products, as stated by Dahlmann and Roehrich (2019).

Surprisingly, the analysis shows no contingencies for constructs from the orientation and risk management category, and these constructs only appear together with other constructs as often as was statistically expected. This result might occur because the underlying and coded constructs are equally distributed within and over the analyzed literature and, thus, appear with no statistical peculiarity with other constructs (see Table 9). However, this is for the orientation category somewhat in line with the results from the qualitative analysis, where we identified a lack of examples where stakeholders were integrated into the process of defining/determining a coherent corporate sustainability policy (i.e., SCM and TBL orientation). This also holds for "downstream stakeholders, " the only stakeholder group showing no contingencies. This indicates that they are not noticeable frequently discussed with any other group of stakeholders, roles, or SSCM practices. This might be caused by the fact that this stakeholder group is less intensively embedded in the SSCM debate.

The last observation concerns the relationship between "societal stakeholders" and the "driver" role, which shows the strongest phi value of 0.698. Although social stakeholder as a driver of sustainability is an established argument in the SSCM

literature (e.g., Meixell and Luoma 2015), only the construct "driver" shows one further contingency to the collaboration practice "logistical integration." Thus, societal stakeholders appear only as drivers more often than statistically expected even within the SSCM literature, which emphasizes a need to consider stakeholders in future studies. This result might call for further research with a more differentiated stakeholder view by considering stakeholders not only as a homogeneous phenomenon but individually according to their associated dimension and role.

5 Discussion and contribution

5.1 Theoretical contribution

Since there is a lack of research on the intersection between stakeholder roles and SSCM (e.g., Rebs et al. 2019), this study contributes to the debate around the role stakeholders may play regarding SSCM practices. For example, Liu et al.'s (2018) study focused on supplier development, representing only one component of SSCM (Beske and Seuring 2014). Our study extends the debate around stakeholder roles from supplier development to SSCM. It is in line with current studies that the SSCM discourse shows shortcomings regarding stakeholder roles (e.g., Carmagnac 2021). Hence, our findings explain stakeholders' relevance and roles in the SSCM context, but possible research gaps could also be identified. Thus, to the best of our knowledge, this is one of the first comprehensive studies on stakeholders and their roles in the SSCM debate.

Although most of the reviewed publications showed no specific approach (see Table 6), the instrumental stakeholder approach—focusing on why companies should consider stakeholders—was found the most frequently in those articles with an approach (e.g., Awan et al. 2017; Maas et al. 2018; Roscoe et al. 2020). This is in line with Gold and Schleper (2017), who indicated that an instrumental perspective might dominate the discourse around SSCM because current business systems are shaped by a North American philosophy of profit maximization.

Furthermore, this literature review indicates that some core constructs have been largely overlooked in the SSCM debate. Against our expectations, SC continuity or collaboration constructs had a rather moderate or even low occurrence (see Table 8), even though SC continuity brings sustainable benefits for all SC members (Beske and Seuring 2014). While enhanced communication (a collaboration practice) appeared in both the content and contingency analyses, the two other collaboration constructs (i.e., technological and logistical integration) showed low frequencies, even though Beske and Seuring (2014) outlined the importance of technical and logistical integration in the SSCM context.

In line with the results from the contingency analysis (see Fig. 2), previous studies argued that striving toward sustainability means building long-term relationships with suppliers and firmly integrating them into the SC (e.g., Beske and Seuring 2014; Rebs et al. 2019).

While the results suggest that companies tend to drop suppliers instead of cooperating with or developing them (Busse 2016; Chen and Kitsis 2017), the

analysis also identified possibilities for stakeholders to support focal firms in developing their suppliers (e.g., training provided by NGOs) (Govindan 2018; Padhi et al. 2018). Thus, more participatory research approaches (e.g., action research) with multi-stakeholder networks might be a valuable research avenue to support companies in achieving more sustainable SCs. Wickert et al. (2021) also called for more research with managerial implications and impact.

By returning to Table 8 and Fig. 2, both analyses provided evidence that stakeholder management and integration are essential for SSCM. Proactive engagement with SC external stakeholders facilitates the organizational learning process due to capability development, increased understanding and awareness of sustainability, and knowledge creation (Oelze et al. 2016; Seuring et al. 2019). For example, León-Bravo et al. (2019) found that collaborating with NGOs can raise environmental awareness, cut costs, and increase natural resource efficiency. This engagement can ultimately lead to competitive advantage (Chen and Kitsis 2017). According to Wolf (2011), integrating stakeholders to collaborate and exchange expectations requires specific capabilities and is essential for SSCM.

However, this study complements the findings of earlier research concerning the relevance of proactive behavior within SSCM (e.g., Pagell and Wu 2009). Several studies have indicated that companies start to apply SSCM practices once they face pressure from stakeholders, which has been described as reactive behavior and linked to reputation and legitimacy loss (Busse 2016; Wilhelm et al. 2016; Wolf 2014). This strengthens the value of proactive and collaborative measurements to deal with stakeholder issues before putting pressure on a company, in line with Pagell and Wu (2009) and Siems and Seuring (2021).

Furthermore, Multaharju's (2016) conceptual work defined a framework that shows how companies' performance might trigger stakeholder reactions. According to Multaharju (2016), using an empirical research approach might be valuable for investigating how focal firms' sustainability performance and their entire SC might trigger stakeholder reactions.

Although various SSCM scholars outlined the lack of research on the social dimension in the debate in the past (e.g., Rebs et al. 2017), authors such as Meqdadi et al. (2020) and Roy et al. (2020) identified that there is still a need for research on social aspects in SSCM. Thus, Roy et al. (2020) proposed analyzing how social companies manage their stakeholder relationships under their social (business) purpose via a case study approach with a multi-tier perspective. Similarly, it might be worth investigating how focal firms' SC sustainability performance might trigger stakeholder reactions using an empirical research approach, as Multaharju (2016) suggested.

According to Touboulic and Walker (2015) stakeholder theory is one of the most commonly applied theories in the SSCM field. Yet the debate has been somewhat limited to using stakeholders as reasoning for SSCM, with some exceptions, such as Rodríguez et al. (2016). Thus, a more differentiated debate involving more comprehensive approaches, such as the integrative framework put forward by Hörisch et al. (2014), might give us more insights into incorporating stakeholders in SC as proposed by Pagell and Wu (2009).

In line with this, future research could differentiate stakeholders regarding their sector of operation and associated tier-level. This promises important insights because the visibility and influence of stakeholders differ among sectors and tier-levels which might affect the roles they take in the context of SSCM.

5.2 Practical contribution

In addition to the theoretical contribution, our study has some practical implications. For example, engaging with stakeholders and their integration into business processes can increase learning capabilities by gaining new knowledge and other resources.

According to Stekelorum et al. (2020), collaborating with international NGOs gives SMEs and their SC members access to the NGOs' expertise and experience regarding other stakeholders and their expectations. Thus, they can assist companies in bridging existing knowledge and resource gaps which allows for improving their SSCM practices (e.g., Siems and Seuring 2021; Wankmüller and Reiner 2020). In addition, this accumulation of external and internal expertise can lead to innovative ideas for meeting SSCM challenges and, thereby, gaining a competitive advantage (Chen and Kitsis, 2017; Oelze et al., 2016). Hence, this kind of insight can help in deciding whether to integrate stakeholders into SSCM practices.

Moreover, integrating stakeholders into SSCM processes, such as assessing the company's own or its suppliers' performance, provides the opportunity to gain more legitimacy to do business and create additional value (Norris et al. 2021). Additionally, more proactive and integrative corporations with stakeholders can provide an external view for integrating, assessing, or evaluating SSCM practices.

Besides gaining more legitimacy or a competitive advantage, engaging with SC stakeholders can help managers fill existing knowledge and resource gaps. On the one hand, stakeholder claims can be fulfilled internally because of extended resource bases. On the other hand, working with stakeholders offers the chance to reach suppliers beyond boundaries arising from a physical or institutional distance (Sauer and Seuring, 2018). In this context, stakeholders can facilitate communication, assessment, and evaluation of suppliers and provide support to develop training programs.

5.3 Limitations

The results contain opportunities for both practitioners and scholars, but our study faced three major limitations. First, while we grounded our research in selected constructs from the SSCM literature, a more reflective approach with other stakeholder and SSCM constructs might yield additional or different insights. For example, the results show that the inspector role appears underrepresented compared to the other two roles. Furthermore, analyzing the negative impact of SC internal and external stakeholders (i.e., hindering or undermining SSCM) might provide additional insights since our study focused instead on positive roles. Thus, it can be questioned why inspector-related SSCM practices remain underrepresented to date and whether the role of stakeholders could be stronger in the SSCM context.

Second, although we based our research on established theoretical constructs and the data analysis followed strict rules (e.g., Mayring 2015), within-study bias could not be entirely avoided because most of the coding was done by one researcher. Third, the data, restricted to keywords, might cause the limited generalizability of our results. The extensive and valuable results might be an additional ex-post justification for our selected theoretical constructs and keywords.

However, our study's limitations create future research opportunities, and by taking those partly contrasting results into account, future studies might yield interesting insights and could extend our understanding. The next step could be an explorative case study approach applying the proposed SSCM and stakeholder constructs. Focusing in particular on both positive and negative roles would extend our understanding of SC internal and external stakeholders' role in achieving a more sustainable SC.

6 Conclusion

Since integrating non-traditional SC stakeholders, such as NGOs and competitors, in SC practices is essential for achieving a more sustainable SC, this study contributes to the debate around the role stakeholders may have in SSCM practices. Our study extends the debate around stakeholder roles from supplier development to SSCM and provides evidence of their relevance in the SSCM context.

Based on the qualitative content analysis, the findings reveal different stakeholder roles in the context of SSCM practices and explain their relevance. For example, stakeholders, such as NGOs and universities, can facilitate the implementation of SSCM practices owing to their access to valuable knowledge, skills, and other resources. Similarly, proactive engagement with SC external stakeholders appears to lead to a competitive advantage and drive competitors toward sustainability by creating the need to mimic these practices. Conversely, the results indicate that companies' reactive behavior results in the risk of reputation loss and strengthens the line of argumentation for proactive and collaboration measurements. Thus, SC internal and external stakeholders facilitate the development of learning and innovation capabilities and support the detection of risks or improvement potential. Nevertheless, the inspector role of stakeholders related to SSCM practices has been underrepresented, according to the content and contingency analyses. Thus, further studies could take into account these insights.

While recent studies (e.g., Maas et al. 2018; Rebs et al. 2019) considered only stakeholder pressure and its impact on performance, our study applied a more differentiated view regarding stakeholders.

Therefore, our study is one of the first efforts to apply a more differentiated view to stakeholders and their roles in the SSCM debate. By considering our results, future research could apply a case study design to gain a deeper understanding of stakeholders and their roles in achieving a more sustainable SC.

Declarations

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