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Social sustainability tensions in multi-tier supply chain: A systematic literature review towards conceptual framework development

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ABSTRACT

As many unethical practices and violations of social norms originate from higher tier suppliers and their sub-suppliers, it is of paramount importance to ensure social sustainability in the entire supply chain, especially for higher tier suppliers. This has led to a considerable increase in interest among the researchers and academicians working in the domain of social sustainability. This article reviews 129 research papers published in different journals and attempted to identify drivers, issues, barriers, tensions, practices, and performances related to social sustainability in multi-tier supply chains. The prevalent theories and governance mechanisms of social sustainability in multi-tier supply chains have also been presented. The commonly used theories are stakeholder theory, institutional theory, resource based view theory, transaction cost economics theory, grounded theory, and resource dependence theory. It is observed that most of the papers have presented drivers, barriers, issues, and practices in generic ways by conducting exploratory case studies using single case or multiple cases; there is a distinct lack of multi-tier perspectives devoted to the context of emerging economies. The tension, an important aspect of implementation of social sustainability practices, has not been addressed adequately in the extant literature for multi-tier supply chains. This review also proposes a conceptual framework of social sustainability linking drivers, issues, barriers, tensions, practices, and performances. Finally, future avenues of research on social sustainability have been outlined.

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1. Introduction

Environmental, social, and economic dimensions are the three important pillars of sustainable supply chains (Carter and Rogers, 2008; Govindan et al., 2020b). Bruntland (1987) defined sustainability as “development that conforms to the demands of today without compromising the ability to help the future generations.” It is argued that environmental and social practices and economic performances are closely interrelated and can be pursued simultaneously to achieve true sustainability (Elkington, 1997; Carter and Rogers, 2008). Hassini et al. (2012) defined sustainable supply chain management as “[…] the management of supply chain operations, resources, information, and funds in order to maximise the supply chain profitability while minimising the environmental impacts and maximising the social well-being.” The practices of environmental sustainability include green products and process design (Rusinko, 2007; Heydari et al., 2020); the use of eco-friendly materials and minimisation of pollution, bearing of greater environmental responsibility (Klassen, 2001); adoption of green procurement strategies (Varnas et al., 2009); circular procurement (Kannan et al., 2020); reverse logistics (Varma et al., 2006); minimisation of carbon footprint through energy efficient logistics, and the use of cross docking and green packaging (Ji et al., 2014), among other approaches. Social sustainability overlaps with corporate social responsibility (CSR) and addresses the well-being of human beings and society through the management of social resources (Sarkis et al., 2010; Panigrahi et al., 2019; Govindan et al., 2021); the alleviation of poverty, respecting justice, human rights, and employee welfare (Krause et al., 2009); and transparency of work (Kumar and Rahman, 2017; Govindan et al., 2019). Carroll (1991) proposed a pyramid of CSR in the form of a hierarchy of
economic, legal, ethical, and other voluntary activities and responsibilities to help stakeholders and society in which the organisation is operational. The term “social responsibility” was first used by Howard Bowen in 1953. According to him, it is referred to as “the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action, which are desirable in terms of the objectives and values of our society” (Carroll, 1999).

In the present scenario, the supply chains are very complex and consist of multiple tiers of suppliers spreading across the world (Mena et al., 2013). It has been realised that management of sustainability at different tiers is crucial to achieve sustainability throughout the entire supply chain. There has been little initiative to implement sustainability and CSR activities by multi-tier suppliers. It has been found that the serious violations of environmental and social practices often happen at tier-2 suppliers or further upstream and their sub-suppliers (Meinschmidt and Schleper, 2018). Several instances of unsustainable behaviors, violations of environmental or labour laws by suppliers or sub-suppliers of multi-national firms have been reported (Seuring and Müller, 2008; Wolf, 2014), leading to reputational damage and financial loss to major brands (Seuring and Müller, 2008) and consumers attribute responsibility to the focal firm for such behaviors (Hartmann and Moeller, 2014). In 2013, the collapse of Rana Plaza building in Bangladesh, which killed more than a thousand workers, received international attention and raised serious concerns about lapses from the suppliers’ side to maintain safe working conditions for the workers (Huq et al., 2014).

It has been noted by many researchers that social sustainability has not gained as much attention as environmental sustainability (Zorzini et al., 2015; Yawar and Seuring, 2017; Silva et al., 2019). Huq et al. (2014) found that most extant works on social sustainability are from developed countries, and that the situation is even more challenging in developing countries. Managers give more priority to environmental and economic sustainability compared to social sustainability (Kusi-Sarponga et al., 2019). Besides, there is a dearth of research and conceptual frameworks considering sustainability in multi-tier supply chains (Tachizawa and Wong, 2014; Nakamba et al., 2017; Köksal et al., 2017; Abbasi, 2017; Mani et al., 2016a).

Mena et al. (2013) studied the structure and dynamics of multi-tier supply chain management (SCM). Tachizawa and Wong (2014) examined existing literature and theories of multi-tier SCM and provided a framework for studying sustainability in these multi-tier supply chains. Their studies primarily focused on environmental sustainability and did not cover social sustainability. Zorzini et al. (2015) studied social issues in sourcing and pointed that there is a need for research from the suppliers’ and multi-stakeholders’ perspectives. Abbasi (2017) reviewed the major themes and challenges for socially sustainable supply chains and argued that understanding them would help business practitioners to design a socially sustainable supply chain. Köksal et al. (2017) completed an extensive literature review on social sustainability in the textile and apparel industry and developed a conceptual framework to manage social risk. They identified enablers, drivers, and barriers, integrating focal firms and multi-tier suppliers, and their work emphasised the need to further investigate lower tier suppliers.

The current body of supply chain literature demonstrates little attention to the terms of sustainability in multi-tier supply chains; therefore, further research is needed to better understand problems that arise in emerging economies. More specifically, fruitful research needs to incorporate a true focus on the triple bottom line is multi-tier supply chains in diversified sectors (Jabbour et al., 2018). It is agreed that sustainability should be a part of business decisions but its implementation is hindered by barriers that lead to multiple tensions among the actors in the supply chain. The tensions are overcome by practices and strategies through which drivers help organisations to adopt practices that can achieve sustainability goals. As mentioned above, there is a lack of conceptual frameworks and research in social sustainability pertaining to multi-tier supply chains; therefore, an in-depth enquiry in this area is needed. To bridge this gap, a conceptual framework that addresses the following research questions has been proposed incorporating drivers, barriers, tensions, issues, practices, and performances in a multi-tier supply chain. This work addresses the following research questions to the supply chain fraternity.

RQ1: What are the drivers and barriers of social sustainability in multi-tier supply chains?
RQ2: What are the social issues in multi-tier supply chains?
RQ3: What are the sustainability tensions and social sustainability practices in multi-tier supply chains?
RQ4: How do the social sustainability practices impact performance of multi-tier supply chains?

The rest of the paper is arranged as follows. Section 2 provides a review of the literature available in the domain of social sustainability. Section 3 presents the methodology adopted for the systematic literature review. Section 4 outlines the descriptive statistics of research papers. Section 5 introduces social sustainability in multi-tier supply chains. Section 6 presents drivers, issues, barriers, and tensions of social sustainability from a multi-tier perspective and then proposes a conceptual framework linking the aforesaid elements. Section 7 presents some research questions and section 8 targets the future scope of research. Finally, section 9 presents the conclusions.

2. Review of literature reviews

In this section, an attempt has been made to analyse the existing literature reviews on social sustainability and to figure out the areas that have not been given due attention. This process is essential for content analysis and framework development (Kannan and Hasanagic, 2018).

From the existing literature reviews, it is observed that review papers have been written focusing on social issues (Zorzini et al., 2015), emerging themes, challenges associated with implementation, and assessment of social sustainability (Abbasi, 2017; Nakamba et al., 2017; Sodhi and Tang, 2017). Galuppo et al. (2014) reviewed social sustainability based on multi-stakeholder theory. They suggested that the implementation of social sustainability in any organisation requires participation of all stakeholders. However, the reality of all stakeholders having different priorities, and the fact that sometimes those priorities are by nature opposed, leads to conflicts. Zorzini et al. (2015) reviewed literature on socially responsible sourcing. Their findings suggest that more empirical research and the development of quantitative performance indicators can be used to study financial implications and benefits. Bubicz et al. (2019) reported current trends and identified research gaps on different dimensions of social sustainability in supply chains. According to them, people and product are the key points. People aspects are human rights, decent working conditions, and community engagement, and the product aspect is safety of the consumers from the product use.
practices and improve performances. Köksal et al. (2017) developed a conceptual framework consisting of major actors and associated drivers, barriers, and enablers for the management of social risks after conducting a state-of-the-art literature review pertaining to fashion supply chain. Through the observation that the measuring of social sustainability is not as easy as environmental and economic sustainability, a number of review papers deliberated on developing frameworks for social sustainability measurement (Ajmal et al., 2018; Stanisikienė and Stankevičiūtė, 2018; D’Eusani et al., 2019). D’Eusani et al. (2019) reviewed tools and methods available to measure social sustainability aspects and performances. It is emphasised that social sustainability should be a part of business decision strategy along with economic and environmental sustainability (Ajmal et al., 2018). It is believed that international certification such as SA8000 would help to mitigate social risks and have been made compulsory for the suppliers. It is sometimes misused by the suppliers as such practices don’t help workers (Köksal et al., 2017). Suppliers are pressured to lower costs to secure orders and simultaneously practice social management practices. This creates tensions between buyers and the suppliers. The tension is inevitable as conflicts occur among the goals and constraints of buyers and suppliers. Existing literature reviews illustrate the need for an integrated model or conceptual framework that establishes links among different aspects of social sustainability. This gap is addressed in the conceptual model proposed by linking drivers, barriers, issues, tensions, practices, and performance. The summary of the previous literature reviews on social sustainability is given in Table 1.

Although existing reviews on socially sustainable supply chains have covered various aspects including employee perspective, governance mechanism, stakeholder’s theory, themes, challenges and measurement, there is a lacuna in terms of a framework relating drivers, barriers, tensions, practices, and performance of socially sustainable supply chain.

### 3. Methodology

A systematic literature review methodology has been chosen to discern answers to the aforesaid research gap as this method helps researchers to understand length, breadth, and depth of a particular research area and to synthesise information in unbiased manner by collecting literature from available bibliographic databases (Jaegler et al., 2017; Tranfield et al., 2003; Denyer and Tranfield, 2009). In this paper, we seek to identify drivers, barriers, issues, tensions, and practices pertaining to implementation of social sustainability in multi-tier supply chains and consequent performance.

In the first stage, relevant papers were searched using the library service of EBSCO (ebSCO.com), which covers electronic databases of popular publishers, namely Elsevier, Wiley, Springer, Emerald, and Sage. The following search strings were used: “Social Sustainability” OR “Corporate Social Responsibility” OR “CSR” AND “Supply Chain” AND “Multi-tier” OR “Sub-supplier” OR “Sustainability Tensions”. The suffix “*” was used to ensure wider coverage of the literature while searching the databases. The EBSCO produced a list of 4742 articles based on the presence of the search strings in title and abstract of papers. The articles were further filtered by selecting language and year range of publication. English language and articles published from 1989 to 2019 were selected. That filtering resulted in a total of 3487 peer-reviewed articles. The subject filter was then applied to find out articles related to this research. Following subjects were used for the filtering purposes: social sustainability, sustainable development, sustainability, supply chain management, sustainable development — analysis, social responsibility of business, supply chains, corporate social responsibility, economic sustainability, indicators, social capital, governance, social impact assessment, framework, assessment.

### Table 1
Summary of previous literature reviews.

| Title                                                                 | Authors                         | Summary                                                                                           |
|----------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------|
| “Social sustainability and supply chain management: Methods and Tools” | D’Eusani et al. (2019)          | Reviewed existing tools and methods to assess social impacts or performances of socially responsible supply chain actors in order to achieve competitive advantages. |
| “Incorporating social aspects in sustainable supply chains: Trends and future directions” | Bubic et al. (2019)             | Reviewed literature on social sustainability dimensions in supply chain management research and identified trends and research gaps. |
| “Social sustainability measurement framework: The case of employee perspective in a CSR-committed organisation” | Stanisikienė and Stankevičiūtė (2018) | Reviewed literature on measurement of social sustainability and developed framework for the same from the employee perspective. |
| “Conceptualizing and incorporating social sustainability in the business world” | Ajmal et al. (2018)             | Reviewed frameworks for social sustainability indicators from the societal and company perspectives. Findings suggest that social, economic, and environmental sustainability can be practiced simultaneously. |
| “Sustainable supply chain management: A review of literature and implications for future research” | Panigrahi et al. (2019)         | Covered different aspects of sustainable supply chain and indicated the need for more research in the area of social sustainability. |
| “Social sustainable supply chain management in the textile and apparel industry — a literature review” | Köksal et al. (2017)           | Reviewed social sustainability in sustainable supply chain in textile/apparel sector as field of application. A conceptual framework related to drivers, barriers, enablers for social risk management was proposed. |
| “Towards Socially sustainable supply chains — Themes and challenges” | Abbasi (2017)                   | Reviewed literature on social sustainability and reported emerging themes and challenges. Identified eight high-level themes for social sustainability. Proposed 4P model, which implies pressure and partnership influence practice, and, in turn, performance. |
| “Corporate social sustainability in supply chains: a thematic analysis of the literature” | Sodhi and Tang (2017)           | Exclusively focussed on issues in socially responsible sourcing in upstream suppliers. |
| “How does social sustainability feature in studies of supply chain management? A review and research agenda” | Nakamba et al. (2017)          | Reviewed social sustainability focusing on stakeholder’s theory and found that building a socially sustainable organisation requires involvement of multi-stakeholders which often creates conflict among them. |
| “Corporate social responsibility for supply chain management: A literature review and bibliometric analysis” | Feng et al. (2017)              | Reviewed literature on governance structure used to extend sustainability to suppliers. Findings suggest that assessment and collaboration have positive influence on sustainability practices. |
| “Socially responsible sourcing: reviewing the literature and its use of theory” | Zorzini et al. (2015)           |                                                                                                  |
| “Building social sustainability: multi-stakeholder processes and conflict management” | Galuppo et al. (2014)           |                                                                                                  |
| “Extending sustainability to suppliers: A systematic literature review” | Gimenez and Tachizawa (2012)    |                                                                                                  |
performance, social impact, sustainable supply chain management, and socioeconomics. This step resulted in 2180 articles. The articles were further screened to eliminate duplicate results and irrelevant papers. Then, an abstract analysis was performed, and 242 relevant articles were shortlisted. Finally, full papers were analysed to select papers which were written in a multi-tier perspective and linked with any one of the research questions. Finally, 85 articles were selected for analysis. The selection process of articles is summarised in Table 2. Scopus is a widely used bibliographic database; hence, it was used to figure out useful literature. The same keywords were used as in step 1. It resulted in 361 papers from Scopus database. After reading the abstracts and eliminating common papers, 44 relevant papers were identified and selected for full-text analysis.

4. Descriptive statistics

In this section, the selected papers are examined in detail in terms of year of publication, methodology used, geographic area, industry contexts and coverage in terms of focal company or multi-tier suppliers.

4.1. Year-wise frequency of publications

Fig. 1 depicts the year-wise frequency of research papers considered in this study published from July 2006 to December 2019. The number of publications has increased rapidly from 2014 and has appeared in a wide variety of journals. This shows increased interest of the researchers in this field.

4.2. Distribution of research papers by methodology

When the papers are classified based on research methodology, the distribution according to research methodology are: case study (29%), analytical (25%), literature review (19%), theoretical (10%), survey (10%), interview (5%), and content analysis (2%). The distribution of papers according to research methodology is depicted in Fig. 2. In case study-based approaches, researchers selected cases from either single or multiple firms belonging to the same or different sectors. Semi-structured questions and publicly available secondary data were used to carry out case studies by the researchers. A number of quantitative techniques were used to study various aspects of social sustainability. These techniques include Analytic Hierarchy Process (AHP), fuzzy AHP, hybrid multi-criteria decision making (MCDM), fuzzy Technique for Order Preference by Similarity to Ideal Solutions (TOPSIS), ViseKriterijumska Optimizacija I Kompromisno Resenje (VIKOR), best-worst method, interpretive structural modelling (ISM), decision making trial and evaluation laboratory (DEMATEL), confirmatory factor analysis, regression analysis, structure equation modelling (SEM), etc. A few research papers incorporate mathematical modelling such as game theory, multi-objective optimisation, and so forth. The significant proportion of literature review (19%) in the dataset indicates that the body of knowledge of social sustainability is still emerging and being consolidated by focusing on certain aspects. The papers that categorically specified survey and interview as research methods were included in survey and interview categories, respectively.

4.3. Research coverage, industry settings, and geographic contexts

Articles have been classified based on the organisation type, namely focal firm, suppliers, and multi-tier network. Around 46% papers covered focal companies and their suppliers, whereas 24% and 13% covered tier-1 suppliers and multi-tier suppliers, respectively. However, 11% papers did not mention the firm type. Around 50% and 43% of the research papers covered social sustainability and social-environmental sustainability, respectively. Moreover, the issues of social sustainability are more prevalent in manufacturing sectors, largely because they employ a significant number of workers. Therefore, researchers have selected manufacturing sectors, including automobile, chemical, dairy, electronics, food, consumer products, textiles and clothing, etc. for studying various facets of social sustainability. Besides, a sizeable portion of the research papers have originated from China, India, Bangladesh, and Brazil which are manufacturing hubs for lean production. However, a few papers covered social sustainability aspects in developed countries such as the USA, UK, Germany, and Australia.

4.4. Journal-wise distribution

Table 3 shows the number of paper(s) published in a particular journal. The maximum number of publications is reported in “Journal of Cleaner Production” followed by “International Journal of Production Economics,” “Journal of Business Ethics,” and “Sustainability.” From Table 3, it is evident that this area is popular among the researchers of diverse fields.

4.5. Theories used

Given the complex nature and the novelty of social sustainability research areas, researchers utilise a number of theories to explain drivers, barriers, governance structures, and performance of multi-tier supply chains. Fig. 3 shows the spectrum and frequency of theories used in this paper. The commonly used theories

Table 2

| Step | Details | No. of articles |
|------|---------|----------------|
| **Step 1: Keywords search** | Keywords used in search space of title and abstract were “Social sustainability” OR “Corporate Social Responsibility” OR “CSR” | 4742 |
| | AND “Supply Chain” AND “Multi-tier” OR “Sub-supplier” OR “Sustainability Tensions” | |
| **Step 2: 1st stage of filtering of articles** | Inclusion criteria: only peer-review articles | 3487 |
| | Language of paper: English | |
| | Year of publication: from 1989 to 2019 | |
| **Step 3: 2nd stage of filtering of articles** | Use of subject filters: Social sustainability, sustainable development, sustainability, supply chain management, sustainable 2180 development – analysis, social responsibility of business, supply chains, corporate social responsibility, economic sustainability, indicators, social capital, governance, social impact assessment, framework, assessment, performance, social impact, sustainable supply chain management, socioeconomics | |
| **Step 4: 3rd stage of filtering of articles** | Removal of duplicate and irrelevant papers | 242 |
| | Abstract analysis | 85 |
| | Full paper analysis | 44 |
| **Step 5: Final selection of articles** | Full papers from Scopus | 129 |
are stakeholder theory, transaction cost economics theory, institutional theory, grounded theory, agency theory, paradox theory, resource-based view theory, and resource dependence theory; however, researchers have used other theories as well. Because there is lack of established theories for social sustainability, it should be noted that some researchers posit descriptive insight from their research without giving reference to any theory (Huq et al., 2014; Zorzini et al., 2015). Zorzini et al. (2015) categorically reviewed literature on sourcing and considered social aspects. They critically evaluated socially responsible practices through theoretical lenses. The survival and prosperity of any company depends on direct and indirect influence of stakeholders since they play multifaceted roles. Accordingly, the stakeholders approach has been widely used to assess the social performance of a company. Stakeholder theory is popular because of its theoretical rationality and empirical applicability (Chi, 2011). The relevance of stakeholders has been recognized by many definitions of social sustainability (Egle Staniskiene and Zivile Stankeviciute, 2018). The constructs of transaction of economics fully or partially support the observations on social sustainability in ready-made garment manufacturing sectors of Bangladesh considering buyer-supplier relationships (Huq et al., 2014). Awan et al. (2018) used transaction costs of economics and proposed that cultural intelligence could improve the execution of contracts and could reduce coordination and information exchange costs. Shen et al. (2015) used resource-based theory to identify barriers of CSR. Huq and Stevenson (2018) used institutional theory to demonstrate how horizontal collaboration among the buyers compel suppliers to follow social sustainability practices. Resource dependence theory has been used to study workplace safety compliance at garment factories; meeting rules and regulations of safety compliance has financial implications and is often linked with collaborative long-term partnerships (Akbar and Ahsan, 2019). Stakeholder theory, institutional theory, transaction cost economics theory, and resource-based view theories have been used to explain drivers and barriers of social sustainability. It is noted that a single theory may not be sufficient; hence, researchers commonly employ more than one theory to comprehensively explain their findings and to develop a suitable model (Pagell and Wu, 2009; Zorzini et al., 2015). Mani et al. (2018) used resource-based view, stakeholder resource-based view, resource dependence theory, and institutional theory to study how supply chain performance is enhanced through a
supplier’s social sustainability practices and through collaborations between buyer and suppliers. The agency theory has been used to describe buyer-supplier relationships where buyers use their control to monitor suppliers as agents. On many occasions, tier-1 suppliers act as an agent of buyers to ensure sustainability in tier-2 and higher suppliers (Wilhelm et al., 2016a). In contrast, however, as an alternative to agency theory, the stewardship theory advocates that suppliers are self-motivated and work autonomously as per the contract with buyer for the common goal of the business (Alander et al., 2016). Multi-tier supply chain sustainability is a challenging task. It is argued that this task can be handled more effectively with supply chain leadership than with supply chain power. As a result, multiple leadership theories have been posited for supply chain leadership. The combined effect of supply chain leadership and governance help multi-tier suppliers to orient to supply chain learning for sustainability (Jia et al., 2019). Four modes of multi-tier supply chain have been identified by Tachizawa and Wong (2014). Sustainability tension is another important aspects of implementation of sustainability in the supply chain. Paradox theory has been widely used to address tensions arising by pressure from the stakeholders to implement sustainability (Bommel, 2018; Brix-asala et al., 2018; Fang et al., 2011).

| Name of the journal | No. of papers | Name of the journal | No. of papers |
|---------------------|--------------|---------------------|--------------|
| Journal of Cleaner Production | 22 | Management Research Review | 1 |
| International Journal of Production Economics | 16 | Management Decision | 1 |
| Journal of Business Ethics | 9 | Logistics Research. | 1 |
| Sustainability | 7 | Logistics | 1 |
| International Journal of Physical Distribution and Logistics Management | 6 | Journal of the Textile Institute | 1 |
| Journal of Supply Chain Management | 6 | Journal of Purchasing & Supply Management. | 1 |
| Supply Chain Management: An International Journal | 6 | Journal of Operations and Supply Chain Management | 1 |
| International Journal of Operations & Production Management | 5 | Journal of Modelling in Management | 1 |
| Journal of Operations Management | 3 | Journal of International Studies | 1 |
| International Journal of Production Research | 3 | Journal of Global Responsibility | 1 |
| Social Responsibility Journal | 2 | International Journal of Sustainable Development & World Ecology | 1 |
| Resources, Conservation and Recycling | 2 | International Journal of Supply Chain Management | 1 |
| Management of Environmental Quality: An International Journal | 2 | International Journal of Productivity and Performance Management | 1 |
| International Journal of Logistics Management | 2 | International Journal of Operations & Production Management | 1 |
| Industrial Marketing Management | 2 | International Journal of Innovation and Sustainable Development | 1 |
| The Academy of Management Review | 1 | International Food and Agribusiness Management Review | 1 |
| Sustainable Production and Consumption | 1 | Global Journal of Flexible Systems Management | 1 |
| Sustainable Development | 1 | Geoforum | 1 |
| Supply Chain Forum: An International Journal | 1 | European Business Review | 1 |
| Strategic Management Journal | 1 | Ecological Indicators | 1 |
| Review of International Business and Strategy | 1 | Corporate Social – Responsibility and Environmental Management | 1 |
| Research Journal of Textile and Apparel | 1 | Clothing and Textiles Research Journal | 1 |
| Renewable and Sustainable Energy Reviews | 1 | Clean Technologies and Environmental Policy | 1 |
| Production Planning & Control The Management of Operations | 1 | Business Ethics Quarterly | 1 |
| Organisational Dynamics | 1 | Annals of the University of Oradea: Fascicle of Textiles, Leatherwork. | 1 |

Table 3. Distribution and number of papers published in different journals.

Fig. 3. Theories used.
5. Social sustainability in supply chain

As stated earlier, social sustainability is one of the pillars of the triple bottom line (TBL) (Kannan, 2018; Rashidi et al., 2020). There are a number of social issues reported in the literature of supply chain management, including violations of human rights and labour rights, child labour, forced labour, discrimination, forced overtime, low wages, poor health and safety, sexual harassment, and the safety of female workers to name a few of the most common social topics. Broadly, social sustainability addresses three points: well-being of human beings, society, and safety of consumers. The human aspect is comprised of skill development (Sarkis et al., 2010); alleviation of poverty and narrowing inequality (Vallance et al., 2011); and respecting human rights, health and safety, welfare, non-discrimination and legitimate wages (Mani et al., 2015; Marshall et al., 2016). The society aspect deals with social values (Sarkis et al., 2010); preserving culture (Vallance et al., 2011); and local community engagement, philanthropy, charity, and hiring local people (Mani et al., 2015). The safety of consumers is also an important part of social sustainability (Klassen and Vereecke, 2012). Product failure, which may happen due to inadequate testing and inspection at the time of production, may put the safety of consumers at risk. As a consequence, businesses may lose customers and incur huge litigation cost. It goes without saying that the fulcrum of social sustainability is people. Trust and common meaning of social sustainability are the bridging links between the employees and their employers (Missimer and Rob, 2017). Mani et al. (2015) emphasised that housing and living conditions of the workers should be considered a business concern. Eizenberg and Jabareen (2017) proposed a conceptual framework of social sustainability consisting of four broad components such as: equity, safety, eco-preservation, and urban forms. Under this framework, they tried to propose a holistic way to ensure the well-being of people, the planet, responsible production and consumption, and to establish emotional connections among people. Zorzini et al. (2015) presented a list of terminology linked to social aspects and sourcing. The summary of important sources of social sustainability is given in Table 4.

6. Content analysis

Content analysis method has been used to collate and synthesise information in order to derive valid insights (Krippendorff, 2004). It is advisable to involve more than one researcher in this process for better understanding of circumstances, periods, contexts, and for ensuring reliable results (Kannan and Hasanagic, 2018; Seuring and Gold, 2012). In this review paper, the contents of the selected articles have been analysed considering drivers, barriers, issues, tensions, practices, and performance of multi-tier supply chains in relation to adoption of social sustainability. The same elements have been described in subsequent paragraphs in order to develop the conceptual framework.

6.1. Drivers of social sustainability in multi-tier supply chain

Drivers or enablers are factors which help an organisation to achieve sustainability goals (Panigrahi et al., 2019). Extensive literature resources are available on drivers for the implementation of sustainability from the perspective of focal firms. The important drivers for adoption of social sustainability, reported in the literature, are pressure from stakeholders, commitment of top management within the focal firm, middle management pressure, government pressure, collaboration with suppliers, owner’s or manager’s value, and the competitive advantages of being sustainable (Ehrgott et al., 2011; Goworek, 2011; Meixell and Luoma, 2015; Walker and Jones, 2012). Kumar and Rahman (2017) studied relationships among the enabling factors of sustainable supply chain management. Many researchers have reported the role of stakeholders on adoption of social sustainability. Pressure from stakeholders is a powerful driver as it may make business organisations aware of sustainability concepts that would lead to the adoption of such practices (Meixell and Luoma, 2015). Government pressure is also an important driver. Some researchers opined that government pressures do not significantly influence social sustainability adoption (Ehrgott et al., 2011); whereas others believed that more government pressure, along with consistent community and consumer pressure, drive implementation of social sustainability (Golicic et al., 2019). Sanche et al. (2015) found that the mimetic pressure positively influences the adoption of sustainable practices. Mani et al. (2015) revealed that pressure from stakeholders such as employee unions, customers, and competitors are powerful drivers. Subsequently, Mani and Gunasekaran (2018) proposed four forces, namely customer, regulatory compliance, sustainability culture, and external stakeholders for adoption of social sustainability. A recent study conducted by Huq and Stevenson (2018) revealed that institutional pressure may not always lead to implementation of social sustainability practices in a true sense.

Incentives such as government tax rebate, assistance from the company’s brand, monetary help from the stakeholders, motivational programs from governmental or other agencies, and long-term partnerships generally inspire focal firms to solve any problems with suppliers. Further, trust and commitment among partners, resource sharing, information sharing, monitoring and auditing of supply chain partners, and joint efforts and planning drive adoption of sustainability (Kumar and Rahman, 2017; Panigrahi and Nune, 2018; Govindan et al., 2020a). Incentives and profit sharing have a high impact on diffusion of environmental and social sustainability in the supply chain (Hou et al., 2019).

According to Marshall et al. (2015), the firm’s commitment for sustainability culture as part of strategies for competitive advantage drives adoption of social sustainability. Goworek (2011) argued that using competitive marketing strategies, small and medium enterprise (SME) can adopt social and environmental sustainability along with financial sustainability to score well-balanced triple bottom line objectives. Managers’ ethics and moral values along with the organisation’s ethical culture help to drive social sustainability practices (Zorzini et al., 2015).

Another group of drivers are related to the well-being of employees and the associated community; this group includes health and safety concerns at the workplace, legitimate wages, employee and community welfare, and employment stability (Diabat et al., 2014; Munny et al., 2019). Huq et al. (2014) discovered many new drivers: a unified single code of conduct, shortage of skilled labourers and consideration of socio-economic condition while implementing sustainability code of conduct. According to them, a single code of conduct would bring uniformity in understanding what suppliers must do as part of social compliance and to avoid multiple inspection and audit costs. To retain skilled labourers, especially when their availability is limited and losing them is costly, the suppliers will have to give rightful wages and other benefits. The adoption of social practices considering culture and socio-economic conditions of developing countries (i.e., contextualisation) also drives social sustainability.

Penalty, reward, cost sharing, and long-term commitment by the focal firm drive social sustainability practices. It is suggested that buyers should penalise non-complying suppliers and reward compliant ones by offering big and regular orders. The implementation of social sustainability practices involves huge cost and suppliers are not certain they will reap monetary benefits out of...
this investment. Cost sharing would inject confidence and motivate suppliers to adopt socially sustainable practices (Huq and Stevenson, 2018). The drivers of social sustainability are presented in Table 5.

6.2. Issues of social sustainability in multi-tier supply chain

Many researchers highlighted social issues in the supply chain that include violations of human rights, hazardous working conditions, lack of health and safety measures, low wages and excessive working time, poor community engagement, and lack of safety and privacy of consumers (Giannakis and Papadopoulos, 2016; Yawar and Seuring, 2017; Dubey et al., 2017; Köksal et al., 2017; Morais, 2017; Delai and Takahashi, 2013). Zorzini et al. (2015) studied social sustainability issues in upstream suppliers. They classified social issues into five broad categories, namely human rights, safety, community, diversity, and ethics. According to Klassen and Vereecke (2012), any aspects of product and process, which can harm people and community, put their safety at risk, are also social issues and must be addressed. Yawar and Seuring (2017) identified a number of social issues in the supply chain, including labour conditions, health and safety, human rights, child labour, gender, inclusion of marginalised and disabled people, alleviation of poverty, and minority development. Dubey et al. (2017) emphasised social issues in their framework for world-class sustainable supply chain management. Yawar and Seuring (2017)

| Authors | Title | Industry context | Social sustainability (SS) insights |
|---------|-------|------------------|-----------------------------------|
| Montalb-Domingo et al. (2018) | “Social sustainability criteria in public-work procurement: An international perspective” | Construction industry | Cultural heritage: Preservation of historical cultural heritage and resources |
| | | | Employment: Employment of labourers including vulnerable groups |
| | | | Health and safety: Health and safety of employees at construction site |
| | | | Local: Local participation and respect for local social values |
| | | | Professional ethics: Fair hiring process and wages; commitment to anti-corruption practices |
| Eizenberg and Jabareen (2017) | “Social sustainability: A new concept” | General | Equity: Equal opportunity irrespective of class, colour, gender |
| | | | Safety: Adoption of all measures to prevent casualties and physical harm |
| | | | Urban forms: Development of community where people are concerned about health, safety, and environment; emotionally connected, and have sense of belongingness for their community |
| Mani et al. (2016b) | “Social sustainability in supply chain: construct development and measurement validation” | Manufacturing | Equity: Equality, gender non-discrimination policy |
| | | | Safety: Efficient education, non-use of hazardous materials and safe movement of product |
| | | | Health and welfare: Adherence to occupational health policy and availability of minimum healthcare facility |
| | | | Philanthropy: Donations to religious organisations, local charities, NGOs, philanthropic activities such as health check-up camps for the society |
| | | | Ethics: Auditing and ensuring social compliance |
| | | | Human rights: Policy for human rights ensuring no child and bonded or sweatshop labour |
| | | | Animal welfare concern: Concern for animal welfare |
| | | | Social impact on customers: Excluding suppliers using unsafe materials with consequences for the consumers |
| | | | Wages: Fair and legitimate wages |
| | | | Equality and diversity: Taking care of health and safety of employees |
| | | | Recruitment: Fair and unbiased recruitment |
| | | | Quality of life: Life at workplace in terms of comfort, happiness and health |
| | | | Philanthropy: Charity work for the employees and community |
| | | | Remuneration and benefits: Fair payment of wages and salary |
| | | | Training and development: Adequate training and skill development for workers |
| | | | Retirement: Retirement benefits as a measure of economic safety |
| | | | Work life balance: Workload, working time allocation in a way to balance between work and personal life |
| | | | Community: Support for local community |
| Zorzini et al. (2015) | “Socially responsible sourcing: reviewing of literature and its use of theory” | Manufacturing | Equity: Equality, gender non-discrimination policy |
| | | | Safety: Adherence to occupational health policy and availability of minimum healthcare facility |
| | | | Urban forms: Development of community where people are concerned about health, safety, and environment; emotionally connected, and have sense of belongingness for their community |
| | | | Human rights: Policy for human rights ensuring no child and bonded or sweatshop labour |
| | | | Human rights concern: Concern for animal welfare |
| | | | Social impact on customers: Excluding suppliers using unsafe materials with consequences for the consumers |
| | | | Wages: Fair and legitimate wages |
| | | | Equality and diversity: Taking care of health and safety of employees |
| | | | Recruitment: Fair and unbiased recruitment |
| | | | Quality of life: Life at workplace in terms of comfort, happiness and health |
| | | | Philanthropy: Charity work for the employees and community |
| | | | Remuneration and benefits: Fair payment of wages and salary |
| | | | Training and development: Adequate training and skill development for workers |
| | | | Retirement: Retirement benefits as a measure of economic safety |
| | | | Work life balance: Workload, working time allocation in a way to balance between work and personal life |
| | | | Community: Support for local community |
| Hutchins and Sutherland (2008) | “An exploration of measures of social sustainability and their application to supply chain decisions” | Food | Animal welfare: Concern for animal welfare |
| | | | Social impact on customers: Excluding suppliers using unsafe materials with consequences for the consumers |
| | | | Wages: Fair and legitimate wages |
| | | | Equality and diversity: Taking care of health and safety of employees |
| | | | Recruitment: Fair and unbiased recruitment |
| | | | Quality of life: Life at workplace in terms of comfort, happiness and health |
| | | | Philanthropy: Charity work for the employees and community |
| | | | Remuneration and benefits: Fair payment of wages and salary |
| | | | Training and development: Adequate training and skill development for workers |
| | | | Retirement: Retirement benefits as a measure of economic safety |
| | | | Work life balance: Workload, working time allocation in a way to balance between work and personal life |
| | | | Community: Support for local community |
Table 5
Drivers of social sustainability in multi-tier supply chain.

| Category | Specific driver | Description | Sources |
|----------|-----------------|-------------|---------|
| **Organisation culture and top management related** | **Individual values and ethics** | Individual values, ethics, and personal interest help to promote organisational sustainability practices. Sustainability culture of an organisation reflects that the organisation cares about environment, society, and communities and adopts practices beyond regulatory pressure. | Carter and Jennings (2004); Harwood and Humby (2008); Carter and Jennings (2002) |
| | **Sustainability culture and orientation** | Top management commitment and support drives coordination among the supply chain partners and promotes sustainability. | Seuring and Muller (2008); Gimenez and Tachizawa, 2012; Kumar and Rahman (2017) |
| | **Owner’s characteristics** | Owners who received overseas education, worked in MNC, feel that it is important to comply with minimum social standards. | Huq et al. (2014) |
| **Stakeholder related** | **Skillful policy entrepreneur** | Ability of entrepreneur to invest in adoption of social sustainability and to institute policy. | Mani et al. (2015) |
| | **Stakeholders’ pressure** | Primary stakeholders are customers, suppliers, employees, top managers and shareholders. Secondary stakeholders are government, NGO, community, media, competitors, trade associations and investors. Stakeholders can also be classified as internal and external also. Stakeholders’ pressure is a very strong driver. | Carter and Rogers (2008); (Goworek, 2011); Ehrgott et al. (2011); Walker and Jones (2012); Huq et al. (2014); Meixell and Luoma (2015); Mani et al. (2015); Wilhelm et al. (2016a); Mani and Gunasekaran (2018); Huq and Stevenson (2018), Kumar and Rahman (2017); Ciliberti et al. (2008); Tencati et al. (2008); Huq et al. (2014); Kumar and Rahman (2017); Diabat and Govindan (2011); Walker and John (2012); Diabat et al. (2014); Mani et al. (2015) |
| | **Customer requirements and pressure** | Customer requirements, specifications and pressure positively influence social sustainability. | Diabat and Govindan (2011); Mani et al. (2015); Kumar and Rahman (2017) |
| | **Government regulations** | Government can influence sustainability adoption through policies and regulations. | Walker and John (2012); Diabat et al. (2014); Mani et al. (2015) |
| | **Incentive and support from government, NGOs, etc.** | Tax rebates from government and financial support from NGOs in terms of providing training etc. facilitate adoption of social sustainability. | Mani et al. (2015); Kumar and Rahman (2017) |
| | **Supplier related** | **Supplier’s strategic capability** | Strategic capability refers to organisational competencies beyond traditional operations performance such as timely delivery, quality, etc. | Ehrgott et al. (2011) |
| | **Availability of funds** | Financial liquidity facilitates achieving long-term sustainability. | Mani et al. (2015); Lion et al. (2016) |
| | **Adoption of safety standards** | Adoption of safety standards at workplace promotes social sustainability. | Diabat et al. (2014); Awan et al. (2019) |
| | **Hazard management** | Active management of health hazards promotes social sustainability. | Diabat et al. (2014) |
| | **Safer working condition** | Healthy and safer working conditions promote social sustainability. | Diabat et al. (2014) |
| | **Employee satisfaction** | Workplace benefits, wellness, compensation benefits, organisational commitment, retirement funds, etc. help to improve morale and employee satisfaction, which drive social sustainability. | Fayet and Vermeulen (2014) |
| | **International certification** | International certification for social sustainability promotes social sustainability. | Huq et al. (2014) |
| | **Economic benefits of social sustainability** | It is perceived that implementation of social sustainability improves productivity by reducing absenteeism and worker’s sickness. | Huq et al. (2014) |
| | **Competitive pressure** | Adoption of social sustainability by a company may force its competitors to do so. | Mani et al. (2015); Kumar and Rahman (2017); Panigrahi and Nune (2018) |
| | **Competition among suppliers for skilled labourers** | Scarcity of skilled labourers leads to competition among the suppliers to retain them. | Huq et al. (2014) |
| **Buyer related** | **Buyer’s learning in supplier management** | It is buying firm’s ability to interact with suppliers for effective cooperation, coordination, and integration with them. | Ehrgott et al. (2011) |
| | **Buyer’s code of conduct** | Implementation of buyer’s code of conduct leads to improvement in social sustainability. | Huq et al. (2014); Meixell and Luoma (2015) |
| | **Strategic competitive advantage** | Buyers take social sustainability as a marketing competitive advantage. | Mani et al. (2015); Huq and Stevenson (2018) |
| | **Corporate social sustainability culture** | It emphasises corporate values, well-being of employees and society. | Schönbom et al. (2019) |
| | **Supplier development** | Supplier development by the buyer, rather than auditing, is a better way to promote sustainability. | Carsten et al. (2010); Huq et al. (2014); Kumar and Rahman (2017) |
| | **Preferential buying** | Awarding better prices or larger orders to the most compliant supplier. | Yu (2008); Huq et al. (2014) |
| **Inter-organisational** | **Trust and commitment among the partners** | Trustworthy relation and commitment among the supply chain partners facilitates social sustainability. | Ciliberti et al. (2008); Tencati et al. (2008); Huq et al. (2014); Kumar and Rahman (2017); Diabat and Govindan (2011); Walker and Jones (2012); Kumar and Rahman (2017); Huq and Stevenson (2018); Mohanty (2018) |
| | **Collaboration and long-term partnership between buyer and suppliers** | Long-term collaboration between buyer and supplier promotes social sustainability. | Kumar and Rahman (2017) |
| | **Resource sharing** | | |

(continued on next page)
proposed three broad strategies, namely communication, compliance and supplier development to address social issues. However, they believed that trust, commitment, collaborative efforts, and development strategies are the most important precursors needed to address social issues. Maria-Ariana (2017) highlighted serious social issues of workers in textile and clothing factories and emphasised that there is a need to focus on creating optimal working conditions, respecting human rights, and paying legitimate wages. A number of researchers reported on the plight of garment workers in Bangladesh and labour-related issues such as excessively long shifts, lack of job security, threat of lay-off, physical and verbal abuse, discrimination in the wages of male and female workers, and sexual harassment (Carlson and Bitsch, 2018; Kabeer and Mahmud, 2004; Lipschutz, 2004; Pashaee et al., 2018). Mani et al. (2016c) studied social issues and practices from three different perspectives, namely suppliers, manufacturers, and customers. Their findings suggest that the degree of adoption of social sustainability varies from industry to industry. Technically advanced sectors, such as energy and power, exhibit better social sustainability compared to labour-intensive industries such as textiles and mining. Corruption and bribery were also reported by many researchers as a challenging social issue, especially in emerging economies (Carlson and Bitsch, 2018; Maria-Ariana, 2017). A summary of social issues in supply chains has been provided in Table 6.

6.3. Barriers of social sustainability in multi-tier supply chains

Barriers, which can be internal or external, are the factors which thwart the implementation, realisation, and achievement of sustainability practices (Köksal et al., 2017). Cost reduction is an internal barrier whereas consumers’ demand for low-priced products is an external barrier (Walker and Jones, 2012). Many researchers admitted that financial considerations such as pressure of cost reduction by the buyers (Shen et al., 2015); lack of financial assistance from the government and industrial associations (Chi, 2011) and lack of loan availability from banks for sustainability related activities (Panigrahi and Nune, 2018) are important barriers. Lack of pressure from the stakeholders, namely trade unions and shareholders (Mani et al., 2016a) and lack of top management commitment (Shen et al., 2015; Akbar and Ahsan, 2019; Walker and Jones, 2012) are additional barriers which prevent adoption of social sustainability practices. Lack of strict government laws and their lax enforcement make it easy for the suppliers to escape from the responsibility of adopting social sustainability practices (Panigrahi et al., 2019; Mani et al., 2016a; Majumdar and Sinha, 2019). Panigrahi and Nune (2018) pointed that lack of employment stability, lack of health and safety measures, poor community economic benefits, lack of scope of improvement in products’ characteristics, inadequate infrastructure development, and lack of skilled human resources are important barriers to adoption of sustainability practices. Negligence of health and workplace safety are also considered as barriers (Akbar and Ahsan, 2019; Panigrahi and Nune, 2018). Other barriers are lack of awareness (Mani et al., 2016a; Köksal et al., 2017); lack of moral and values (Movahedipour et al., 2017); lack of willingness and initiatives of political parties (Carlson and Bitsch, 2018); cultural mismatch (Huq et al., 2014); bribery and corruption (Carlson and Bitsch, 2018; Huq et al., 2014); lack of training and education (Zorzini et al., 2015; Ali et al., 2018); and a lack of competitive pressure (Mani et al., 2016a). A recent study done by Koster et al. (2019) on Indian suppliers reveals that there is intrinsic drive to pay attention to the conditions of labourers. Multi-tier suppliers are typically small and medium scale enterprises and they lack in terms of resources. Lion et al. (2016) also observed that it is very difficult to implement sustainable practices at smaller companies because of insufficient competencies or resource constraints even when top management may have high interest in it. The barriers have been categorised for easy understanding and are listed in Table 7.
6.4. Sustainability tensions in multi-tier supply chain

Tension is generally considered as a negative consequence which emerges from contradictory goals and interests among collaborating partners (Fang et al., 2011). For example, ethical sourcing and purchasing improves a focal firm’s reputation, but may force their suppliers to change their operations or even break the relationship if they do not comply. Such a situation leads to mental and financial stress among the suppliers (Jackson and Young, 2016). Tensions are also known as side effects or “the darker side” of sustainability (Tura et al., 2019; Johnsen and Lacoste, 2016).

In supply chain, tensions can arise from competing goals between a number of factors such as: short-term profitability and long-term environmental sustainability, cost efficiency and sustainability, and stakeholders’ and shareholders’ interest (Xiao et al., 2019). As sustainability in the supply chain is a multi-dimensional issue, its implementation often leads to the development of multiple tensions (Farznejad et al., 2018). The major sustainability tension is the competitive demand between cost optimisation and socio-environmental sustainability (Brix-asala et al., 2018). It is generally believed that sustainable business practices lead to win-win situations but implementation leads to potential tensions and conflict. Tura et al. (2019) identified 20 different types of tensions categorised under four broad areas while implementing sustainable business practices. These broad categories are economic, structural, psychological, and behavioural in a business network comprising of suppliers, focal firms, customers, and other partners. Economic tensions include higher investment, cost of operational changes incurred by the suppliers in order to adapt new processes, and code of conducts or sustainability requirements (Tura et al., 2019). Similar findings were also reported by Huq et al. (2014) as suppliers incur additional cost to fulfill sustainability requirements of buyers. Structural tensions arise when buyers need to exercise, monitor, and control their suppliers, in order to ensure that suppliers fulfill the code of conduct. For distant suppliers, buyers generally rely on third party auditing, which sometimes leads to confrontational relationships with suppliers (Huq et al., 2014; Hamnibal and Kauppi, 2004). When suppliers fail to fulfill buyer’s code of conduct, the latter tends to terminate business relations. Mistrust among the buyers and their suppliers is considered as

| Table 6 | Issues of social sustainability in multi-tier supply chain. |
|---------|-------------------------------------------------------------|
| **Category** | **Specific issues** | **Description** | **Sources** |
| Labour related | Child labour | Age of the employee less than legal age for employment in manufacturing company. | Mani et al. (2018) |
| | Forced or bonded labour | Workers are forced to work against their will, under threat of punishment. | Mani et al. (2018) |
| | Lack of inclusion of disabled and marginalised people | Inclusion of specially abled and marginalised community in the workforce. | Yawar and Seuring (2017) |
| | Lack of minority development | Development of minority population to bring them into mainstream. | Yawar and Seuring (2017) |
| | Low wages | Wages lower than prescribed legal wage. | Lipschutz (2004); Kabeer and Mahmud (2004); Maria-Ariana (2017) |
| | Forced overtime | Overtime is voluntary. Workers should not be forced to do overtime. | International Labour Organization (2015); Maria-Ariana (2017) |
| | Excessively longer working shifts | Workers are asked to perform their job in longer working shifts against their will. | Kabeer and Mahmud (2004); Maria-Ariana (2017) |
| Female workers related | Poor condition of women | Sexual harassment at workplace. Women are obliged to sign an agreement not to get pregnant as long as they work at the factory. The working condition for pregnant female workers is also poor. | Yawar and Seuring (2017); Mani et al. (2018) |
| Working condition related | Health and safety | Taking care of mental and physical health and safety of workers and avoiding hazardous working conditions which have long term effect on health. | Lipschutz (2004); Maria-Ariana (2017) |
| | Substandard working conditions | Poor working conditions in terms of lack of hygiene, sanitation, and adequate light. | International Labour Organization (2015); Maria-Ariana (2017) |
| Misconduct and threat at workplace | Verbal and physical abuse at workplace | Bad behaviour of managers and supervisors with workers. Sometimes they hire thugs who threaten family members of workers. | International Labour Organization (2015); Maria-Ariana (2017); Carlson and Bitsch (2018) |
| Community related | Threats of layoffs and factory closure | Workers are given threats of layoffs and factory closure due to increased expenses from code compliance. | Mani et al. (2018) |
| | Local sourcing | Sourcing from local suppliers for community development. | International Labour Organization (2015) |
| | Local hiring practices | Hiring of local people in manufacturing facility. | Mani et al. (2016b) |
| | Philanthropy | Charity work for the employees and community by the company. | International Labour Organization (2015) |
| Employee welfare related | Employee welfare | In general, there is lack of employee welfare activities by companies. | Mani et al. (2018) |
| | Lack of job security | Workers are temporary and their job can be terminated without assigning any reason. | International Labour Organization (2015) |
| General issues | Discrimination | Discrimination with respect to race, gender, religion, disability, and age. Lower wages for female workers compared to their male counterparts is very common. | Kabeer and Mahmud (2004); Maria-Ariana (2017); Mani et al. (2018) |
| | Diversity | Involvement of diversified workforce in terms of gender, religion, colour, etc. | Mani et al. (2018) |
| | Labour rights violation | Violation of leave facility; delayed payment of salary and non-compliance to overtime duration and wage; workers are intimidated, and their workload is increased in case they raise voices against the management; Lack of individual labour contracts etc. | Maria-Ariana (2017); Carlson and Bitsch (2018) |
| | Violation of human rights | These are inherent rights provided by states to all human beings, regardless of nationality, place of residence, sex, colour, religion, language or any other status. | Huq et al. (2014); Yawar and Seuring (2017); Mani et al. (2018) |
| | Lack of rights of free association (trade union etc.) | Workers are not allowed to join, leave, or form group formally or informally. | Lipschutz (2004); Maria-Ariana (2017) |
| | Corruption and bribery | Government officials are corrupt and take bribes to hide violations. | Huq et al. (2014); Maria-Ariana (2017); Carlson and Bitsch (2018) |
| | Product responsibility | Customer safety and satisfaction from the product. | Dela and Takahashi (2013); Mani et al. (2018) |
| Category | Specific barriers | Description | Sources |
|----------|-------------------|-------------|---------|
| Organisational culture and top management related | Company culture | Relying on old culture and resistance to change hinders social sustainability adoption. | Valimohammadi (2011); Shen et al. (2015) |
| | Lack of social ethics and values | There is an important role of social ethics and values in sustainable development of business. | Shen et al. (2015); Movahedipour et al. (2017) |
| | Lack of sustainable practices in the organisation’s mission and vision | Good mission and vision statements with sustainability focus keep the company on track during adverse times and help in balancing between commercialisation and values. | Movahedipour et al. (2017) |
| | Lack of commitment of top management | Top level managers mainly focus on financial profit while social sustainability takes the backseat. | Chi (2011); Walker and Jones (2012); Shen et al. (2015); Shen and Kitiss (2017); Movahedipour et al. (2017); Hussain et al. (2018); Mani et al. (2016a) |
| | Lack of interest of skillful policy entrepreneurs | Interest of entrepreneurs in instituting policy for sustainability is particularly important. | |
| Stakeholder related | Lack of stakeholder’s awareness | Stakeholder’s unawareness about social sustainability acts as a hindrance. | Shen et al. (2015) |
| | Lack of consumer awareness | Consumers generally buy based on price not on social and environmental considerations. | Shen et al. (2015); Mani et al. (2016a); Ali et al. (2018) |
| | Lack of stakeholders’ pressure | Lack of collective stakeholders’ pressure on the firm impedes implementation of social sustainability. | Aguilera et al. (2007); Mani et al. (2016a) |
| | Lack of investors’ pressure | Investor’s pressure drives social sustainability and lack of it thwarts the latter. | Mani et al. (2016a) |
| | Inaction of employee unions | Lack of pressure from the employee unions and their reluctance hinder adoption of socially sustainable practices by the organisations. | Aguilera et al. (2007); Mani et al. (2016a) |
| Supplier related | Lack for concern for reputation | Small scale organisations generally do not realise value of reputation. | Valimohammadi (2011); Shen et al. (2015) |
| | High implementation cost | Adoption of social sustainability is cost intensive and small companies often do not have enough liquidity. | Mani et al. (2016a); Ali et al. (2018) |
| | Lack of funds | Lack of liquidity is a hindrance as social sustainability implementation is cost intensive process. | Shen et al. (2015); Movahedipour et al. (2017) |
| | Cost reduction | Suppliers are pressured to reduce cost which may lead to violations of social sustainability in developing countries where regulation is not that strict. | Walker and Jones (2012); Shen et al. (2015); Zorzini et al. (2015) |
| | Lack of employment stability | Due to shortage of skilled labour, workers tend to change companies very often, which inhibits company to adopt social sustainability. | Tate et al. (2010); Huq et al. (2014); Mani et al. (2016a) |
| | Mock compliance | False compliance with code of conduct by producing dummy records of wages and working times of workers. | Huq et al. (2014) |
| | Cultural mismatch with suppliers at different locations | There is cultural mismatch between developed and developing countries. | (Walker and Neil Jones, 2012); (Huq et al., 2014) |
| Buyer related | Organisation size | Large companies have greater expertise, resources, and buying power; hence, they can show greater commitment towards social sustainability. | Walker and Jones (2012) |
| | Buyers ignore violation of social sustainability | Buyers ignore violation of social sustainability as they are not genuinely interested in social sustainability implementation. They are more concerned about reputation and bad publicity. | Huq et al. (2014) |
| | Buyers accept mock compliance or overlook violations | Auditors from buyers’ side know mock compliance practices and ignore the same. | Huq et al. (2014) |
| | Lack of social concern | Lack of social concern shown by firms hinders adoption of social sustainability. | Mani et al. (2016a) |
| | Lack of social audit | Lack of social audit by the buyer allows stakeholders to be exempted from CSR reporting. | Valimohammadi (2011); Shen (2015) |
| Inter-organisational | Poor community economic welfare | Poor community economic welfare by firms impedes social sustainability. | Dibat et al. (2014) |
| | Communication gap | Communication gap among the supply chain partners about sustainability hinders social sustainability diffusion. | Walker and Jones (2012); Huq et al. (2014); Hussain et al. (2018) |
| | Lack of competitive pressure | Low level of competition tends to make organisation socially less responsible. | Campbell (2007); Mani et al. (2016a) |
| | Pressure from competitor supplier not to give benefits to workers | Competitors often pressure each other not to give benefits to the workers. | Walker and Jones (2012); Huq et al. (2014) |
| | Competition among suppliers to reduce cost | To get orders from the buyers, suppliers compete among themselves to reduce cost risking social sustainability. | Zorzini et al. (2015) |
| | Confrontational relationship between | Third party auditors often give adverse report regarding violations of code of conduct so they can revisit and receive another fee. | Huq et al. (2014) |
Sustainability tensions in multi-tier supply chain.

| Sustainability tensions | Description | Sources |
|-------------------------|-------------|---------|
| Paradoxical tensions    | Paradoxical tensions arise because of contradicting yet interrelated sustainability and economic goals. Such tensions may arise when a person tries to balance both personal and group identities; when an organisation’s operations need to satisfy multiple stakeholders which results in competing strategies and goals; when organisations create competing designs; and when old working systems are replaced with new ones. | Smith and Lewis (2011); Ozanne et al. (2016); Brix-asala et al. (2018); Xiao et al. (2019) |
| Sustainability tensions in the supply chain network | Implementation of sustainable business practices may give rise to multiple tensions which can be broadly classified under four categories: economic tensions arise when one actor demands to invest into new technology, practices, etc. and the other actor perceives these demands asymmetric or unfair; structural tensions arise due to conflicting priorities of vertical and horizontal entities in a supply chain, and generally manifest as increased monitoring and controlling requirements; psychological tensions arise due to differences in attitude and preference of different actors; behavioural tensions arise due to differences in nature of individuals: cooperative and, competitive. | Fang et al., 2011; Toth et al. (2018); Tura et al. (2019) |
| Tension between core labour standards and cost efficiency | Tensions arise due to psychological conflict between fulfilment of core labour standards and cost efficiency requirements in socially sustainable supply chains. | Kuntner and Weber (2018) |
| Procurement sustainability tensions | Procurement sustainability tensions are tensions encountered by procurement professionals. Procurement professionals face tension internally from the company and externally from the suppliers to fulfill sustainability requirements. | Fayezi et al. (2018) |
direct, indirect, work with third parties, and don’t bother. In direct method, the focal firms directly collaborate with tier-2 and higher tier suppliers without involving tier-1 suppliers. In indirect method, the focal firms engage tier-1 suppliers to monitor sustainability practices of higher tier suppliers (Plambeck and Denend, 2011). In third party mode, lead firms delegate responsibility to implement, monitor and evaluate sustainability to NGOs, certification bodies, or competitors. The focal firms do not know much about higher tier suppliers and their activities; however, they use third party mode. Through their case studies, Wilhelm et al. (2016b) found that the institutional distance between focal firm and suppliers plays an important role in deciding mode of governance. Focal firms adopt open methods when they are sure about the sustainability practices of their suppliers. They follow a closed method when the institutional distance is high and suppliers' sustainability practices are uncertain. When the complexity at subcontractors level is high, the focal firms may rely on the assistance of third parties. The authors introduced a new approach called don’t bother, which the focal firm uses when they deal with suppliers located at high institutional distance, transparency is low, the capability of tier-1 suppliers is limited in terms of handling sustainability issues of sub-suppliers, and when there is the presence of high vertical and horizontal complexity. Sauer and Seuring (2019) proposed a cascade design to manage multi-tier mineral supply chains.

Gong et al. (2018) studied the structure of multi-tier supply chains and governance mechanisms to disseminate sustainability learning by MNCs to their suppliers. Their research showed how focal companies can devote resources in the early phases of sustainability learning of tier-2 and higher tier suppliers and then delegate responsibility to tier-1 suppliers. Finally, the supply chain will evolve from an operating to a sustaining stage to become a closed supply chain (Darbari et al., 2019). Meinschmidt et al. (2018) applied transaction cost economics theory to study how buying firms use different approaches to manage their lower tier suppliers’ sustainability. They identified eight approaches and grouped them into three categories, namely direct-in-house, indirect-hybrid, and neglect-market. Managers of focal firms can select any one of them depending on several factors. Dickson and Eckman (2006) proposed a socially responsible apparel and textile business model consisting of three levels: first consisting of stakeholders such as individuals, groups, and society; the second level consisting of workers, business, consumers, and national interests; and the third level consisting of production, merchandising/retailing, and consumption/disposal taking on environmental considerations.

It is often difficult for focal firms to control and monitor sustainability practices of tier-2 and higher tier suppliers. To do this, the focal firms assign this task to their tier-1 suppliers. This is known as a double agency role of tier-1 suppliers (Wilhelm et al., 2016a). Grimm et al. (2016) emphasized that assessment and collaborations of sub-suppliers can help to improve corporate social sustainability (CSS) standards. Strategic partnerships with suppliers, a firm’s channel power, awareness of perceived risks of multi-tier suppliers’ non-compliance with CSS, and public attention on tier-1 suppliers can help the adoption of sustainable practices by multi-tier suppliers.

To ensure social sustainability, focal firms mainly rely on compliance, audit, and certification of their suppliers. Under the pressure of human rights related protests, the GAP clothing initiated an awareness program for its vendors, developed a vendor “code of conduct,” and established systems and process of measurement. Their endeavor resulted in a significant improvement in operational performances and human rights conditions. This in turn helped GAP’s sourcing managers to identify right suppliers (Worley et al., 2010). Fayet and Vermeulen (2014) studied the cotton supply chain and their findings revealed that cooperation and collaboration among the stakeholders such as industries, certification organisations, NGOs, and farmers can bring environmental and social sustainability by working towards shared value creation for the entire supply chain. Signing contracts that include specific terms and conditions of sustainability forces suppliers to follow the buyer’s sustainability code of conduct. Besides, they must also

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**Fig. 4.** Structures of multi-tier supply chain (adopted from Mena et al. (2013)).
ensure that their sub-suppliers will respect the same (Lion et al., 2016). A recent study by Mejias et al. (2019) shows how fast fashion companies promote sustainability in multi-tier fashion supply chains.

The process of auditing sometimes fails the very purpose of ensuring adoption of social sustainability by the suppliers; some of them adopt questionable and unethical means to hide their unethical and problematic labour practices. To pass social audit, upon occasion suppliers will produce forged paystubs and encourage employees to lie about their wages and working hours (Egels-Zandén, 2007). They may also use model productions (Harney, 2008) and present fake certificates of raw materials (Roloff and Aßländer, 2010). To avoid all such unscrupulous behaviours of suppliers, Aßländer et al. (2016) advocated a stewardship theory as a powerful and effective means to foster better social and environmental sustainability performance, as it allows building long-term collaboration, the open exchange of ideas and mutual trust between buyers and suppliers which makes them willing to work on common objectives.

Chen and Kitiss (2017) argued that the relational capability of the lead firm and the moral motives of top management facilitate sustainability and improve sustainability performance. Supplier development by the lead firm enables suppliers to solve their sustainability issues and helps them to improve sustainability performance (Yawar and Seuring, 2018). Hannibal and Kauppi (2018) suggested that the third-party social sustainability assessor may act as a bridge between upstream suppliers and consumers. However, they also observed that the social sustainability assessors do not cover all the tiers in the supply chain. They suggested three different approaches for social sustainability assessment. Koberg and Longoni (2019) reviewed the existing literature covering important aspects of sustainable supply chain management in a global context. They found that the closed configuration is used to manage sub-suppliers' environmental and social sustainability whereas the open configuration limits buyers' capacity to address social issues at the supplier's site. There is no ideal configuration to properly address sustainability in a global supply chain. Lechler et al. (2019) studied how companies collaborate within an assessment sharing strategic alliance (ASSA) to manage suppliers with respect to sustainability; they reported that information asymmetry and goal conflict can be mitigated by collaboration within ASSA and that such an approach helps to improve multi-tier suppliers' sustainability compliance. Although studying social sustainability is complex since it involves value statements, morals, and other intangible and non-measurable aspects, it can be overcome by systems analysis and systematic re-design approach (Missimer et al., 2010). Cultural intelligence is important for inter-firm collaboration as it helps suppliers to connect with customers and collaborate with those from different cultural backgrounds (Awan et al., 2018). The social sustainability governance model and practices are listed in Table 9.

6.6. Social sustainability performance and its measurement

Addressing social issues in manufacturing sector leads to better quality products, employee satisfaction, and knowledge enhancement (Pullman et al., 2009). Further, costs can be reduced (Carter, 2005), which leads to improved social performance, better brand image, and other strategic benefits (Mani et al., 2016c) for the focal firm.

Measuring social sustainability is not as easy as economic and environmental sustainability, nor can the analytical tools used for measuring economic and environmental sustainability be used for competently measuring social sustainability (Lehtonén, 2004). Some researchers have attempted to provide matrices to measure social sustainability (Sarkis et al., 2010), Rajak and Vinodh (2015) used fuzzy logic to evaluate social sustainability performance in Indian automotive components manufacturing organisations. Their approach is useful in terms of computing social sustainability indices and in identifying stronger and weaker attributes. Tamara et al. (2017) proposed three sets of quantitative indicators, namely generic, suppliers-specific, and industry-specific to assess social sustainability performance. Chen and Kitiss (2017) proposed a framework for performance indicators driving sustainability in supply chains based on relational capabilities among the supply chain partners. After extensive literature survey, they proposed performance indicators to measure social sustainability under two broad categories: human capital and societal capital. These two broad categories cover social indicators related to employees, the community, and customers. Popovic et al. (2017) and Tamara et al. (2018) identified a number of quantitative indicators. They derived these indicators based on sustainability reports covering all echelons (upstream, midstream, downstream). These indicators are holistic and generic in nature and can be equally applicable to all echelons to measure performance, periodic monitoring, and policy making. Staniskie and Stanković (2018) proposed indicators considering the role of employees and their well-being in an organisation. Ajmal et al. (2018) identified an acceptable framework for social sustainability indicators from corporate and societal perspectives. Their research suggests that it is possible to manage economic and environmental sustainability together with social sustainability. Strategic supply chain management (Kot et al., 2019) and supply chain orientation (Jadhav et al., 2019) may positively influence social and environmental sustainability.

Das and Shaw (2017) developed a model including both environmental and social concerns to minimise total supply chain costs. From the model, they concluded that stricter carbon caps lead to the opening of more plants, a decrease in a company's carbon footprint to a certain extent when negative social impacts from suppliers are reduced, and an increase in the certainty of materials supplied from selected suppliers. Ahmed et al. (2019) developed a model for solving the sustainable supplier selection and order allocation problems. Yang and Zhang (2017) empirically studied sustainable supplier management practices and their effects on suppliers' performance, buyer-supplier relationships, and the buyers' competitive advantage. They found that the practices positively influence all three constructs. Ahmadi et al. (2017) used best-worst method to assess social sustainability in the supply chain. The best-worst method, combined with interactive and MCDM methods, is used to assess and evaluate suppliers considering social sustainability (Bai et al., 2019). Zorzini et al. (2015) emphasised that there is a need for research on how to measure social sustainability and its impact on stakeholders beyond the immediate supply chain. Table 10 presents a summary of sustainability adoption and its effect on supply chain performance, while Table 11 outlines the social sustainability performance indicators.

7. Conceptual framework and discussion

A number of drivers, issues, barriers, and tensions have been identified through this comprehensive review of the literature. Drivers promote adoption and implementation of social sustainability practices. In contrast, numerous barriers hinder the adoption and implementation of social sustainability, especially in developing countries. Buyers and other stakeholders pressure suppliers to follow socially sustainable practices. On the other hand, suppliers, in response to a number of barriers, tend not to implement social sustainability and instead try to present faux compliance practices to hide violations. Suppliers, in other words, experience tension due to buyers' pressure to implement social
Table 9  
Sustainability governance practices in multi-tier supply chain.

| Governance practices                              | Description                                                                 | Sources                                                                 |
|---------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------|
| Institutional pressures such as coercive, mimetic, and normative pressure on suppliers | Collective coercive pressure from buyers’ mimetic pressure created by increased competition for orders among suppliers and normative pressure via education and training push the suppliers to adopt social sustainability by complying with local social sustainability laws, compliance with buyer’s code of conduct. Proactive initiatives by firms go beyond local laws and buyers’ code of conduct. | Haq and Stevenson (2018) |
| Multi-stakeholder collaboration                   | Multi-stakeholder collaboration helps to improve compliance, capacity, and capability to address complex issues. | Worley et al. (2010) |
| Assessment and collaboration for management of sub-suppliers | Assessment includes audits, site visits, and suppliers’ questionnaires. Under collaboration, buyers in general provide training workshops and, corrective action plans to their suppliers and sub-suppliers, leading to improved compliance. | Vachon and Klassen (2008); Grimm et al. (2016) |
| Structural variants: open (indirect), closed (direct), third party, and don’t bother | In open structure, the flow of material and information happen from tier-2 suppliers (T2) to tier-1 suppliers (T1) and then from T1 to lead firm. The lead firm delegates the authority for managing T2 to T1. This mode of governance is also known as “indirect.” In a closed structure, the buyer and T2 establish mutual formal or informal contacts and communications. This mode is also known as “direct”. There is a transitional structure, in which buyer and T2 start to establish link. In third party mode, the buyer delegates responsibility of managing sustainability to a third party. In the last category, buyer focuses only T1 for sustainability issues. | Mena et al. (2013); Tachizawa and Wong (2014); Wilhelm et al. (2016b); Koberg and Longoni (2019); Meinlschmidt et al. (2018) |
| Double agency role of tier-1 suppliers            | Agency and institutional theory arguments are explored under which tier-1 suppliers are expected to play double agency role. | Wilhelm et al. (2016a) |
| Stewardship theory                               | Under this theory, suppliers are self-motivated, act autonomously, and committed to organisational goals for the benefits of all stakeholders adhering to high standards of ethics. | Aflander et al. (2016) |
| Supplier development strategy                     | It entails assessment, control, monitoring, training and education, and financial and technical support. | Yawar and Seuring (2018); Subramaniam et al. (2019) |
| Third party social sustainability assessment      | Third party acts as a bridge between various supply chain actors. It can assess supply chains against the set norms by institutions such as International Labour Organisation (ILO), United Nations (UN), and International Organisation for Standardisation (ISO). | Hannibal and Kauppi (2018) |

Table 10  
Sustainability adoption and performance of supply chain.

| Adoption of sustainability                           | Performance                                                                 | Sources                                                                 |
|--------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------|
| Joint adoption of social and environmental sustainability | Improvement in corporate financial performance. Improvement in social performance, reduction in cost, increase in market share. | Zorzini et al. (2015); Rao and Holt (2005); Klassen and Vereecke (2012) |
| Adoption of social sustainability by suppliers     | Improvement in operational and social performances of both buyers and suppliers. It also helps to improve brand image in terms of social responsibility. Improvement in product quality. | Rothenberg et al. (2001); Pullman et al. (2009) |
| Adoption of social sustainability by suppliers in emerging economy | Improvement in sustainability performance of firm. Improvement in buyer—supplier relationships and their performances leading to stronger competitive advantage. | Stafiq et al. (2017); Yang and Zhang (2017) |
| Monitoring of environmental and social practices of suppliers | Improvement in buyer—supplier relationships and their performances leading to stronger competitive advantage. Cost saving and reduction in pollution. Better financial performance. | Rothenberg et al. (2018); Shrivastava (1995); Sroufe and Remani (2018) |
| Incorporation of social sustainability criteria along with environmental criteria for supplier selection | Sustainable performance of supply chain in terms of minimisation of environmental and economic risks to society. Advanced social sustainability practices improve operational performance which is significantly moderated by long-term orientation. Basic social sustainability practices do not improve operational performance. | Awashti et al. (2018); Croom et al. (2018) |
| Social sustainability orientation, adoption of basic and advanced social sustainability practices and long-term orientation | Sustainable performance of supply chain in terms of minimisation of environmental and economic risks to society. Advanced social sustainability practices improve operational performance which is significantly moderated by long-term orientation. Basic social sustainability practices do not improve operational performance. | Awashti et al. (2018); Croom et al. (2018) |

sustainability practices. This tension needs to be overcome by practices which promote long-term trustworthy relationships among the actors and stakeholders of the supply chain. Such practices would be reflected in terms of improved social sustainability indicators and supply chain performance by the mitigation of social risks. In order to improve social sustainability in multi-tier supply chains, efforts to establish links among drivers, barriers, issues, tensions, practices, and performance have been proposed through the conceptual framework depicted in Fig. 5.

Recently, many researchers have contributed to multi-tier supply chain literature in terms of structure, governance mechanisms, social issues, thematic analysis, and conceptual frameworks (Mena et al., 2013; Tachizawa and Wong, 2014; Zorzini et al., 2015; Kóskal et al., 2017). Most researchers point out that research in the area of multi-tier supply chains is in its nascent stage and it needs further explorations from the point of developing conceptual frameworks and theories to explain the dynamics of interactions of different actors. In this paper, the concept of sustainability tensions, which has not received much attention until now, has been incorporated along with drivers, barriers, issues, and practices.
Table 11
Social sustainability performance indicators.

| Indicators                          | Description                                                                 | Sources                                                                 |
|------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Employee participation             | Participation in terms of intensity, form and issues, are important in strategic and daily management are linked with human resource management and sustainability of organisation. | Sancha et al. (2015); Meixell and Luoma (2015); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Employee cooperation               | It refers to teamwork, knowledge, and experience sharing among colleagues.  | Sancha et al. (2015); Meixell and Luoma (2015); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Equal opportunities                | Equal opportunity encompasses fair employment practices such as fair selection, performance appraisal, and compensation system. | Meixell and Luoma (2015); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Employee development               | It is important in order to cope with future challenges. It consists of organising training programmes, and mentoring and offering work-life balancing skills. | Meixell and Luoma (2015); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Health and safety                  | Taking care of health and safety, ergonomically designed workplaces promote employees’ well-being and support social sustainability. | Meixell and Luoma (2015); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| External partnership               | Partnership with educational institutes to create pool of potential employees to offer training, internships, etc. | Sancha et al. (2015); Meixell and Luoma (2015); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Poverty                            | Poverty alleviation is one of the key goals of social sustainability.       | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Labour rights                      | Respect to labour rights to form unions, groups, etc.                     | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Societal responsibility            | Increase in societal responsibility.                                       | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Diversity                          | Increase in diversity among the working people.                            | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Product responsibility             | Increased product responsibility and reduced customer complaints.          | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Skills and motivation              | Improvement in skills and motivation among the workforce.                 | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Job satisfaction                   | Improvement in job satisfaction among the workforce.                       | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Employee loyalty                   | Improvement in employee loyalty towards the organisation.                  | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Law compliance                     | Improvement in law compliance by the stakeholders.                        | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Human rights                       | Decrease in human rights violations in upstream side of supply chain.      | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Human working conditions           | Improvement in working conditions; elimination of sweatshops, hazardous chemicals, fumes, etc. | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Value addition to local community  | Improvement in strengthening community ties.                               | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Employee turnover                  | Reduction in employee turnover due to enhanced job satisfaction and commitment. | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Employee absenteeism               | Reduction in employee absenteeism due to improved health and motivation level. | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018) |
| Mid-point and end-point impact categories | End-point categories are labour practices and decent work, human rights, society and product responsibility. For each end-point category, there are a number of mid-point indicators. For example, employment benefits and practices, health and safety, training and education, diversity, equal opportunity, employee welfare are indicators of labour practices. | Huq and Stevenson (2018); Staniskiene and Stankeviciute (2018); Ajmal et al. (2018); Mani et al. (2018) |

7.1. RQ1: What are the drivers and barriers of social sustainability in multi-tier supply chains?

To answer our first research question, drivers and barriers were listed in Tables 5 and 7, respectively, after our extensive literature survey. Positive motivations of stakeholders are drivers and their reluctance is a barrier of implementation of social sustainability. Cost reduction and customer demand for low-priced products are barriers. Stakeholders’ pressure plays an important role in terms of spreading awareness, adoption, and implementation of sustainability practices (Meixell and Luoma, 2015). Sancha et al. (2015), and Huq and Stevenson (2018) used institutional theory to study different types of coercive, normative, and mimetic pressures in the context of developed and developing countries, respectively. Sancha et al. (2015) suggested that only mimetic pressures positively drive sustainability practices whereas the role of coercive and normative pressures are not significant. Sancha et al. (2015) also used a resource-based view of firms’ capabilities to integrate suppliers into their supply chain and extend sustainability practices to them. Huq and Stevenson (2018) used institutional theory to study the role of government and collective pressure from buyers. According to them, collective buyers’ pressure was the main coercive pressure and the effect of this pressure varied from suppliers to suppliers. The coercive pressure from the government was not effective because of alleged corruption in the system. The professional education of young business entrepreneurs was reported as a normative pressure and the competition to retain skilled workers was identified as mimetic pressure. The theory of transaction cost was used to study drivers and barriers in the context of developing countries; a high transaction cost was found to act as a barrier of social sustainability (Huq et al., 2014). Training and education by the buyers is one of the most important enablers to implement...
social sustainability. In short-term, its initial costs are high, but these costs may decrease over the long-term. Due to high costs of implementation, sometimes buyers mainly rely on audit and compliance. On suppliers' side, some of them hide facts and attempt to demonstrate fake compliance to pass the audit process; such non-compliance is very costly for both suppliers and buyers in terms of loss of orders and the reputational damage to the brand. Huq and Stevenson (2018) studied only tier-1 suppliers and they emphasised that there could be similar research on higher tier suppliers. Behavioural components such as leadership, professionalism, ethics, change management, company culture, and commitment need to be included at the level of multi-tier suppliers to drive socially sustainable practices (Winter and Knemeyer, 2013).

Barriers listed in Table 7 can also be grouped into three categories, namely economic (cost of implementation, price war, lack of financial capability, etc.); skill and knowledge; and behavioural (reluctance of focal firm, law enforcement bodies, political parties and other stakeholders). Many believe that implementation of sustainability requires investment from the owners of suppliers. Costs and fears of monetary loss among SMEs are strong barriers to adopt sustainability practices. It has been reported that long-term partnerships, financial assistance and knowledge sharing help suppliers gain confidence and adopt sustainability practices in their operations. Joint planning and efforts to address issues and problems of suppliers will help suppliers to cut down cost and motivate them to adopt sustainable practices. For example, better cotton initiatives aim at improving the productivity of cotton by training farmers. Besides this, they also help to bring social and environmental sustainability to the cotton supply chain. PUMA took a pilot project to train and encourage SMEs to write their own CSR report and adopt social sustainability for themselves. The result of such project was encouraging as the suppliers were able to implement sustainability practices, to become more transparent, and to measure their environmental and social sustainability performances. They were also able to improve their competitive advantage and reputation (Vurro et al., 2009).

7.2. RQ2: What are the social issues in the multi-tier supply chains?

A number of social issues pertaining to multi-tier supply chain have been reported in literature. Social issues generally fare worse in developing countries and labour-intensive industries. In developing countries, the law and regulation enforcement agencies are relatively slack, officials are often corrupt, and there are large populations of poor and uneducated workers. Here either the owners of firms are not aware of importance of social sustainability or they have little concern about such topics. Child and forced labour, low wages, excessively long working time, discrimination between and within genders, health and safety, poor working conditions, violations of leave facility, delayed payment, non-compliant overtime wage payment, intimidation, threats of lay-off, lack of the right to freely associate, the safety and dignity of female workers, verbal and physical abuse, and bad behaviour of supervisors and managers are some of the frequently occurring, serious social issues. Such issues are to be addressed and eliminated to the extent possible to make socially sustainable supply chains. Organisation offers relevant training, workshops and assistance by focal firms, government agencies, and NGOs and active participation by the owners, managers and workers will bring awareness about how to address social issues and eliminate their occurrences from the multi-tier suppliers. On the other hand, violators should be booked and penalised. Note that addressing core social issues within an organisation paves the way to improve other two dimensions of sustainability (Ajmal et al., 2018).

Values added to the main product by multi-tier suppliers may not always be significant but they cannot be ignored. A faulty part or component, or poor workmanship in the final product could be disastrous for the end consumer. Workers who are poorly motivated due to unfair wages or who are fatigued due to excessive working hours are not able to perform their task with precision, resulting in production of defective parts or components. Consequently, the end consumer will suffer to some extent due to defective products, and that dissatisfaction will cause loss of business and reputational damage to focal firms. Suppliers should also realise that their unethical and irresponsible behaviours will eventually bring a bad image to their supplier base and to their reputation, which will result in loss of business and adversely impact the economy of the country.

7.3. RQ3: What are sustainability tensions and social sustainability practices in multi-tier supply chains?

Sustainability tensions exist in the multi-tier supply chain, and often, focal firm managers follow instrumental logic to cope with them (Deegan and Shelly, 2014; Xiao et al., 2019). The reasons behind sustainability tensions are conflicts in the goals and requirements of buyers and suppliers, major changes in operations and processes at the supplier’s end which requires capital investment for installing new machines and equipment, resistance to adapting to new systems and processes, or cultural differences between developing and developed countries. Organisations adopt certain strategies to cope with such tensions. These strategies can be clubbed under four categories: win-win, trade-off, integrative, and paradox (Van der Byle and Slawinski, 2015). In the win-win approach, the strategy is chosen in such a way that improving one dimension of the sustainability leads to the improvement in at least one of the other two dimensions. In the trade-off approach, the company chooses one goal over other in terms of priorities. The integrative view is a balanced approach and gives equal importance to all three sustainability goals (Brix-asala et al., 2018). Finally, paradoxes are defined as “contradictory yet interrelated [objectives] which coexist and persist over time” (Smith and Lewis, 2011). The collective goals of sustainability gives rise to paradoxical tensions as each of the three dimensions of sustainability in isolation seems to be logical; however, when they are juxtaposed, they seem to be somewhat contradictory (Brix-asala et al., 2018). Under the paradox approach, buyers embrace the tensions and put efforts and resources to train suppliers during early phases of supplier development process; they subsequently delegate these responsibilities to competent tier-1 suppliers (Brix-asala et al., 2018; Wilhelm et al., 2016a). Contextualising is another approach to deal with paradoxical tensions; it occurs when managers relax the norms and accept something which is more workable (Xiao et al., 2019). The extent of contextualising depends on the judgment of managers; too lenient contextualising can magnify supply chain risk (Xiao et al., 2019). Assessment and collaboration are common modes of ensuring sustainability in upstream suppliers. Considering the paradoxical approach, norms may be contextualised and suppliers may be given free space to come up with creative solutions to the problems. Bommel (2018) suggested that firms adopting paradoxical or integrative thinking can handle complexity by reducing tensions, ambiguity, and uncertainty and by finding it easier to make sense of sustainable practices than the firms which believe in instrumental logic. It is also reported that the ambidextrous capability of focal firms helps them to resolve paradoxical tensions.
Social sustainability performance measurement is difficult and complex due to global spread of supply chain with varying environmental, economic, social, and legal standards from country to country (Taticchi et al., 2013). The measures of performance of social sustainability are still emerging (Beske-Janssen et al., 2015). It is reported by many researchers that the implementation of socially responsible practices improves the condition of vulnerable workers, helps to develop long-term relationships with buyers, contributes to growth in a country’s economy, improves productivity, and enhances corporate social performance (Mani et al., 2016c; Huq et al., 2014; Chi, 2011). Further, such practices contribute to competitiveness of the whole supply chain by reducing cost and increasing market share (Klassen and Vereecke, 2012; Rao and Holt, 2005). The adoption of social sustainability in the emerging economy by suppliers results in better social performance in terms of compliance of human rights, child labour and safety, a decrease in lead time, better product quality, increased reliability of products, resulting in improvement in buyers’ and suppliers’ performance, and positive relations between buyers and suppliers (Mani and Gunasekaran, 2018; Mani et al., 2018). It is observed that better workplace conditions, fair pay, on-job-training, employee satisfaction, and knowledge enhancement, all help to improve product quality (Pullman et al., 2009; Rothenberg et al., 2001), address health and safety issues, reduce the number of accidents at the workplace, lower the employee turnover, and lower recruitment and associated liability costs (Torugsa et al., 2013). Loyal and happier employees work harder for the company and they may work at relatively lower salary when the company takes care of their well-being at the workplace (Rupp et al., 2013).

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It has been found that supplier’s sustainability assessment, monitoring, buyer-supplier collaboration and sustainability practices have positive impact on sustainability performance (Freise and Seuring, 2015; Tate et al., 2010; Shafiq et al., 2017; Alshehhi et al., 2018). Collaboration and trust building with suppliers and customers can help to mitigate sustainability issues, maintain quality, and reduce cost (Shrivastava, 1995; Paulraj et al., 2008). Sroufe and Gopalakrishna-Remani, 2019 found that implementation of green practices as part of sustainability improved social sustainability in the organisation. The operational and financial performance can improve in the long run as a result of adopting social sustainability practices through collaborative planning and coordination among the supply chain partners (Brammer and Millington, 2008; Croom et al., 2018). Focal firms must take leadership and initiative, and leave behind their bargaining powers (Jia et al., 2019).

8. Implications and future research directions

Literature on social sustainability in multi-tier supply chain perspective is rather scant, yet the research area is emerging. Most research works on sustainable supply chain focus on the brand (focal firm) and tier-1 suppliers, while only a few address the issues related to the sub-suppliers. Even after the conceptualisation of multi-tier supply chains, sustainability research is predominantly focused on economic and environmental issues, and unfortunately, the social dimension has not been adequately addressed. A conceptual framework to address sustainability tensions along with drivers, issues, barriers, and practices has been proposed. This framework will be useful in addressing social issues in upstream suppliers by adopting more practical approaches such as contextualising the paradoxes rather than adopting instrumental logics. This study will help managers and practitioners to understand interactions among drivers, barriers, tensions, practices, and performances in the context of social sustainability in multi-tier supply chains.

This research has determined that a number of gaps still exist, as listed below. These research areas are ripe for further investigations.

- Development of generic and industry-specific conceptual frameworks and models for the adoption of social sustainability in multi-tier supply chains.
- Study on social sustainability practices and performance (well-being of employees, society, community, etc.) and their correlation at various stages of the multi-tier supply chain.
- As sustainability in multi-tier supply chains is an emerging area of research, exploratory research, that focuses on higher tiers of suppliers may be carried out in cross-cultural context, in different supply chains.
- From this review, it becomes evident that only a limited number of papers used theories to explain their research findings; this observation establishes the clear need to explore more research in this direction. Furthermore, the drivers and barriers have been classified for easy understanding; hence, there is a call for research to develop new theories or to implement changes to the existing ones.
- Measuring social sustainability is a challenging task and is still evolving. Industry-specific frameworks for accurately measuring social sustainability may be developed and deployed for further assessment.
- Quantitative models and indices may be developed for holistic and objective assessment of social sustainability performance of a multi-tier supply chain network.
- Ethical and financial frameworks to address social sustainability in multi-tier supply chains should be explored.
- The role of various stakeholders to mitigate sustainability tensions in multi-tier supply chains should be explored.
- The role of Industry 4.0 as a driver of social sustainability in multi-tier supply chains also promises to be a fruitful topic.

9. Conclusions

In this paper, social sustainability drivers, issues, barriers, tensions, practices, and performance of multi-tier supply chains have been explored. A conceptual framework integrating the aforesaid elements has been proposed. Social issues need to be addressed through adoption of social sustainability practices spanning various tiers of the supply chain. Barriers impede the adoption of sustainability initiatives and give rise to multiple tensions among the stakeholders. Tensions can be mitigated through practices that are enabled by a number of drivers. The performance matrices to measure social sustainability and how they affect the performance of socially sustainable supply chains have also been discussed. Different theories such as stakeholder’s theory, institutional theory, a resources-based view, and paradox theory have also been reviewed.

From this review, it is evident that the management of social sustainability in upstream suppliers is a challenging task, especially in developing economies. As most of the upstream suppliers are SMEs, hence lack of CSR knowledge, insufficient financial resources and weak managerial skills impede the adoption and implementation of social sustainability practices. Therefore, they need assistance from stakeholders, focal firms, and governmental, and industrial associations. It is a fact that a large number of workers
earn their livelihood from higher-tiersuppliers; hence, the adoption of social sustainability is necessary to promote well-being of employees, to ensure justice, fair wages, safer working condition, equity and equal opportunity, and to provide education and healthcare. It is a little unrealistic to expect people to care about global warming or extinction of species when they are hungry, seeking work, or feel unsafe in their own home. So, addressing sustainability through paradoxical lens and contextualising have been reported as practical approaches to overcome tensions and allow free space to the suppliers to come up with innovative solutions while fulfilling their business goals. There is a need to develop an appropriate social sustainability adoption model and framework integrating stakeholders, business processes, technology, government regulatory bodies, political parties, universities, NGOs, financial institutions, and trade associations. Inappropriate framing and unsupported procedures can hinder effective implementation of social sustainability.

**Declaration of competing interest**

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

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