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Factors Contributing Towards Sustainable Supply Chain: A Review of Literature

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Abstract

As multiple factors affect the supply chain, sustainability is an increasingly important issue for organizations. A structured literature review methodology was adopted in this study to investigate sustainable supply chain management (SSCM) practices and to understand what factors are driving organizations towards sustainability. Finally, 20 peer-reviewed journal articles were chosen and analyzed from a total of 133 relevant articles obtained from major academic databases. Themes were identified using thematic coding. Themes from the studies reviewed were consolidated into the 5 dimensions: environmental, economic, technological, social and legal-governance. Percentages associated with each dimension are indicative of the frequency of the theme and its importance in the literature reviewed. Environmental factors represented 25%, such as resource efficiency, the reduction of emissions, waste management, and green logistics. Economic factors, primarily related to cost reduction, operational efficiency and competitiveness, made up 22%. Technological factors (20%) showed the importance of the use of AI, blockchain, IoT and digital tools in enhancing transparency. Social factors were 18%, including ethical sourcing, employee welfare, employee rights and community engagement. Legal and governance factors included 15% and were related to regulatory compliance, sustainability standards, governance mechanisms, etc. The overall study indicates that the integration of environmental responsibility, economic performance, technological innovation, social accountability and legal compliance is needed in the implementation of SSCM. The results provide valuable input for policymakers, researchers and business leaders to develop sustainable and resilient supply chain systems.

Keywords: Sustainable Supply Chain Management, Supply Chain Resilience, Circular Supply Chain, Environmental Sustainability, Green Supply Chain, Digital Technologies, Corporate Social Responsibility, Supply Chain Innovation.

Introduction

Sustainability has emerged as an integral part of the business concerns in the past few years for companies working in the Global supply chain system. Financial performance is no longer the only basis for evaluating businesses; organizations are also expected to assess the environmental and social impacts arising from their operations. Sustainable Supply Chain Management (SSCM) is an organizational system in which environmental protection, social responsibility, and economic performance are integrated at every stage of the process such as sourcing raw materials,

manufacturing, delivery, use, and disposal. This has become increasingly important in today's economies where companies are under pressure from governments, consumer expectations, investor demands and regulatory agencies to run their businesses responsibly and with transparency. Traditionally, the supply chain strategies focused on cost reduction and efficiency improvement (Wong et al. 2024). Nonetheless, these traditional models have already been proven inadequate in addressing multi-dimensional challenges of the contemporary globalized world. From climate change and depletion of natural resources to waste creation and social inequalities, problems brought about by profit-oriented supply-chain systems are endless. This has encouraged organizations to move towards SSCM which integrates environmental, social and economic objectives across the supply chain operation (Zhang et al. 2025). It is the logistical management of how resources, data and financial resources flow through an organization where the aim is to reduce negative environmental impacts, promote socially responsible labor practices and ultimately advance sustainable economic stability over time. The growing importance of SSCM is attached to the growing awareness of sustainability issues at a global level.

Consumers today are increasingly informed about the processes involved in producing and delivering goods. Similarly, they are also becoming more discerning around products manufactured using environmentally sustainable processes and through ethical labor practices. Governments and global organizations have developed regulations and sustainability frameworks that require firms to limit carbon emissions, eliminate waste, and promote responsible sourcing (Broccardo et al. 2023). In this context, sustainability is no longer a non-essential activity, but a strategic tool for organizational competitiveness.

Additional contributing components in SSCM is the understanding that business indeed has an environmental and social footprint. The worldwide production systems which form a significant source of environmental degradation, for example, produce significant quantities of carbon emissions and use up vast quantities of natural resources. The effects underline the necessity of redefining the supply chain systems of organizations, to minimize their environmental footprint and advance the notion of 'green goods utilization'. This implies practices of green sourcing, reduction of waste in the production process and energy conservation along with the application of the principles of circular economy where resources are to be reused or recycled in the production process.

Technological development is also a key factor in SSCM. AI, blockchain and the Internet of Things are new digital technologies that can help businesses track goods through the supply chain more efficiently and enhance transparency and traceability. These technologies are designed for both data collection and real-time predictive decisions as well as efficient resource management. These tools can enable organizations to identify potential hazards, prevent wasteful usage of resources, enhance transport routes and optimize processes and meet sustainability objectives (Broadstock et al., 2021). SSCM is gaining in significance but remains quite complex in its application. A supply chain is made up of several stakeholders such as suppliers, manufacturers, distributors and of course regulators and customers. These, all in some form, affect the effectiveness of sustainability efforts. To meet the environmental standards and to implement ethical labor practices and regulatory controls, organizations need to cooperate with external stakeholders. Furthermore, many firms lack the technology, management and organizational resources to implement sustainable solutions, which are often expensive. However, SSCM is a multi-dimensional problem that can be traced to the interdependency of its antecedents: technological innovation, environmental protection, social responsibility, economic viability and legal compliance (Thorlakson et al., 2018). These dimensions shape the design, management and improvement of the practices of organizations within the supply chain. For example, environmental factors have to do with reducing emissions, minimizing waste, and being efficient in managing natural resources. However, social factors highlight the importance of safeguarding workers' rights, ethical labor practices and enhancing the well-being of communities. Likewise, the economic aspects influence the possibilities and feasibility of sustainability actions because of their financial power, and regulatory mechanisms also guarantee compliance with

environmental and social requirements inside companies. While there are many studies on SSCM, most existing research is based on sustainability as it relates to individual factors rather than considering how it can be achieved through continuous interaction between the elements. Sociotechnical, environmental, legal, and economic challenges are all factors that need to be addressed when implementing sustainability measures (Broccardo et al., 2023). This necessitates the understanding of interrelationships among these dimensions for realizing the right and balanced supply chain strategies. This emphasizes the importance of conducting a comprehensive analysis of the factors that are most important for SSCM. This study reviews and synthesizes the literature to identify the key elements for the successful implementation of sustainable supply chains. This study compares the results of several studies and examines the various sustainability pressures and challenges relating to supply chains. The review points to the interlinkages between various technological, environmental, social, economic and legal factors, and provides recommendations that can help organizations develop a more resilient and socially responsible supply chain. In general, SSCM practices impact the business performance, brand image, and sustainable economic and environmental development. Despite increasing scholarly interest in SSCM, existing studies are still mainly related to large organizations and developed economies. Less focus has been paid on SMEs in developing regions when compared. South Asia is one of the developing regions where companies frequently face restricted resources, low technological capability, regulatory restrictions, and institutional backing. Furthermore, the previous studies have mostly focused on the sustainability dimensions separately, not considering the effects on the supply chain practices when examining both dimensions. This study tries to address this research gap by summarizing the factors that affect the adoption of SSCM by SMEs.

Research Objectives

1. To identify factors which lead to the successful SSCM.
2. To examine the social, economic, legal, technological and environmental issues involved in SSCM practices.

Theoretical Background

Sustainable Supply Chain Management (SSCM) can be examined through different theoretical perspectives highlighting how sustainability is implemented into supply chain operations. It's an interdisciplinary term which incorporates economics, sociology, environmental studies, legal systems and technological development. Such viewpoints enable organizations to grasp the implications of how principles of sustainability can be integrated into their operations and strategies. Perspectives like these help organizations understand how sustainability principles can be embedded in operational decisions and long-term strategies. The implementation of SSCM practices is influenced by both internal organizational processes as well as external pressures including regulations, stakeholder expectations and environmental concerns (Carter & Easton, 2011).

The theoretical foundation of SSCM can be strengthened through Stakeholder Theory (ST). ST explains that organizations are expected to respond to the needs and expectations of different stakeholders, including customers, suppliers, employees, communities, governments and environmental groups. In the context of SSCM, this theory highlights the importance of ethical responsibility, transparency and social accountability in supply chain decisions.

From a theoretical perspective, there are five major dimensions which form the foundation for SSCM including social, technological, economic, legal and environmental aspects. The economic dimension focuses on efficiency, competitiveness, and long-term financial sustainability. Social factors highlight ethical responsibilities and expectations of stakeholders. The environmental dimension relates to reducing environmental degradation and preserving natural resources (Carter & Rogers, 2008). The legal dimension focuses on compliance with regulatory provisions and environmental laws. Technological innovation promotes sustainability by improving transparency, efficiency, and

coordination in the supply chain systems. The connected views describe how organizations balance performance with economic, social, and environmental responsibilities.

Significance of the Study

Scope of the Study

The present study is focused on contexts which are seldom addressed in sustainability literature, particularly SMEs and organizations within the context of developing economies. Prior literature on SSCM has mostly emphasized big businesses based in industrial nations. SMEs are also a large proportion of supply chain networks, however, and have their unique difficulties when it comes to sustainability practices.

Significance of the Study

This paper aims at studying the effect of Economic, Environmental and Social pressures on SMEs sustainability behavior in South Asia. This study builds upon the existing SSCM literature in several settings and industries/geographic regions. The literature review, along with qualitative analysis, has been the basis for this study as it found the most important factors involved in SSCM practices. The study is about contexts that are not always addressed in the literature on sustainability, such as small and medium sized enterprises (SMEs) in developing economies. Much of the existing research about SSCM has focused on the large corporation in developed and industrialized countries. SMEs, however, represent a large proportion of supply chain networks, and have specific needs when it comes to sustainability practices such as limited financial resources, weak technological capacity, lack of managerial expertise, informal business structure and limited regulatory support.

The present study specifically analyzes the role of economic, environmental and social pressures on the sustainability behavior of SMEs in South Asia. The area is significant for SSCM research as SMEs contribute significantly to economic development, employment creation and participation in supply chains, however, are constrained by resources and institutional factors. The study deals with SMEs in developing economies, which is an important gap in the literature and extends the understanding of SSCM beyond the large firm and developed-country context.

Literature Review

Sustainability has become a major issue in supply chain management due to both environmental challenges and increased social expectations, making it one of the most pressing issues that companies need to address. Organizations are no longer evaluated only on financial performance but are expected to be environmentally friendly and socially responsible, as well as act ethically in governance. Sustainable Supply Chain Management (SSCM) integrates environmental, social and economic factors into business processes to create long-term value for the stakeholders of an organization while minimizing harm to society and ecosystems. Researchers have also emphasized the need for business organizations to shift toward sustainable practices such as green production, responsible sourcing, and collaboration with their supply chain partners in meeting global sustainability standards.

The economic factors are very important in SSCM. Organizations are more likely to adopt sustainability initiatives when those initiatives prove to be cost-effective with long-run competitive advantages. Certification schemes such as the Forest Stewardship Council (FSC) have not only encouraged companies to take a responsible attitude towards the management of their resources but also improved their standing in the marketplace (Blackman et al., 2017; Kalonga et al., 2015). The crucial parameters of financial feasibility and cost-effectiveness will inevitably remain at the forefront of organizations when considering investing in green technologies and sustainable production processes. These economic benefits also lead companies to bring sustainability initiatives into the way they do business.

Social dimensions are also critical in achieving SSCM. Companies have increasingly realized that they also have obligations to employees, society and other stakeholders. Therefore, companies have

started promoting labor rights, improving safety conditions, promoting employee welfare and ethical sourcing help achieve social sustainability (Osman et al., 2024). Stakeholder engagement, especially with local communities and workers, makes an organization more trustworthy and improves its reputation. Many companies have expanded their corporate social responsibility to include sustainable sourcing processes and supply chains that foster greater accountability throughout the supply chain (León Bravo et al., 2021).

Sustainability, of course, remains strongly linked to environmental concerns. Environmental effects are generated by most industries regarding resource use, emissions and waste products. Thus, companies are trying to be more environmentally friendly by reducing emissions and waste as well as sourcing resources from renewable sources (Hariyani & Mishra, 2022). Over the years, sustainability frameworks and environmental management systems such as Environmental, Social, and Governance (ESG) have increasingly gained relevance in propelling organizations towards responsible environmental management. Similarly, these initiatives can also help businesses manage operational risk and improve long-term sustainability performance (Alcalde-Calonge et al., 2024).

Legal considerations also play a role in the adoption of SSCM. The trend to increasingly stringent environmental regulations, emission limits and corporate responsibility requirements, especially from governments and regulators is increasing. The policies and international systems encourage companies to observe the standards of sustainability, at the same time ensuring awareness of responsible production and consumption (Faruquee et al., 2025). The involvement of various factors such as civil society and government institutions, has expanded and raised the number of environmentally transparent and inclusive environmental governance systems. Technology has been an important aspect to the transition to SSCM (Nguyen & Zuidwijk, 2024). Digital technologies, data analytics and artificial intelligence provide the tools for monitoring the impacts on the environment, optimizing resources and improving operational efficiency. Practices that incorporate technologies to produce sustainable products, recyclable packaging and cleaner production processes are being adopted increasingly. These technological solutions support organizations to reduce the negative environmental effects and remain competitive in the international markets. Economic, social, environmental, legal and technological factors, in general, all play a role in the influence on SSCM. This interaction is at the heart of responsible and resilient supply chains, and therefore it is important that organizations are familiar with this. While the world is exploring factors of sustainability practices more, especially in developing nations where limited research has been conducted to understand the drivers and barriers of implementation of SSCM strategies.

Research Methodology

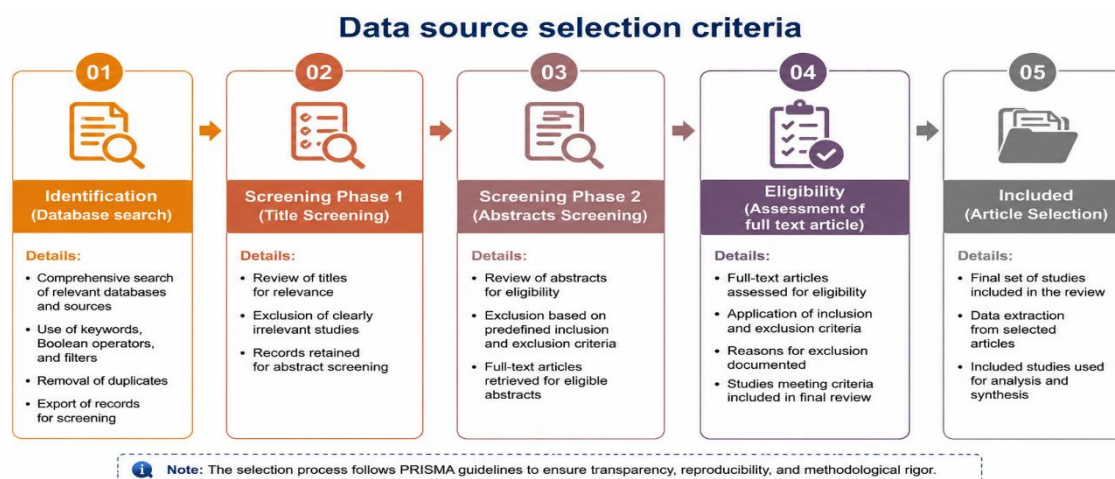
To find out the major driving forces of SSCM, the systematic review method was used. The study follows several aspects that are based on the PRISMA (Preferred Reporting Items to Systematic Reviews and Meta-Analyses) principles that strive for transparency, rigor and replicability of the literature selection, analysis, and reporting process. The articles reviewed were published from 2019 to 2025 and published in Springer Nature, Web of Science, Emerald, Science Direct and JSTOR.

Search Strategy

The literature review was conducted through a systematic procedure of five steps:

1. Identification: All relevant studies were obtained from the selected databases.
2. Screening phase 1: title scan to exclude studies that were obviously out-of scope.
3. Phase 2: abstract screening (Off-topic articles were eliminated).
4. Eligibility: full text evaluation of relevance (methodological quality, contribution).
5. Inclusion: final studies that have been chosen after all the criteria for the SSCM analysis have been met.

Figure 1: Data selection criteria



Purpose of the Research

The aim is to determine the primary factors influencing SSCM and evaluate them. The literature review provides an opportunity to identify trends and patterns in the current research, including the use of green technology, regulatory considerations, stakeholder involvement, and resilience to global events and disruptions, and offers valuable insights for the scholars, practitioners, and policymakers that will be involved in this research. The following search string was used to get the results for this purpose.

Search String

The literature search was done in a transparent and reproducible way by using well-defined keywords and search strings. The most frequent keywords were: “sustainable supply chain management”, “SSCM”, “green supply chain management”, “supply chain sustainability”, “environmental sustainability in supply chains”, “social sustainability in supply chains”, “economic sustainability in supply chains”, “technology and supply chain sustainability” and “legal-governance in supply chains”. The search was further refined using Boolean operators: “sustainable supply chain management” AND “SMEs”, “SSCM” AND “developing economies”, “green supply chain” AND “sustainability drivers” and “supply chain sustainability” AND “environmental OR economic OR social factors”.

Data Sources and Selection Criteria

Peer-reviewed literature from five major databases was used for the empirical evidence. **Inclusion criteria:**

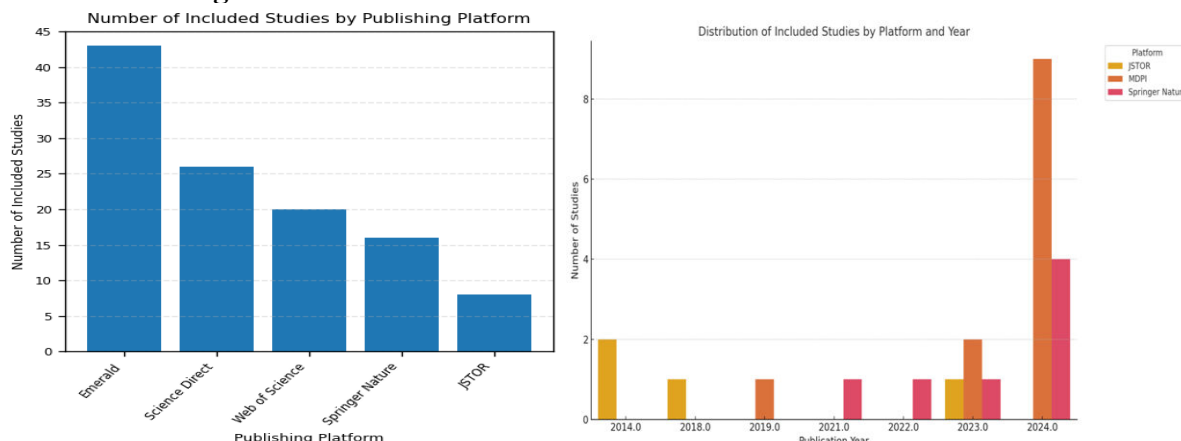
- Articles published between 2019 and 2025 in English.
- Focus on SSCM frameworks, practices, or drivers.
- Full-text articles that were methodologically sound and relevant to the topic

Exclusion criteria

• Non-peer-reviewed sources, predatory journals, non-full paper abstracts or studies not specific to SSCM.

Articles Retrieved

Articles were retrieved from major academic databases, including Emerald, ScienceDirect, Web of Science, Springer Nature, and JSTOR. After applying the inclusion and exclusion criteria, removing duplicates, and conducting relevance screening, 133 records were initially identified, of which 20 peer-reviewed articles were finally included in the review. The initially retrieved records were distributed across databases as follows: Emerald (24), ScienceDirect (33), Web of Science (28), Springer Nature (27), and JSTOR (21). This database-wise reporting improves the transparency of the review process and allows future researchers to replicate the search strategy.

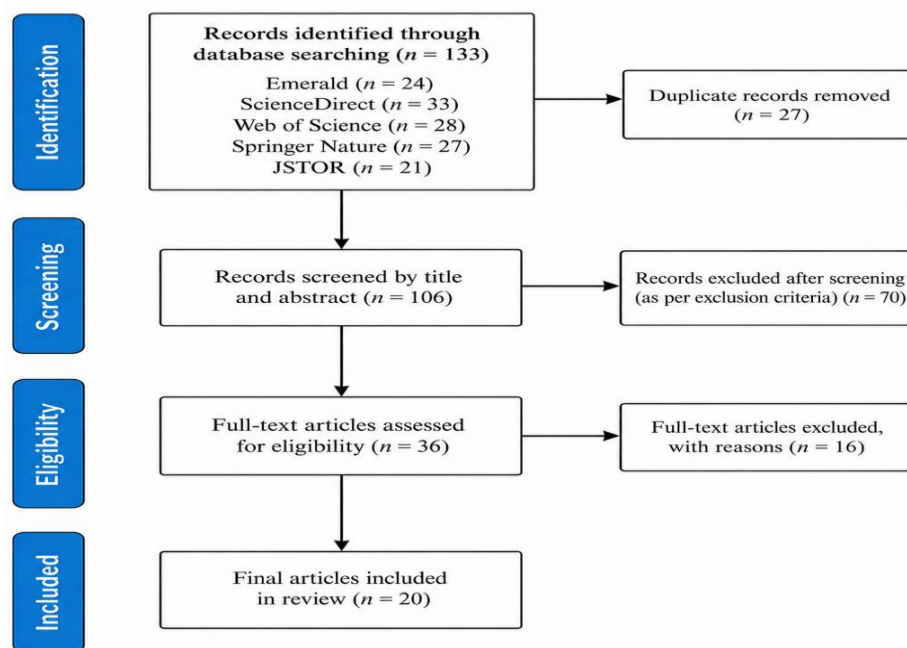
Figure 2: Number of records retrieved from selected sources

Validation of the Study

Validation involved:

- The use of inclusion/exclusion criteria to screen sequentially.
- Semi-structured coding to minimize researcher bias.
- Thematic accuracy: Supervisor review.
- Multiple credible databases to enhance credibility.

This method guaranteed high-quality, relevant, and replicable results and gave a solid basis for the analysis of SSCM factors and problems.

Figure 3: PRISMA flow diagram of study selection

Key Factor Identification

A thematic approach was used to extract recurring factors and sub-factors, including:

- Environmental sustainability

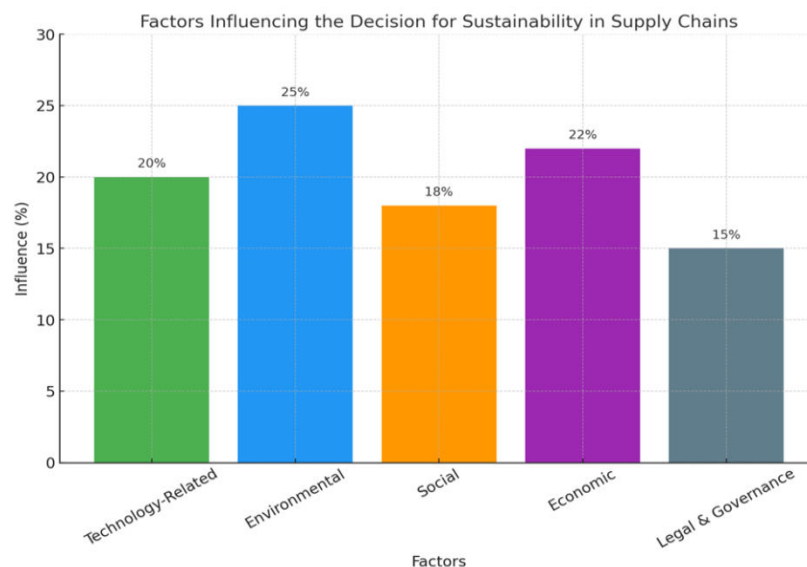
- Economic efficiency
- Regulatory compliance
- Stakeholder engagement
- Ethical sourcing, technological integration, and risk mitigation

SSCM Challenges

In the review, key problems that organizations must manage are highlighted:

- Finding the right level for environmental goals to maintain efficiency of operations.
- Creating supplier accountability and transparency.
- Incorporating green technologies and product life cycle management.
- Promoting stakeholder collaboration in multi-level supply chains.

Figure 4: Percentage of themes determined in selected studies



Several factors are attributed to SSCM: environmental (25%), economic (22%), technological (20%), social (18%) and legal-governance (15%). The percentages are the result of a qualitative coding process. Relevant studies were reviewed and key themes in relation to SSCM were identified. The same themes were classified into the five following dimensions: environmental, economic, technological, social, and legal-governance. The prevalence and intensity of each theme in the literature reviewed was then compared. From this coding, the percentage of each factor was computed to represent how important that factor is to the decision-making process for sustainability.

The environmental factors were given the highest weight due to the number of times these factors, such as carbon emissions, pollution control, waste reduction, and resource conservation, were mentioned in the literature. Economic issues also figured prominently, particularly in terms of cost reduction, green innovation, sustainable sourcing, and the competitiveness in the long-term. Technology was a key factor, as it can enhance transparency, data-driven decision-making, coordination, and resource optimization, such as AI-driven solutions, blockchain, IoT, and automation. Social factors were labor rights, ethical practices, stakeholder expectations and

community welfare. Legal and governance factors included regulatory compliance, environmental laws, certification requirements, and institutional support. These factors combine to offer a well-rounded and holistic approach to the creation of sustainable and resilient supply chains. They show that sustainability is not limited to environmental concerns only. It also requires economic efficiency, technological support, social responsibility, and strong legal and governance systems.

Results and Findings

The systematic literature review identified key elements of SSCM, including major factors, sub-factors, and themes across five dimensions: technological, environmental, social, economic, and legal-governance.

Technological Factor

SSCM is driven by technology, which allows for real-time monitoring, automated decision-making and predictive capabilities. Emerging technologies such as artificial intelligence, blockchain, IoT and Supply Chain 5.0 help firms transform their supply chains into environmentally friendly ones.

Table 1: Sub-factors of technological components

Sub-Factor	Relationship to Sustainability
AI for Predictive Sustainability (Zejjari & Benhayoun, 2024; Heidari et al., 2025)	Optimizes resources and forecasts supply chain risks
Supply Chain 5.0 & Human-Centric Tech (Villar et al., 2023)	Integrates automation with ethical and social responsibility
Blockchain & IoT (Aggarwal et al., 2025; Junejo et al., 2025; Samuels, 2025)	Provides traceability, transparency, and circular economy support
Digital Flexibility in Emerging Markets (Villar et al., 2023)	Enables scalable eco-friendly practices in resource-limited regions
Tech-Enabled Compliance & LCA (Zejjari & Benhayoun, 2024)	Monitors and enforces sustainability standards

Environmental Factor

Environmental sustainability focuses on green logistics, waste reduction, circular economy, and eco-friendly products.

Table 2: Sub-factors of environmental component

Sub-Factor	Relationship to Sustainability
Green Logistics & Closed-Loop Supply Chains (Tetteh et al., 2025)	Reduces emissions and reuses materials
Waste Reduction & Resource Optimization (Hariyani & Mishra, 2022; Alcalde-Calonge et al., 2024)	Minimizes landfill waste and maximizes efficiency
Sustainable Procurement (Shooshtarian et al., 2022; Siddiqi et al., 2024)	Ensures suppliers meet environmental standards

Green Product Development (Tang et al., 2020; Ashya Nabilla et al., 2025; Sharma et al., 2025) Supports eco-friendly product design

Social Factor

Social sustainability emphasizes labor rights, community welfare, and fairness.

Table 3: Sub-factors of social component

Sub-Factor	Relationship to Sustainability
Ethical Sourcing & Fair Trade (León Bravo et al., 2021)	Prevents labor exploitation, ensures fair partnerships
Worker Health & Safety (Osman et al., 2024)	Safeguards workforce welfare
Labor & Producer Empowerment (Osman et al., 2024)	Promotes inclusive growth and participatory decision-making
Social Certification Mechanisms (Sansalvador & Brotons, 2020; Öztürk, 2025)	Ensures compliance with social standards
Community Engagement & Development (Wong et al., 2024)	Strengthens local relationships and trust

Economic Factor

Economic sustainability aligns profitability with green practices.

Table 4: Sub-factors of economic components

Sub-Factor	Relationship to Sustainability
Cost Savings through Green Innovation (Mwenda et al., 2023; Tsikada et al., 2025; Sun et al., 2024)	Reduces operational costs via eco-efficient technologies
Sustainable Procurement Policies (Shooshtarian et al., 2022)	Balances cost, quality, and sustainability
Integrated Value Chains (Dhillon et al., 2023; Tsikada et al., 2025)	Promotes shared investments and circular economy initiatives

Legal and Governance Factor

Legal and governance frameworks enforce and monitor sustainability.

Table 5: Sub-factors of legal and governance components

Sub-Factor	Relationship to Sustainability
Legal Compliance & Regulatory Frameworks (Lissillour & Silva, 2024)	Mandates adherence to environmental and ethical standards

Private Governance & Voluntary Standards (Nguyen & Zuidwijk, 2024)	Supports transparency, accountability, and voluntary sustainability standards beyond legal requirements.
Contractual Governance & Risk Management (Faruquee et al., 2025; Emamisaleh & Rahmani, 2017)	Embeds sustainability in contracts and mitigates risks

Interpretation

Technological Factor

To enhance SSCM, technology becomes a strategic tool with the aim of providing visibility, coordination and evidence-based decision making throughout the supply chain. Technology, including artificial intelligence, blockchain and IoT, is not just a way to work, but a way to cut uncertainty, track suppliers, predict risks and enhance sustainability performance.

Environmental Factor

Environmental factors continue to be a key aspect in SSCM as they connect closely with resource scarcity, regulatory pressures, and increased public awareness of climate change. The results show a shift from the linear supply chain towards more circular and resource-efficient supply chains. The transition is driven by efforts to lower emissions, manage waste, and enhance long-term sustainability.

Social Factor

Social sustainability enhances the ethical and relational aspects of supplies chains. The results indicate that compliance does not only mean labor rights, worker safety, fair trade and community engagement — but they are also the bases for stakeholder trust and organizational legitimacy. Good social practices can enhance supplier relationship, engagement and trust from the public.

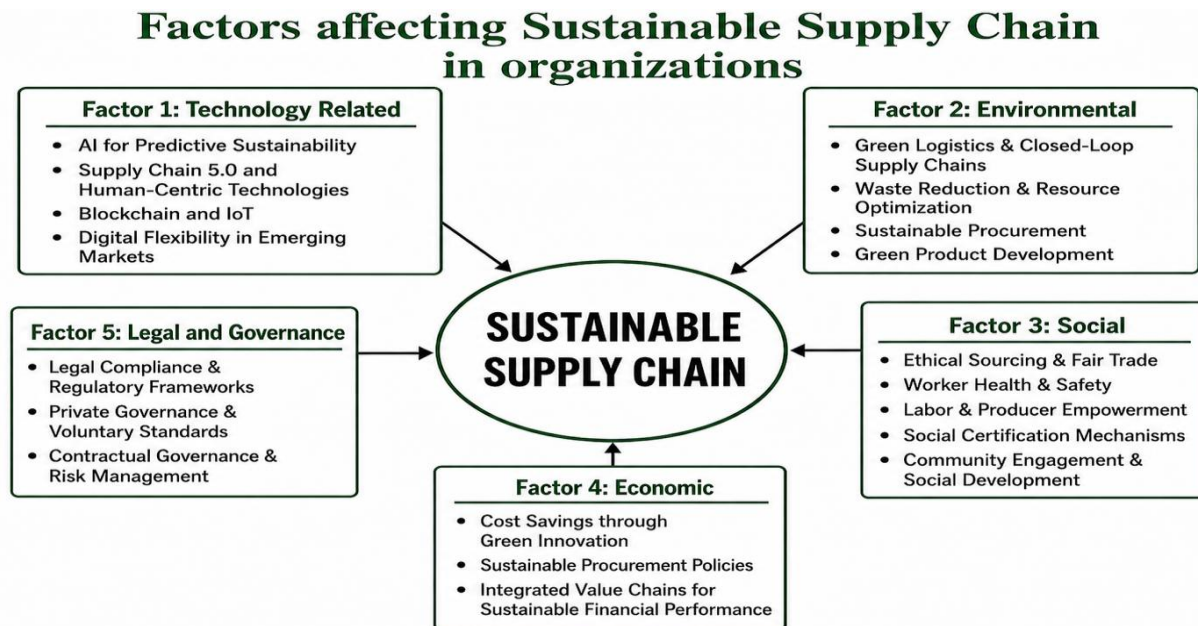
Economic Factor

Economic sustainability is the key to the applicability or otherwise of SSCM, especially for SMEs or companies in developing economy. The results indicate that sustainability is more easily adopted if it is perceived to be cost efficient, long-term competitive and value creating. So economic viability becomes a link between sustainability goals and the actual implementation.

Legal and Governance Factor

Legal and governance structures and arrangements are in place to underpin responsible supply chain practices. Regulations, standards, contractual governance and risk management systems enable organizations to make sustainability commitments and minimize the uncertainty in their supplier relationships. Such mechanisms are particularly significant in complex supply chains where accountability and compliance is challenging. The overall picture of the interpretation is that both technological and environmental, social, economic and legal-governance factors, play a role in shaping SSCM. The study adds to the literature by combining these dimensions under a single analytical framework, and by utilizing the latest literature from 2019 to 2025. This would offer a more contemporary and multi-faceted perspective on the adoption of SSCM, especially in the SME and developing economy. Moreover, this study provides significant policy implications for sustainability researchers, industry stakeholders and policy makers, with an emphasis on key drivers and pathways to sustainable transition. Understanding these factors can enable organizations to better integrate sustainability with economic results and regulatory requirements, increasing their sustainability and responsibility within supply chains (McDermott et al., 2011). The study also offers an underpinning for further research, particularly in emerging markets where challenges and opportunities are significantly different from those in industrial markets. This study supports sustainable development in the supply chains of the world in a well-balanced integrated manner.

Figure 5: Conceptual Framework of Study



Discussion

The results of this study indicate that there are many interrelated drivers that influence the implementation and development of SSCM among these, environmental concerns seem to be playing a significant role; especially the desire of minimizing carbon emissions and waste management among organizations. In the past, environmental sustainability has been identified as one of the primary concerns of organizations because of the rising regulatory requirements and increased awareness of environmental issues as highlighted in previous studies (Carter & Rogers, 2008; Hassini et al., 2012). Craig R. Carter and Dale S. Rogers (2008) suggest that SSCM integrates environmental, economic and social objectives, ensuring long-term organizational performance (Hassini et al., 2012). Other factors that arose as important drivers in explaining the sustainability efforts in the supply chains were economic factors. The adoption of sustainability is becoming more than an ethical responsibility for companies; it is a strategic opportunity for them to improve their operational efficiency and costs in the longer term. Research has posited that companies which engage in sustainable practices are able to boost financial results, competitiveness, and reputation in the market (Broadstock et al., 2021). Similarly, Mwenda et al. (2023) shows that SSCM practices leads to positive effects on the financial viability and sustainable organizational development particularly in SMEs. Technological development is another important consideration that justifies SSCM. Companies can enhance transparency, traceability and efficiency in their supply chain with the support of digital technologies such as artificial intelligence, blockchain, and the Internet of Things (IoT). Organizations can control the use of resources, optimize logistics, and improve decision-making with the use of the latest technologies (Zhou et al., 2016). Numerous previous studies have highlighted that digital transformation can significantly improve supply chain transparency and help companies reach sustainability objectives by improving data management and control (Wong et al., 2024; Zejjari & Benhayoun, 2024). Social factors are also one of the influencers of SSCM strategies. Key factors of responsible business practices identified in responsible business practices include ethical sourcing, employee welfare and community engagement which are increasingly being included in responsible business practices. Consumers and investors are now demanding fair labour and social responsibility along the supply chains of various companies. According to Broccardo et al. (2023), CSR boosts stakeholder confidence and strengthens companies' ethical brand, thereby fostering sustainable development.

Lastly, the legal and governance systems are critical in facilitating adherence to environmental laws and global sustainability principles. Environmental policies encourage organizations to be sustainable by providing environmental limits and accountability processes. As Auld and Gulbrandsen (2010) write, the sustainability work becomes more transparent and legitimate through transparency and certification systems. Likewise, Zhang et al. (2025) point out that institutional pressures, including regulation and industry standards, are important factors influencing firms' green supply chain adoption intentions.

The results of this study align broadly with the results of other surveys conducted previously on Sustainable Supply Chain Management (SSCM), which focus on the integration of environmental, economic and social aspects in the implementation of supply chain management. Previous research has largely concentrated on the triple-bottom-line and its contribution to better long-term organizational performance, as seen in Carter and Rogers (2008) and Hassini et al. (2012). In the same way, Carter and East described the development of SSCM and the importance of sustainability as a strategic issue in the field of supply chain management. The present study, however, adds five interrelated dimensions – environmental, economic, technological, social and legal–governance factors – to the above earlier reviews. This review focuses more on the role of digital technologies, regulatory compliance, governance mechanisms and challenges related to SMEs, while other studies tended to focus on environmental and economic sustainability. The study is also current, as literature from the past six years (2019-2025) is also included, which gives the study a fresh insight on emerging themes like AI, blockchain, IoT, supply chain resilience, circular economy practices, and sustainability performance measurement. Hence, the present study is a contribution to the literature as it provides a more updated and understanding of the factors influencing SSCM. Therefore, this study contributes to the literature by offering a more updated and multidimensional understanding of the factors influencing SSCM adoption, particularly in the context of SMEs and developing economies.

Conclusion

The results of this study suggest that Sustainable Supply Chain Management (SSCM) is influenced by both environmental and economic factors, as well as technological, social, and legal-governmental factors. The results indicate that the economic, technological, social and legal-governance factors are most important, followed by environmental factors. These all contribute to how organizations can bring sustainability into their supply chain decisions, operations and long-term strategies.

Theoretical Implications

Theoretically, the study adds to the SSCM literature by providing a multidimensional perspective on the adoption of sustainability. It demonstrates that there is no single factor to explain SSCM. Rather, it is the synergistic effect of institutional pressures, stakeholder expectations, organizational strengths, technological innovation and compliance that is needed. This enhances the theoretical underpinning of the study and serves as a valuable basis for further investigations in the field of sustainable and resilient supply chains.

Practical Implications

The results provide practical advice to supply chain managers to guide their decision-making priorities for sustainability. Managers should focus on the high impact areas of environmental protection, cost efficiency and technological improvement. The concerns may be related to reduction of waste, control of emissions and better use of resources. Sustainable sourcing, supplier partnerships and competitiveness over a longer term are priorities in the economy. AI, IoT, and data analytics tools can complement existing transparency and monitoring efforts and aid in decision-making. Social and legal issues should also be incorporated into ethical sourcing, labor policies, compliance and good governance processes.

Future Research

Empirical and region-specific studies are recommended to be conducted in the future, as this is a significant area of research where Sustainable Supply Chain Management (SSCM) has a different economic, infrastructural and regulatory landscape in developing countries. There is limited evidence from existing studies in developed economies, and more research is required to understand how context and cultural and resource scarcity factors influence sustainable behavior. Comparative studies of regions and sectors may provide more detailed information about regional variation and/or about best practices. The need for measuring and assessing sustainability performance is also another key topic that needs to be explored in future. To measure impacts of the supply chain, standardized frameworks, indicators and models are needed around environmental, social and economic aspects. Studies should also focus on collaboration and governance mechanisms between multiple stakeholders. The study may focus on the part played by communities, suppliers, private companies and the government in the implementation of sustainable practices. An in-depth examination of the part of policy frameworks, incentives and international regulatory regimes in advancing SSCM research can be helpful. More research can be conducted in the future to explore SSCM in a specific industry e.g. manufacturing, textiles, agriculture, logistics, and retail. Longitudinal studies are also required to gain insights into the change over a period of how companies implement and enhance sustainability practices. Further studies could also investigate the impact of AI-powered tools on the measurement of sustainability performance, such as tracking emissions, supplier auditing, and enhancing transparency. Other research could also include the concept of circular economy, adaptation to climate change, strategic sourcing and supply chain resilience in the event of global disruption.

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