



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Implementation of Green Supply Chain Management practices in India

Shaheen Parween, MBA

Student, Amity University, Lucknow, Uttar Pradesh, India

Dr. Komal Malik, PhD

Professor, Amity Business School, Lucknow, Uttar Pradesh, India

ABSTRACT:

Green supply chain management, or GSCM, has become essential for companies all over the world that want to minimise their environmental impact while increasing sustainability and efficiency. The implementation of GSCM methods is highly relevant in the Indian setting, as industrialization is progressing at a rapid pace. This study looks at the use of GSCM methods in India, looking at a variety of cases to understand the difficulties, achievements, and impacts of such initiatives. Using case studies and empirical research, the study aims to provide useful lessons for businesses worldwide by shedding light on the acceptance and efficiency of GSCM methods within the Indian business context.

The abstract provides a brief overview of the research area and highlights the crucial part that GSCM plays in reducing environmental impact and enhancing operational effectiveness. To shed light on the application of GSCM in India, it describes the approach used, which makes use of case studies and empirical analysis. Moreover, the abstract draws attention to the research's broader implications, implying that the conclusions will provide insightful guidance that may be applied to companies globally.

KEYWORDS: Green supply chain management (GSCM), Environmental impact, Sustainability, Efficiency, Indian industrialization.

1. INTRODUCTION:

Green supply chain management (GSCM) is a strategy framework that incorporates environmental factors into all aspects of the supply chain, starting from the product's conception and ending with its disposal. Fundamentally, supply chain management (GSCM) seeks to reduce the negative effects of supply chain operations on the environment while concurrently increasing operational effectiveness and financial gain. Life cycle assessment, eco-design, green procurement, sustainable transportation, reverse logistics, and carbon footprint reduction are just a few of the activities and ideas that are included into GSCM. Businesses can achieve a number of advantages by putting GSCM practices into practice, such as cost savings through increased productivity, improved brand reputation through environmental stewardship, compliance with environmental laws, and satisfying the demands of a growing number of environmentally conscious customers. Overall, GSCM provides firms with a complete strategy for conducting business in an environmentally friendly way, while increasing profitability and operational effectiveness.

1.1 AIMS

The aim of this study is analyze the principles and practices of GSCM, alongside identifying the key factors influencing the implementation of green supply chain management practices in India. Additionally, it seeks to explore strategies to raise awareness and educate stakeholders about the principles and benefits of green supply chain management.

1.2 Factors influencing the implementation of green supply chain management practices in India.

- a. **Regulatory Environment:** Green supply chain methods are greatly aided by government policies, rules, and incentives. It is used by organisations in India due to rules pertaining to waste management, emissions control, environmental protection, and sustainable development.
- b. **Consumer Awareness and Demand:** As customers become more conscious of environmental issues, it helps to meet consumer expectations and improve their brand image, companies that respond to this demand may adopt green supply chain methods.
- c. **Infrastructure:** To adopt green supply chain techniques, there must be enough infrastructure, such as waste treatment plants, recycling hubs, and infrastructure for renewable energy. Adopting sustainable practices may not be as feasible if such infrastructure is not available or accessible.
- d. **Competitive advantage:** Businesses may obtain a market edge by implementing green supply chain techniques. Setting yourself apart based on your environmental performance may draw in investors and customers who care about the environment, increasing your market share and profitability.

2. LITERATURE REVIEW:

Ghansham Das, Shan Li, Raza Ali Tunio, Riaz Hussain Jamali, Ihsan Ullah (2023) examined the real-life evidence of how GSCM affects EMS and market competitiveness. Furthermore, the findings demonstrate that the favourable association between GSCM-EMS and EMS and market competitiveness in China was strengthened by BDA-AI and environmental visibility. According to recent study, formal EMS, BDA-AI, and environmental visibility are helping supply chain experts, policymakers, managers, and researchers provide their organisations the competitive edge that the market demands.

Neha Saini, Kunjana Malik, Sakshi Sharma (2023) examined the existing literature and create a theoretical framework that integrates a superb theory-building process among the three main components of global supply chain management practices: competitive advantage, organisational performance, and flexibility. In order to do a comprehensive evaluation and assess the methodological design, publishing patterns, and themes of GSCM research, the study makes use of bibliometric analysis.

Yanamandra Ramakrishna, Haitham M. Alzoubi, Logaiswari Indiran (2023) examined how these two strategies may enhance the supply chain organisational performance of India's Small and Medium-Sized Enterprises (SMEs). The results of this study show that implementation of smart and sustainable supply chain (SC) strategies may significantly improve the performance of SC organisations. Moreover, the performance of SMEs is directly impacted by each of these activities taken separately. Because they close gaps in the literature and offer value to scholars, researchers, students, policymakers, and business professionals, the findings and conclusions of this study significantly add to the corpus of current knowledge.

Gyanendra Prasad Bagri, Dixit Garg and Ashish Agarwal (2024) examined the role of barriers to green practice adoption in the Indian auto auxiliary manufacturing sectors. An effort is made to pinpoint the obstacles and evaluate how they affect the adoption of green practices. The 'impacts croises-multiplication applique' and 'classment' (MICMAC) analysis of the identified hindering factors was performed using a matrixed approach, while the interpretive structural modelling (ISM) approach was used to develop contextual relationships among the factors.

Manjot Singh Bhatia, Kishore Kumar Gangwani (2021) examined and debated the state of empirical research on green supply chain management (GSCM). Using the methodology put forward by Flynn et al. (1990), the paper evaluates the research methods of 216 empirical studies in GSCM that were published between 2001 and 2019. The results show that during the past several years, the number of empirical articles in GSCM has risen at a quicker rate.

OBJECTIVES:

- To understand the factors influencing the implementation of green supply chain management practices in India.
- To explore the role of risk and return in adopting green supply chain practices.
- Investigate the current state of green supply chain management (GSCM) practices in India's business landscape.
- Identify and analyze key challenges hindering the widespread adoption of environmentally sustainable practices in supply chains.

3. METHODOLOGY:

Research type: Qualitative research

Research design: The study is partially of descriptive nature and partially analytical. The study is done by using both primary and secondary data.

Sampling area: The area in Lucknow was the area where the study was conducted.

Sample size: 150

Tools for data collection: The data was collected through the use of questionnaire survey which included 10 questions prepared for collecting data.

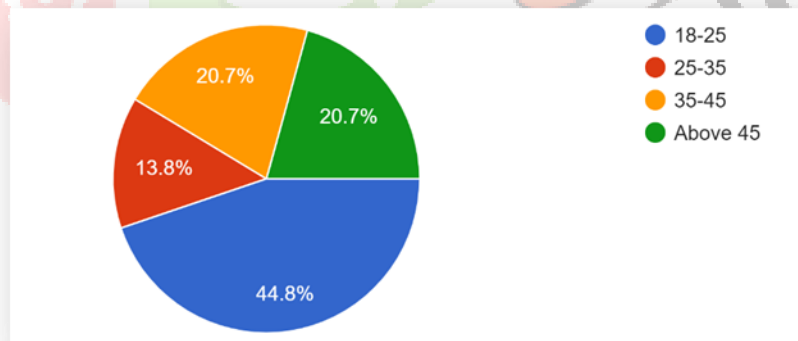
Data collection methodology:

- a) Primary data collection: The data was collected by preparing a questionnaire and it was collected from the people.
- b) Secondary data collection: The data was collected from different sources such as books, internet sources etc.

4. DATA ANALYSIS:

A set of 10 questions were prepared. Apart from these, the questions also included the name, occupation etc. of the participant.

Demographic data

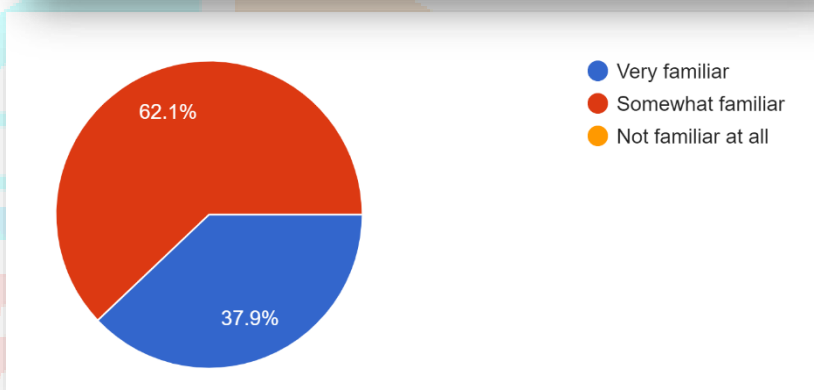
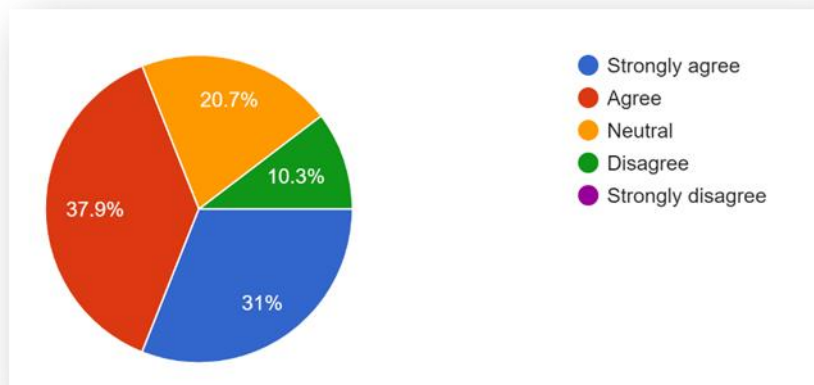


The maximum number of people who took part in the survey were in the age group of 18-25 years which accounts to 44.8%

Familiarity with the concept of Green Supply Chain Management (GSCM).

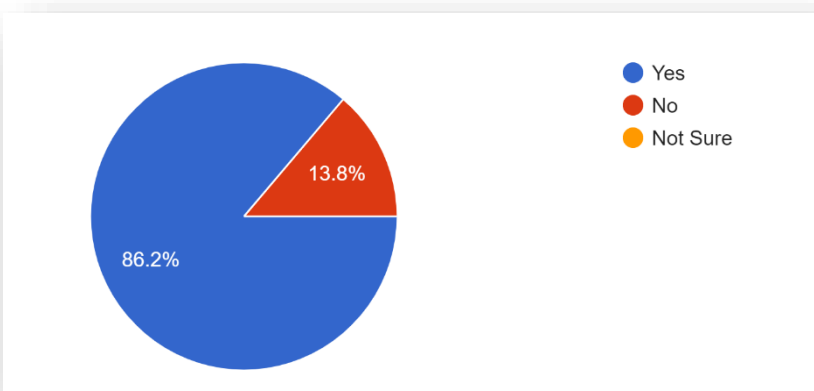
62.1 % respondents have somewhat familiar and 37.9% are very familiar with the concept Green Supply Chain Management (GSCM). This suggests that a significant portion of the surveyed individuals have at least some understandings of GSCM, which could be valuable for further research or initiatives in the field.

Various views regarding the importance of implementing GSCM practices for businesses in India.



The survey indicates a generally positive perception towards implementing Green Supply Chain Management (GSCM) practices among businesses in India, with a combined percentage of 68.9% respondents either strongly agreeing or agreeing. 20.7% neutral and 10.3% disagreed.

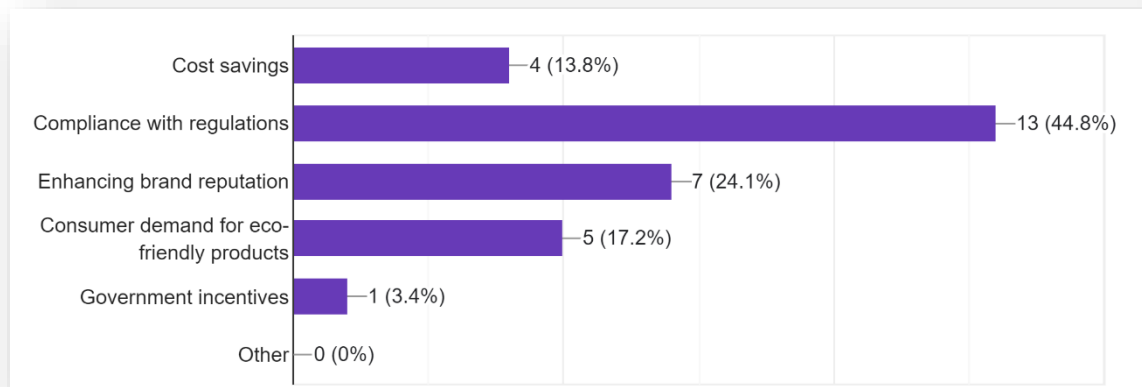
Opinions regarding whether corporations in India have a responsibility to implement green practices in their supply chains.



The survey indicates that a significant majority (86.2%) of respondents believe that businesses in India have a responsibility to implement green practices in their supply chains, while (13.8%) hold the opinion that they do not have this obligation.

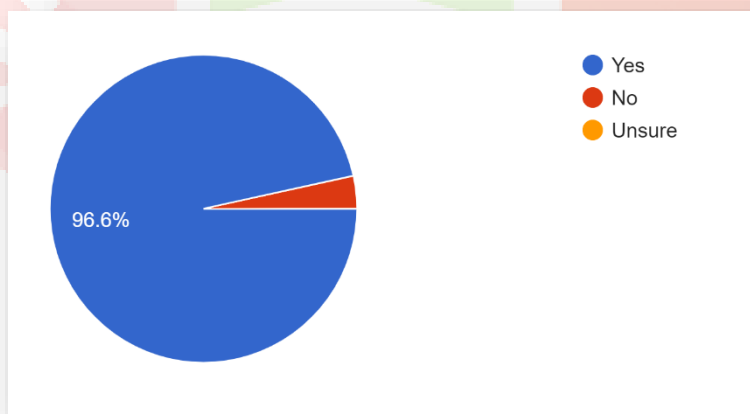
Various factors that motivate businesses in India to adopt GSCM practices.

(44.8%)



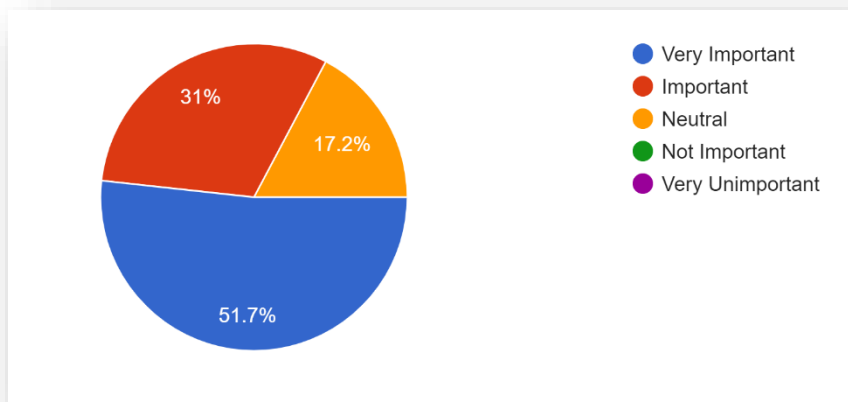
respondents think that compliance with regulations is the main factor motivating businesses in India to adopt GSCM practices; (24.1%) think businesses are adopting GSCM practices to enhance their brand reputation; (17.2%) think businesses are adopting because consumer demand for eco-friendly products; (13.8%) think cost savings; and (3.4%) think government incentives.

Effectiveness of government policies and regulations in promoting green supply chain management practices in India.



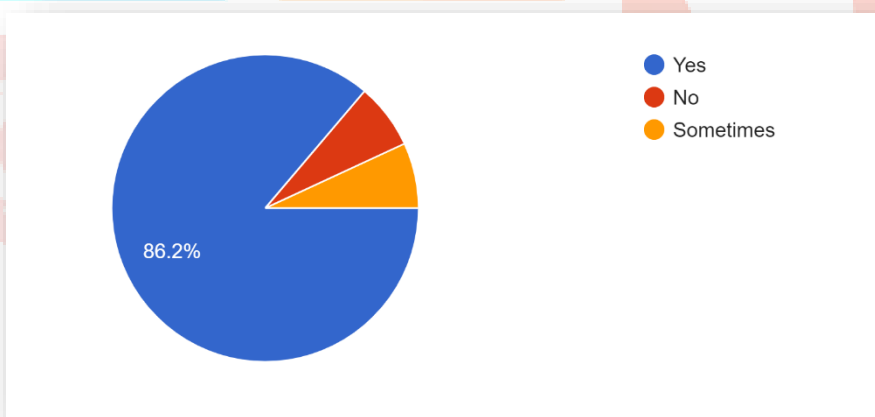
The majority (96.6 %) of respondents thinks that government policies and regulations play an effective role in promoting green supply chain management practices in India.

The importance of consumer awareness and demand for environmentally friendly products is driving businesses towards adopting green supply chain practices.



(51.7%) respondent thinks consumer awareness and demand for environmentally friendly products is very important; (31%) respondent thinks it important; and (17.2%) think neutral about it.

Purchasing decisions are influenced by any company's dedication to environmentally friendly supply chain practices.



(86.2%) have made purchasing decisions based on the company's commitment to environmentally friendly supply chain practices; 6.9% have made them sometimes; and 6.9% are not influenced by the company's commitment to environmentally friendly supply chain practices.

5. FINDINGS:

Here are some key findings on the topic:

- **Impact and Awareness of GSCM:** The literature reviews shown a positive association between market competitiveness, EMS, and Green Supply Chain Management (GSCM). The significance of Global Supply Chain Management (GSCM) strategies in augmenting the performance and sustainability of organisations in many industries and settings is increasingly acknowledged.
- **Drivers and Barriers:** The results of the survey showed that Indian firms had a generally positive attitude towards using GSCM techniques. The main drivers were found to be customer demand, brand reputation, and regulatory compliance. Widespread adoption is, however, severely restricted by barriers including stakeholder resistance, early investment costs, and knowledge.
- **Government Regulations and Consumer Awareness:** Businesses were shown to be mostly motivated to implement sustainable supply chain management (GSCM) practices by public awareness and demand, while government rules and regulations were found to be beneficial in supporting GSCM practices. This indicates an increasing convergence of consumer desires, business sustainability objectives, and governmental regulations.
- **Corporate Responsibility:** Many respondents agreed that businesses had a duty to adopt green practices, and this requirement was widely acknowledged. This emphasises how companies are becoming more and more involved in solving environmental issues and promoting sustainability across their supply chains.

6. CONCLUSION:

In conclusion, the findings of the survey and literature reviews highlight how important it is to use Green Supply Chain Management (GSCM) techniques in order to improve an organization's competitiveness, sustainability, and general performance. Although businesses are becoming more aware of and have a good attitude towards GSCM, there are still a lot of barriers in the way of its broad implementation. Consequently, in order to overcome these obstacles and hasten the adoption of sustainable practices, stakeholder collaboration is crucial.

The case studies of Hindustan Unilever Limited (HUL), Mahindra & Mahindra Limited (M&M), and Tata Motors provide specific instances of how well-known Indian companies are incorporating environmental responsibility into their day-to-day operations. These businesses have lessened their environmental impact, strengthened their competitive edge, and reaffirmed their commitment to corporate sustainability by making strategic investments in renewable energy technologies, sustainable distribution strategies, and eco-friendly production techniques.

In conclusion, the findings highlight the transformational potential of GSCM methodologies in attaining favourable social, environmental, and economical consequences. Businesses may reduce environmental risks, promote innovation, encourage growth, and generate long-term value by adopting sustainability as a strategic objective and working with a variety of stakeholders. Prioritising GSCM practices is crucial for organisations to ensure a sustainable and successful future for everybody, especially as they negotiate the complicated environment of modern business.

7. LIMITATIONS AND CHALLENGES:

- **Limited Data Availability:** It could be difficult to get detailed information about how supply chain management techniques are being used in India. Finding enough information to examine the subtleties of this subject may prove difficult, depending on the extent of the inquiry. The depth of analysis may be limited if secondary data sources are used, as they may not adequately reflect the nuances of the implementation process.
- **Industry Specificity:** Depending on the industry, there may be a variety of obstacles to adopting supply chain management techniques. Although the goal of this study is to provide insight into India's implementation environment, concentrating on a single industry may limit the applicability of the findings to other sectors while also producing insightful information. Gaining an in-depth understanding of the implementation process requires an awareness of the problems specific to the industry.
- **Geographic Variations:** Due to variations in regulations, infrastructure, and market dynamics, the difficulties experienced when applying supply chain management techniques can differ based on their location. If these differences are not taken into consideration, research findings may not be as applicable outside of the area under study, and important information that is relevant to other Indian regions may be missed.
- **Subjectivity in Barrier Identification:** Because different stakeholders may have different ideas about what a barrier is, it can be subjective to identify and classify barriers to the implementation of supply chain management. To reduce possible bias and improve the dependability of research findings, it is crucial to have strong techniques for barrier identification and validation.

8. REFERENCES

- Questionnaire- <https://docs.google.com/forms/d/17f99yQFS24fn5v2ag7DtunBzgwNpXtpIDqMZvy0ehKY/prefill>
- Content – Google
- <https://www.sciencedirect.com/science/article/abs/pii/S0959652620347661>
- [Prioritizing Circular Supply Chain Management Barriers Using Fuzzy AHP: Case of the Indian Plastic Industry - Chitranshu Khandelwal, Mukesh Kumar Barua, 2024 \(sagepub.com\)](https://www.sagepub.com/journalsFullText.action?doi=10.1177/0959652620347661)
- <https://link.springer.com/article/10.1007/s10668-024-04468-x>
- <https://www.inderscienceonline.com/doi/abs/10.1504/IJBIS.2024.136882?af=R>
- <https://dinastipub.org/DIJDBM/article/view/2280>
- <https://www.sciencedirect.com/science/article/abs/pii/S2214785321066402>
- <https://www.motorindiaonline.in/tata-motors-three-pronged-approach-towards-sustainability/#:~:text=The%20key%20highlights%20of%20their,43%20suppliers%20using%20renewable%20energy.>
- <https://www.hul.co.in/files/92ui5egz/production/6897756a8345ea5e63970e2cf2749d5e5df6c588.pdf>
- <https://www.mahindra.com/our-business/renewable-energy>