Role of Green Supply Chain Management Practices in Indian Retail Industry: An Empirical Study

### Role of Green Supply Chain Management Practices in Indian Retail Industry: An Empirical Study

### Naveen Negi

Asst. Professor, School of Management, Graphic Era Hill University, Dehradun Uttarakhand India

### **Abstract**

The Indian retail sector is crucial to the economy of the nation since it boosts consumer welfare, GDP growth, and employment. However, because of the environmental issues caused by its rapid growth, sustainable practices must be used. Practices for green supply chain management (GSCM) have arisen as a response to these difficulties. The goal of GSCM is to reduce resource utilization, waste production, and carbon impact along the whole supply chain. Retailers may lessen their environmental effect, save money, improve their brand image, and adhere to rules by adopting GSCM. However, obstacles such as lack of knowledge, inadequate infrastructure, a lack of funding, and problems with supply chain openness make it difficult to apply GSCM practices. To overcome these obstacles and promote a greener and more sustainable retail sector in India, cooperation between retailers, governing agencies, and stakeholders is essential. The researcher had considered 214 people from Indian retail industries to know the role of green supply chain management practices in Indian retail industry and concludes that there is significant role of green supply chain management practices in Indian retail industry.

**Keywords** – Indian Retail industry, Supply chain management, GDP growth, environmentally friendly practices, trash minimization

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### Introduction

Retail industry is one of the most important sectors in India. Any industry that sells goods and services directly to consumer falls into retail industry. The retail sector is important to the Indian economy since it boosts consumer welfare, GDP growth, and employment. The sector is essential to addressing the demands and ambitions of the Indian populace because to its sizable customer base and quickly expanding middle class. This industry is extremely crucial for creating jobs opportunities in India. From sales associates and shop managers to supply chain experts and customer support agents, the sector offers a variety of work options for Indians (Rahman, 2012). Apart from this, growth in retail sector also promotes growth in other sectors. The industry also plays a vital role in producing different types of goods and services to the consumer. By providing a variety of payment methods, home delivery services, and individualized shopping experiences, retailers also increase consumer convenience. This ease of access and convenience helps raise

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living standards and satisfy customers. Apart from all this, the industry is also useful for the government as it provides the government of India with taxes and various duties. Sales tax, valueadded tax, and goods and services tax (GST) revenues all rise in tandem with sector expansion and rising consumer expenditure. All these taxes collected can be used for the good of public. These funds can be used to fund social welfare initiatives, public infrastructure improvements, and expenditures on important services like healthcare and education (Srivastava, 2008). As much as rapid growth of retail sector is good for India, it also has raised concerns about the environmental stress it puts on nature. Because of this, the necessity for sustainable practices in the sector is expanding. This has given rise to green supply chain management. Green supply chain management seeks to help companies run more sustainably and productively. It's also known as sustainable supply chain management or green logistics. Every step of the supply chain, from sourcing raw materials through manufacturing, distribution, and delivery, is evaluated for sustainability and its implications on the environment. Green SCM seeks to minimum resource consumption, waste, and pollution while also lowering the carbon footprint of goods and services (Tseng et.al, 2019). Hence, the entire aim here is to lower the carbon footprint while producing products and services.

### Literature Review

Indian retail industry has experienced massive growth over the past few decades. Experts today believe that the major reasons for this are increase in consumer base, increase in annual salary of people, urbanization, and increase in population to name a few. Indian retail market has grown many folds in the last few decades. But as the retail markets in India and around the world are expanding, this is also leading to more consumption of energy, carbon emission as well as waste generation which is a major issue. The waste generated is not only bad for humans, but it is extremely harmful for our environment also. The retail industry should take responsibility for this. Steps are already being taken in the right direction as the industry is trying to be more environmentally friendly. With the incorporation of green supply chain management practices, the industry is already taking steps in the right direction. Retailers may reduce their carbon footprint, save resources, and improve their environmental performance by embracing sustainable practices (Green et.al, 2012). Environmentally friendly packaging, energy-efficient transportation, trash minimization, and ethical sourcing are examples of GSCM practices. Apart from this, retailer can also recycle and reuse as much material as possible. The Indian retail sector may attain environmental sustainability by using GSCM practices to cut down on energy use, trash production, and greenhouse gas emissions. For instance, installing energy-saving lighting and equipment in retail shops establishments can result in considerable energy savings for the owner (Laosirihongthong et.al, 2013). Additionally, using eco-friendly packaging materials and encouraging recycling programmes can cut down on the everyday waste production of the sector (Petljak et.al, 2018). Apart from this, Retailers may be able to cut costs by implementing GSCM practices. While trash reduction and recycling activities can reduce disposal costs, energy-efficient

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technology and procedures can lower operational costs for the business. Additionally, merchants may reduce fuel costs and improve logistical efficiency by modifying transportation routes and implementing fuel-efficient cars and trucks (Sarkis, 2012). The government of India can also play a crucial role in helping businesses in integrating green supply chain management practices in retail industry. The Indian government has recently implemented a number of laws and policies to encourage environmentally friendly practices in all sectors of the economy. Retailers may assure compliance with these rules and stay out of trouble by using GSCM practices. Additionally, shops might obtain a competitive edge by anticipating upcoming regulatory needs. Integrating GSCM practices can also enhance your brand image in eyes of your consumers. A significant focus on sustainability promotes consumer loyalty and indicates corporate social responsibility. Green certifications and eco-labeling are further signs of a retailer's commitment to environmental stewardship that draw eco-aware customers and set the brand apart from rivals. A big part of green supply chain management is manufacturing and recovering of product. According to previous studies, manufacturing and recovering almost makes up 65 percent of total pollution caused by the industry (Swami & Shah, 2013). India's retail industry should seriously prioritize product recovery and ecologically friendly production. For this, environmental considerations must be included into the design, material selection, production, customer distribution, and product end-of-life management processes of new products. Indian retailers must understand that there are two main concerns in "environmentally conscious manufacturing", first is understanding the product's life cycle and the environmental impact at each stage, and second is improving decision-making such that the environmental qualities of the product and manufacturing process are maintained at a desirable level, both throughout product design and manufacture. (Colicchia et.al, 2017).

Despite so many efforts, Indian retail industry still have a long way to go. It faces a lot of challenges and it must overcome these to really make a change. Many merchants, particularly those in small and medium-sized businesses, are either unaware of or ignorant of GSCM practices. To increase capacity among merchants and their staff, education and training programmes are required. It is important for them to realize the importance of GSCM practices. The Indian retail sector also encounters issues with its infrastructure, such as poor waste management procedures, ineffective transportation systems, and restricted access to renewable energy sources. Collaboration between merchants, governing authorities, and other stakeholders is necessary to overcome these constraints and move towards more greener practices. Apart from these multiple stakeholders in the retail industry also need to be aware of their duty. The retail sector manages intricate supply chains with several participants, such as suppliers, manufacturers, distributors, and logistics service providers. It can be difficult to coordinate sustainability programmes among these many groups; this calls for efficient channels for cooperation, communication, and information-sharing. GSCM practices may initially need investments, even if they can result in cost reductions in the long term. It may be difficult for retailers, especially

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small and medium-sized businesses with limited financial resources, to allocate funding for implementing sustainable practices. In order to encourage shops to adopt GSCM practices, financial assistance and incentives from the government and financial institutions are essential (Sajjad et.al, 2015). And lastly, retailers must guarantee supply chain openness if they want to use GSCM practices successfully. This entails tracking the sources of items, examining the sustainability records of suppliers, and keeping an eye on environmental performance along the whole supply chain. It might be difficult to implement reliable tracking and monitoring systems when working with international vendors.

Objective: To measure the role of green supply chain management practices in Indian retail industry.

Methodology: The researcher had considered 214 people from Indian retail industries to know the role of green supply chain management practices in Indian retail industry. The survey was conducted with the help of a questionnaire. The researcher had collected the primary data through random sampling method and analyzed it using mean and t test statistical tools.

### **Findings**

Table 1 Role of Green Supply Chain Management Practices in Indian Retail Industry

S.	Statements	Mean	t	Sig.
No.		Value	value	
1.	Retailers reduce carbon footprint, save resources, and improve environmental performance by embracing sustainable practices	3.21	3.126	0.001
2.	GSCM practices cut down energy use, trash production, and greenhouse gas emissions	3.19	2.846	0.002
3.	Retailers install energy-saving lighting and equipment considering energy savings	3.17	2.587	0.005
4.	Eco-friendly packaging materials and recycling program to cut down everyday waste production of the sector	3.20	2.982	0.002
5.	Retailers cut their costs by implementing GSCM practices	3.16	2.425	0.008
6.	GSCM practices enhance brand image in eyes of consumers	3.18	2.682	0.004

Table and Figure 1 shows different role of green supply chain management practices in Indian retail industry. The respondent says that retailers reduce carbon footprint, save resources, and improve environmental performance by embracing sustainable practices with mean value 3.21, Eco-friendly packaging materials and recycling program to cut down everyday waste production of the sector with mean value 3.20 and GSCM practices cut down energy use, trash production, and greenhouse gas emissions with mean value 3.19. The respondent also says that GSCM

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practices enhance brand image in eyes of consumers with mean value 3.18, retailers install energy-saving lighting and equipment considering energy savings with mean value 3.17 and retailers cut their costs by implementing GSCM practices with mean value 3.16. The value under significant column for all the statements related to role of green supply chain management practices in Indian retail industry are significant with value below 0.05 after applying t-test.



Figure 1 Role of Green Supply Chain Management Practices in Indian Retail Industry

### Conclusion

In conclusion, the Indian retail sector is crucial to the nation's economy, yet because of its quick development, there are now environmental issues. The use of green supply chain management (GSCM) practices is crucial to overcoming these obstacles. Retailers may benefit from GSCM by lowering their environmental impact, saving money, enhancing their brand image, and adhering to laws. But there are still challenges to be solved, including a lack of knowledge, poor infrastructure, financial limitations, and problems with supply chain transparency. For India's retail industry to become greener and more sustainable, cooperation between stakeholders, government organizations, and retailers is essential. The industry may create a more economically and ecologically responsible future by tackling these issues and encouraging collaboration.

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The study was conducted to know the role of green supply chain management practices in Indian retail industry and found that retailers reduce carbon footprint, save resources, and improve environmental performance by embracing sustainable practices and eco-friendly packaging materials and recycling program to cut down everyday waste production of the sector.

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