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Sustainable Growth: Assessing the Customer Impact of Green Supply Chain Management in Small and Medium Enterprises

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Abstract

More and more, cutting-edge supply chain strategies are placing an emphasis on green supply chain management (GSCM). As a result, groups concerned with environmental issues in industrial processes have become more vocal, including environmentalists, political groups, academic institutions, and corporate entities. The purpose of small and medium-sized enterprises (SMEs) adopting GSC practises is often to increase profitability, not to benefit the environment, according to new study. Main data is gathered from Nagpur's SMEs. One hundred participants made up the study's sample, and the results were analysed using the F test. Using SPSS 23, the study's analysis was conducted. The purpose of this research is to learn more about the GSC practises that small and medium-sized enterprises (SMEs) in Nagpur are using right now, how those practises have affected their customers, why SMEs embraced these practises, what challenges they encountered while trying to put them into action, and how SMEs owners and executives have an impact on GSC practice acceptance.

Keywords: Green Supply Chain Management, Small & Medium Enterprises, Customer, Motive, Practices

Introduction

Environmental problems are becoming more obvious to societal groups, business organisations, and the government. The ozone hole, climate change, solid waste, water and air pollution, and other environmental problems may all be traced back to corporate entities. The government is implementing strict regulations and policies to deal with environmental problems since these issues provide challenges for business companies. Even though supply chain management (SCM) is a relatively new idea, environmental issues are still seen as critical for businesses. Garbage and carbon emissions from business supply chains are the primary culprits in today's environmental damage.

Many companies are investing in and incorporating environmentally friendly policies and practices into their operational processes because they recognise that sustainability starts in the supply chain. According to Adarsha and Prathap, supply chain management (SCM) is the process of guiding and overseeing a complex network of activities that work together to provide a completed product to the customer (2013). A novel idea called the "green supply chain" seeks to reduce waste, save energy, and prevent the breakdown of harmful compounds in the environment as a result of environmental concerns across the distribution chain. One of the most recent innovations in environmental preservation, green supply chain management helps businesses become more efficient and make more money. In order to achieve organisational supremacy, developing markets such as India must adopt green supply chain concepts. Finding out where GSCP stands in India, what motivates small and medium-sized enterprises (SMEs) there to embrace it, the challenges they face when putting it into practice, and how Indian SMEs' owners and executives affect GSCP adoption are the main goals of this study.

Logistics and Operations Academics and professionals alike are now engrossed with GSCM. The existing literature makes it clear that most researchers have focused on studying GSCM practises and their application in developed nations like the UK, Japan, Germany, and Taiwan, etc., and have paid little attention to emerging nations, mostly in Asia, such as India, Malaysia, and China. Academics have mostly focused on industrialised nations to find out how environmental principles and SCM work together, but they have paid little attention to the GSCM challenges that rising countries, particularly certain Asian countries, confront. According to Anbumozhi and Kanada (2005), corporations in poor nations utilise green

practices to lessen the impact of pollution and waste rather than as a proactive measure to lessen these problems. Thus, in order to have a complete understanding of how green technology are being used in developing nations, further study and analysis are necessary.

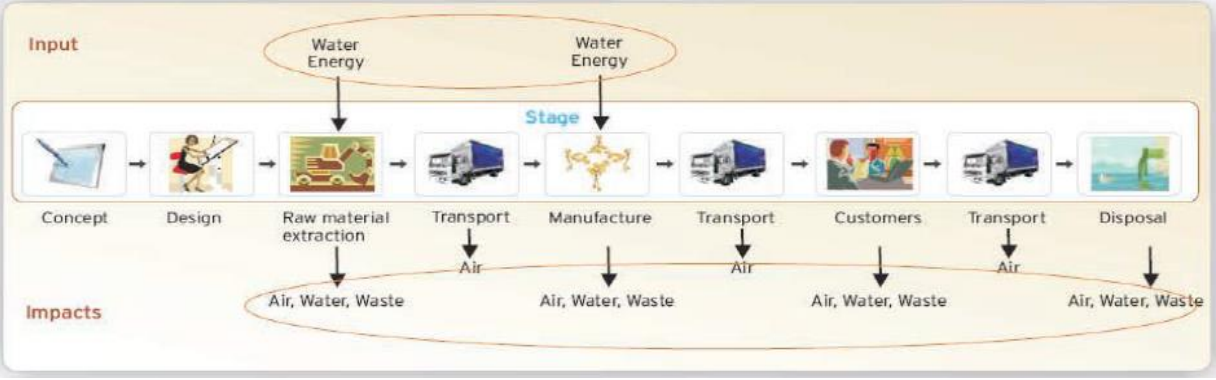
Few studies have focused on GSCM difficulties within the context of Indian SMEs, which is in keeping with the reality that these topics have not gotten enough attention in India. Despite government efforts, small and medium-sized enterprises (SMEs) in India continue to reject environmentally friendly methods of doing business. Few studies have examined the barriers to GSCP adoption and how they impact the economic benefits of companies. Between 2000 and 2015, there was a noticeable lack of papers covering GSCM, GSCM in India, and Indian SME owners and executives. This suggests that there is a lack of knowledge and research specific to the Indian environment.

Literature Review

When we talk about anything being "green," we're referring to its impact on environmental issues including waste creation and reprocessing, air, water, and land pollution.... Reducing the negative environmental impacts of social activities is the primary objective of becoming green (Batra and Chanana, 2015). Definitions of GSCM have been offered by a number of academics and researchers. That "GSCM is a modern management system where supply chain is a blend of economy and ecological" (2014) is what Khushbu and Shah claim. A "Green" component is included into SCM to address the impact and our connection to the environment (Singh and Kumar, 2015; Srivastava, 2007). Srivastava states that GSCM is "integrating environmental thinking into supply-chain management, including product design, material sourcing and selection, manufacturing processes, delivery of the final product to consumers, as well as end-of-life management of the product after its useful life" (2007).

All around the world, companies are using harmful packing materials, chemicals, and transportation methods that contribute to the emission of harmful gases and the acceleration of global warming (Raman, 2014). GSCM is a new approach that helps organisations achieve financial and environmental goals in today's competitive business climate by reducing environmental risks and their impacts (Seman et al., 2012). GSCM is a strategy that helps companies remain sustainable in the long run (Gardas and Narkhede, 2013, Zhu et al., 2005). Air, water, and waste contamination happens all throughout the supply chain, as shown in Figure 1. According to Hajikhani et al. (2012), the main goals of implementing green business practices are to increase productivity, minimise waste, and safeguard resources. Applying the word "green" to all parts of a supply chain and the underlying technologies may help the world move towards a more sustainable system (Gardas and Narkhede, 2013).

Figure 1: Phases of the Supply Chain



Source: Creating a Green Supply Chain – Cognizant (Raman, 2014).

According to Green et al. (2012), GSCM practices aim to enhance environmental performance by decreasing air emissions, effluent waste, solid waste, and the usage of toxic resources. There has been an explosion in the amount of literature on GSCM within the last decade or more. Various factors, including as operations, environments, finances, and organisational performance, have been examined in theories and empirical study in relation to the adoption of these practises and their impacts. However, the impact of owners and managers on GSCM adoption remains uncertain.

Global Supply Chain Management in Indian SMEs

The term "GSCM," which is novel, has recently been used in research. Companies are beginning to see the benefits of GSCM, but there is less data available on environmentally conscious supply chains. The environmental and economic benefits of GSCM have already begun to show, despite the fact that it is just a young concept in developed nations. However, these benefits have yet to reach emerging nations like India (Sarkis et al., 2011).

Rapid economic growth in India has necessitated heavy reliance on natural resources. The outcome is a significant volume of garbage, with just a small fraction, 3%, being recycled at permitted facilities (Soda, et al., 2015). According to Bhattacharya et al. (2011), Indian enterprises produce a lot of pollution and waste, hence GSCM measures need to be implemented immediately. Therefore, India might be the country where green practices are most crucial.

In India, small and medium-sized businesses (SMEs) have long been a lifeblood of the economy, and in the last half-century, they've grown into a powerhouse industry. In 2006, the Indian government enacted the Micro, Small and Medium Enterprise (MSME) Act, which divides small and medium-sized manufacturing businesses into two groups: those with investments in machinery and plant between $62,500 and $1.25 million, and those with investments between $1.25 million and $2.5 million. These businesses offer services to the public. A company is considered a small business if its annual equipment investment is between $25,000 and $500,000, and a medium business if its annual equipment investment is $1 million or more.

The growth of SMEs in the Indian market is hindered by the highly challenging operating environment. Despite being the backbone of the Indian economy, not little has been done to encourage its growth and development. Due to its current size, lack of organisation, and lack of registration, this business has significant challenges in securing funding and making technological advancements (Economic Times poll, 2013).

Nevertheless, the greening of the supply chain in the SME domain requires more attention and action than ever before. The reluctance of the SME sectors to abandon their long-established practices in India has been a challenge to the expansion of GSCM initiatives. Management in India's small and medium enterprise (SME) sector isn't well-informed on GSCM approaches, which has slowed their adoption (TERI, 2013). Sarkis et al. (2011) state that there are not only many unexplored but also promising areas for GSCM research.

Objectives of the study

- To control the factors that encourage small and medium-sized enterprises to use environmentally friendly supply chain management practices.
- To catalogue the challenges faced by SMEs when attempting to implement green supply chain management practices.
- To provide the groundwork for more environmentally conscious supply chain management practices among SMEs.
- Give SMEs actionable strategies for being green with their supply chain management.

Research Methodology

The study examined the current state of GSCM implementation in SMEs in Nagpur and associated aspects by looking at source data. The study is the product of thorough investigation on the topic as it pertains to SMEs. The bulk of the data used in the study will come from in-person interviews, both quantitatively and qualitatively. An exhaustive review of the relevant literature was the first step in the study's examination of secondary data. The empirical data for this study is being gathered via semi-structured interviews as it is a continuous endeavour. With a sample size of 100, the data is analysed using SPSS 23, and a t test is used to get the final result. Statistics collected from small and medium-sized enterprises (SMEs) in the Nagpur region. From April 2022 to July 2022, the data was gathered.

Data Analysis and interpretation

Customer Pressure	Test Value = 0			
	t	df	Sig. (2-tailed)	Mean Difference
Customers are pressuring businesses to begin green initiatives.	23.993	99	.000	2.820
Our customer expected us to have ISO 14000 certification.	25.235	99	.000	2.990
Our customer participates in environmentally friendly practices.	29.107	99	.000	3.220
Our Customer demands for green product	26.158	99	.000	3.020
Our customers want products packaged in a more environmentally friendly way.	20.472	99	.000	3.100
Coordinating with customer for GSCM implementation is benefited to your organization	25.072	99	.000	3.350
Significant Improvement in organisations image in the eyes of our customers.	26.164	99	.000	3.250
If product is environment friendly then firm can attract more customer	26.566	99	.000	3.470
My organisation's major customers would reject the products if they contain hazardous material	25.017	99	.000	3.390
Through adopting green supply chain initiatives my organization tries to reduce threat of the complaints from consumer forum	29.850	99	.000	3.000

The t-values for the first factor influencing green supply chain management were calculated by the researcher and are shown in the table above. Ten factors were considered in relation to consumer pressure. We can say with 95% certainty that the computed crucial value is greater than the table value. All of the variables have a significance level lower than 0.05. Consequently, we accept the alternative hypothesis and reject the null hypothesis. The most important factor is "If product is environment friendly then firm can attract more customers" as its critical value (t-test) is more than the other variables' (26.566) and the mean difference is also bigger (3.470).

Conclusion

In order to get a product or new idea out into the market, the customer is the most important component of any commercial endeavour. For the business to get insight into the consumers' mindset, GSC must be embraced and used by the customers. Organisational awareness of

GSCM strategy implementation is something that this research will assist managers and owners of SMEs with. This study's findings may provide light on the ways in which GSC practises contribute to the success of small and medium-sized enterprise (SME) employers in Nagpur and throughout the nation. By offering empirical data on a range of topics linked to Indian GSCM, this paper adds to the body of knowledge. The study's findings will likely bolster the work of interested scholars and researchers in the subject while also offering fresh suggestions to small and medium-sized enterprises (SMEs) and GSCM practitioners in Nagpur and throughout the nation.

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