

Review on Green Supply Chain Management as a Strategic Approach for Better Corporate Performance

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ABSTRACT

Development based on sustainability is the key to ensure a firm's endurance and green supply chain management practices improves performance by considering environmental laws and standards, increasing customer awareness, and reducing adverse environmental effects through products and services. Strategies aligned with the green supply chain helps firms with creation of opportunities for better performance and meet the requirements of sustainability. This review paper aims to gain insights based on management of the green supply chain and its strategic effect on corporate performance through competitiveness. Based on the review, it is confirmed that a greener supply network has various benefits related to it and implementing green supply chain practices in sync with strategic planning can enhance corporate performance of firms in varied aspects. However, it also highlighted a research gap as there are limited studies showcasing the measured effect of greener supply network strategies and initiatives on corporate performance of a firm. Lastly, the paper contributes with avenues for further research with the possibilities of strategic approaches for a greener value chain to elucidate its impact quantitatively.

KEYWORDS: Supply chain management, green supply chain management, Corporate performance, Strategic approach, Strategic management, Environment, Competitiveness

1. INTRODUCTION

The changes in supply chain management practices can be observed as the related demands and conditions of the supply chain have transformed (Govindan et al. 2014). This transformation has been according to the requirements of the manufacturing as well as distributing companies in consideration of the social, economical and environmental impact (Lopes de Sousa Jabbour et al. 2011). Green Supply Chain Management sources from the green concept incorporated within the supply chain network and its scope ranges from green concept incorporated in procurement to consolidated supply chain to dissemination from supplier end to producer and then to consumer (Abdel-Baset et al. 2019). To attain competitive advantage and promote better corporate performance, green supply chain management practices are required to be implemented strategically. In this paper, the main focus is to understand the influence of following a strategic approach to pursue greener supply network practices for better corporate performance.

2. Literature Review

2.1. Concept of Green Supply Chain Management

Sustainability as a term and concept has been understood by the industries and research scholars from different perspectives and approaches (Thiele, 2016). Sustainability is among the most vital and crucial topics in the area of supply chain management and this is leading the business organizations to consider it increasingly in their long and short term decision-making processes (Haghighi et al. 2016). The significance of combining sustainable development practices with the supply-chain network has led to adoption of green practices with supply networks (Sánchez-Flores et al. 2020). The 'green' concept is defined as initiating and performing such activities which are integrated in consideration of environmental or ecological issues. Green concept in supply chain is a vital aspect as its operations and management has a crucial effect on the environment due to different emissions, types of pollutants generated, and health damage to the community

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(Tseng et al. 2019).

Green supply chain management is explained as integration of environmental concerns within supply chain management that comprises activities related to product designing, selecting and sourcing material, manufacturing methods, end product delivery to the customers and also obsolescence management for adequate product use (Srivastava, 2007). The aspect of a green supply network requires collaborating with suppliers and customers to make their environmental performance better. The practices related to environmental performances concentrates on (Selvaraj, 2011):

- Reduction or elimination of surplus materials utilized within the manufacturing techniques or products
- Supplier compliance status for operations based on impact on environment

- Joint ventures for producing new environmental-friendly materials and products
- Implementation and possibly certification for environmental management systems of suppliers
- Awareness and education among suppliers concerning use of materials, pollution control
- Audit of suppliers' compliance status

Supply chain management based on the green concept is emerging as a vital aspect of the strategies related to environment as well as supply chain and requires considering all activities within the supply chain (Eltayeb et al. 2011). The practices related to Green supply chain management practices encourage different activities based on the green concept such as designing, purchase, manufacturing, distribution, marketing of logistics marketing and reverse logistics functions. The following table explains the different constituents of activities in context to green supply network practices (Sezen and Çankaya, 2017).

Table 1 Practices related to Green supply chain management

S. No	Green supply chain activity	Constituent of activity
1	Green purchasing	<ul style="list-style-type: none"> ➤ Environmental Certificates and Environmental Management System of suppliers ➤ Supplier Audit ➤ Purchasing Products with Eco-Labels ➤ Supplier Evaluation based on Environmental Criteria ➤ Cooperating Supplier in Environmental Issues
2	Green Distribution	<ul style="list-style-type: none"> ➤ Selecting Green Transportation Modes ➤ Providing Efficiency in Vehicles ➤ Logistics Optimization
3	Green Packaging	<ul style="list-style-type: none"> ➤ Reducing the amount of packaging ➤ Packaging to allow reuse ➤ Using recyclable materials for packaging
4.	Green Production	<ul style="list-style-type: none"> ➤ Decreasing Input Resources ➤ Decreasing Dangerous Emissions ➤ Decreasing or Preventing Waste
5.	Reverse Logistics	<ul style="list-style-type: none"> ➤ Reuse ➤ Repair ➤ Refurbishing ➤ Remanufacturing ➤ Cannibalization ➤ Recycling

2.2. Benefits of Green Supply Chain and its Management

Green supply chain management not only addresses the concerns linked with the environment, but it is

driven by other factors that reflect the benefits associated with the concept. Due to the benefits of green supply chain and its management, there is an increased inclination of firms towards implementing a

greener supply chain network. The factors driving this implementation are rising customer demands for quality, highly competitive markets globally and the intrinsic financial returns linked with the green supply chain (Diabat and Govindan, 2011). The different and varied benefits related to adopting green supply chain management includes (Gajendrum, 2017):

- Environmental and economic gains due to greater competitiveness
- Development of innovative environmental technologies with strong partnerships with suppliers based on suitable incentive systems
- Suitable green design for positive environmental impact with no compromise on costs, profitability and other functionalities

Further benefits identified based on implementation of green supply chain management include air pollution control, wastage reduction, improvement in product quality through Green Sourcing & Procurement, Green Manufacturing, Green Warehousing, Green Distribution, Green Packaging, and Green transportation. The anticipated benefits based on Green efforts for businesses and firms comprises better public relations, improved brand image, reduction in energy cost, increased customer brand loyalty, higher revenue, increased market share, enhanced productivity, reduction in service cost and packaging cost, reduction in raw material cost and manufacturing cost, and reduction in uncertainties (Javaid and Shoeb, 2015).

2.3. Strategic approach and Corporate performance

Rapid changes and variations are being identified in the economic environment based on global market competition and advanced information technologies. To sustain in the current competitive business environment, organizations are required to plan strategically, perform better decision-making and initiate strategically developed activities for better quality of products and outcome, reduction in product-related costs, encouraging product-based as well as process-based innovations, better product supply in marketplace, and enhanced consumers' beneficence (Çalışkan, 2010). It is evident from prior research that there is a significant relationship between strategic management and corporate performance. Strategic management or approach is an undoubted means to increase profits, improve quality of products and innovation-based initiatives, along with improved distribution time and increased consumer satisfaction (Unam and Aladeraji, 2015).

Strategic management by means of strategies and approaches is observed as a continuous process with

recurring and successive steps based on the company's mission and objectives. Strategic approach is based on strategic analysis with formulation of possible strategies, selection and execution of best strategies and controlling with correction during implementation (Dvořáková and Faltejsková, 2017). The core aim of business organization is to attain highest long term profit and develop sustainable competitive advantage within the external market place. Strategic approach and decisions facilitates the adequate potential and means to develop competitive advantage with superior firm performance. Through strategic management, corporate performances of the manufacturing firms are significantly increased with significant effect on their competitiveness (Muogbo, 2013). The management and managers need to be involved in strategic planning as adopting a strategic approach is a forward-looking exercise. Based on adequate involvement in strategic planning, organizations are capable of predicting changes within the environment and act proactively. Corporate strategy is based on the experiences, assumptions and beliefs of management and strategic approach considers the entire decision-making process along with problems faced by the organization. The positive impact of following a strategic approach of corporate performance can be seen through the strategic planning that enables a supporting environment to attain and sustain superior overall performance and financial returns (Owolabi and MAKINDE, 2012).

2.4. Green Supply Chain Management and Corporate Performance

There are various impacts and outcomes of deployment of green supply chain management practices in the context of organization or business strategies. Strategic approaches followed for implementing green supply chain management have an impact on three dimensions of performance for an organization namely environmental, economic and social (Wittstruck and Teuteberg, 2011). Corporate performance is a composite assessment of the extent to which an organization performs and executes on the most important parameters, namely financial, market and shareholder performance (Aras et al. 2010). Green supply chain management practices focuses on limiting the environmental effect of the forward system and reverse system of the supply chain, with possibly generating economic gain and lowering expenses for the firm. This assists in improving the financial performance of the firm (Testa and Iraldo, 2010).

The firms adopting environmental sustainability and successful execution of greener supply network practices have reduced wastage, green concept based

marketing practices and awareness, better public response, and increased demand for environmentally friendly products. Such operating strategies influence the marketing performance of the firms. Based on this performance, interaction with suppliers, producers and consumers enhances efficiency and yield (Mallikarathna and Silva, 2019). Strategic approaches to implement green concept based supply practices are generally initiated by discovering enhancements these practices can fetch to the economic and financial side of a firm and this also includes other dimensions such as the operational, social and environmental image of the organization. A research to explore the influence of implementing green supply network strategies on different dimensions of corporate performance was conducted and the results revealed that organizations that adopted green supply chain management practices maintained an environmentally benign position with constantly continuously improving environmental, operational, economic and social aspects of corporate performance (Younis et al. 2015). From a strategic perspective, a green concept based supply chain facilitates a platform for firms to continue their business operations based on sustainability and environment friendliness. A research was conducted to assess the impact of green supply chain management on green performance and firm competitiveness and the study outcomes showed that the internal activities/ practices based on green concept of a firm significantly and positively affect the external green alliance; internal activities/ practices based on green concept and external green alliance significantly and positively affect the firm's green performance; and internal activities/ practices based on green concept, external green alliance and the firm's green performance significantly and positively affect the firm's competitiveness. Therefore, it can be concluded that having a strong management of a green supply network can improve the green performance of the firm that eventually increases firm competitiveness (Marhamati and Azizi, 2017).

3. Research Gap

From a macro perspective, giving attention to green supply chain implementation and related aspects is important for sustaining the market and providing products as well as services compatible with the environment. Various literature studies have studied the sustainable supply chains and crucial improvements in environmental initiatives for the green supply chain and its impact on the performance of the firms. These studies are particularly significant as they represent the critical aspects of the green supply chain and their impacting sustainable results. However, there are still areas of research opportunity

concerning implementing the green concept based supply chain initiatives in a strategic manner. There are few studies discussing the positive and significant impact of green supply chain management practices on corporate performance based on various positive outcomes observed but the extent impact is not measured. The effect of executing green supply chain management practices on corporate performance has not gained a high amount of attention in terms of empirically measuring the effect. Therefore, a clear research gap is analyzing the extent of impact of green supply chain strategies on corporate performance of firms that encourages organizations to consider environmental as well as economic dimensions for implementing green supply chain.

4. Conclusion

The supply chain and its management has become a consolidated and collaborative approach which pursues the firm's strategy. In present modernization of the supply chain, integration of the ecological spirit is done into the strategy and this integration created the green supply chain management. Organizations are attempting to minimize environmental effects by combining environmental issues in supply chain operations through green supply chain management practices. The studies reviewed have highlighted these aspects from different perspectives and analyzed the effects of implementing green practices on firms' performance through different dimensions. This review is an effort made to enhance the knowledge in this domain through acknowledged gaps and opportunities. There is a need for further research to investigate and estimate the individual effect of vital components over measures of corporate performance of firms. The outcomes and further research indications of this review facilitates a new platform for more consideration and contribution to this domain.

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