Towards a New Framework for Sustainable Supply Chain Management

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ABSTRACT

Recent disruptions in global supply chains have led to increased interest in supply chain risk management investigation. On the other hand, increased environmental regulation has urged firms to compulsorily have their routine operations environmental friendly. Last few years, researchers have investigated these two streams as distinct but have mentioned them to be related in the long run. The current study attempts to bridge this gap of allied literature by conceptually arguing that it to arrive at sustainability in supply chain operations, firms must co-integrate their supply chain risk management and green practices in supply chain. While risk management broadly aims to reduce the exposure to a risky situation coupled with minimizing the negative impact of disruption of firm performance; green practices aims to make operational, tactical and strategic operations of the firm environment friendly. Based on sufficient theoretical tenets from related literature, the study attempts to develop a theoretical model linking supply chain risk management, green supply chain practices and sustainable supply chain. In doing so, the study provides an indicative list of various risk classifications and proposed risk mitigating strategies till date. Finally, the study indicates managerial implications and suggests further research opportunities.

Keywords: Global Supply Chains, Green Supply Chain Practices, Risk Mitigating Strategies, Supply Chain Risk Management, Sustainable Supply Chain Management

1. INTRODUCTION

Last decade has witnessed resurgence in greening activities and the regime of greening initiatives has not been overlooked by supply chain partners. Many of the current supply chain practices have started incorporating various steps that could make the supply chain operations environment friendly and hence it can be said that several greening initiatives are being taken by companies participating in a supply chain.

In recent years, companies have understood the importance of supply chain collaboration to enhance their corporate social responsibility (CSR) oriented performance (Nalebuff & Brandenburger, 1996). This arises from the realization that supply chains are comprised of inter-dependent units that can influence the reputation and performance of one another. As Keating, Quazi, Kriz, & Coliman (2008) highlights:

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The most visible indicator of this extension is the emergence of CSR oriented purchasing strategies—wherein companies have sought to reduce their exposure to potential risks by prescribing a set of standards that suppliers must meet in order to win their business.

Therefore it is realized somewhere in this continuum that CSR and risk management in a supply chain are complementary to each other. Literature have been increasingly using the term supply chain management as the movement of essential elements through all the related organizations that form the supply chain in comparison to logistics which is concerned with movements within a single organization. Accordingly, Handfield and Nichols (1999) describe supply chain management as a “holistic management approach to integrating and coordinating the material, information and financial flows along a supply chain.” An organization can only succeed through its ability to satisfy its customers while at the same time it has to focus on optimal resource utilization. Therefore the overall aim of supply chain management is to manage the flow of materials, information and services through the supply chain, helping to achieve high customer satisfaction and using resources efficiently to give low costs.

Recent years have witnessed increased challenges to supply chain managers due to greater instances of natural and man-made disasters. But companies were slow in realizing the many uncertainties that existed in the supply chain. For e.g. the terrorist attacks on World Trade Centre, the SARS(severe acute respiratory syndrome) epidemic in South-East Asia in 2003, the natural disaster of Hurricane Katrina in 2005. Such events have resulted in disruption of business activities thereby leading to losses e.g. Ericsson lost 400 million euros after their supplier’s semiconductor plant in New Mexico Land Rover laid-off 1,400 workers after one of their key suppliers became insolvent in 2001; Dole’s revenue declined after their banana plantations in Central America were destroyed by Hurricane Mitch in 1998; and Ford closed five plants for several days after all air traffic was suspended after September 11 in 2001.

But CSR initiatives and greening the supply chain with the objective of making firm operations more environment friendly were not enough to understand the concept of sustainability in supply chain regime. Therefore as Svensson (2007) suggests that, as a minimum, sustainable supply chain management (SSCM) requires a detailed consideration of the economic, ecological and social aspects of business practice.

Accordingly, Alodeh and Smallwood (2012) rightly defined SSCM in their study as:

The process of managing the supply chain activities with consideration for environmental, economic and social issues for enhancing the long-term economic goals of individual organization and its supply chains.

With a view to enhance strategic goals for a focal firm, the importance of risk management in its ad-joining supply chain activities cannot be undermined. As Wagner and Bode (2008) stress that firm currently are entangled between two paradigms: (a) an increasingly unstable business world due to increase in a no. of both man-made and natural disasters and (b) a growing sensitivity and complexity in supply chain operations because of single sourcing and global sourcing strategies that have made today’s supply chain operations highly vulnerable to disruptions.

Since resiliency in supply chain operations indicates the presence of a capability in supply chains to revert back to original state or a better state of performance when disrupted. This sufficiently symbolizes the notion of ensuring continuity in supply chain operations. Also, the definition of sustainability mandates that resources must be used in such a way so that the present utilization is optimum while saving at the same time for future. This it carries the notion of continuing or sustaining operations in the years to come.
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