Supply Chain Risk Management: An Invigorating Outlook

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ABSTRACT

This article describes how mankind has been ever-evolving, so are their needs, growing in leaps and bounds. Risk management in supply chains have become a prerequisite as it involves a series of steps like procuring, processing, and distribution, where risk has to be managed. Given the advent of technology and transformation of supply chain management from traditional to modern methods, a lot has changed, and of course with ever-evolving technology, the organisations have become adept at handling risks associated with many factors within the organisation and outside the organisation. In this article, the authors will analyse the percentage impact of external and internal supply chain risk factors on various supply chain decisions, and also project various tools available to mitigate Supply chain risks.

KEYWORDS

Information Technology, Risk Management Tools, Risk Management, Risk Mitigation, Supply Chain Risk Management

INTRODUCTION

Supply chain management is about managing flows of material, information and funds in a complex network of entities of suppliers, manufacturers, distributors and customers (Shu Jian, 2010). As world have now become a common platform for trade, companies are now more than connected in this network as plethora of enterprises and companies are involved in more than just trade. Though it is good for development of trade and relationship between countries but, such networks of relationships are very much vulnerable to disruptions of all sorts ranging from internal to inter-firm and to external turbulences. Companies now need to be prepared for risks associated with their participation in the supply chain network. Risk management concept in the supply chain can be defined as exposure to the risky events that have negative impact to the supply chain operability and performances such as service level, costs or possibility of the fast response. The spectrum of the risky events that can affect supply chain operability is very large going from external risk factors (e.g. supply chain environment) to inter organization and intra-organization risk factors. The consequences of these risk factors can be categorized according to duration, intensity and likelihood of occurrence as: from short-term to long-term; from small intensity ones to high intensity ones; and from very rare to very common ones.

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Effective management of risks is becoming the focal concern of the firms to survive and thrive in a competitive business environment. Thus, supply chain risk management (SCRM) has emerged as a natural extension of supply chain management with the prime objective of identifying the potential sources of risks and suggesting suitable action plans to mitigate them. But developing an effective SCRM program is always a critical task and requires skills and expertise in multiple areas (Matotek et al, 2015).

A supply chain risk appraisal process can help make strategic decisions and operational plans to reduce the quantity of supply chain defects. According to Waring and Glendon (1998), supply chain risk management is the field of activity seeking to eliminate, reduce and generally control pure risks. A key characteristic of supply chain management is the coordination of activities between these interdependent organisations and as the management of upstream and downstream relationships with suppliers and customers in order to create enhanced value in the final market place at less cost to the supply chain as a whole (Christopher, 1992). Therefore, any approach to managing risks from a supply chain perspective must have a broader scope than that of a single organisation and provide insights regarding how the key processes have to be performed across at least three organisations. However, supply chains should not be thought of as a single organisational entity. Instead, it should be recognised that coordination and joint effort rely on dependency, bargaining, negotiation and persuasion across organisation borders and is inhibited by goal incongruence (Uta Juttner, 2005).

Risks in the supply chain centres around the disruption of flows between organisations. This flow relates to information, materials, products and money. They are not independent of each other but are clearly connected. A key feature of supply chain risk is that, by nature it extends beyond the boundaries of an organisation and, moreover, the boundaries spanning can become a source of supply chain risks (Uta Juttner, 2005).

**REVIEW OF LITERATURE**

According to Uta Juttner (2005) the modern supply chains are very complex, with many parallel physical and information flows occurring in order to ensure that products are delivered in the right quantities, to the right place in a cost-effective manner. It has also been suggested that the drive towards more efficient supply chains during recent years has resulted in the supply chains becoming more vulnerable to disruption (Christopher and Lee, 2004; McGillivray, 2000; Engardio, 2001). Although awareness is increasing among practitioners, the concepts of supply chain vulnerability and its managerial counterpart supply chain risk management (SCRM) are still in their infancy, many companies have recognised the need to conduct formal risk audits and to seek to manage that risk, but the dentition of risk is usually fairly limited (Uta Juttner, 2005). Similarly, Harland et al. (2003), who conducted four case studies in the electronics sector, came to the conclusion that in the supply chains examined, less than 50 per cent of the risk was visible to a focal company. Sharma et al (2017) developed a model to understand the relationship of supply chain risk sources, risk drivers, and risk mitigation strategies to the overall risk exposure of the firm and to validate the model empirically they determined the major contributors of supply chain risk in today’s competitive market.

In this modern context supply chain management being our priority, we need to clarify and measure the influence and nature of risks in the supply chain. According to Baird and Thomas (1990), risk is most commonly conceived as reflecting variation in the distribution of possible outcomes, their likelihood’s, and their subjective values. Risk attitude, being one of the managerial characteristics, has not been studied in SCRM. Many believe that greater insights can be gleaned by incorporating risk attitude of managers as a moderating factor in every study as the risk attitude of a decision maker has a definite impact on risk management decisions (Manuj & Mentzer, 2008). Laeequddin et al (2011) have acknowledged the common perspectives of trust and risk perception to address the issue of which perception is more significant, which in turn has an important role in supply chain