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STRATEGIC IMPACTS OF SUPPLY CHAIN INNOVATION ON FIRMS PERFORMANCE

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ABSTRACT: The need to be proactive to customers demand and the intensifying challenges from globalization and the rising cost of consumable goods necessitated the researchers desire to explores, strategic impacts of supply chain innovation on firms' performance. *Many firms believed that supply chain innovation is a means of competitive advantage. Conversely, one firm's supply chain innovation is another company's process improvement. In today's competitive business environment, misunderstanding a new idea may result in wasting resources on an innovation that is not yet materialized. Lack of clarity is an issue for academic debate. The objective of this article therefore was to examine* strategic impacts of supply chain innovation on firms' performance. *The researchers adopted theoretical framework in investigating the nature and concepts of supply chain innovation in this research. Data were sourced from management journals, internet and periodical. This gives a clear understanding of earlier work in the area of exploration thereby providing foundation for the researchable predicament at stake. Findings reveal that supply chain innovation involves an integrative system of customers, suppliers, manufacturers, information technology and finance through physical and human resources for enhance performance. Supply chains innovation requires array of relationships and numerous paths through which products and information travel. To gain utmost advantage from supply chain innovation, a firm must energetically draw upon its available internal capabilities and the external resources of its supply chain network to fulfill customer requirements.*

KEYWORDS: Strategic, Supply, Chain, Innovation, and Firms Performance

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INTRODUCTION

Supply chain innovation over the years has developed alongside with the desire and needs of manufacturing firms and the insights of practitioners and intellectual researchers in view of the need to strategically position firms for better performance. Supply chain innovation is a multidisciplinary field of investigation having its early pedigree in information systems, operations management and marketing management. Supply chain innovation is one of the fundamental key for businesses to convey their products to the customers who needs them. Porter, (1996) maintain that, innovation grows to be a prevailing source of competitive benefit and firms must learn how to manage relationships with suppliers to assure that they provide opportunities to do new things or to do the same things in a different way, which is the essence of strategy.

Supply chain innovation involves the use of technology or new technique, improvements in products and services, information and interaction flow within the network that results in more creative and well-organized processes. Many firms believed that supply chain innovation is a means of competitive advantage. However, one firm's supply chain innovation is another company's process improvement. In today's competitive business environment, misunderstanding a new idea may result in wasting resources on an innovation that is not yet materialized. Lack of clarity is an issue for academic debate. Hult, Ketchun, and Mathias (2007) argue that, supply chain management has become an increasingly important topic in the academic literature on strategic management. A firm's capacity to successfully leverage the distinctive competencies of firms in their supply chain is critical to sustaining the competitive advantage of the firm.

Flint, Larsson, Gammelgaard and Mentzer (2005) focused on innovation that is more helpful to customers for instance, a better and enhanced service that is new. However innovation emphasizes idea generation, but it's not helpful or deemed important in a supply chain perspective unless it results in something valuable to the customers.There is a growing recognition that innovation in supply chain results from interactions within buyer-seller relations (Dodgson and Rothwell 1994; Millson, Raj, and Wilemon 1996; Robertson and Gatignon 1998; Sivadas and Dwyer 2000). Researchers agree that a substantial part of the innovation process occurs between buyers and sellers in the supply chain (Hakansson 1987; Lundvall 1985a, 1985b). Accordingly, a large body of strategy-level research on buyer-seller interaction and technical development has emerged (Athaide, Meyers, & Wilemon 1996; Hakansson 1987). Supply chain innovation is vital for organizations of all form and sizes. It means looking at the way a firm applies its operating capital, and capabilities to develop new ways to satisfy client desires.

This paper therefore seeks to examine strategic impacts of supply chain innovation on firms' performance a process that facilitates new ideas and knowledge that can help develop new products and/or services for consumers.

CONCEPTUAL AND THEORETICAL FRAMEWORK

Accepting innovations and taken benefit of the synergy and integration of individual activities is a core aptitude of future-oriented organizations. Being focused is essentials in delivering quality

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goods and services while filtering out what is personally essential, requires strategic full attention and frequent improvement. Supply chain innovation is an improvement in the way that products and services, information and relationships flow within the network with the use of a new technique or technology, which results in more creative and competent processes. Innovation occurs in a new product development which includes idea generation, idea screening, product development, test marketing and commercialization.

Council of Supply Chain Management Professionals, (2010) argues that, supply chain innovation involves the material and informational interchanges in the logistical process, stretching from acquisition of raw materials to delivery of finished products to the end user. All vendors, service providers, and customers are links in the supply chain.Coyle, Langley, Novak, and Gibson (2013) maintain that supply chain innovation is a series of integrated enterprises that must share information and coordinate physical execution to ensure a smooth, integrated flow of goods, services, information, and cash through the pipeline. Supply chain innovation is the network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services delivered to the ultimate consumer (Christopher, 1992).

A supply chain management perspective introduced in the early 1980s began to take hold in the mid-1990s and is now part of the everyday business lexicon. Whereas a supply chain is an entity that exists for the fulfillment of customer demand, supply chain management involves overt managerial efforts by the organizations within the supply chain to achieve results (Mentzer et al., 2001). These efforts can be strategic or operational in nature, though the vast majority of respondents to a council of supply chain management professionals' survey indicate that the primary role of supply chain management within an organization is a combination of strategy and activity (Gibson, Mentzer, & Cook, 2005).

Grant Marshbank, C.O.O of VSc Solutions, maintain that supply chains will face a number of challenges, and that supply chain managers are already under enormous pressure to acclimatize to turbulent economies, labor issues, and expansion into global markets. Stock and Boyer (2009) opine that, supply chain innovation involves management of a network of relationships within a firm and between interdependent organizations and business units consisting of material suppliers, purchasing, production facilities, logistics, marketing, and related systems that facilitate the forward and reverse flow of materials, services, finances, and information from the original producer to the final customer with the benefits of adding value, maximizing profitability through efficiencies, and achieving customer satisfaction.

The concepts and definitions vary in span and intricacy; they collectively focus on three themes: activities, participants, and benefits (Stock & Boyer, 2009). Organizations must plan and coordinate supply chain activities among their network of suppliers and customers to ensure that the end product is available to fulfill demand in a timely, safe, and cost-efficient manner.
However, supply chain management is seen as a system of facilities that convert and transform raw materials, into intermediate final goods, and deliver the goods to consumers through a distribution channel. Lee and Billington (1995) maintained that supply chain management is to optimize performance of the chain to add as much value as possible for the least cost possible. It

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spans procurement, manufacturing and distribution of basic objective. In other words, it aims to link all the supply chain agents to jointly cooperate within the firm as a way to maximize productivity in the supply chain and deliver the most benefits to all related parties (Finch, 2006). Cousins et al., (2006); Sachan and Datta (2005); Storey et al., (2006) provided excellent review on supply chain management literature. Their papers define the concept, theory, principals, nature, theory and practice of supply management and development of supply chain management and indicate that there is an intense research being conducted around the world in this field.

Gunasekaran and McGaughey (2003) extended the range of supply chain innovation beyond material management, partnership, information technology to the total quality management areas like management commitment, organizational structure, training and behavioural issues. As firms' survival lies on integration, a good understanding of the integration process is a key aspect in SCM. Koh and Tan (2006) used the principles of fuzzy logic for analyzing and monitoring performance of suppliers based on the criteria of product quality and delivery time while Chiu and Lin (2004) showed how the concepts of collaborative agents and artificial neural networks (ANNs) can work together to enable collaborative supply chain planning (SCP).It appears from appraisal of literature that scholars have studied supply chain innovation from a system viewpoint as numerous studies views supply chain innovation from different perspectives. This paper therefore, gives the enhanced perceptive of supply chain innovation activities.

Stumbling Block and Benefits to effective Supply Chain Innovation and Management

There are several challenges that may impede firms implementing supply chain innovation initiatives. For instance, secrecy, lack of ICT adoption and lack of conviction among suppliers, customers, employees, management team and all other stake holders can hinder effective initiative and implementation of supply chain innovation. On the other hand, fully implemented supply chain innovation initiatives have the capacity to enhance relationship and better performance.

Fawcett et al. (2008) on their conduit reviewed recent scientific literature on the potential barriers to supply chain management. They classified the barriers into two categories: inter-firm rivalry and managerial complexity. They noted; the following barriers under inter-firm rivalry category, in order of significance; internal and external turf wars, poor supply chain management planning, lack of vision of supply chain management, lack of trust, executive commitment and poor supply chain management understanding. Though the worst barrier, internal and external turf wars needs urgent attention by supply chain planning's as its negative impact is fast and severe leading to the disruption of the supply chain. Poor planning and lack of vision are symptoms of failure by supply chains, however their effects may be slow to appear their eventual impact is disastrous.

Managerial complexity includes misaligned supply chain processes, structures and major differences in supply chain planning's business culture (Fawcett et al., 2008). And in the managerial complexity category, Fawcett et al. (2008) noted the following barriers in order of significance; IS/IT deficiencies, organizational structure/culture, lack SC measurement and lack of alliance guidelines. These problems are both at enterprise level and SC level and hence the need to tackle them at both fronts. The worst barrier IS/IT deficiencies mean loss in competitive advantage by the whole supply chain.

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Fawcett et al. (2008) reviewed solutions to the SCM barriers proposed in the scientific literature. They noted the following possible solutions in order of significance; information transparency, CFT/CF collaboration, collaborative planning, IT architecture/internet, formal performance tracking, adopt strategies SCM vision, attention to human factors, supplier certification/reduction, target segmented customers and shared investment/benefits.

Fawcett et al. (2008) reviewed key benefits of SCM proposed in literature and noted the following in the order of their importance; increased inventory turnover, increased revenues, SCM cost reduction, product availability, decreased order cycle time, responsiveness, economic value added, capital utilization, decreased time to market and reducing logistics costs.Firms progressively find that they must rely on efficient supply chains, to compete in the global market and networked economy. Peter Drucker's (1998) new management paradigms, extends this concept of business relationships beyond traditional enterprise boundaries and seeks to organize entire business processes throughout a value chain of multiple companies. Globalization, outsourcing, and information technology have enabled countless organizations, to successfully operate collaborative supply networks in which each specialized business partner focuses on only a few key strategic activities (Scott, 1993). This inter-organizational supply network can be acknowledged as a new form of organization. It is not clear what kind of performance impacts different supply network structures could have on firms, and little is known about the coordination conditions and trade-offs that may exist among the players.

Though, with the complicated interactions among the players, the network structure fits neither "market" nor "hierarchy" categories (Powell, 1990). Changes in the business environment have contributed to the development of supply chain networks. First, as an outcome of globalization and the proliferation of multinational companies, joint ventures, strategic alliances, and business partnerships, significant success factors were identified, complementing the earlier "just-in-time", lean manufacturing, and agile manufacturing practices. Second, technological changes, particularly the dramatic fall in communication costs (a significant component of transaction costs), have led to changes in coordination among the members of the supply chain network (Coase, 1998).Supply chain innovation is also significant for organizational knowledge. Firms with physically more extensive supply chains connecting diverse trading group tend to become more inventive and prolific.

MATERIAL AND METHODOLOGY

Methodology is the hypothetical and systematic analysis of the methods used in a field of study. It comprises concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques and analysis of the body of methods and principles associated with a branch of knowledge. Classically, it encompasses the general research strategy that outlines the way in which research is to be undertaken and, among other things, identifies the methods to be used in it. These methods, described in the methodology, define the means or modes of data collection or, sometimes, how a specific result is to be calculated in an empirical research. However, the researchers adopted theoretical framework in investigating the nature and concepts of supply chain innovation in this research. Data were sourced from management journals, internet and periodical.

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This gives a clear understanding of earlier work in an area of exploration thereby providing foundation for the researchable predicament at stake.

SUMMARY OF FINDINGS

Supply chain innovation is a cross-functional system that includes innovative and management of movement of raw materials into a firm and domestic processing of materials into finished produce, and the movement of finished produce out of the organization to the final consumer.
Finding reveal that supply chain innovation involves an integrative system of customers, suppliers, manufacturers, information technology and finance through physical and human resources for enhance performance. The rationale of supply chain innovation is to improve teamwork, adoption of technology and trust among supply chain partners, thereby improving record visibility and the speed of stock movement.

CONCLUSION

The domain of supply chain innovation explore in this article examine the concept, research practice, relationship and dependence among the entire stake holder that facilitate adoption and implementation of supply chain innovation. Supply chains innovation requires array of relationships and numerous paths through which products and information travel. To gain utmost advantage from supply chain innovation, a firm must energetically draw upon its available internal capabilities and the external resources of its supply chain network to fulfill customer requirements. Secure data exchange, visibility between multiple supply chains, system and technological integration are options available to effectively deliver goods and services with support of information and communication technology (ICT).

RECOMMENDATIONS

Supply chain innovation process should integrate joint effort between buyers and suppliers and all stake holders in a supply chain network for better performance as triumphant supply chain innovation requires a change from managing individual behavior to integrating behavior into key supply chain system.

Secondly, strategic action plans should be drawn up with stake holders to sustain the production flow, executive process, new products development and inter-relationship trust as this will enhance system integration and process improvement. Supply chains innovation requires array of relationships and numerous paths through which products and information travel. Therefore, to gain utmost advantage from supply chain innovation, firm should energetically draw upon its available internal capabilities and the external resources of its supply chain network to fulfill customer requirements.

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