

Role of Supply Chain Management (SCM) in Strategic Competitiveness: A Literature Review on Apparel Sector in Sri Lanka

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Abstract: In today's business context supply chain Management is playing an empirical role. Manufacturers and suppliers are under tremendous pressure to retain their presence in the market and maintain the market share. A case in point is apparel industry. Due to technological innovation and global environmental pressure Sri Lankan apparel industry is facing tremendous pressures in the business world. The apparel Industry is among the most important industries in the Sri Lankan manufacturing sector. This paper is based on a critical evaluation of supply chain related literature in the apparel industry and identification of the challenges faced by the apparel manufacturers in Sri Lanka in improving their supply chains.

Keywords : Supply chain management, strategic competitiveness ,apparel sector



Introduction

The apparel industry has become an important industry to Sri Lanka largely under the Multi-Fibre Agreement (MFA) which implemented international trade in textile and clothing industry. "The gradual phasing out of the MFA in 2005 gave way to intensified competition which triggered numerous innovations in the clothing industry in Sri Lanka, especially in leading companies, in terms of product, process, marketing and organizational structures". Innovation in the textile trade severely affected to the Sri Lankan Apparel Industry. Trade can promote innovation in a different ways with new technology transfer and increased of competition and economies of scale (OECD, 2007). Some companies became total service providers by designing and developing products and some are producing their own brands

(Wijayasiri, J & Dissanayake.J,2008),

Herath, (2014), discuss about the three successful supply chain strategies and the identified main factors of the improvement of SCM are shorter lead time, high value added products and direct contact with foreign buyers.

Supply Chain Management (SCM) is a collaborative relationship which is maintained within and beyond the organization. The successful supply chain management are with the practical guidelines and the competitive linking of the organization's supply chain strategy and the business strategy. SCM is the systematic, strategic coordination of the traditional

business functions and the tactics across these business functions within a particular company and across businesses within the supply chain for the purpose of improving long-term performance of the individual companies and the supply chain as a whole (Mentzer et al., 2001, p.18).

Supply Chain Management (SCM) is the integration and coordination of business processes and strategy throughout the supply chain procedure for the satisfaction of end consumer. In the past, manufacturing industry was not much concerned nor persecuted on their environmental hazard practices. Nowadays however, most manufacturing companies have been changing to eco-friendly activities to avoid environmental pollution and also to meet the customer demand for more environment friendly products. In present, organizations are shrinking in the red ocean to find new businesses. They have to find new strategies to retain the existing business due to competitiveness in the market. As a result, most organizations adopt the Green Supply Chain Management (GSCM) practices to retain the current businesses whilst trying to find methods to increase their organizational sustainability.

Scope of the Overview

The garment industry in Sri Lanka was an important driver and one of the main contributor to the industrial production, foreign exchange earnings and employment generations. In 2008, clothing industry contributed 40% of the industrial production of the country which was the largest contributor to the economy with the 8% of the GDP. The clothing industry was also the largest earner of foreign exchange to the country brought USD 2.97 billion in 2006 which was about 45% of the country's export revenues. US market holding 56% and EU accounting 39% from the export garment market of the country.

The garment industry took off in the 1970s with the liberalization of the economy and the relocation of well-established garment manufacturers from Asia to Sri Lanka and other developing countries due to quota restrictions placed under the multi-Fibre Agreement (MFA).

Some large companies have become a total service provider while some are trying to establish their own brands. Product innovations with foreign partners, process innovations such as introduction of Computer Aided Design(CAD)/Computer Aided Manufacturing

(CAM)technology and green manufacturing plants are the are the most various marketing and organizational innovations in the industry (Wijayasiri, J & Dissanayake, 2008).

Product Innovation

At the beginning of the industry was in the business of assembling garments based on designs provided by the foreign buyers. However, with the impending phase-out of the quotas, it became necessary for Sri Lanka to build its capabilities in design and product development and offer value added services to its customers (Wijayasiri & Dissanayake 2008).

Process Innovation

Sri Lankan apparel industry has started off as a contract manufacturer producing garments according to requirements of its customers. It was this context of the industry referred to as a “glorified tailor shop”. In order to survive in the post-MFA environment, the Sri Lankan garment industry has taken a number of steps to become a total service provider, for many international service providers. (Wijayasiri & Dissanayake 2008).

Towards a knowledge-based Industry

“Apparel industry in Sri Lanka is attempting to move towards a knowledge-based industry where information plays a vital role as the industry believes it is the only sustainable way of competing in the global business environment”.

This paper is based on the evaluation of literature review of Supply Chain Management (SCM) in strategic competitiveness and with special review on apparel sector. Due to new technology changes, innovations and global economic developments has created the competitiveness. Today manufacturing companies are effectively changing in to the green supply chain because of the changing of business environment. It has posed the companies to balance cost reduction and the profit growth. With the rising competition and the imposing new environmental rules in the business world, manufacturing companies are struggling to maintain their market share. Nowadays, the green environment has become a popular topic and organizations mostly consider the awareness of economic and ecological impact on their businesses. The green supply chain practices is the best predictor of

organizational sustainability performance. The aim of green supply chain management is to minimize using hazardous chemicals, emissions and solid wastes along the supply chain(ISO 14001)

The appropriate development of the GSCM concepts and practices may indeed aid the country of domicile by reducing the environmental burden of from both manufacture and disposal of products while even potentially improving the economic positioning overall.

The supply chain 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 in the hands of ultimate consumer. In another words, SCM is the management across a network of upstream and downstream organizations of material, information and resourcesflows that lead to the creation of value in the form of products and or services.

In today's business environment, green effect helps supply chain management to build competency among the organizations. The impact of supply chain management in the business operation is forcing companies to get adapted to the dynamic changes such as the technology changes, competitive action and customer demands. These changes increase SCM in industries to meet the challenges of supply chain uncertainties and demand variability added value to the customers throughout the supply chain. The new challenges on supply chain management have introduced new paradigm in supply chain management practices which guide new management strategies, and provide new research agendas (Meera B.L.L et al.,2016).To explain that in today's business environment, Supply Chain Management is the vital weapon to help organizations to build competency.The SCM in the business operations plays an important role and adapted to respondto the constant changes in dynamic entity evolving in technology changes, competitive actions and customer demands. Due to competitiveness in the industries, SCM practices meet the challenges in supply uncertainties anddemand variability of customers and resulting in all the "value added" to the supply chain demand.

Hu & Hsu, (2010), claim that due to the rapid worldwide industrialization caused to damage and pollute the environment, ozone depletion, greenhouse effect and Antarctic icebergs to melt. (Meera & Chitramani (2016), explain the issues raised from public to demand manufacturers about their responsibilities related to the industrial production in

India. Organizations are compelled to face shrinking profit margins and offer competitive prices when initiatives are taken to reduce the carbon footprint in the supply chain to become environment friendly and going with the green implementations in their industries. “Being a part of the global supply chain, Indian manufacturing has a significant impact on the changing paradigms in the SCM practices. The two major paradigms that have made inroads are green and lean”.

Shultz and Holbrook (1999), stated that the facing of regulatory and community pressures with competitiveness show cases the importance of organizations to be able to balance the economic and environmental performance. Lewis and Gretsakis, (2001); Sarkis, 1995, (2001) highlighted that organizations have to introduce strategies to overcome the environmental impact on their products due the increased pressure on environmental sustainability. Introduction of environmental friendly practices may create new opportunities for competitiveness and add value to the core businesses (Hansmann and Claudia, 2001).

Naylor et al., (1999) developed two definitions of lean and agile practices relate to the supply chain strategies. Lean means elimination of all waste including time and meet the level schedules whilst agile explain the virtual relationship and knowledge of the market and the profitable opportunities in the volatile market. It concludes that it is an essential perspective in the supply chain that companies should strive for “leagility”- a combination of both. Just-in-time was implemented in 1980 and primary focus of the strategy was to eliminate waste thorough reducing the lead time.

Frohlich T.M, & Westbrook R, (2001), investigate the supplier and customer integration strategies globally. Strategies are characterised by different “arc of integration”. Their study leads to two main conclusions. First evidence support that there were five different supply chain strategies – inward, periphery, supplier, customer and outward facing. Second evidence that the broad arc of supply chain integration was strongly associated with higher levels of performance.

Christopher M, Lawson R & Peck H (2004) discuss of creating agile supply chain in the fashion industry. Exhibiting characteristics in the fashion market of seasonal designs with short-life cycles, demand with high volatility rarely stable design influenced by pop stars and foot ballers,

Low predictability and difficult to forecast, high impulse of purchasing that buying decision is made at the point of purchase. Due to extended number of seasons by retailers, fashion market is highly competitive and constantly refresh the product ranges. The successful fashion retailer

Zara might be having twenty seasons in a year. They identified the three critical lead times such as time-to-market, time-to-serve and time –to-react.

Li et al., (2004), develop a framework of the SCM practices and the impact of organizational performance and the competitive advantage. Their SCM practice conceptualized with five dimensions such as Strategic Supplier Partnership, Customer Relationship, Level of Information sharing, quality of information sharing and postponement. The constructs of dimensions explained in their literature are price/cost, quality, delivery dependability, product innovation and time to market are described by Koufteros et al.,(1997), Tracy et al., (1999), Cleveland et al., (1989), Vickery et al., (1999). The findings of Li et al., (2004), “Today’s competition is moving from among organizations to between supply chains, more and more organizations are increasingly adopting SCM practice in the hope of reducing supply chain costs and securing competitive advantage” which are support that SCM practices can have noticeable the impact on competitive advantage and the organizational performance. Their research explain that contextual factors such as type of industry, size of the firm, position of the firm in the supply chain, length of the supply chain, and type of the supply chain may have an impact on supply chain management practices. The large organizations who are practicing effective management of supply chain, link with the complex supply chain networks and maintain the higher level of supply chain practices.

Bruce, M et al.,(2004), discuss the characteristics of the textile and apparel industry and identify the perspectives of lean, agile and legality within the existing supply chain literature. The aim of their research was to consider the supply chain management approaches used in textiles and apparel sector. It was addressed through case studies from different points of the textiles and apparel chain, ranging from fibre producers downstream in the chain to manufacturers and retailers upstream. Conclude that Textile and apparel market is volatile and vary with high product varieties and short product life cycles. Apparel sector earning low

profit margins and holding stock of small quantities is not practical and companies in the apparel sector compel to manufacture orders rapidly to maintain the competition in the volatile market. With evident of the prevailing information, the combination of lean and agile which is called “leagile “ approach is suitable for the apparel industry.

Hsiao SW & Chou JR (2004), paper developed a creativity method based on the naturally sensuous ability of human beings. While developing a creativity tool, proposed a creativity design method integrating with some systematic design methodologies. “Rebuilding a product design process with creativity techniques can effectively assist designers in encouraging design creativity, further improving the overall performance of innovative product design”. They developed sensuous association method which can be encouraged designers to produce to innovative ideas quickly. Three essential stages of divergence, transformation and convergence which are involved in the proposed design process.

Teng S.G, & Jaramillo H. (2005), aim to develop an evaluation model for US Textile and Apparel manufacturers to maintain their competitiveness in current market. Due to the competition in the textile and apparel market, US apparel companies facing challenges to retain in the market and maintain of the share. They have to expand the global outsourcing activities by adjusting their business strategies and cut down the manufacturing costs. Due to attractive tax policies and low labour costs some US apparel companies shift their operations to foreign countries. “The trend began with the boom of the so-called *Maquiladoras* in Mexico and Central America”. *Maquiladoras* became more popular to the unexpected level after the introduction of NAFTA (North American Free Trade Agreement). While enjoying the cheaper cost benefits in some of the industries such as automotive, semiconductor, apparel in Mexico and Central America giving the opportunity to boom Asian countries with their production at a lower cost. Their research conclude that Textile and Apparel manufacturing companies are facing severe competition in the global market. Textile manufacturing companies have to take right decision at the three stages of the supply chain operations and identify the issues at strategic level, tactical level and the operational level to implement the correct decision –making process. US supply chain was disturbed by China after 2005 created the global competition when the quota system gets terminated and sourcing activities is the critical factor for maintain and increasing the market share.

Koprulu A., & Albayrakoglu M.M, (2007), discuss SCM in textile industry. Due to globalization, retailers in the apparel sector are building strong supply chain with their customers with value addition to their products to retain in the competitive market.” SVM has become very critical to manage risk, dynamism and complexities of global sourcing”. When companies integrating in the supply chain can gain the maximum benefit. To build a most effective supply chain, company needs to understand the effectiveness of the supply chain and the company performance. To support the corporate strategy, SCM has to select the correct resources in the global business environment. Vendor and customer relationship in the apparel sector is become very critical due to the rapid changes in the market. Vendor and the retailers in the apparel sector relationship convert the partnership includes the activities such as information sharing, joint product design or sharing storage spaces. Functions performing throughout the supply chain includes transportation, warehousing, information processing and materials handling. Meeting customers demand efficiently, with supply of right quantity at the right time to the right place is the ultimate goal of the supply chain management. Their results shows that when selecting the suppliers, quality of the products, delivery on time and trust are most important factors to be considered in SCM. Their study identified the six strategic priorities which are cost, quality, delivery, flexibility, Innovation and trust.

Zhou F (2009), published a paper in Journal of Sustainable Development describe that China is the biggest export country for textile and apparel industry in the world. Textile industry in China is main source of earn foreign exchange through export. Chinese textile and apparel industry face large challenges against the domestic and foreign commercial environment. World Trade and Apparel Trade cancel the quota limits and high consumer demands on environmental protection with high requirements. “Vertical integration” mode does not work within the Chinese apparel industry and begins to rise “horizontal integration” and green supply chain management with the new concept of sustainable development of the enterprises. The textile enterprises implement green supply chain management with the core content of Establishing the strategic assets view of green textile supply chain, developing a flow system of green textile supply chain, designing an organization of performance based on green textile supply chain, establishing the strategic cooperation mode of green textile supply chain and establishing a performance evaluation and management system of green textile supply chain.

According to Hussain et al., (2011), “Over the past 25 years, trade liberalization and communication innovations have increased the opportunities for retailers and brands to buy their products from producers worldwide”. Recent studies have proven that through international network of global supply chain, the branded products outsourcing their production from tiers of competing suppliers. “The supply chain in textile and clothing are driven by the big brands and retailers that have tremendous power in determining price, quality, delivery and labour conditions for suppliers and producers down the chain”. The two categories of profit segments identified as high and low profit steps and with the innovation, marketing and retailing which have fallen under high profit category and sourcing of raw materials, production and assembly, finishing and packaging have fallen under low profit category.

Due to the low-cost locations of Asian and Far East Region, increasing the competition among the factories at the bottom of the global supply chain. Low cost production strategies followed by China, India, Pakistan, Turkey, Brazil and Bangladesh, were in the major competition of textile and clothing industry from the last couple of decades.

Hussain et al., (2011) cited that “Firms try to develop their comparative advantages by adopting specific strategies to attract and retain customers. They compete in the market on the basis of different strategic options as price/cost, quality, delivery speed, delivery reliability, customer service, flexibility, product design”. These options are the result of filling the gaps of production and consumption including time, space, quantity, variety, information and quality as discussed by Alderson (1954) and Tersine and Hummingbird (1995). Explained that competitiveness in the clothing and textile industries in the world has been changed from last couple of decades. Manufacturing Industries push away from the consumer market by low cost labour market and resources of raw materials. Paper conclude that “The strategic view of a case supply chain in textile and clothing was developed and tactical and operational issues are under study”. The supply chain strategic analysis results has shown that supply

chain in clothing industry competing with price, cost, quality and reliability and moving towards the achieving competitiveness in design, delivery time and service differentiation .

Lee H.S, et al., (2017), measures the relationship between turnover intention of Fashion retail employees and the organizational sustainability performance. They investigate the ethical climate practices in the fashion retail industry and workers attitude towards the job and the staff turnover intension. Their findings shows that ethical climate can motivate employee and help to increase the organizational tippel bottom line performance – financial, social and environmental and also revealed that by creating an ethical working environment is another important way to improve organizational sustainability performance.

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Conclusion

As found from the literature, a number of innovations absorbed by the apparel industry in Sri Lanka in order to face the challenges. Innovations such as products, production processes, marketing and even organization structure were mainly introduced by large makers as a means of remaining competitive. Due to competition in the export market, Sri Lankan garment manufacturers are to explore new products and the new technology such as CAD/CAM technology, ERP systems allowed the industry to face with global advance technology and compete in the global market.

Based on the current literature, supply chain management in apparel sector is facing critical competitive challenges in the volatile market. Designs are rapidly changing in the

clothing market and manufactures use leagality approach to retain themselves in the market due to competitiveness. Through literature it was found that there exists twenty seasons in the fashion industry and therefore leading to very quick change in the designs. Through the literature, author found that different characteristics and dimensions are used to evaluate the reasons for the competitiveness. Author is expecting to use such finding from future research to assess the innovative Green supply chain management practices and organizational performance in Sri Lankan Apparel manufacturing industry.

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