

Role of Supply Chain Management in Indian Textile Industry and the key issues faced by the Textile Supply Chain

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Abstract

Supply chain management (SCM) is a crucial part of modern textiles and apparel business. In addition to the traditional concepts on improving the production efficiency, quality control, and product design, supply chain management focuses on enhancing the collaboration and cooperation among all companies in supply chain with a goal of satisfying what market wants. With the advance of technologies, both in terms of computer-based information technology and materials-science related production technology, many timely research issues emerge in supply chain management of textiles and apparels. The Indian textile industry needs efficient supply chain management. One area that needs more emphasis for global competitiveness of the entire supply chain is the interface between textiles and clothing. To keep all the systems in textile industry in order, it is ideal to have a proper supply chain management. Supply chain management has become an integral part of business in textiles. The role of supply chain management in textile industry, contribution of Indian textile industry towards the growth of the nation economy and the key issues faced and the strategy to be adopted by the supply chains in Indian textile industry is focused in this article.

Introduction

As business increasingly make use of outsourcing and pursue opportunities beyond their domestic markets, their supply chains are becoming global. For example, product design often uses inputs from around the world and products are sold globally. Some manufacturing operations or services may be outsourced to other countries for the low labor cost or material costs.

Supply chain management is a crucial part of modern textiles and apparel business. In addition to the traditional concepts on improving the production efficiency, quality control, and product design, supply chain management focuses on enhancing the collaboration and cooperation among all companies in the supply chain with a goal of satisfying what market wants. With the advance of technologies, both in terms of computer-based information technology and materials-science related production technology, many timely research issues emerge in supply chain management of textiles and apparel.

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With the growing demands of material and that of business, the supply chain management has taken an important role throughout the world. In the textile industries, there are high market fluctuations which make the supply chain more critical and hence an appropriate management is required in this industry.

Supply Chain

The supply chain includes suppliers, distributors, retailers and customers. The customers are the main focus of the chain since the primary purpose of the existence of any supply chain is to satisfy customer needs. SCM was initially related to the inventory management within a supply chain. In the course of time, the most considerable benefits to business with advance supply chain management capabilities will be radically improved customer responsiveness, developed customer service and satisfaction, increased flexibility for changing market conditions, improved customer retention and more effective marketing. A supply chain is the chain of the process which is included in their facilities, functions and activities that are involved in producing and delivering a product from supplier(s) to customer(s). Supply Chain Management concept is made possible as a conventional management tool for all manufacturing re to strive to improve their product quality, to reduce their product and service cost and to shorten their product delivery and response time in a highly competitive market.

Strictly speaking, the supply chain is not a chain of businesses with one –to –one, business-to-business relationships, but a network of multiple businesses and relationships.

Supply Chain Management

Supply Chain Management (SCM) is the coordinated set of techniques to plan and execute all steps used to acquire raw materials from vendors, transform them into finished goods, and deliver both goods and services to customers. It includes chain-wide information sharing, planning, resource synchronization and performance measurements. Increasingly, the management of multiple relationships across the supply chain is being referred to as Supply Chain Management (SCM). SCM offers the opportunity to capture the synergy of intra- and intercompany integration and management. In that sense, SCM deals with total business process excellence and represents a new way of managing the business and relationships with other members of the supply chain.

Effective supply chain management enables enterprises to track the movement of the raw material needed to create products, optimize inventory levels to reduce costs, and synchronize supply with customer demand. Furthermore, supply chain management enables enterprises to maintain visibility over their logistics to ensure availability of materials and delivery of products to customers. Effective supply chain management also helps enterprises avoid production stoppages by identifying areas in which they are reliant on a single supplier.

Supply chain management provides enterprises, especially manufacturers, with tremendous competitive and business advantages. However, supply chain management is fraught with challenges especially in today's business landscape.

Textile Supply Chain

Textile impinges on every aspect of our lives, and the number of different fabrics that we are exposed to every day is high. Broadly they fall into three groups according to the end use for the fabric; fashion and clothing; furnishing and domestic; and industrial and technical. The journey from fiber to finished textile products is remarkably long and complicated, with many possible permutations and many quite separate and complex processes.

Textile production can be vertically organized, where all parts of production, from fiber to finished fabric, are undertaken by the same company, or it can be horizontal, where companies specialize in one particular aspect of production, **for example**, dyeing, where textile companies send undyed fabric to commission dyers, who dye the fabric and return it to the senders, which model is adopted depends on a number of factors, including geographical location and industrial history.

The finished fabric, suitably presented for sale, is sold to customers buying with a particular end use in mind. These customers are generally manufacturers, who process the cloth into its final end use before sale to the trade or retail customer. A relatively small amount of fashion and furnishing fabric is sold directly to consumers, sometimes through a wholesaler and/or retailer, and sometimes directly via, **for example**, a factory shop.

Review of Literature

Indian Textile Industry

The textile industry is an important segment in India's manufacturing industry playing a critical role in its economic development. The textile sector fulfills almost cent percent domestic demand apart from fulfilling the external demand of our clothing and apparels to a large extent in India.

Indian textile industry is one of the leading textile industries in the world. Though it was predominantly unorganized industry even a few years back, but the scenario started changing after the liberalization of Indian economy in 1991. The opening up of economy gave the much-needed thrust to the Indian textile industry, which has now successfully become one of the largest in textile sector in the world. The Indian textile industry needs efficient supply chain management. One area that needs more emphasis for global competitiveness of the entire supply chain is the interface between textiles and clothing. (Intercontinental Journal of Marketing Research Review, Volume 5, Issue 8, August 2017).

Importance of Indian Textile Industry

The textile industry of India gives great contribution to the GDP. This industry is providing second largest employment after agriculture sector. And thus, development of this industry directly affect to the Indian Economy. The export of textile of India is targeted to touch US\$ 185 billion by the year 2024-25.

India's textiles sector is one of the oldest industries in Indian economy dating back several centuries.

Even today, textiles sector is one of the largest contributors to India's exports with approximately 13 percent of total exports. The textiles industries is also labour intensive and is one of the largest employers.(Fiber2Fashion.com, Prem Malik, New Cloth Market).

Contribution by Indian Textile Industry to The Indian Economy

The textile industry in India traditionally, after agriculture, is the only industry that has generated huge employment for both skilled and unskilled labour in textiles. The textile industry continues to be the second-largest employment generating sector in India. It offers direct employment to over 35 million in the country. The share of textiles in total exports was 11.04% during April-July 2010, as per the Ministry of Textiles. During 2009-2010, the Indian textile industry was pegged at US\$55 billion, 64% of which services domestic demand. In 2010, there were 2,500 textile weaving factories and 4,135 textile finishing factories in all of India. According to AT Kearney's "Retail Apparel Index", India was ranked as the fourth most promising market for apparel retailers in 2009.

India is first in global jute production and shares 63% of the global textile and garment market. India is second in global textile manufacturing and also second in silk and cotton production. 100% FDI is allowed via automatic route in textile sector. Rieter, Trutzschler, Saurer, Soktas, Zambiat, Bilsar, Monti, CMT, E-land, Nisshinbo, Marks & Spencer, Zara, Promod, Benetton, and Levi's are some of the foreign textile companies invested or working in India.

The textile industry is one of the leading sectors in the Indian economy as it contributes nearly 14 percent to the total industrial production. The textile industry in India is claimed to be the biggest revenue earners in terms of foreign exchange among all other industrial sectors in India. This industry provides direct employment to around 35 million people, which has made it one of the most advantageous industrial sectors in the country.(National Journal of Advanced Research-Volume 3;September 2017;Pg.No.60-65; Divya P.Solanki, Assistant Professor, Mirambika College of Management, Rajkot ,Gujarat, India).

Research Objectives

- To assess the role of Supply Chain Management in Indian Textile Industry and to bring out the importance of Indian Textile Industry.
- To identify the key issues faced by the Textile Supply Chain and to built a strategy to overcome the same and to implement the best Supply Chain in Textiles.
- To know clearly the role played by the Textile Industry in the development of national economy.

Role of Textile Industry in India GDP

Role of textile industry in India GDP has been quite beneficial in the economic life of the country. The worldwide trade of textile and clothing has boosted up the GDP of India to a great extent as this sector has brought in a huge amount of revenue in the country.

- India covers 61 percent of the International textile market.
- India covers 22 percent of the global market.
- India is known to be the third largest manufacturer of cotton across the globe.
- India claims to be the second largest manufacturer as well as provider of cotton yarn and textile in the world.
- India holds around 25 percent share in the cotton yarn industry across the globe.
- India contributes to around 12 percent of the world's production of cotton yarn and textiles.

Textile Industry and Market Growth in India

- **Robust Demand** - Rise in income levels is expected to drive demand in textile industry. Growth in building and construction will continue to raise demand for non-clothing textiles.
- **Competitive Advantage** - India has an abundant availability of raw materials for cotton, wool, silk and jute. It also enjoys a comparative advantage in terms of skilled manpower and in cost of production.
- **Policy Support** - 100 percent FDI (automatic route) is allowed in the Indian textile sector. To boost exports, free trade with ASEAN is allowed.
- **Increasing Investments** - Huge investments are being made by Government under Scheme for Integrated Textile Parks (SITP) and Technology Upgradation Fund Scheme to encourage more private equity and to train workforce.

Strategy of The Textile Supply Chain

With comprehending the need of the fast changing business environment in textile, apparel and in the supply of raw materials such as polyester, cotton etc., it requires proper business and planning strategy without which the supply chain management will not be successful. The following are the strategies and planning:

- Foresight of the business, i.e., right idea, right supply at right time
- Proper market survey for the customers' requirements, demand and supply.
- Proper production planning at supply end and that of consumer end with proper information technology.
- Product consignment to match the demand supply curve.
- Business expansion strategy.
- Marketing and distribution strategy.

- Strategic industry studies.
- Predicting industry trends.
- Market entry strategy.
- Financial planning.
- Market feasibility studies.
- Strategic alliances.
- Mergers and acquisitions.
- Top management recruitment/training.

Key issues faced by the Textile Supply Chain

The following issues are being faced in supply chain in textile industry for yarn, cloth, apparel, garment, industrial yarn, etc.

- Distance: Larger the distances, larger are the difficulties in reaching the materials at proper time at customers end.
- Improper production planning at both manufacturer and consumer end. It becomes more erratic when there are fluctuations in demand of consumer product.
- Transportation cost: Larger the distance, larger is the transportation cost; some customers are not in a position to get the right raw material from the right resource because of high cost of transportation.
- Government policies.
- Taxation.
- In case of raise in market demand, the supply becomes more critical because of non-availability of trucks, manpower and resource problem. At that time, the manufacturers are unable to cope up with the growing demand of their customers need because of their limited capacity. In such case a thorough vision in planning is must to Maintain demand supply. Outsourcings are being done to meet the demand supply through proper supply chain. In such cases the transporters, the concerned loaders and unloaders start demanding more wages disturbing the chain link.
- In case of increasing the uncertainty in the international market, the customers start stocking of the materials and hence, subsequent problems arise in logistics and distribution. At that time, it is necessary to see customer profile, his routine demand and accordingly distribution is made. Importances are being empathized on valuable customers for up keeping the customer's business online.

- Sometimes any special customer needs any special product at remote place where logistic becomes difficult but to fulfill the customer need it requires to know the presence of other customers in the nearby areas, so that proper distribution can be made at a reasonable logistic cost.
- During off-season, say in heavy rain, bad road condition, natural calamities, etc, it becomes difficult to dispatch the material at customers end in time but to keep the supply chain on, adequate materials are being dispatched by keeping the proper information with the dealers and the customers.

Proper implementation of Supply Chain in Textile

There should be proper implementation of the chain management to keep the production on and to minimize the cost of production. The manufacturer must have:

- Engineering concept.
- Machinery evaluation
- Architectural and structural details.
- Humidification, gas and energy consultancy.
- Civil, electrical and water management.
- Firefighting and safety system.
- Improved designing and work practices.
- Process audit and benchmarking.
- Process improvement and optimization.
- Complete project management.
- Advance analytical method of training.
- Management training and development.
- Quality assurance systems.
- Improving the planning process.
- Establishing performance monitoring tools through application of IT solutions.
- Establish business targets.

Conclusion

The textile industry is characterized by a complex production network which spans many businesses and usually crosses international boundaries. It has become an essential commodity in day to day life like food and water. The varieties of production in textile field has spread in all areas right from apparel to industrial fabrics, protective textiles, composite textiles, medical textiles, automotive, aerospace and in so many other areas. Now-a-days the product range are not within the periphery of one area but reached at nook and corner all over the world.

Today, sales are highly volatile and seasonal and to fulfill the requirements it needs good capacity planning, production scheduling, process control, inventory management to make the whole thing a profitable proposition. To make an integrated solution which spans stock balancing, inventory management, production planning and distribution scheduling a proper system needs to develop. Hence to make all the systems in order, it is ideal to have a proper supply chain management in textile industries.

Textiles industry and its Labour relations are undergoing profound changes. The retail market has opened and the producers' control over the product market has increased. Improved schemes of credit and skill development for workers have the potential to increase the contribution of textiles in the GDP. The Government and the industry needs to collaborate and establish a plan of action that addresses key issues and identifies and removes barriers to growth and sourcing strategies. Innovations in Supply Chain Management professional services, branding will soon be key to sustainable growth in the textile industry in India. The worker welfare schemes and new compensation policies are to be executed to retain workers. The textile industry is undergoing changes whereby the management, workers and all stakeholders need to be ready to compete for sustainability in Textile Supply chain in Indian issue.

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