SJCC Management Research Review
Printed ISSN - 22494359
Vol: Special issue: 1 June 2015, Page No:1-14

INFLUENCE OF SUPPLY CHAIN STRATEGIES FOR THE BETTER GOVERNANCE OF APPAREL INDUSTRY

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Abstract

A supply chain strategy is important to the success of apparel industries and is either based on reducing cost and improving efficiencies or they focus on doing things differently to become more effective in serving customer and creating added value. This is because the cost and quality of goods and services sold are directly related to the cost and quality of goods and services purchased. Therefore, supply chain policies such as procurement and supplier selection, lean supply chain approach to improve the internal processes of an organization in line with the principles of Just in Time (JIT) supply have an important role in SCM for better governance of apparel industry. The most successful manufacturers are those who have carefully linked their internal processes to external suppliers and customers in unique supply chains. In short, for the new millennium upstream and downstream integration with suppliers and customers has emerged as an important element of manufacturing strategy. Hence, the current study is to investigate the impact of supply chain strategies for the better governance of the apparel industry.

This paper was designed as an exploratory study to investigate the influence of supply chain strategies on the corporate decision making (governance). The empirical data for this research were obtained from semi-structured interviews with key informants, combined with a discussion of the main results with a focus group of supply chain experts. These data are compared with the literature and current conditions of supply chain practices in apparel industries were revealed and investigated.

Key Words: Apparel Industry, Supply Chain Strategy, Governance, Supply Chain Management

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Introduction

The textiles and apparel industry occupies a unique position in the Indian economy as it contributes significantly to industrial production, employment generation, and foreign exchange earnings. Globally India ranked as the second largest exporter in the world. This sector contributes about 13 percent to industrial production, 4.43 per cent to the gross domestic product (GDP) for the year 2013 - 14, and 27 per cent to the country's foreign exchange inflows. It provides direct employment to over 45 million people and approximately 40, 000 apparel manufacturing units in India (Source: Ministry of Textiles, Government of India, 2013-14 annual report). The textiles sector is the second largest provider of employment after agriculture. Thus, the growth and allround development of this industry has a direct bearing on the improvement of the India's economy.

Apparel Sector was the largest contributor to total textile and apparel exports from India in FY13 with the segment having a share of 41 percent. In India, apparel units are concentrated in 19 major manufacturing centres in Kolkata, Mumbai, Tirupur, Indore, Bangalore, Chennai, Okhla, Gurgaon, Noida, Jaipur, Ludhiana, Bellary, Kanpur, Ahmadabad, Jabalpur, Salem, Erode, Madurai and Nagpur (Source: The Ambedkar institute for Labour Studies, Mumbai, 2013). South India is a major exporter of garments with Bangalore and Tirupur being two major apparel clusters. The study focuses mainly on South Indian Apparel Export units which are larger in size because most of the export units fall under this category; also Supply Chain Complexities is seen mainly in larger units.

Globalization of the Textile industry has become more intense due to several factors like cost competitiveness, ability to cope with new fashion trends, Labour intensive, production methodologies and monetary / non – monetary incentives (Jayram and Anjanee, 2013). India is one of the leading exporters of textile goods to many developed countries. A majority of the Indian textile exports is in the form of value added goods like woven and knitted apparels, home furnishings and leather apparels. Apparel manufacturing in India faces stiff competition in terms of cost of production especially in the post quota regime from competing producers such as China, Bangladesh, Indonesia, Vietnam and Sri-Lanka. The elimination of quota has opened up opportunities and posed threats to Indian apparel manufacturers and Exports in various areas not limited to research and development, manufacturing process, technological interventions, volume of production and cost of products. Owing to these attributes of global competition, the Indian apparel industry is presently focusing on unrelenting restructuring in terms of using advanced technology, controlling production costs, liberalization, and finetuning the apparel supply chain (Jayram and Anjanee, 2013).

Literature survey indicates that within apparel units, high levels of efficiency and effectiveness of internal processes are necessary for the timely delivery of goods which is a major determinant of customer acquisition and retention. Timely execution and delivery of goods as per the merchandising plan provides a competitive edge to apparel firms. Delay in any of the internal processes can adversely affect the downstream processes leading to shipment delays. The key success factors for any apparel unit includes on-time shipment, cost management and maintenance of high rates of production with effective resource utilization (Patel et al., 2011).

Hence supply chain strategy is important to the success of apparel industries and is either based on reducing cost and improving efficiencies or focus on doing things differently to become more effective in serving customer and creating added value. Therefore, supply chain policies such as procurement and supplier selection, lean supply chain approach to improve the internal processes of an organization in line with the principles of Just in Time (JIT) supply have an important role in SCM for better governance of apparel industry. The most successful manufacturers are those who have carefully linked their internal processes to external suppliers and customers in unique supply chains. In short, for the new millennium upstream and downstream integration with suppliers and customers has emerged as an important element of manufacturing strategy. Hence, the current study is to investigate the impact of supply chain strategies for the better governance of the apparel industry.

Literature Survey

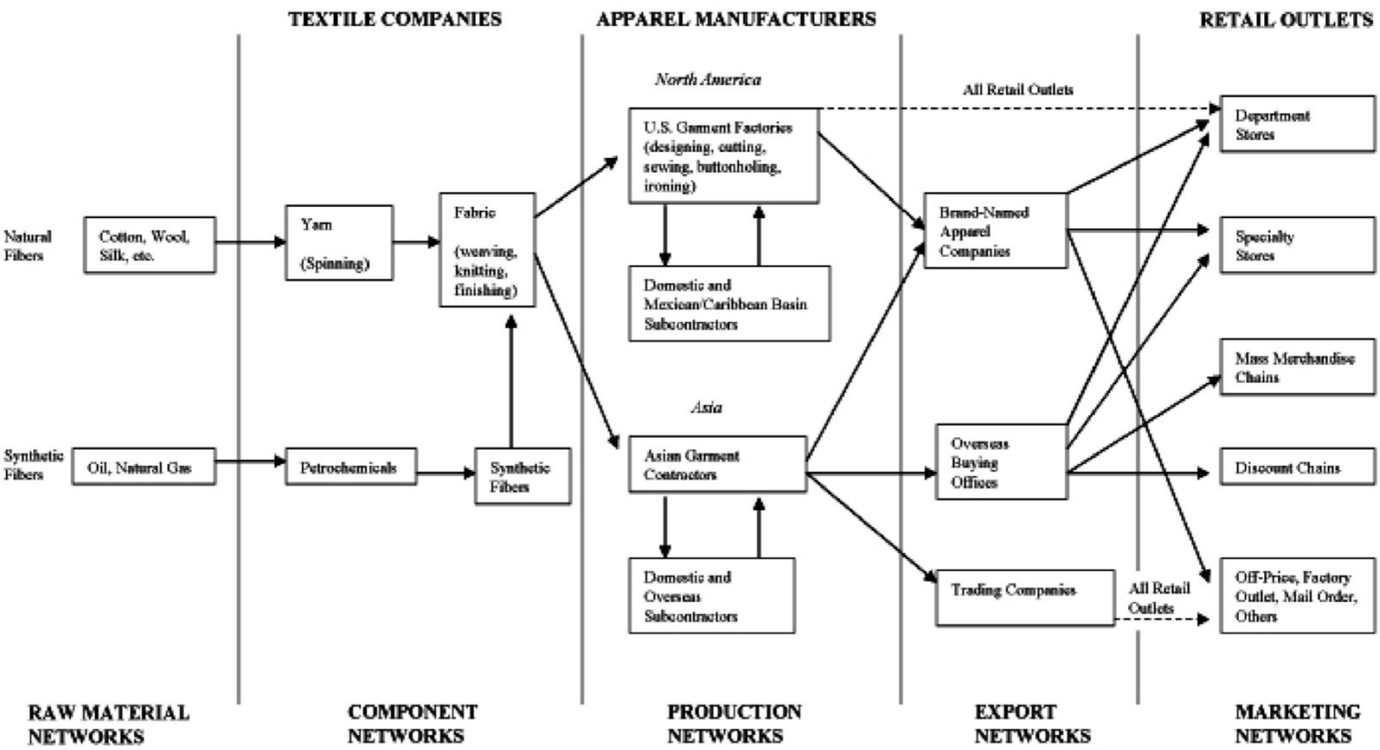
Profile of Apparel Industry:

The apparel sector is the final stage of the textile value chain and the maximum value addition takes place at this stage. In India, the apparel industry is fragmented and predominantly in the small scale sector. Therefore, the sector is characterised by low

SJCC Management Research Review
Printed ISSN - 22494359
Vol: Special issue: 1 June 2015, Page No:1-14

investment and highly labour-intensive industry. Apparel export units produce goods mainly for export houses. South India is a major exporter of garments with Bengaluru and Tirupur being two major apparel clusters in south India. The apparel commodity chain is organized around five main segments: raw material supply, including: natural and synthetic fibres; the provision of components, such as the yarns and fabrics manufactured by textile companies; production networks made up of garment factories, including their domestic and overseas subcontractors; the export channels established by trade intermediaries; and marketing networks at the retail level (Figure 1). Each of these segments in the apparel commodity chain encompasses a variety of differences in terms of factors such as geographical location, labour skills and conditions, technology, and the scale and type of enterprises. These characteristics also affect the distribution of power and profits throughout the commodity chain (Gereffi, 2002).

The Apparel Commodity Chain



Source: Gereffi, Gary & Olga Memedovic (2002), 'The Global Apparel Value Chain: What Prospects for Upgrading by Developing Countries?'

Apparel manufacturing is a pure *Make to Order (MTO)* production scenario unless production houses have their private labels (**Tanksale**, **2005**). Typical business processes in this industry include style development, sampling, customer order management, fabric and trims procurement, inventory management, production planning, material and factory capacity planning, sub-contracting in overload scenarios, raw material distribution between warehouses, production, finishing and packing, shipments, and other non-engineering processes.

Tanksale (2005) further states the following five most challenging business processes in MTO production scenario

i. Style and Attribute management
ii. Sampling
iii. Capacity Planning and Scheduling
iv. Inventory Management, and
v. Order life cycle management and buyer interaction.

Apparels are always planned and inventoried in units or dozens. Many top Apparel manufacturers have numerous buyers and each deal in different types of garments and thus may have variation in planning and manufacturing process. As mentioned, garment style has various attributes such as size, colour, major dimension (as length in pants), and fabric type. Attributes play very important role in garment planning and operations business processes. Fabric needs to be procured, received, inventoried and issued to production at attributes levels such as colour, fabric type, width, construction etc. Garments need to be planned, produced, inventoried and distributed at attribute levels as well depending upon buyer requirements. Attribute level planning can be complex to configure, implement and to use due to possibility of numerous variations and amount of processing resources required.

Supply Chain Strategies

Supply chain management (SCM) includes a set of approaches and practices to effectively integrate suppliers, manufacturers, distributors and customers for improving the long-term performance of the individual firms and the supply chain as a whole in a cohesive and high performing business model (Chopra and Meindl, 2001).

A supply chain is a network of facilities that procure raw materials, transform them into intermediate goods and then into final products and deliver the final products to customers through a distribution system. The supply chain's goal is to get right product to the right location, in the right quantities at the right time and at the right cost (Haul et al., 1995)

A supply chain strategy is crucially important to the success of a manufacturing firm and is either based on reducing cost and improving efficiencies or they focus on doing things differently to become more effective in serving customer and creating added value (Hines, 2004). This is because the cost and quality of goods and services sold are directly related to the cost and quality of goods and services purchased. Therefore, supply chain policies such as procurement and supplier selection have an important role in SCM (Hartley and Choi, 1996; Degraeve et al., 2000). Sourcing centres on supplier selection, planning: design, specifications, purchases, manufacturing and deliveries. Delays in any of the elements of the sourcing process have implications for the throughput in the supply chain. Sourcing is the first stage of any supply chain cycle. Sourcing precedes any procurement and is part of the procurement cycle. Supplier selection and purchasing is an important part of any supply chain strategy.

In a study on UK apparel retailers' supplier selection criteria (Gibbon, 2001), most UK apparel retailers considered cost as the most important criteria in formulation of company sourcing strategy. The next important criterion was lead time/flexibility. Also, as part of other studies, indicated that availability of capacity, service capacity, production expertise and ethics have been identified an important criteria. 90% of responding companies said 'partnership', with core suppliers is of prime importance. Exchange of sales information is a pre-condition for suppliers to be able to manage retailers' inventories, mutual transparency, bargaining volume for reductions in price, joint planning of new capacity, and degree of differentiation in product offers, openness and honesty (Oxborrow, 2000). Six criteria — namely cost, quality, delivery, flexibility, innovation and trust are identified as the supplier selection criteria in apparel industry (Koprulu and Albayrakoglu, 2007).

Most apparel buyers look for

- o Reliable supply of low-cost labour.
- o Ability to meet quality standards, labour treatment standards, benefits, facilities standards, and environmental standards specified by key market regulators and customers
- o Access to raw materials
- o Ability to meet deadlines
- o Flexibility for smaller production lots
- o Unit capacities to meet peak demand
- o Design and merchandising skills
- o Ability to interact with buyers to implement design changes, complex items, etc.
- o Cultural understanding of customers
- o Educational infrastructure to provide regular supply of designing and management skills.
- o The ability to ship a decent garment, on time every time and in a competitive price, is no longer an asset. It has become an entry-level requirement.

To improve supply chain efficiency, Indian suppliers must develop collaborative links with buyers working together as partners during the buying-supplying process (Singh, 2008). Trust, communication, commitment, follow-up, knowledge and continuance - participants weighed each attribute's value differently based on their own experiences. Singh's work points to all attributes as important for building, maintaining, and strengthening working relationships with their suppliers.

Manufacturing management is a key link between technology adoption and competitiveness of firms. Productivity gains are indeed achieved through better managerial practices on the existing technology.Each firm's performance and survival is dictated by a combination of external and internal factors (Anand, 2003). A study on Supply Chain Dynamics in Indian Apparel Export Manufacturing concluded that (Jana and Bheda, 2003 –

- o Only 31% of respondents were aware of SCM or had heard about Supply Chain Management.
- o Majority of respondents felt priority is that the highest for productivity and quality

improvement and not SCM implementation.

- Though product development was identified as most time consuming activity and needed improvement, the subsequent operational measures were all focused around cost reduction and control while time did not get enough importance.
- Intra and inter-enterprise communication was a weak area resulting in rework and delays in approval.
- Management is busy addressing day-to-day petty operational issues, finding no time to think about strategic issues.

Yusuf et al. 2004 suggested that in order to compete in the areas of timely deliveries and supply chain flexibility, companies should adopt the lean supply chain approach. Lean practices to improve the internal processes of an organization in line with the principles of Just in Time (JIT) supply is another highly recognized practice in SCM (Burgess et al., 2006; Cigolini et al., 2004). Integration of internal processes of the organization with the suppliers and customers forms the essence of the whole idea behind SCM. With the widespread use of internet, web-based systems enable organizations to form strong customer and supplier integration for inventory management, demand forecasting, customer and supplier relationship management. The importance of better tracking of product logistics, improved efficiency in information processing, improved security, reduced counterfeit, fast-tracked quotation and ordering, improved customer relationships, better control of supplies on the SCM performance has been repeatedly reported by the cases such as Frankfurt Airport in Germany and Wal-Mart in the USA, even though these cases often are from more developed countries where appropriate infrastructure is in place. In all of these efforts, strategic planning for the manufacturing organizations has an integral role (Frohlich and Westbrook, 2002).

Supply Chain Strategy for the Better Governance:

Governance is the process of decision-making and the process by which decisions are implemented or not implemented. Decision making is at the forefront of managerial activity. A human resource manager must select the best health care plan for the company's employees. A sales manager must decide whether to pay the sales staff a salary or a commission. An advertising manager must choose the campaign that will deliver the best message to potential customers. An operations manager must select the best piece of equipment. Managers face such choices on a daily basis. Before making a decision they need information about the available alternatives. Managerial accountants provide much of that information (Davis et al., 2011).

Davis (2011) further states that strategic planning lies at the heart of successful organisation, whether for profit or not for profit. Articulating the strategic direction of the organisation allows managers to translate that strategy into an operating plan then take action.

Porter developed a strategic framework in which the firm has two ways to develop competitive advantage: *Product differentiation and low cost production*. If the company follows a strategy of product differentiation, it will seek ways to set its products apart from those of its competitors in term of quality, design or service. If it chooses to follow a low cost production strategy the company will set itself apart from competitors in terms of lower sales prices. Monitoring these two strategies requires different accounting information. For product differentiation strategy, companies will want information on quality such as defect rates percentage or on – time deliveries and customer satisfaction. For low – cost production strategy managers will be more interested in monitoring the production process. A company that focuses on product differentiation must monitor product costs because if too much money is spent on quality of sales price will be too high to be competitive. Likewise, even a low cost producer must monitor product quality because consumers demand a certain level of quality.

Gupta (1984) states that strategies can also be classified based on firm's approach to market share growth or the trade-off between short term earnings and market shares. Companies that want to build market share need information about sales volumes, sales growth, market share growth, sales from new customers and customer satisfaction. When business first began to computerise their operations, functional areas such as marketing and production created automated systems to meet their own needs. The problem was that each area developed its own system, without considering the needs of other areas for the same information. The result was often a collection of mismatched or even redundant systems that could not easily communicate across departments. Today, many companies use Enterprise Resource Planning (ERP) systems such as SAP and Oracle to accumulate data and provide information to decision makers on a company wide basis. The goal of ERP systems is to integrate all data from the company's many business processes into a single information system. The result is a system that can easily share production data with the accounting department and sales data with the production department. Now, when a sales person enters an order, she can easily see the customer's credit status and the number of units on hand to fulfil the order information that would require at least two different systems is a non ERP environment (Davis et al., 2011).

Case Study:

Gokuldas Exports Limited:

Gokuldas Exports Limited is one of the leading exports of apparel in India and world-wide. GE was incorporated on 1979 and rapidly rose to become India's largest manufacturer / exporter by 1981 and also retained that position till date. GE has 30 manufacturing units, with a taskforce of 30, 000 employees. GE manufactures and exports 2 million garments per month. GE has a state-of-the-art centralised laundry, in-house units manufacturing polywadding and quilting. GE products are outerwear, bottoms, sportswear, formal suits, skirts and denim wear – across all genders. GE's annual turnover is $200million and ~ 87% of its revenue is generated from exports. Some of their largest buyers are Abercrombie & Fitch, Levis / Dockers. The Gap Inc., Columbia, Forever 121, Nike, Adidas, Reebok, and Puma. GE customer base is global, covering USA, Europe, Latin America, Middle East and India, serving almost all major brands (Source: http://www.gokaldasexports.com).

Key Risks

- Volatility is the prices of cotton, the main raw materials in the manufacturing of cotton yarn.
- Foreign exchange fluctuations
- Competitors to India from the low cost countries like Korea, Taiwan, Bangladesh, Sri-Lanka, Vietnam

Following table gives the annual budget report of Gokuldas Exports Limited for the year

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Printed ISSN - 22494359
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financial 2009- 10 to 2013 - 14:

Particulars	Amount in Rs. Lakhs FY 14	FY13	FY12	FY11	FY10
Raw Materials (including packing materials) consumed					
Cloth	40,512.65	38,392.06	39,249.60	40,926.58	45,867.07
Accessories including imported trims	14,067.30	13,381.40	17,112.66	16,208.09	14,829.03
Others	2,343.32	866.92	937.23	5,273.27	5,005.43
	56,923.27	52,640.38	57,299.49	62,407.94	65,701.53
Sales of Finished Goods					
Exports	86,506.00	75,081.61	73,947.48	87,959.01	92,993.28
Domestic	18,494.14	16,502.04	19,003.36	15,614.16	7,400.10
	1,05,000.14	91,583.65	92,950.84	1,03,573.17	1,00,393.38
Job Work Income	1,733.89	1,286.83	3,665.63	1116.59	359.95
Sale of Accessories, Fabrics, etc	910.93	1,515.13	3,833.32	3498.18	6,486.14
	2,12,645.10	1,85,969.26	1,93,400.63	1,08,187.94	1,07,239.47
Others Expenses					
Rent	2,573.58	2,359.20	2,693.60	2,464.02	1,396.68
Rates and taxes	117.43	252.2	242.24	253.17	
Legal and Professional charges	301.7	510.59	364.19	851.1	660.1
Power and fuel	2,326.58	2,337.20	2,062	2,295	
Consumption of consumables, stores and spares	952.85	1,281.50	1,100.14	1,605.68	
FINANCIAL PERFORMANCE					
Turnover	2,793.89 crores	1,065.26 Crores	1006.27 crores	1158.26 crores	1155.17 crores
SURPLUS / DEFICIT	1,520.86	1,166.72	958.15	648.32	211.64
GROSS REVENUE / SALES	1,14,709	98,979	1,03,020	1,16,101	1,00,393.38
Earnings per Share (EPS)	25.32	31.8	39	26	

For each of the following scenarios, indicated the managerial tool being implemented at Gokuldas Exports:

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	JIT	ERP	SCM	Balanced Scorecard
Gokuldas Exports replaces its accounting information system, marketing information system, sales information system and production information system with singl e, integrated software solution	Low	High	Low	Low
GE begins to evaluate its performance such as customer satisfaction, training hours per employees and average cycle time in addition to traditional financial measures such as earnings per share	Low	Low	Low	High
GE requires its suppliers to deliver component in order of every turnovers rather than in order of every month	High	Low	Low	Low
GE decides to implement a system of regime distribution centres to better meet the delivery needs of the customers	Low	Low	High	Low

Summary:

1. Gokuldas Exports strategy for building market share would be least interested in knowing with its short term profits and has high interest in percentage of sales from new customers and number of units sold.
2. Buyers or customer area is not an area of focus on a balanced score card. Financial, Internal business Process and Suppliers are the area of focus on a balanced score card.
3. Marine transportation (GE ships products from India to the other countries) - FOB (Freight on Board) is consider the part of supply chain. 99% of shipment is through FOB.
4. Gokuldas utilises a Just-in-time inventory system and will report every inventories on the balanced sheet.

Hence to run a business effectively managers need information that shows how well operations are meeting the organisations strategic goals. For instance: if the organisation strategy is to be a low-cost producer, information about product costs and cost variances will be more useful to managers than information about research and development.

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