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# Effectiveness of Supply Chain Management with Reference to Apparel Industry: A Case Study in India

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#### **ABSTRACT**

The study considered the apparel companies based in India to determine the supply chain management (SCM) techniques applied by these businesses as well as the benefits and difficulties encountered with its application thereby analyzing the effectiveness of the SCM in apparel industry. A questionnaire was used as a research instrument for this study to describe and assess the SCM systems of the selected apparel company executives. A well-structured questionnaire was distributed to the selected company executives involved in the supply chain activities. The questionnaire which evaluates seven different dimensions of SCM systems was given to the respondents and the effectiveness of the SCM practices of the apparel companies were measured in order to determine whether its systems are beneficial to the industry or not. Based on the findings it can be concluded that the apparel companies obtained a number of advantages out of SCM application with reference to the efficacy and responsiveness in delivering the goods or services to the customers. In spite of the beneficial effects of SCM application to the apparel industry, the companies are having certain difficulties with respect to the resistance to change and implementation of latest technologies. In spite of these difficulties with SCM, various alternatives are made available for them to enhance their systems like going for the third party logistics which help counter these problems. Considering that even expensive tools for SCM application have their downsides, difficulties in SCM is inevitable. However, companies using this can be resourceful in coming up with ways on how their systems can be improved.

Keywords: Supply Chain Management, Apparel Industry, India

**JEL Classification: R4** 

#### 1. INTRODUCTION

The Indian textile and apparel industry is an integrated sector and occupy a significant position in global trade. It not only processes high value products such as fabrics, garments and made-ups but also grows its own raw materials (cotton, jute, silk and wool). The textile industry is served by the organized, modern and mechanized mill sector, the small scale largely unorganized power loom sector and the highly fragmented handloom (hand spinning and hand weaving) sector. India is one of the few countries that has presence across the entire value chain of the textiles and clothing business starting from raw material (fiber), spinning, weaving/

knitting, processing to highest value added products – Garments and made ups.

The management of supply chains is one of the significant strategic aspects of business organizations. Managing the production of the company's goods and services, monitoring storage inventories, contacting suppliers and ensuring timely distribution of goods are some of the major activities covered by supply chain management (SCM). Among the business sectors applying SCM practices, the apparel industry is one of those who have been applying this strategy. This is particularly evident in countries where the apparel, clothing and textile industry serve as essential economic

contributors. In India, the apparel industry is one of its important and highly contributory economic sectors; thus, various local apparel manufacturers and businesses are employing various innovations so as to operate successfully, both in the local and international setting. This study was conducted in order to determine the apparel business operators in the country are using SCM practices and to find out the SCM techniques used in these companies. The impact as well as the difficulties encountered by these companies with SCM application was also identified.

The apparel industry is a business sector which includes companies producing and distributing clothing merchandise. The market of the clothing industry is mainly influenced by economic issues; in particular, as consumers are into more prosperous economic conditions, the demand for more luxurious clothing increases. While this industry is affected by common business issues such as economic factors and competition, this industry is also greatly affected by consumer trends, such as seasonality and fashion. With these affective factors, the apparel industry typically encounters problems such as demand uncertainty; this problem on the other hand, is addressed by apparel companies through product variety.

The apparel industry is an important business sector in India. For this reason, companies operating within this industry must then be able to apply business strategies that would help sustain the growth of the clothing sector. This means that by modifying some of the existing business procedures of the apparel companies, such as their SCM systems, continuous progress and development in the industry may be observed. The development of the SCM in India business sector can also likely strengthen its connection with the international market.

To save on logistics and procurement costs, large global buyers are actively going in for vendor consolidation; thus integration, scale of operations, efficiencies and a capability to satisfy demanding customers with large volume orders on time have become the key differentiators in the textile industry today. On the domestic front, notwithstanding the current economic slowdown, India's population of more than 1.1 billion people continues to offer an important market for consumer goods. Typically, domestic textile demand has grown in line with the growth in gross domestic product and the large number of middle-class households offer considerable potential for manufacturers and retailers. Also, according to economic indicators, the Asian economies (with China and India leading) are likely to recover faster from the downturn; the first signs are already being witnessed. Hence, for the textile industry in India, the growth potential remains encouraging.

# 2. LITERATURE REVIEW

Among the business sectors applying SCM practices, the apparel industry is one of those who have been applying this strategy. This is particularly evident in countries where the apparel, clothing and textile industry serve as essential economic contributors. In India, the apparel industry is one of its important and highly contributory economic sectors; thus, various local apparel manufacturers and businesses are employing various innovations so as to operate

successfully, both in the local and international setting. This study was conducted to determine how apparel business operators in the country are using SCM practices and what SCM techniques are being used in these companies. The impact as well as the difficulties encountered by these companies with SCM application was also identified.

In the last 5 years, the apparel industry has faced ever-decreasing margins and currently <5% net margins. With only a few notable exceptions, their traditional focus on consumer preferences and marketing has been insufficient to address this dismal performance. In fact, these poor financial results have occurred during a period when unit volumes and prices have increased. In order to recapture its profit potential, the apparel industry must immediately bring appropriate technology to bear on its supply chain challenge. The costs of inadequate management of apparel sourcing and supply chains are especially onerous since price and demand for an individual fashion garment are largely time-dependent. When the product is delayed beyond the beginning of a season, the margins for fashion apparel "perish" even if the garment does not. For example, a seasonal garment for the holiday season or bathing suit for summer might sell at full price for 2 weeks or even less, a 30-40% markdown or zero margin for another 2 weeks, and then have to be sold to another channel for 10% of the original price at a large loss.

Lack of knowledge on effectiveness of SCM practices and difficulty to recognize the specific areas to be developed for improving these practices, collectively form the basic dilemma, which should be solved in order to overcome the barriers against effective implementation of SCM, which has been restricted over many decades in India's apparel manufacturing firms, keeping most of them far behind in the global competition.

Therefore, this research finds the effectiveness of SCM practices and recognizes the areas to be developed to improve the practices, especially for apparel manufacturing & service firms in India. Identifying the impact of a firm's main factors effecting on SCM practices will provide a start to comprehensive SCM feasibility assessment. The data were collected through a questionnaire from 12 randomly selected apparel manufacturing & service firms in India.

# 3. OPERATIONAL DEFINITIONS AND CONCEPTS

Managing the movement of the goods and the flow of information between an organization and its suppliers, Suppliers and its customers to achieve strategic advantage is called SCM. SCM covers the processes of materials management, logistics, physical distribution management, purchasing, and information management.

A supply chain is the stream of processes of moving goods from the customer order through the raw materials stage, supply, production, and distribution of products to the customer. All organizations have supply chains of varying degrees, depending upon the size

of the organization and the type of product manufactured. These networks obtain supplies and components, change these materials into finished products and then distribute them to the customer.

SCM is the management of a network of interconnected businesses involved in the ultimate provision of product and service packages required by end customers (Harland, 1996). SCM spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption (supply chain).

Another definition is provided by the APICS Dictionary when it defines SCM as the "design, planning, execution, control, and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand, and measuring performance globally."

#### 4. RESEARCH OBJECTIVES

The aim of this research is to describe and analyze the current SCM system applied by business operators within India. This research was conducted to achieve the following objectives:

- 1. To identify the techniques used by some apparel business operators in India
- 2. To determine whether these practices are able to benefit the selected companies
- 3. To cite possible problem areas or difficulties encountered by these companies with SCM
- 4. To come out with suggestions to the apparel operations in the country.

# 5. METHODOLOGY

#### 5.1. Sources of Data

#### 5.1.1. Primary data

Primary data refers to the data that is fresh and collected for the first time. It refers to the data collected by the researcher himself and original in character. The primary data were derived from the answers respondents gave in the structured questionnaire prepared by the researcher. A personal interview was conducted with the help of a questionnaire. The questionnaire has contained 40 questions with both open ended and closed ended questions. The respondents were asked to give their frank opinion regarding the concerned matter and respondents have given valuable information.

In order to gather pertinent information regarding SCM techniques and effects, the participation of apparel companies is necessary. Thus, for this study, the researcher opted to gather helpful information from 12 apparel companies. Due to various research constraints such as time and budget, the researcher decided to use a smaller sample size. Within these selected companies some of respondents were asked to participate. All the staff employees considered for the study work in the supply chain sector of the selected companies; this criterion helped in limiting the size of the population as well as in ensuring that selected participants are

knowledgeable on the research topic. All in all, this study made use of 84 respondents.

#### 5.1.2. Secondary data

The secondary data, on the other hand, is those which have already been collected by someone else and which have already been passed through statistical processes. Secondary data is the information that already exists. For collecting secondary data researcher used internet, magazines, newspapers and various books. Researcher also consulted faculties for getting valuable information.

#### 5.2. Sampling Plan

Sampling techniques may be classified as non-probability and probability techniques. Non-probability sampling techniques rely on researcher's judgment. Consequently they don't permit an objective evaluation of the precision of the sample results, and estimates obtained are not statistically able to project the population. The commonly used non-probability sampling techniques convenience sampling, judgment sampling, quota sampling, and snow ball sampling.

In probability sampling techniques, sampling units are selected by chance. Each sampling unit has a non-zero chance of being selected and the researchers can pre-specify every potential sample of a given size that could be drawn from the population. Probability sampling techniques include simple random sampling, systematic sampling, stratified sampling, sequential sampling and double sampling. The choice between probability and non-probability sampling should be based on the nature, degree of error tolerance, relative magnitude of sampling and non-sampling errors, variability in population and statistical and operational conditions.

In the present research the judgment sampling under non-probability sampling is used. The sample size of 84 respondents spread across India was taken for the study. The respondents were chosen randomly from each of this market.

# 5.3. Field Work

The field work was done in this project adopting personal interview method with the help of structured disguised (Alamer et al., 2015; Qureshi et al., 2014, 2015, 2016; Sanil & Ramakrishnan, 2015) questionnaire. The questionnaire was filled in personally by some of the respondents whereas some of the respondents were asked the content of the questionnaire through the telephone interview. The survey was conducted in Silvasa, Vapi, Bengaluru, Rajasthan and Gurgoan. The survey questionnaires were coded and then tabulated. The analysis and interpretation was given based on the results of the tabulation.

#### 5.4. Tools and Techniques of Data Collection

For this study, questionnaire was used as the research instrument to describe and assess the SCM systems of the selected apparel companies. The questionnaire given to the participants aimed to evaluate the effectiveness of their respective firms' SCM systems. The evaluation factors were developed under 7 headings. In general, the effects of the SCM practices of the apparel companies

were evaluated for this study in order to determine whether its systems are beneficial to the industry or not.

The questionnaire was structured in such a way that respondents will be able to answer it easily. Thus, the survey was structured using the Likert's scale with five-point response choices. A Likert's scale is a rating scale that requires the subject to indicate his or her degree of agreement or disagreement to a statement. In this type of questionnaire, the respondents were given five response choices. These options served as the quantification of the participants' agreement or disagreement on each question item. The designated quantifications used in the questionnaire are as follows, 5 points for strongly agree, 4 points for agree, 3 points for uncertainty, 2 points for disagree and 1 point for strongly disagree.

#### 5.5. Data Analysis Procedure

The Likert survey has been selected. Questions in the questionnaire have enabled the respondents to answer the survey easily. In addition, this research instrument allowed the researcher to carry out the quantitative approach effectively with the use of statistics for data interpretation. Once all the answers of the respondents have been gathered, the researcher computed the weighted mean value for each survey item. The mean was then compared to the Likert scale to interpret the results. The weighted mean was used in order to obtain the average values that represented the sample's response to each question in the survey. This helped the researcher identify the general response of the participants to the question given.

In order to analyze the data gathered from the survey, the weighted mean for each question item was computed. Weighted mean is the average wherein every quantity to be averaged has a corresponding weight. These weights represent the significance of each quantity to the average. To compute for the weighted mean, each value must be multiplied by its weight. Products should then be added to obtain the total value. The total weight should also be computed by adding all the weights. The total value is then divided by the total weight. Statistically, the weighted mean is calculated using the following formula:

Weighted mean = 
$$\frac{\left(Y1 \times 5\right) + \left(Y2 \times 4\right) + \left(Y3 \times 3\right)}{84}$$

Where, Y1, Y2, Y3, Y4, Y5 are the number of respondents that selected the given likert choices.

The computed mean was then compared to the scale for interpretation as given below:

Range	Interpretation
4.50-5.00	Strongly agree
3.50-4.49	Agree
2.50-3.49	Uncertain
1.50-2.49	Disagree
0.00-1.49	Strongly disagree

Figure 1: General questions on supply chain management

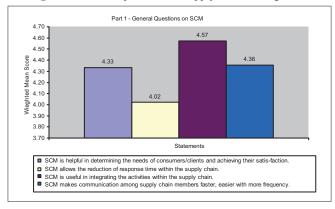


Figure 2: Share of logistic

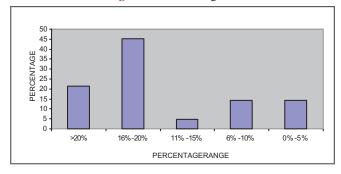


Figure 3: Supply chain management planning

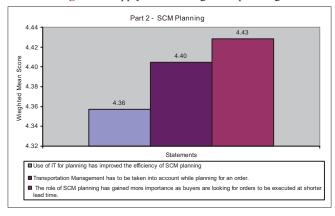
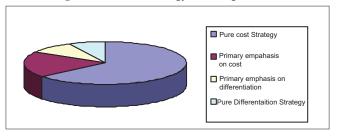


Figure 4: Business strategy of the organization



#### 6. RESULTS

Based on the analysis of the responses given to the questionnaire it is clear that most of the respondents have agreed that SCM is helpful in determining the needs of the consumers/clients and

Figure 5: Strategic priorities of the organization

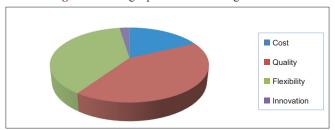


Figure 6: Supply chain management design

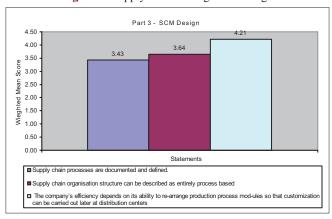


Figure 7: Initiatives by the management

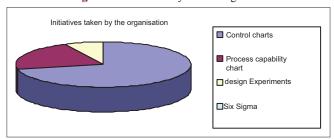
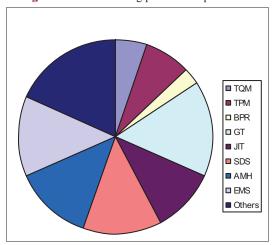


Figure 8: Manufacturing practices implemented



achieving their satisfaction. Figure 1-18 shows the results of the study They also agreed that SCM allows the reduction of response time within the supply chain as it integrates the activities within the supply chain in turn making the communication amongst supply chain members faster and easier.

Figure 9: Demand management processing and customer service

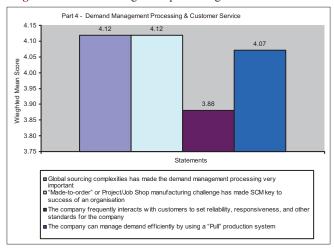


Figure 10: Information system, IT and networking in supply chain management

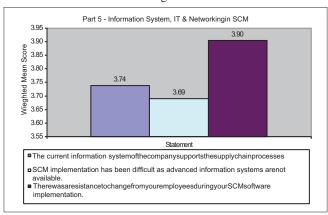


Figure 11: Software implemented in the organization

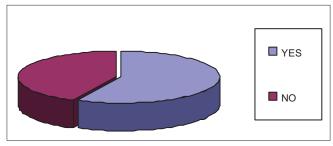
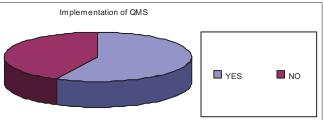


Figure 12: Implementation of quality management system



It was also noted that 46% of the respondents opined that approximately 16-20% of their total annual expenditure was on logistic related activities. This emphasizes the need for having

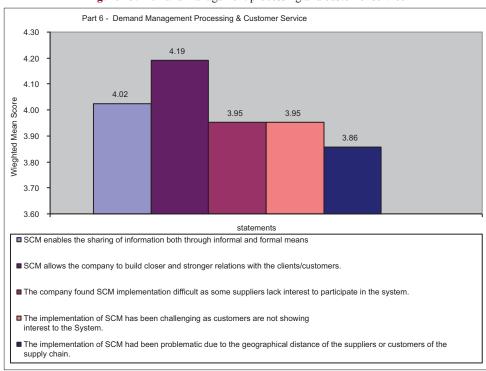
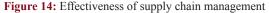


Figure 13: Demand management processing and customer service



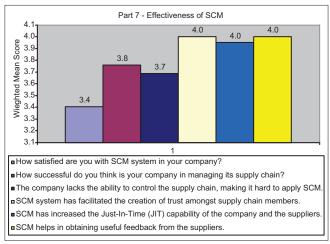
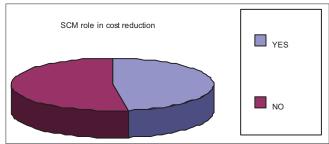


Figure 15: Role of supply chain management in cost reduction



an efficient logistic management which is one of the major components of the SCM.

It can be inferred from the responses that planning plays an vital role in having a efficient supply chain. Use of IT has improved

**Figure 16:** Organizations emphasis on integration of supply chain management across functional department

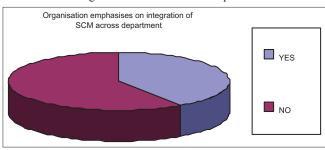
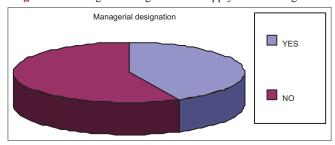


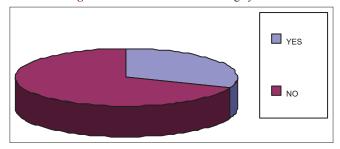
Figure 17: Managerial designation for supply chain management



the efficiency of SCM planning. Also the respondents agreed that transportation management has to be taken into account while planning for an order. The role of SCM has been vital in today's business as the buyers are looking for orders to be executed at very short lead times.

The results also showed that 64% of the respondents emphasized on the fact that their organization used the pure cost strategy. Whereas only 6% of the respondents opined that their organization followed the pure differentiation strategy. This gives an idea on

Figure 18: Performance monitoring system



how the cost plays a vital role during the company's strategy formulation. Hence, supply chain decision is very important part of the organizations strategy. It is one of the key areas where cost can be reduced. It was noted that considering that the company operates at a smaller scale, competition with similar companies as well as with larger apparel businesses can be cutthroat. For this reason, the companies must adapt strategies that would allow them to have a more organized production and distribution system, which would promote higher levels of customer satisfaction.

The survey results shows that 42% of the respondents felt that quality is one of the major priority and 38% of the respondents felt that flexibility is one of the major priority during the organizations strategy formulation. So it is evident that reducing lead time has become one of the main criteria for retaining the existing buyers and acquiring new customers.

It can be inferred that there was an uncertainty about the documentation of the supply chain processes. The respondents agreed that the supply chain organization structure can be described entirely as process based. The respondents also agreed that company's efficiency depends on its ability to rearrange its production process modules so that customization can be carried out later at the distribution centers.

70% of the respondents said that the organization used control charts as an initiative to improve the process management of the organization. But none of the respondents used the advanced techniques like six sigma which is still not thought by the management of the apparel industry.

It was also observed that 42% of the respondents have said that they have implemented total quality management (TQM) for efficiency in the supply chain. Similarly around 55% of the respondents have implemented business process reengineering in their organization. So we can understand from the above that most of the apparel manufacturers have understood the importance of supply chain efficiency and have implemented some these manufacturing practices to achieve the organizational success.

It can be inferred that most of the respondents agreed that the global sourcing has made the demand management processing very important. The main reason that is motivating the companies to implement an SCM system is to adapt to the new trends within the industry. The respondents also cited that the application of SCM is geared towards the enhancement of the relations among the supply chain members. Respondents agreed that the company frequently

interacts with customers to set reliability, responsiveness and other standards for the company. One of the major problems encountered by apparel businesses is communicating with different suppliers and retailers'. So the respondent agreed that the company can manage demand efficiently by using a "Pull" production system. The respondents agreed that the emergence of "Made-to-order" or project/job shop manufacturing challenge has made SCM key to the success of the organization.

As the manufacturers greatly depend on the timely deliveries of both supply chain participants, inefficient information exchange can then result to delayed production and services. This benefit however, is still a challenge to attain despite the use of an SCM system. The respondent explained that this is because communication problems can still happen brought about by various factors like wrong information, misunderstanding, power outage or natural disruptions. Without much other means to communicate, the channel shared by the supply chain members can be disrupted easily, resulting to supply chain problems. The respondents agreed that the current information system of the company supports the supply chain processes. The respondents also agreed that the SCM implementation has been difficult as advanced information systems are not available. Among the tested difficulties of SCM implementation, the unavailability of advanced information systems indicating that majority of the respondents agree that SCM application is challenging without the access to modern technology.

The implementation of software systems in the organization is very vital as the latest technology will help in the faster and easier information flow. This will reduce the cost as well as the lead time. However as per the response received from the respondents around 50% of the surveyed company were having some software related to SCM. The general software is the ERP software and some planning software like fast react. So it gives us an idea on how important is the information flow for achieving efficient SCM. 50% of the respondents opined that their company has not yet implemented any advanced quality system. So it is evident that the company has to implement the necessary quality systems to stay competitive in the business.

The respondents agree to most of the beneficial factors that can be gained out of SCM implementation. The results indicated that SCM is beneficial to four aspects of the apparel companies. These include the customers, suppliers, the company itself and the supply chain in general. Majority of the respondents agree that the application of SCM in their company helped in developing their knowledge with their respective customers. Among the suppliers and the companies, SCM is also believed to be beneficial as it improves the timely delivery as well as the information exchange capabilities of both parties. The selected companies also agreed that SCM promotes continuous improvement of the existing system.

The overall supply chain of the companies also acquires significant benefits through SCM. High scores for instance had been obtained from SCM aspect such as response time, communication and feedback acquisition; these high scores indicate that majority of the selected respondents agree that these SCM factors have been attained by their respective companies. The supply chain of the companies also benefit from SCM as it helps in creating trust and building stronger relations among the members. An uncertain score however, had been obtained in the activity integration aspect of SCM, implying the difficulty of achieving this SCM benefit.

The same impression had also been obtained in terms of the control the company has on the supply chain. On the other hand, the issue of geographical distance and the interest of the suppliers to participate in the SCM system did not seem to be major concerns among the selected companies. The interest of the customers in participating in the SCM received an uncertain score, suggesting that this difficulty factor may not be experienced in the same level as other apparel companies. Through SCM, the activities of the supply chain members then become more coordinated.

It is very clear that the respondents were satisfied with the existing SCM system in the company. They also agreed that the company was successful in managing its supply chain. However the company still lacks the ability to control the supply chain, making it hard to apply SCM. The respondents agreed that the SCM system has facilitated the creation of trust amongst supply chain members. The survey also suggested that SCM has increased the just-in-time capability of the company and the suppliers. An efficient SCM also helps in obtaining useful feedback from the suppliers.

76.2% of the respondents opined that effective SCM can help reduce the cost in the times of recession. Some of the reasons given for this by the respondents were as follows:

- Implementation of efficient SCM reduces waste and in turn reducing the cost
- Implementation of SCM also helps in better planning
- It helps in reducing the lead time
- It reduces inventory cost
- Reduces cost on transportation
- It acts as the driver to increase productivity
- Implementation of SCM helps in getting the right information at the right time
- It helps in developing the business standards related to quality and delivery
- It improves the flexibility with reference to the product variety and the order quantities.

The survey reveals that almost 60% of the respondents opined that their organization did not emphasize the integrated SCM across various functions. This gives us an understanding that the organization has a wide scope for improvement in the area of integrated SCM. Also, 57% of the respondents said that there was no managerial designation reflecting the emphasis on supply chain integration between various functional departments.

Overall 69% of the respondents said that there was no performance monitoring system reflecting the integration of the supply chain between various functional departments.

SCM has long been considered an important aspect of most business operations, particularly those who deal with multiple suppliers, retailers and customers. This type of business setting is very much evident in the apparel industry; however, there had been limited researches investigating on what SCM techniques are used by apparel companies. Moreover, the effects of this strategy and difficulties apparel companies encounter with its implementation have not been researched as much as other business industries.

The survey shows most of the respondents agreed that SCM is helpful in determining the needs of the consumers/client and achieving their satisfaction. Also it is clear from the data that logistic plays a vital role in the success of the SCM. The survey has revealed that use of information technology has improved the efficiency of the supply chain as most of the respondents agreed that use of IT has improved the efficiency of the SCM planning. The main reason for SCM to gain importance is due to buyers demand on executing the orders at a shorter lead time.

The survey also showed that supply chain decision is very important part of the organizations strategy as it is one of the areas where cost can be reduced. The respondents also felt that the company's efficiency depends on its ability to rearrange its production process modules so that customization can be carried out later at the distribution centers. However in terms of systems the apparel companies have not yet thought of advanced systems like six sigma, so there is a need for advanced system implementation.

It was also observed that 42% of the respondents have said that they have implemented TQM for efficient management of the supply chain. So we can understand that apparel manufacturers have understood the importance of supply chain efficiency. The respondents also agreed that the emergence of "Made-to-order" or project/job shop manufacturing challenge has made SCM key to success of an organization.

### 7. CONCLUSION

Based from the data gathered, a number of important conclusions have been drawn out. The same have been given as hereunder:

- The selected apparel companies apply similar SCM techniques
  to handle their supply chains. These techniques include the
  use of multiple communication systems such as the internet
  and telephone in order to transmit valuable real-time business
  information to other supply chain members. The investigated
  apparel companies also utilized the expertise and assistance
  of SCM experts in designing and implementing their existing
  SCM systems. The respondents also ensured the effective
  application of their chosen systems by means of careful and
  extensive project planning.
- 2. In terms of benefits, the apparel companies obtained a number of advantages out of SCM application. Among several companies, majority of the respondents agree that communication benefits are one of the most significant advantages gained from SCM. This is then followed by the improvement of the relations among supply chain members and the enhancement of different business abilities of the manufacturers, retailers and suppliers. In turn, these significant

- developments benefited the companies as sales improved and customer satisfaction increased.
- 3. In spite of the beneficial effects of SCM application to the apparel industry, certain difficulties have been encountered by the companies in line with its application. Among several problems, the small-scale companies appear to be most affected by the technology and cost factors. With limited resources, the selected companies were unable to upgrade their SCM systems to more modern programs. This in turn, has affected their opportunity to acquire greater market shares and higher customer satisfaction as well as overcome intense levels of competition.
- 4. Though the selected companies encounter some difficulties with SCM, various alternatives are made available for them to enhance their systems. Considering that even expensive tools for SCM application had their downsides as well, difficulties in SCM is inevitable. However, companies using this can be resourceful in coming up with ways on how their systems can be improved.

#### 8. SUGGESTIONS

Based on the summary of findings, certain recommendations can be of use to apparel companies, especially smaller one, in order to maintain and improve their SCM systems:

- 1. Apparel companies may consider trying out the services offered by third-party technology providers in order to transmit supply chain information via electronic means. Developing and implementing SCM really do require considerable investments; however, there are less costly alternatives whose functions are similar to customized systems. Problems like data inaccuracies due to human error can be remedied through efficient human resource delegation. To address the data inaccuracies caused by unexpected events, companies may consider implementing multiple communication systems (e.g., fax, telephone) so as to overcome this problem.
- 2. In order to prevent the accumulation of problems brought about by SCM implementation, companies applying it should also design a performance assessment program and monitor the outcomes of these systems. Immediate response to problem areas identified through regular monitoring can help smaller companies to overcome business issues such as intense competition or decreasing market share. The ability of the companies to overcome business challenges is not only reliant on technology and innovation but also on the speed of their reaction to problematic issues.
- In making SCM-related decisions, companies should not focus on the latest technologies or systems rather they should consider if the resources are available and accessible to them. This recommendation is geared towards the effective

implementation of SCM. This will help in preventing the wasteful plans, ineffective designs and impractical systems. Thus, in making SCM plans, it is essential that the requirements for effective implementation are taken into account. This would enable companies applying SCM to ensure that all essentials have been accounted for and that decision are based on what resources they have.

#### 9. LIMITATION OF THE STUDY

In order to achieve more specific findings, the researcher opted to integrate some limitations in the research process. In particular, this study only focuses on the SCM practices or techniques within the apparel industry. In this research work, the apparel industry mainly refers to only garment manufacturing industry. The benefits of SCM as well as the problems involved in its application are also part of the study. In the data-gathering procedure, due to time and budget constraints as well as proximity reasons, the researcher considered it appropriate to concentrate the research using the Indian setting.

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