ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF MARKETING   MANAGEMENT

ASSESMENT OF THE PRACTICE & CHALLENGES OF SUPPLAY CHAIN MANAGEMENT : THE CASE OF KOMBOLCHA TEXTILE S.C

BY

Aberash Tadesse ID.No   SGS/0697/2007A

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR DEGREE OF MASTERS IN MARKETING MANAGEMENT

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Advisor: Tesfaye Woldie(Dr.)

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Acknowledgements

First of all, thanks to the Almighty GOD for giving me the patience to start and finalize this thesis work.

Secondly, I am deeply extending my sincere appreciation to my advisor, Dr.Tesfaye Woldie, for his valuable advice, constant support, commitment, encouragement , precious guidance and critical comments,

Thirdly, It also gives me pleasure to extend my gratitude to Kombolcha Textils s.c. the company that I conduct this thesis .And also i would like to extend my gratitude to all staffs of the company for their cooperation in providing data ,availed themselves for an interview and provided very valuable information related to supply chain management.

At the end, a word of thanks must also go to Azmeraw Tadesse ,for his support and encouragement.

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Acronyms

CLM :- Council of Logistics Management

CSCMP:- Council of Supply Chain Management Professionals

CPFR : - Collaborative Planning, Forecasting and Replenishment

IS :- Information system

IT :- Information technology

KTSC :- Kombolcha Textile Share Company

SC:- Supply Chain

SCM:- Supply Chain Management

SCR :- Supplier and Customer Relationship

ETIDI:- Ethiopian Textile Industry Development Institute

Abstract

Supply chain management is one of the major factor that enable manufacturing industries to their business performance. Successful manufacturing industries have best practice supply chain management.

Kombolcha Textile S.c has low business performance. One of the main reason is poor supply chain management practices. The main objective of this thesis is to study existing practices and challenges of supply chain management of the company, and recommend improvement direction. To achieve this objective, a literature survey has been conducted through descriptive research approach to get empirical knowledge. The selections of the respondents were carried out by using non probability sampling technique. 125 respondents from the company employees and managers were considered as a sample unit using judgmental sampling methods. Furthermore, 11 customers and 6 suppliers were interviewed based on convenience methods . Purposive sampling methods were also used to interview workers who are directly related with the subject. The existing supply chain management practices of the company have been assessed using questionnaire, interview and secondary data. The data was analyzed by using descriptive statistics and presented in tables. The major findings indicates that, most of the SCM practices (supplier customer relationship, training , IT and company integration with supplier) are poorly applied which represented with group mean value of 1.95,1.84,1.81,and 1.99respectively.Whereas internal operation and cross functional integration with in the company shows good performance and the rest variables indicates satisfactory performance. Based on both questioner and interview analysis the case company has poor relationship with customers and suppliers and poor customers' services. Manufacturing uncertainty, demand and supply uncertainty are the major headaches or challenges of the case company's SC which prohibits effective implementation of SCM. To improve the existing supply chain management practices of the company ,improvement directions are forwarded based on the analysis results.

Key Word*; Supply Chain Management, Business Performance, Practices, and Challenges.*

CHAPTER ONE

Introduction

1.1. **Back ground of the study**

The Ethiopian cotton, textile and garment sector is one of the key manufacturing industries prioritized by the government and expected to substantially boost performance in the second GTP. Hence, according to recent information, it is expected to generate about a billion USD by the end of GTP II period. Nowadays, the government is aggressively working to streamline, improve, support and expand the textile industry both in the domestic and foreign markets so as to emerge competitive at the international markets (ETIDI, 2015).

As far as the business world is concerned the customer, who is perceived as the ''king'', is the driver of change in the market place. Their changing attitudes are pushing businesses to rethink their strategies. Producing a product or service and making it available to buyers requires building relationships not only with customers but also with key suppliers and resellers in the company's supply chain. This supply chain consists of upstream and downstream partners. Upstream from the company is the set of firms that supply the raw materials, components, parts, information, finances, and expertise needed to create a product or service. Marketers, however, have traditionally focused on the downstream side of the supply chain—on the marketing channels (or distribution channels) that look toward the customer. Downstream marketing channel partners, such as wholesalers and retailers, form a vital connection between the firm and its customers. (Eyong, 2009).

The investigator of this paper is hardly come across sufficient research works on this timely global management philosophy, Supply Chain Management which affects competitiveness of the textile sectors in many ways if not managed well. As we can see from the empirical review, several studies were carried out on the supply chain of different sectors like, in the banking industries, food industry, and textile and apparel industries.

Mohammad (2011) conducted a Case study in Bangladesh garment industry to examine, evaluate , analyze business process and buyers order time, supply chain management in garment industry and identify the techniques used by some apparel business operators in Bangladesh addressed through case studies of companies at different points of the apparel chain, ranging from fiber producers downstream in the chain to manufacturers and foreigners. And he found out that import dependency on backward linked industry is the main factor for long lead time. The emphasis is given for this study is the total lead time(Information lead time, Order lead time Or Information lead time, fabrics manufacturing time , fabrics shipment time, unloading and transportation time, sample approval and production time of garments product, shipment time for export of final products.). But if the researcher were assessed the garment industry based on supplier and customer relationship, information sharing, internal operation, information technology and training along with the total lead time, the study would be very help full.

Gary Gereffi & Olga Memedovic (2003) studied about the global apparel value chain **&** What Prospects for Upgrading by Developing Countries. The researcher used the global value chain framework to explain the transformations in   production, trade and corporate strategies that altered the apparel industry over the past decades and changed the conditions for innovation and learning in the industry. It is found out that the apparel industry is identified as a buyer-driven value chain that contains three types of lead firms: retailers, marketers and branded manufacturers. With the globalization of apparel production, competition between the leading firms in the industry has intensified as each type of lead firm has developed extensive global sourcing capabilities. While "de-verticalizing" out of production, these firms are fortifying their activities in the high value-added design and marketing segments of the apparel chain, leading to a blurring of the boundaries between them and a realignment of interests and opportunities within the chain. Gary Gereffi & Olga Memedovic (2003)

The researcher tried to found out how the retailers, marketers and the brand manufacturers are computing each other so as to meet their customers requirement because of the apparel industry is identified as buyer-driven value chain , but the researcher did not asses the degree of their integration in depth in terms of supplier and customer relationship, information sharing, internal operation, information technology and training.

In general, business environment is characterized by unpredictability and changeability. Therefore, adopting a more integrated approach to supply chain (SC) relationship management has been increasingly viewed as a way of meeting changing customer needs (Eyong, 2009).

Because of globalization, steep competition, change in market demand and the rapid adoption of outsourcing, today's organizations are operating in a "networked" business environment Improving productivity and quality of textile products/services is the key for improving global market competition of the sector.. (ETIDI, 2015)

Kombolcha textile s.c is a government owned company. The company is facing different problems like marketing, logistics, partner support and the like that prohibits its effectiveness. The company spent on average Birr130, 125,377.8 for the purchase of raw materials and other consumables per annum for the production of fabrics and yarns. However, by analyzing and optimizing the existing value chain, Komobocha Textile Share Company as well as Ethiopian textile industries will be benefited.

1.2. Back ground of the company

Kombolcha Textile share Company was established in 1986 under the National Textile Corporation with a designed and attainable   capacity of 22 million & 18 million square meters of fabrics per annum respectively.

It was later re-organized and established in November 1992 by proclamation No. 25/1992. Finally it was re-organized as a share company in 1998 by proclamation No. 146/1998 with the following main objectives.

- ➢ To manufacture yarn and all kinds of grey & finished fabrics from cotton, synthetic or blended fibers & filaments.
- ➢ To prepare goods for household use from cotton, yarn, fabric products and by-products.
- ➢ To sell its products locally and abroad.
- ➢ To engage generally in any other trade or business conducive to the attainment of its objectives.

The Company is located in the town of Kombolcha in south Wollo in the Amhara Regional State and within easy access of the main cotton-growing regions of the country such as the Awash valley and Gondar. The cotton farms of Middle Awash and Tendaho in the Awash Valley are 200 kms and 260 kms away respectively.

The town of Kombolcha is connected to the port of Djibouti, 500 kms east, which is convenient for importing raw materials as well as for exports.

The Company was established with the primary objective of meeting the demand of the population for apparel fabrics like twills, drills, poplin, etc. Household textiles and grey Abujedid used to substitute a small fraction of its output. But, nowadays, the situation is being reversed. Because of market rejection of the former products, an increasingly larger share of the output of the company is serving the market for other light and grey fabrics, which are also confronted with stiff competition from domestic factories as well as importers.

Based on the present operational experience of Kombolcha, it is assumed that what is produced will be sold in that same period. The main customers of the company's products are regional distributors, wholesalers, retailers and garment factories for fabrics; and knitwear factories and blanket plants for yarn. The products have different end-uses, different quality standards and different prices; and can be consumed by different income groups of the society.

The company supplies the domestic market with fabrics, bed sheets, terry towels reeled and cone yarns. The products of the company for export are mainly grey fabrics, white fabrics and terry towels. Currently the company exports 70% of its product to European market and the rest 30% for domestic market.

The prominent competitors are Almeda & Bahir dar from among domestic factories and Far East countries, which are dumping their various textile fabrics in the form of imports. Except for price, which is higher than competitors and limited design variety, the company's products still enjoy acceptance in terms of quality in the domestic market.

The company vision is to be export leader of the country by manufacturing 100% cotton products through environmentally friendly processes which satisfy the customers' needs.

1.3. Statement of the problem.

The Ethiopian cotton, textile and garment sector is one of the key manufacturing industries prioritized by the government . Nowadays, the government is aggressively working to streamline, improve, support and expand the textile industry both in the domestic and foreign markets so as to emerge competitive at the international markets. Furthermore, the implementation of social and environmental standards across value chains, strengthening skill development for qualified personnel, as well as promoting local and sustainable cotton production as back bones of strong textile and garment industry are also additional focal points. Hence, sustainability is an issue that needs to be considered in the whole textile value chain Sector actors do not only focus on quality. Not only in improving livelihoods but also it is a prerequisite for sustained growth of Ethiopian businesses and the sector at large. However, gaps witnessed in logistics, marketing, leadership capacity and partners support, among others, are some of the current challenges that hinder the sector from becoming competitive. The investigator of this paper is hardly come across sufficient research works on this timely global management philosophy, Supply Chain Management which affects competitiveness of the textile sectors in many ways if not managed well. The justification for targeting on textile sector specifically on Kombolcha Textile S.C is that, the existing practices of KTSC in integrating, and managing its supply chain from supplier to the customer are traditional that is not more than just buying–selling transactional relationship. In other words, the existing supply chain management practices of the company are not well-managed for getting the benefits (such as quality and productivity improvement, cost reduction, delivery time meeting….) resulted from effective supply chain management.

1.4. Basic research questions

Hence, this study is primarily aimed to answer, what are the practices of SCM in Kombolcha Textile Share Company and more specifically to answer the following basic research questions.

1. Do the existing supply chain management practices of Ktsc affect its business performance?

2. Are there opportunities to improve the existing supply chain management practices of the company?

1.5. Objectives of the study

1.5.1 General objective of the study

The overall objective of the thesis is to study practices and challenges of suppy chain management of Kombolcha Textile Share Company(KTSC).

1.5.2. Specific objectives of the study

In relation with the above general objectives of the study, the researcher identified the following specific objectives.

- To assess the existing   supply chain management practices of KTSC
- To identify gaps of the supply chain management
- To determine the potential intervention areas for improvement
- To Propose improvement directions

1.6. Significances of the study

Investigating the practices of supply chain management and barriers for its effective implementation in this complex and dynamic business world is believed to have the following importance's to the academicians, managers, policy makers; and generally for business practitioners, and specifically, for the case company. Specifically, this study has the following main significances:

- It paves the way for educators or training institutions to consider when designing training on the issues relating to the SCM.
- Policy makers and planners can also draw lessons on the issue under consideration for better success in the field.
- It serves as a spring board to conduct further and more detailed study in the area; this is because at the current situation there are only few researches were conducted in the related area in Ethiopia.

1.7. Scope of the Study

The scope of this study was delimited to specific context that is practices of SCM in the case of Kombolcha Textile Share Company. The subject scope of this study was also limited to the company's point of reference towards collaboration, supplier and company relationship, information sharing, information technology, internal operations of SCM .The area of the study is also limited to the case company i.e, Kombolcha Textile Share Company and the

upstream(Raw material suppliers ,Cotton Farmers ,Ginning Factories) and downstream(wholesalers, retailers, hotels, spa service organizations) of the supply chain of the company.

1.8. **Limitation of the study**

There were many challenges faced, the unwillingness of the respondents to fill the questionnaire and unavailability of well organized secondary data that can be easily accessed for the purpose. In addition to the mentioned factors, due to time, manageability of data and budget constraint the researcher was delimited its sample size of the customers and suppliers in to 6 and 11 respectively. And these may have limitation on the results of the study.

1.9. Organization of the Paper

This project paper is organized into five chapters: Chapter one contains the introduction part dealing with back ground of the study and company, the research problem, objectives of the study, rational of the study, scope and significance of the study. The second chapter discusses the literature review about the subject matter. In chapter three the research methodologies were presented. Chapter four presents results and discussion of the study and finally, chapter five presents the major findings, conclusions and forwarded suggestions.

CHAPTER TWO

Review of Related Literature

The review of the related literature deals with definition of key concepts and terms of the supply chain management , importance of supply chain management, Drivers of Supply Chain development and main initiatives, Challenges /barriers of supply chain management, Supply chain management Processes framework , Key components of supply chain management. The issues will be discussed in this chapter are relevant for the analysis of the study.

2.1. Theoretical Review of Supply the Chain Management

2.1.1. Definition of Supply Chain Management:

There are different definitions given to Supply chain Management. The overall objective of Supply Chain Management is to contribute in the company's bottom line or profitability. Related objectives include, reducing the costs mainly by reducing the inventory level and increasing the revenues by improving customer service through coordination and integration along the material flow, win-win relationships and end-customer focus.

Supply Chain Management as a management philosophy takes a system approach to viewing the Supply Chain as a single entity. This means that the partnership concept is extended in to a multi-firm effort to manage the flow of goods from suppliers to the ultimate customer. Each firm in a Supply Chain directly or indirectly affects the performance of other Supply Chain members, as well as the overall performance of the Supply Chain (Cooper et al. 1997).

As it has been agreed by many academicians as well as practitioners, Supply Chain Management (SCM) is an importgant issue facing many organizations worldwide. SCM is an important area that helps maximize competitiveness and profitability for the company as well as other Supply Chain (SC) members which integrate and coordinate across their whole extended network (Lambert and Cooper, 1998). They underlined that managing the SC has become a way of improving competitiveness by reducing uncertainty and enhancing customer service.

According to Mentzer et al. (2001) Supply Chain is defined as a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances and/or information from a source to a customer. Supply Chain of a company consists of an upstream supplier and downstream distribution channel. Depending on how complex the supply network is, Mentzer et al. has list down three types of Supply Chain:

I.   Direct Supply Chain which consists of a company, a supplier, and a customer.

II. Extended Supply Chain which includes suppliers of immediate supplier as well as a customer of the immediate customer

III. Ultimate supply chain, which includes all the organization involved in all the upstream and downstream flows.

A Supply Chain can include a number of functional areas within a firm–such as production, distribution and marketing. The supply Chain also typically includes other firms–such as suppliers, transportation carriers, warehouses, and retailers as well as the end customers themselves (Chopra and Meindl 2001). Although the industry and academia, have investigated the concept of SCM for the last decade, there is still no consistent definition of the concept. As a result, there is generally a lack of consistency in meaning and clarity across the diverse definition of SCM available in the literature. The SC may include internal division of the company as well as external supplier that provide input to a focal company. A supplier for this company has its own set of suppliers that provide input (also called second tier suppliers).

According to Meixell and Shaw (2002) SCM is an approach to coordinating the functions and processes associated with the order fulfillment cycle, with the objective of delivering what the final customer wants at the time and place the customer desires it, in a manner that minimizes total costs for the organizations linked together in the chain.

According to Rahman and Ismael (2008) SCM offers organizations the approach to maintain their competitiveness in the global/world market and the approach has also been inspired the organizations to improve their quality control, preserving quality product, enhancing industrial networks and customer satisfaction. Hence, one of the key factors in upgrading competitiveness is considered to be increasing quality performance to a world-class standard, through SCM perhaps. Simply stated, "the supply chain encompasses all of those activities associated with

moving goods from the raw-materials stage through to the end user." Advocates for this business process realized that significant productivity increases could only come from managing relationships, information, and material flow across enterprise borders.

One of the best definitions of supply-chain management offered to date comes from Bernard J. (Bud) LaLonde, professor emeritus of Supply Chain Management at Ohio State University. LaLonde defines supply-chain management as follows: "The delivery of enhanced customer and economic value through synchronized management of the flow of physical goods and associated information from sourcing to consumption.

A typical supply chain have a variety of stages. These supply chain stages include:

• Component/ raw material suppliers

• Manufacturer

• Wholesalers/ Distributors

• Retailers

• Customers

2.1.2. Importance of Supply Chain Management

Managers these days recognize that getting products to customers faster than the competition will improve a company's competitive position. To remain competitive, companies must seek new solutions to important Supply Chain Management issues such as modal analysis, supply chain management, load planning, and route planning and distribution network design. Companies must face corporate challenges that impact Supply Chain Management such as reengineering globalization and outsourcing.

Now a day, more than ever, manufacturer face an increasing pressure of customers' requirement in product customization, quality improvement and demand responsiveness. On the other hand, they need to reduce production costs, shorter lead time, and lower inventory to ensure profitability. In addition to helping to create an efficient, integrated company, SCM also plays a large part in reducing costs.

A study by the A.T. Kearney Management Consulting Company estimates that Supply Chain costs can represent more than eighty percent of the cost structure in a typical manufacturing

company. These numbers indicate that even slight improvement in the process eventually can translate into millions of dollars on the bottom line. These costs include lost sales due to poor customer service or out of stock retail products. For every dollar of inventory in a system, there are one to two dollars of hidden supply chain costs: working capital costs, asset costs, delivery costs, write downs and so on. Leaner inventories free up a large amount of capital.

2.1.3. Drivers of Supply Chain Development and main initiatives

In today's global economy, companies face increasing pressure to reduce costs while maintaining production and quality levels to deliver results to the customers. Handfield, (2002) summarized the basic drivers for SC development as: Ever-increasing customer demand in terms of product and service cost, quality, delivery, technology, and cycle time brought by global competition. Companies all over the world are pursuing supply chain as the latest methodology to reduce costs, increase customer satisfaction, better utilize assets, and build new revenues. In order to achieve these goals, companies must successfully overcome a numbers of challenges/problems (Makweba&Xu, 2009).

The consequence of this development is that companies are putting more and more efforts into developing new ways to increase competitiveness on the market in terms of more efficient and effective supply chain management.

2.1.4. Challenges /Barriers of Supply Chain Management

Fawcett, (2001) identified top ten barriers to supply chain management these are: Inadequate information sharing, Poor/conflicting measurements, Inconsistent operating goals, Organizational culture or structure, Resistance to change- lack of trust, Poor alliance management practices, Lack of supply chain vision (understanding), Lack of managerial commitment, Constrained resources, No employee dedication/ empowerment. Currently, companies are striving for lower cost so that they will be competitive in the market while they have to maintain their service level. The key factor to offering the features that the customers want at the level of service they are willing to pay for is to minimize the lead time. One approach suggested to solve this problem is synchronized material movement where all parts of the supply chain have access to the information at the same time (Waters, 2003).

Most SCM related-problems mainly occur from uncertainties and an inability to co-ordinate several activities and partners (Turban et al, 2004).

2.1.4.1. Uncertainty

SCM basically comprises of suppliers, manufacturers and customers. Manufacturers usually enter into a very complex relationship with suppliers in a supply chain that involves numerous sources of uncertainty. Generally Davis, (1993) identified three major sources of uncertainty: manufacturing, demand and supply uncertainty:

(1) Manufacturing uncertainty: Machine breakdowns that lead to the postponement of production, poor process design that causes a bottleneck in production or produces product of poor quality, are the manufacturing variables accounting for the late delivery and reduction in customer satisfaction.

(2) Demand uncertainty: Irregular orders from inconsistent customers may easily mislead manufacturers to make wrong forecasts, which cause excess inventory or insufficient supply.

(3) Supply uncertainty: Normally, suppliers fail to commit to promised dates, possibly due to poor material quality, machine breakdowns or deficiency in natural resources and so forth. Wilding, (1998) states one key issue known to impact on the effectiveness of a supply chain is that of uncertainty. The major source of supply chain uncertainty is the demand forecast, which may be influenced by several factors such as competition, prices, technological development, customers' general confidence, and more. Other uncertainties exist in delivery times which depend on many factors ranging from machine failures to road conditions and traffic jams that may interfere with shipments.

Levi et al., (2003) states some factors interfere to uncertainty, they emphasized the challenge of matching supply and demand, the impact of inventory and forecast, and finally factors except those embrace demand as a source of uncertainty; including delivery lead times, manufacturing yields, transportation times, component availability, and so on can also have significant supply chain impact.

2.1.4.2. Bullwhip Effect

Through the numerous stages of a supply chain; key factors such as time and supply of order decisions, demand for the supply, lack of communication and disorganization can result in one of the most common problems in supply chain management. This common problem is known as the bullwhip effect; also sometimes the whiplash effect. *http://www.aalhysterforklifts.com.au/index.php/about/blog-*

Hau, et al., (2004), concluded as, one of the most common problem that hamper the smooth functioning of SCM is the so-called bullwhip effect which is resulted from inaccurate or distorted information flows**.** The bullwhip effect has been viewed as one of the forces that paralyze supply chains.

The major Consequences of bullwhip effects are**:**

• Inefficient production or excessive inventory.

• Low utilization of the distribution channel.

• Necessity to have capacity far exceeding average demand.

• High transportation costs.

• Poor customer service due to stock outs.

2.1.5. Supply Chain Management Processes Framework

There are several organizations trying to set cross-industry standard process such as Global Supply Chain Forum. (GSCF), SCOR (Supply Chain Operation Reference Model), CPFR (Collaborative planning, Forecasting and Replenishment), and Rosetta Net, which can help members of supply chain integrate efficiently.

https://www.researchgate.net/profile/Kassu.../582072c708ae12715afbbb61?

The following   key Supply chain processes are included in the framework (Cooper et al. 1997):

1. Customer relationship management

2. Customer service management

3. Demand management

4. Order fulfillment

5. Manufacturing flow management

6. Supplier Relationship management

7. Product development and commercialization

8. Returns management

The eight key business processes run along the SC and cut across the supply firms and functional silos within each firm. Although, functional expertise remains in place, implementing SCM

requires making a transition from a functional organization to one focused on business processes, first within a company and then across the companies in a supply chain.

SCM involves designing the supply chain network, planning the supply chain processes, and then executing the operation in a manner consistent with the overall strategy. Network configuration determines the number, location and function of each facility at each stage in the transformation process. The processes that drive SC performance include order processing (determining where and when the order will be produced and shipped), production planning (how many should be produced in each production period, how many subassemblies should be ordered to support the production plan), selecting and managing suppliers, product design and problem solving (Meixell et al, 2002).

The Supply Chain council developed a framework called Supply-Chain Operation Reference-model (SCOR). This process model is designed for effective communication among Supply Chain Partners. The scope of the SCOR model is defined as "from company's suppliers supplier to company's customers customer' (Supply chain council, 2005). It is based on five distinct management processes as shown in Table 2.1.

Each of these processes is implemented in three level of detail. Level one defines the number of supply chains as well as what metrics will be used. Level two defines the planning and execution process in material flow. Level three defines the inputs, outputs, and flow of each transactional element (Lambert 2005).

Table 2.1 Management process framework developed by SCOR

SCOR process	Definition
Plan	Process that balance aggregate demand and supply to develop a course of action which best meets sourcing, production, and delivery requirement.
Source	Processes that procure goods and services to meet planned or actual demand
Make	Processes that transform a product to a finished states to meet planned or actual demand
Deliver	Process that provide finished goods and services to meet planned or actual demand, typically including order management, transportation management, and distribution management
Return	Processes associated with returning or receiving returned products to any reason. This process extends in to post-delivery customer support.

2.1.6. Key Components of Supply Chain Management

Johnson and Pyke, (2000) to help discussion they identified twelve areas of SCM, from their own experience of teaching and researching supply chain management, from analysis of syllabus and research papers on supply chain, and from their discussions with managers. These twelve categories they identified and defined are: location, transportation and logistics, inventory and forecasting, marketing and channel restructuring, sourcing and supplier management, information and electronic mediated environments, product design and new product introduction, service and after sales support, reverse logistics and green issues, outsourcing and strategic alliances, metrics and incentives, and global issues. So that when anyone think about SCM should have to consider these issues.

2.1.7 . Supply Chain Management in Manufacturing Industry

SCM is a concept that has originated and flourished in the manufacturing industry. The first signs of SCM were perceptible in the Just-In-Time delivery system as part of the Toyota Production System. This system aimed to regulate supplies to the Toyota motor factory just in the right - small - amount, just on the right time. The main goal was to decrease inventory drastically, and to regulate the suppliers' interaction with the production line more effectively.

After its emergence in the Japanese automotive industry as part of a production system, the conceptual evolution of SCM has resulted in an autonomous status of the concept in industrial management theory, and a distinct subject of scientific research, as discussed in literature on SCM (Such as, Cooper et al. 1997). Along with original SCM approaches, other management concepts (example, value chain, extended enterprise) have been influencing the conceptual evolution towards the present understanding of SCM.

There are different perspectives of Supply Chain Management investigated by different researchers. However, they have one thing in common, which is all of the perspectives suggest a multi-dimensionality of SCM that covers set of activities and processes from upstream and downstream and firms internal operations. In line with Sohal et al. (2007), this study considered five aspects of SCM, which are: Supplier and Customer Relationship, Information Sharing, Internal Operation, Information Technology and Supply Chain performance. Moreover, SC performance in particular consists of measure such as, delivery performance, quality, cost reduction and responsiveness. The discussion regarding SCM perspectives selected by the researcher are provided as follows.

2.1.7.1. Supplier and Customer Relationship

The buyer-supplier relationship is a growing significant part in international business. Doubtless, managing a good buyer-supplier relationship is capable of appending the competitive ability within SCM.

At the bare minimum, we believe that technology is an enabler that facilitates a firm's ability to partner with its suppliers and its customers. It is apparent from these findings that although we espouse the benefits of SCM and sing the virtues of closer ties throughout levels of the SC; the results suggest that business has not yet fully operationalized the concept of Supply Chain Management. It appears that buyers tend to be reluctant players and are far more skeptical about the benefits afforded through such close integration. The road from open market negotiations to co-operation to co-ordination and to collaboration is a long one and should not be traveled by each and every buyer-seller relationship. One must select both partners and supply chain strategies carefully. Coordination and collaboration are different; require different levels of trust and commitment; and, often lead to different outcomes (Spekman et al 1998).

Geiger and Dooley (1998) stated that, strategic partnerships with suppliers are important for a successful supply chain. As Companies have started to limit the number of suppliers with whom they do business by implementing vendor review programs, buyers use these programs to find suppliers with operational excellence. In addition, they claimed that, increasing demands on customer service levels are driving partnerships with vendors and suppliers. The ability to serve customers with higher levels of service, including faster delivery of products, is an important concept that results in partnering. Having a close relationship with a supplier or vendor results in common trust and enables firms to achieve the desired customer service levels.

Consequently, as Mentzer et al. (2001) asserted, risk and reward sharing helps maintain a focus on the long-term benefit and cooperation among the SC members. Cooperation on all levels among all processes in the Supply Chain is needed to reduce inventories and pursue Supply Chain-Wide cost effectiveness.

As the study conducted by Bagachi and Larsen (2003) revealed, some firms were not yet fully convinced of the need for close collaboration with suppliers. While these managers had no objection to sharing some logistics and production plan related data, they were not quite ready (or fully convinced of the need) to provide suppliers access to sensitive and proprietary data pertaining to core competence areas. Thus, collaboration at the design stage did not include suppliers as part of basic design teams. Rather, in rare instances when collaboration prior to production took place, it was quite often restricted to sharing broad ideas about future products and technology and the scale of future production of new products.

The buyer-supplier relationship is a growing significant part in international business. Doubtless, managing a good buyer-supplier relationship is capable of appending the competitive ability within SCM. The long term relationship requires trust and commitment between the organization and their suppliers. Prior to a direct entry to SCM approach, Toyota used to select the key suppliers who operate their global business in direct line replenishment agreements and fast response policies.

Sohal et al. (2007) concluded that, supplier and customer relationship is defined as a set of firm's activities in managing its relationship with customer and suppliers to improve customer satisfaction and synchronize Supply Chain activities. As they suggested, supplier involvement in product development allows firms to make better use of their suppliers' capabilities and technology to deliver competitive products. In addition, as they pointed out that, close customer

relationship allows companies to be more responsive in fulfilling customers' demand and improving customer satisfaction by proactively seeking customers' needs and requirement.

As Bokor (2008) argued, even though, the advantage of building strong relationship with customers are inevitable, customer data/relationship management is often not regarded as important business factor (yet). Companies tend to excel in cost efficient supply management and manufacturing processes rather than responding to customer needs quicker and better. 13

Another problem is the poor quality of available customer data. At the same time supply chains should be governed by reliable demand information.

Rebêlo (2008), find out more important issue of relationship, according to his study result, many organizations SCM is a key factor for their business model/overall strategy for imports (bulk of their businesses). This is not valid for their relationship with local suppliers, though. Although they used to say they aim longer term relationship with their local suppliers, they tend to behave very reactively to any real closer integration with their local suppliers.

Tai (2010) indicated in his study that, intensifying competition in the manufacturing sector has raised the importance of fostering enterprise customers' relationship intention and nurture enduring relationships. Enterprise customers with high relationship intention are more profitable because they are more familiar with a supplier's processes and often willing to tell others about their positive experience with the supplier.

2.1.7.2. Internal Operation

In addition to upstream and downstream integration, SCM also emphasizes the importance of both effectiveness and efficiency of firm's internal operation on its performance. A company's internal operations are the basis for developing a competitive advantage before embarking in to external integration. Poor internal operations can lead to failure in coordinating with external partners. Sohal et al. (2001) reveal that, internal operations refer to all activities related to production systems and internal logistics flow.

According to Tan (2002), integrating the purchasing and logistics process with other key corporate processes creates a closely linked set of manufacturing and distribution processes. It allows firms to deliver products and services to both internal and external customers in a more timely and effective manner.

As Sengupta et al. (2006) revealed that, when a company increases the level of product and service customization (Product) relative to its competitors, the operational performance will be

improved. The Product factor includes strategies related to design, delivery and customization of products and services. As they argued, similarly, the level of product and service customization relative to their competitors does not seem to affect the performance of manufacturing companies. With regard to operational performance, a higher degree of product customization relative to their competitors is associated with better operational results. Presumably, in order to customize their offerings in the marketplace, service companies will have been in communication with their customers about the nature, quantity and time of demand. However, the higher degree of product and service customization is also associated with lower financial performance.

Sohal et al. (2007) stated that, it is important for firms to improve their internal integration before external integration (e.g. strategic supplier relationship). This study is further strengthened by Chong et al. (2010). According to Chong et al. the most important SCM practice in terms of affecting innovation and organizational performance is internal operation. Information sharing and IT have the second and third highest influences on organizational and innovation performance. Strategic supplier partnership and customer relationship have a lower contribution compared to other SCM practices in this study. Nevertheless, these practices cannot be ignored given that they are also found to be significant. Firms should move towards having better strategic supplier relationships and customer relationships

2.1.7.3. Information Sharing

Information sharing is an important aspect in achieving seamless integration in a supply chain. Cross functional integration and inter organizational integration requires the visibility of information across the supply chain. Geiger and Dooley (1998) also believed that information is crucial and drives the entire supply chain system.

Spekman et al. (1998) revealed by their study that, there is a reluctance to share key information among partners; many of these fears subside if partners share similar values and a common vision. Such information sharing heightens the alignment between partners such that effective supply chains share learning among partners rather than worry about knowledge expropriation. Information sharing is necessary to reduce uncertainty and lower inventory levels. Many manufacturing organizations stressed that the willingness to share information must extend within the firm and across the supply chain (suppliers and buyers). Communication within the

company is important to decide who the customer is and what the company's goals are and to make sure that these two match. In addition they try to suggest which information to be shared such as: Communicating the following types of information is essential for a successful relationship: product development (new products and improvements), costs, demand schedules (including point of sale data), material quantities, and production schedules. It is also crucial to get information about end-use consumers back through the supply chain to manufacturers.

Poor information sharing between partners in a supply chain will result in poor coordination that will lead to many serious problems such as, high inventory levels, in accurate forecast, low utilization and high production costs (Lee and Whang 2000).

Basnet et al (2000) stated that, manufacturers are following some of the SCM concepts, chiefly where it impacts the ability to meet delivery dates. But there has not been much progress when it comes to more advanced ideas such as supply chain teams, or information sharing, or use of EDI, etc. According to Basnet et al. SCM requires quick movement of materials and information and close communication. Even though the flow of information and communications can be greatly speeded through the latest telecommunication technologies, the delay in the physical movement of materials is going to continue to be a barrier to SCM. Information sharing with the suppliers, relocating closer to suppliers/customers, or involving all members of a firm's supply chain in product/service/marketing plans does not seem to be high on the agenda.

As Mentzer et al. (2001), one of the most important aspects of an integrated behavior is also mutually sharing of information among members of the supply chain. This is particularly valuable for the planning and monitoring process. Open sharing of information such as inventory levels, forecasts, sales promotion strategies, marketing strategies, reduces uncertainty and increases performance.

Although some managers acknowledged the desirability of efficient information transfer among supply chain partners, and there are notable examples of information systems integration at selected interfaces, the initiatives required to integrate information systems of all supply chain partners are not yet discernible. Some managers remain unconvinced about the true value of such links and providing remote access to sensitive business information to suppliers and customers. Many fear potential loss of proprietary information and loss of control (Bagchi and Larsen 2003).

According to Sengupta et al. (2006) as a company utilizes higher levels of information sharing relative to its competitors the operational performance will improve. The SHARE factor includes strategies such as sharing various information including forecasts, promotions and capacity levels across the supply chain. They also argued that, manufacturing company increases its level of hedging (Hedge), the company's operational performance metric improves. The Hedge factor includes strategies such as holding finished goods inventory, reserve capacity and multiple suppliers. Therefore, if a manufacturing organization increases its application of these types of practices, it's associated operational performance with respect to speed, delivery and quality will increase. In addition he stated that by emphasizing the level of importance on the supplier portion of the supply chains, manufacturing organizations will improve their financial performance.

Fawcett et al. (2007) discussed two distinct dimensions to information sharing – connectivity and willingness. Both dimensions are found to impact operational performance and to be critical to the development of a real information sharing capability. Connectivity creates the capability to share information. However, people make the decisions regarding what will be shared and when. The old saying, "information is power" holds true in today's business world. As a result, many individuals are unwilling to share information that they perceive may place their organizations at a competitive disadvantage. A company's willingness to share information – that is, its openness to sharing relevant information honestly and frequently – ultimately determines the extent of sharing that takes place. They also argued that, lack of willingness kept managers from obtaining the information they needed to make more collaborative SC decisions.

There are also barriers to information; some of them are mentioned by Fawcett et al. (2007). The major barrier is found in systems incompatibility. It is not unheard of for a company to receive customer orders through EDI only to end up manually reentering the information into its own systems. This happens because the systems do not talk to each other. Incompatibility is particularly painful among companies involved in mergers and acquisitions. The final barrier can be stated simply, "Managers do not understand the willingness dimension of information sharing!" As a result, they do not invest in a culture conducive to sharing information. Thus, it is not surprising that many managers are simply unwilling to share valued information.

Fawcett et al. (2007) finally concluded that, viewed as power, information is tightly controlled, especially in the absence of trusting relationships. This reality not only impedes Supply Chain collaboration but also makes the implementation of advanced information systems more difficult.

As Tai (2010) concluded, providing customers with valuable information sharing services represents a means of building relationships that can be leveraged to foster customer 18 Commitment toward the information service provider, and this relationship commitment can serve as the foundation for increased customer loyalty intention. As he recommended, information sharing not only can be used to support supply chain activities (i.e., facilitating supply chain management), but also can be used to support marketing activities (i.e., enhancing customer relationships).

2.1.7.4. Information Technology

Geiger and Dooley (1998) stated that, "leading edge" companies stated that EDI (Electronic Data Interchange) is an essential IT tool and will become increasingly important, particularly for transmitting and verifying orders. Most of these companies require their suppliers to use EDI and will help them to implement the system. The "leading edge" companies stated that their suppliers must be able to electronically link into all aspects of the company. IT compatibility is essential to the success of this link. The largest obstacle to complete adoption of IT systems in a supply chain may be the incompatibility of systems. This is because companies use several different software packages, and these may not be compatible with those buyers and suppliers use. For example, one company has several computers dedicated to EDI linkages with buyers and suppliers. Some companies must have different computers for each customer because none of them are using the same systems.

According to Basnet et al. (2000), there is also very little thrust on information technology related activities. The newer concepts of supply chain integration, enabling SCM through Information Technology are not rated highly by many manufacturing firms.

As Bagchi and Larsen (2003) pointed out, the scenario regarding IT integration is not much different. While some companies have provided customers with IT integration via the Internet, integration with suppliers is still in rudimentary stages. SMEs (Small and Medium Enterprises) have certainly been in the forefront in experimenting with IT integration and some have

accomplished significant advantages through closer working relationships with some key customers and suppliers. Larger multinationals have been somewhat slower in information technology adaptation and integration with suppliers. As they further strengthened, every partner was not equally well prepared to adopt the new IT tools and systems. In addition, weak supply chain leadership failed to energize the members to acquire new technology, resulting in uneven integration. Sometimes supply chain partners used multiple IT platforms, thus slowing down the information systems integration among them, although this was not cited as an insurmountable problem.

Sengupta et al. (2006) also claim that, some factors previously thought to have a significant influence on organizational performance may no longer be significant as a means to differentiate an organization from its competitors. Two factors, INTERNET and Supply Network are interesting to note in this regard. For example, it is now common for manufacturing organizations to use the Internet to conduct many types of business transactions. However, this application of technology does not appear to explain either operational or financial performance outcomes.

Fawcett et al. (2007) revealed that, most managers credit new Information Technologies for propelling SCM to the forefront of strategic thinking and finally concluded with the dilemma, that they cop up with IT technology; the good news: companies are intently focused on upgrading their information-sharing capabilities. They view connective technologies as attractive and are actively investing in them. The bad news: companies struggle to implement and leverage technologies. Technology is too often viewed as the answer rather than as an enabler.

Bokor (2008) argued that, an effective demand management in SC requires the application of up-to- date Information Technologies corresponding to the criteria identified before. In addition, he strongly believed that, the best practice of SCM methods can be implemented in an effective way only if a powerful IT background serving them can be put into operation. In addition, Bokor also try to elaborate the challenges encountered while implementing IT. Supply chains are facing several business challenges influencing the functional and technological configuration of IT systems. The most important of them is enhancing the response mechanism (to customer demand or environmental changes, etc.). It requires seamless integration of design, production, commercialization and forwarding. So the consolidation of diverse processes and systems is

critical from the point of view of operational efficiency. Forming a robust IT strategy for supply chains and their participating partners may be a real solution to these challenges. A robust IT strategy determines the mix of applications that best serve the information needs as there is no one single solution that would fit all organizations. Based on robust strategies so called service oriented IT architectures (SOA) are preferred in case of today's supply chains. He also confirmed that another problem to be solved is information security. Shared data bases enable the SC partners to access each other's operational or even strategic information. It is necessary for planning and monitoring cross organizational logistics processes. Nevertheless such kind of open systems shall be equipped also by regulation mechanisms governing access rights. IT is a core element of the practical implementation of the management methodologies. Open information architectures seem the most suitable to response the functional requirements set by SC operators.

According to Mentzer&Gundlach (2009), the application of Information Technology to improve productivity is the focus of considerable scholarship ongoing in both marketing and SCM. However, the link between investment in IT and performance has not been firmly established in the literature, leading to what some have labeled the Information Technology productivity paradox.

2.1.7.5. Training

Effective SCM requires managers to have an understanding of supply chain dynamic and ability to use information based tools. Lee and whang, (2000) argue that information visibility throughout a supply chain will bring significant impact if companies do not have a capability to utilize the information in effective ways. Hence companies need to consider the skills requirements and education when integrating their value-adding activities with their partners (Gattoma and Clark, 2003). The major concept of SCM is collaboration and seamless integration between various value adding activities with in individual companies and across different organizations along a supply chain. Beginning this concept in to practice requires significant changes in corporate culture as well as a new level of human performance. Successes full implementation of SCM concept largely depends on human aspects of organizations (Bowersox et al, 2000; Mentzer,et. al. 2004). The review literature of different studies indicates that, there are various complicated and sophisticated operations and decision making those primarily

demand knowledge based employees. To this end, organizations are supposed to enhance and maintain existing skills and knowledge of employees. Continuous development and skill building activities demand are sources of competent employees (Lazarovic, et al.,2007).

Therefore, effective training and knowledge based learning is essential in developing and maintaining these new SCM skills.

2.1.8. Supply Chain performance

According to Hausman (2005) Supply Chain Performance refers to the extent to which a supply chain meets end-customer requirements, and contains operational efficiencies which can deliver that performance. This definition implies that supply chain performance measures effectiveness and efficiency by how well these two goals are met. Different studies conducted under SCM, measured supply chain performance by four dimensions: (1) time-based performance indicates the extent to which a supply chain is improving in speed and responsiveness, (2) reliability defines the extent to which a supply chain is performing promised activities and services dependably and accurately, (3) supplier performance measures the overall suppliers' tangible and intangible outcomes including product quality, reliable services and dependable relationship and (4) cost performance refers to the effectiveness in managing costs associated with operating the supply chain. Each of these four aspects captures the effectiveness and efficiency of a supply chain and reflects the inter-organizational characteristics of supply chain performance measurement.

Firms wishing to do well in product quality should focus on: determining customers' future needs, aiding suppliers to increase their JIT capability, creating a compatible information system, and participating in the sourcing decisions of suppliers (Basnet et al. 2000). To improve the competitive position, firms would do well to emphasize determining customers' future needs, creating a greater level of trust among supply chain members, communicating the firm's future strategic needs, creating a compatible information system, communicating customers' future strategic needs, and participating in the sourcing decisions of suppliers. Finally, they arrived at a conclusion that, firms need to realize they can compete more effectively with larger overseas corporations by forming strategic alliance partnerships with their suppliers and customers, instead of competing individually.

Basnet et al. (2000) argued that, we see that even though most businesses are aware of the SCM philosophy, their actual activities in this direction are very limited. Mostly they appear to be

concerned with on-time delivery: from the immediate suppliers, and to the immediate customers. Communication is emphasized to achieve this goal.

Tan (2002) recommended that, to improve overall competitive position, firms should focus on determining customers' future needs, reducing response time, on-time deliveries, aiding suppliers to increase their JIT (Just In-Time) capability, participating in the sourcing decisions of suppliers, and other practices that showed a significant relationship. He further reinforced that, while information sharing enhances a firm's performance, the lack of information capability adversely affected the overall competitive position. Once again, this is consistent with the overall product quality model. Advanced Information Technology is needed to support an efficient SCM network for proper information exchange and provide useful data required for integrated performance of procurement operations, logistics, and manufacturing supports.

Sweeney et al. (2004) suggested that, even though, the adoption of SCM in many developing countries are not very high, those firms who have made some progress in SCM practices have benefited from SCM in regard to their performance, especially in regard to customer service.

Tracey et al. (2005) also measure performance through four separate dimensions including perceived value, customer loyalty, market performance and financial performance.

High profit-generated companies" gives high emphasis on customer relations practices, technology and innovation, lean system, followed by quality information exchange, postponement concept, strategic supplier partnership and lastly information sharing (Sivabrovornvatan2006).

Whatever the measure applied in supply chain performance, as Agus and Noor (2007) finally recommended, superior adoption in SCM practice does have an impact on performances. The findings show that SCM is positively related to supply chain flexibility, supply chain integration and profitability, which reinforces several empirical studies in the supply chain. In addition, Dubey (2007) identified, Cost, time, flexibility and Quality as major performance indicators for selected Logistics activities & Supply Chain Management. Sohal et al. (2007) also supported other studies conducted under SCM and performance. Furthermore, they presented the relationship between SCM practice and performance as follows:

Lead Time Minimization- there is significant differences in the mean lead time minimization performance between low and high level of SCM practice. The higher significant level to affect

lead time was IT followed by information sharing, internal operation practice and supplier and customer relation.

Lead time typically comprises of two components- order lead time (required time to produce and ship a product) and information lead-time (required time to process an order). It appeared that training practices facilitate the improvement of lead-time performance. Increasing the skills of employee in production and SCM would improve operational efficiency and the effectiveness of planning process. Operational efficiency will lead to reduction in order lead-time while increased SCM planning effectiveness will increase the speed of order processing.

Information Sharing helps companies to cut lead-time by increasing their forecast accuracy, efficient flow of information throughout the supply chain and improve the effectiveness of the management of inventory and production planning process. Information sharing is highly enabled by IT that also influence lead-time through better order processing.
Supplier and customer relation- which is facilitated by IT and information sharing enable better supply chain coordination which in turn leads to reduced variability including lead-time.

Inventory Turnover- IT, Internal Operations, Customer and Supplier Relationship and Information Sharing significantly influenced inventory turnover performance. According to Sohal et al, to achieve higher inventory turnover companies need to improve their internal efficiency through elimination of non-value added activities and excessive inventories. This can be achieved by effectively implementing IT in all operational activities. In addition, companies also need to go beyond their internal operations to work closely with their external counterparts both upstream and downstream in their supply chain. Close coordination amongst members of the supply chain is facilitated by high level of information sharing.

Avoidance of Product Reject/Return- In terms of avoidance of product reject/return, the information sharing significantly influenced the mean of this performance measure. The finding made by Sohal et al., shows that training is an important factor to increase product quality and to increase the avoidance of product reject. Information sharing allows the company to better predict their customer demand.

Cost Reduction- information sharing results in cost reduction through reduced manufacturing cost, logistics cost and inventory costs. It is also expected that cost reduction was correlated with internal operation and IT. Cost reduction requires improvement of internal operations and other various activities along the supply chain.

Effectiveness in Meeting Customers' Requirements- the analysis made by Sohal et al. reveals that companies' effectiveness in meeting customers' requirements was significantly differentiated by the level of information sharing and supplier and customer relationship. Understanding customers' demand enables companies to segment their customers to be able to deliver highly customized products or services. According to Sohal et al. translating customers' requirements in to production and services requires companies to work closely with their partners both upstream and downstream along their supply chain.

Wu et al. (2011) reported that, there is a positive relationship between "information sharing" and "supply chain performance". Results showed that, enterprises usually use information technologies to enhance information sharing with upstream and downstream firms. Through in-depth and extensive information sharing, they can effectively increase return on investment, inventory turnover rate, and profits. Moreover, information sharing also facilitates external transactions, so that information circulation efficiency between partners in the supply chain can be boosted. They also find out the relationship between information sharing and partnership. As the result shows, there is a positive relationship between "information sharing" and "partner relationship management". Results showed that, complete and instantaneous information sharing can help an enterprise set up supply-demand plans with its partners. Moreover, through high-efficiency information sharing, a closer partner relationship can be developed. Such tie will increase both parties' intention to engage in long-term cooperation on supporting each other and resource integration. In addition to this direct effect, as shown in the proposed path diagram, "information sharing" also has positive influence on "supply chain management" through "partner relationship management.

As Wu et al. finally concluded, there is a positive relationship between "partner relationship management" and "supply chain performance". Results showed that in the current industries, supply chains are no longer controlled by a single organization. Enterprises need to be focused on their special areas and resources and outsource tasks not covered by their core competence to

their partners. All parties of a partnership can thus make use of and maximize their advantages. If enterprises can collaborate and set up a close relationship with partners in the supply chain, they can certainly enhance their competitive advantage and also the overall performance of the supply chain.

2.1.9. Collaboration in Supply Chain

The best supply-chain performers are deeply involved in relationships that call for tight links between partners. As companies migrate toward more extended supply chains, collaboration is becoming their most strategic activity. Collaboration can have a variety of meanings but for the purpose of this study the researcher adopt the definition from Cohen et. al., (2004) that is: collaboration is the means by which companies within their supply chain work together toward mutual objectives through the sharing of ideas, information, knowledge, risk and rewards. Practically, coordination and collaboration of up-stream and down-stream of a supply chain is difficult because of uncertainty in demand and supply and the lack of communication between members of a supply chain which is amplified through successive linkages (Lee 2000).

In fact a very immediate and available opportunity when two or more companies involve in a chain is, the situation where partners would be able to recognize each other's competencies and combine them in order to satisfy the customer requirements. Some other features which may participant anticipate when entering in a partnership are joint planning, management and measurement; and sharing goals, objectives, benefits, resources, information, and risks with partners. Collaboration is a recognized term which could explain and entail all of the above features (Sunil, et, al. 2004). Some companies have achieved integration through information sharing and inter organizational collaboration. In a study to measure the degree of integration among the companies it was found that information sharing and inter-organizational integration were the underlying factors for integration with suppliers and customers in areas like supply chain design, inventory management, and customer relationship management (Bagchi&Chu ha,2005). But from time to time Firms have been struggling to balance their competitive and cooperative relationships with other firms and stakeholders in the supply chain (Morgan et. al., 2007).

Ultimately supply chain management is about getting the right product, at the right time, in the right quantity to the right customer (Higgins, 2010).

2.1.9.1. Antecedents of Cooperative Behavior (Trust & Commitment)

Trust & commitment among the supply chain partners will improve relationship with their future value. In order to make the relationship to be continued the supplier of supply chain must deliver the correct stock, in the correct quantity, at a price that is reasonable to both parties. This will increase the trust & commitment levels of the supplier relationship. When the relationship is becomes collaborative, it will allow the supply chain participants to maximize the efficiency of their capabilities, resources & lower their cost (Achim& Ritter 2003).

Collaboration can be with suppliers and customers. Customer collaboration is gaining grip in many industries that are pushing to become more demand driven. Customer collaboration embraces the ability to sense demand signals and automatically replenish the customer's inventory on the basis of actual demand. This is most commonly seen in consumer products and other industries that operate downstream distribution structures that extend to retailers (www.sap.com/contactsap),

2.1.9.2. Collaborative Planning, Forecasting and Replenishment (CPFR)

CPFR is aimed at improving collaboration between buyer and supplier so that customers' service is improved while inventory management is made more efficient. It is quite obvious that when each company have more information available regarding the customer demand the better the forecast may be. Therefore, in CPFR which was familiarized for the first time in 1995 by Wal-Mart, it was seen that collaboration is used to solve the errors in forecasts (Ross 1998).

Levi et al, (2003) stated that, forecasts are always wrong, thus it is impossible to predict the precise demand for a specific item; even with the most advanced forecasts techniques are used. While this expression is quite true, but a very effective method which company may able to alleviate inaccuracy in the forecasts is collaboration.

2.1.10. State- of -the- art Supply Chain Management

In 1997 Supply Chain Management has a firm hand on all aspects of physical distribution and materials management. Seventy-five percent or more of respondents included the following activities as part of their company's Supply Chain Management department functions:

· Inventory management

· Transportation service procurement

· Materials handling

· Inbound transportation

· Transportation operations management

· Warehousing man35agement

Moreover, the Supply Chain Management department is expected to increase its range of responsibilities, most often in line with the thinking that sees the order fulfillment process as one coordinated set of   activities. Thus the functions most often cited as planning to formally include in the Supply Chain Management department are:

· Customer service performance monitoring

· Order processing/customer service

· Supply Chain Management budget forecasting

On the other hand, there are certain functions which some of us might feel logically belong to Supply Chain Management which companies feel are the proper domain of other departments. Most difficult to bring under the umbrella of Supply Chain Management are:

· Third party invoice payment/audit

· Sales forecasting

· Master production planning

2.2. Empirical Literature Review

A case study on Faffa food share company has been conducted by Azmeraw (2010). The researcher used the simulation modeling to simulate quantity and cost to see whether the supply chain is optimal or not. He tried to see the case by applying supply chain management and simulation concepts to understand the overall supply chain processes, capture system dynamics and to minimize the risk of changing planning process. Based on the data he obtained the supply chain simulation model is built in four stages (customer-manufacturing plant-supplier-farm). At customer stage it simulates the sale quantity, revenue of each product and distribution cost; at manufacturing plant stage it simulates production quantity and production cost of each product; and at supplier stage it simulates the quantity and cost of each raw material required; and at farm stage it simulates the area of land required to produce each agricultural raw material for any given days. Azmeraw (2010)

Finally the researcher found that the supply chain is not optimal and effective due to lack of internal and external integration of the supply chain key processes. On his study Azmeraw(2010) mentioned the annual commercial products sale volume is greater than the annual commercial products production and hence there is weak link between manufacturing plant and customers.The weak link is the production lines are not producing more amounts of commercial products.

Even if the researcher findings shows that the supply chain is not optimal and effective due to lack of internal and external integration of the supply chain key processes. The emphasis is given on this research is only for the supply chain members integration. There are also other factors that should be considered along with the integration part of the supply chain process like , information sharing, internal operation, information technology and training that the researcher did not consider on his study Azmeraw (2010)

Another case study have been also conducted in Bangladesh garment industry to examine, evaluate and analyze business process and buyers order time, supply chain management in garment industry and identify the techniques used by some apparel business operators in Bangladesh addressed through case studies of companies at different points of the apparel chain, ranging from fiber producers downstream in the chain to manufacturers and foreigners. And he found out that import dependency on backward linked industry is the main factor for long lead

time. More than 80% imported. Absence of sufficient backward linkage industry and for this reason a total additional 55-75 days are spent in the import process of fabrics by RMG sector of Bangladesh. As a result this sector is facing long lead time which is 90 to 130 days on the average. The emphasis is given for this study is the total lead time (Information lead time, Order lead time Or Information lead time, fabrics manufacturing time , fabrics shipment time, unloading and transportation time, sample approval and production time of garments product, shipment time for export of final products.). But the researcher did not assess the garment industry based on different supply chain management perspectives integratively (supplier and customer relationship, information sharing, internal operation, information technology and training). Mohammad (2011)

Nelson Oly Ndubisi et. al.,(2007)studied Supplier-customer relationship management and customer loyalty on the banking industry to examine the impact of the relationship marketing underpinnings, namely: commitment, competence, communication and conflict handling on the one hand and customer loyalty on the other, as well as the mediation effects of trust and relationship quality. From the study the authors found out that relationship marketing strategies, namely: communication; commitment; competence; and conflict handling are directly and indirectly (through trust and relationship quality) associated with customer loyalty. Moreover, trust and relationship quality are directly associated with loyalty.

Although the study focuses on the banking industry in Malaysia, the outcome may be relevant to other service sectors. And it would be also relevant to manufacturing industries in general if it had assessed the supply chain integration in terms of , internal operation, information technology along with communication; commitment; competence; and conflict handling.

Gary Gereffi & Olga Memedovic (2003) studied about the global apparel value chain and What Prospects for Upgrading by Developing Countries. The researcher used the global value chain framework to explain the transformations in production, trade and corporate strategies that altered the apparel industry over the past decades and changed the conditions for innovation and learning in the industry. The apparel industry is identified as a buyer-driven value chain that contains three types of lead firms: retailers, marketers and branded manufacturers. With the

globalization of apparel production, competition between the leading firms in the industry has intensified as each type of lead firm has developed extensive global sourcing capabilities.

The researcher found out how the retailers, marketers and the brand manufacturers are computing each other so as to meet their customers requirement because of the apparel industry is identified as buyer-driven value chain , but he did not asses the degree of their integration in depth in terms of supplier and customer relationship, information sharing, internal operation, information technology and training.

Finally the student researcher will use the five SCM dimensions / perspectives; supplier and customer relationship, information sharing, internal operation, information technology and training to feel the empirical research gap.

2.3. Conceptual Framework

2.3.1. Major components of the Conceptual Framework

The relationship of the conceptual framework is described and the implication is mentioned here under**.**

After going through different literatures (journals, articles, books and etc.) the researcher has adapted the conceptual frame work for this study having five essential parts: SCM practices, supporting elements of integration and efficiency, challenges of SCM, integration and efficiency, and customer service which is the ultimate goal of collaboration. As the diagrammatical expression of the conceptual framework indicates commonly known SCM practices namely: supplier customer relationship, information sharing, information technology, training and internal operation.

According to Eyong M, (2009) having this practices in a typical organization is not sufficient to judge an enterprise's SCM as integrated and efficient or generally poor. He states that each practice should be measured for their appropriate level of integration and efficiency. To this end, the parameters of supporting elements that will be used to measure the efficiency and integration level are collaborative SCM, information systems and leadership. On the other extreme, literatures indicate that SCM is not an easy going management system; it has many challenges especially bullwhip effects and uncertainties associated with strategic planning and implementation. According to the conceptual frame work companies that are able to pass through all the practices in an integrated and efficient manner can provide a better customer service which is the ultimate goal of SCM.

SUPPLY CHAIN MANAGEMENT PRACTICES

Supplier &Customer Relationship

Internal Operation

Information Sharing

Information Technology (IT)

Supporting Elements

Collaborative SCM

Information System (IS)

Integrated and Efficient SCM

Customer Services

Challenges of SCM

Risk of uncertainty:

➤ Supply uncertainty

➤ Manufacturing uncertainty

➤ Demand uncertainty

Bullwhip effect

Figure 2.1 Conceptual frame work
Source: A study on SCM by Asefa Balda(2011)

This conceptual framework is developed for the purpose of this study. Some components of the framework are adopted from different authors developed at different time; where as other parts are taken from review literatures, which were findings of some other researchers.

CHAPTER THREE

3.1. Methodology of the Study

Supply chain analysis needs significant amount of data. Hence, efforts were garnered to gather as much data as possible so that the conclusions finally drawn from the study can have practical significance. The methodologies used in this study: the choice of particular research designs, sampling techniques, sources of data and data collection tools along with an appropriate justification associated with each approach.

3.1.1. Research Design

This study was intended to investigate SCM practices based on fundamental theories(to explain all the fundamental interactions and practices of SC), principles and management philosophies (a rules and regulations adopted by a government and company's executives) that are supposed to be effective parameters just to evaluate the actual performance of the KTSC key business activities. Accordingly, the company's existing SCM practices and the challenges those prohibited its effectiveness were evaluated. That means the purpose of this research was to find out the underlying facts and /or actual circumstances existing within Kombolcha Textile S.c with regard to SCM practices and describing the facts. Therefore, the researcher prefers to use descriptive research type, which helps to use both qualitative and quantitative data analysis.

3.1.2. Sampling Design

Sampling design is the selection of a part of population or a material to represent the whole population. The objective of sampling is to make correct inference about the aggregate and is only justified if the selected part-the sample population is a true representative of the main population.

Among the different non probability sampling techniques, the researcher were employed Judgmental, purposive, and convenience sampling technique. Judgmental sampling was used the sample units of respondents considered from company's management and employees on the basis of their position in the organization. Purposive sampling technique was used to interview managers and employees who are directly related with the topic under investigation. The researcher preferred convenience sampling to contact the customers who are located in Addis

Ababa and suppliers which are located outside Addis Ababa, this is due to its difficulty to address the whole customers and suppliers. Therefore, these respondents were addressed as per their availability/arrival at Addis Ababa.

3.1.2.1. Sample Size

To determine the sample size the researcher preferred to use a method developed by Carvalho (1984), as cited in Malhorta Naresh, K. (2007).

Table 3.2.   Sample Size Determination

Population Size	Sample size		
	Low	Medium	High
51-90	5	13	20
91-150	8	20	32
151-280	13	32	50
281-500	20	50	80
501-1200	32	80	125
1201-3200	50	125	200
3021-10,000	80	200	315
1001-35000	125	315	500
3501-150000	200	500	800

Source: Malhorta Naresh, Marketing Research: an applied approach, (2007)

The total number of KTSC (Kombolcha Textile Share Company's) employees are 1535 out of this about 704 employees are not well educated(1-8). Therefore, from the remaining 831 employees 125 were considered as a sample respondents as per the Malhora Naresh's sample determination method, considering the heterogeneity of sample respondents on the basis of position within the organization. In addition to 125 KTSC employees, researcher were used 11

customers out of 20 customers and 6 cotton suppliers out of 36 cotton suppliers as a sample unit for the interview by taking into consideration the time and its manageability. In addition to this an interview were held with management bodies of the company.

3.1.3. Data Collection Tools

Basically there are two sources of data namely, primary and secondary source. In this research both primary and secondary sources of data were utilized through questionnaires, interview, and literature review.

The primary data were conducted in the form of personal interviews with 6 Cotton suppliers , customers(04 hotel who are using products like bed sheets and towels, 01 spa service organizations using terry towel products of the company, 06 wholesalers who are distributing different fabrics of the company to the retailers and end users of the product.), procurement and supply manager, production managers, marketing, and human resource managers through questionnaires which is distributed to employees of the company.

As the secondary data; articles, journals, magazines, and broachers were reviewed. On the other hand, the collection of relevant information to validate the investigation demands appropriate and convenient techniques of data collection. Accordingly, in this study both questionnaire and interview were used together.

Questionnaire: close ended questionnaire in a 5 point likert scales were used to collect data from the sample respondents. The questionnaire has 5 rating scales ranging from 1- poor to 5- *Excellent.* Data gathered through questionnaires were simple and clear to analyses and it allows for tabulation of responses and quantitatively analyzes certain factors. Furthermore to this it is time efficient for both the respondents and researcher. The questionnaire was structured in such a way that it includes all relevant parts of information to clearly awareof the respondents.

Interview: in order to obtain sufficient information the researcher were used personal interview by management bodies of the company ,customers and suppliers. Research issues like awareness, practices of SCM, strategic view and logical justifications of the company were addressed through interviews which are difficult to obtain trough questionnaire in as much detailed as required

3.1.4. Data Analysis

In general there are two types of data analysis techniques namely: qualitative and quantitative where by the choice of these methods greatly depends on the type of data the researcher have at hand. If most of information collected contains numerical, the analysis calls for quantitative tools and descriptive statistics can be used to characterize the data. On the other extreme, if most of the data collected are in words which mean data gathered using individual interviews, open – ended questions and focus group discussion, it is logical enough to apply qualitative data analysis tools Nunnery et al.,(1994).

Therefore, as determined in the data collection tool for this study, data were collected using questionnaire and interview. Accordingly, the collected data were analyzed quantitatively and qualitatively. Particularly, statistical tools like: mean and standard deviation, were employed.

CHAPTER FOUR

4.1. Results and Discussions

This chapter deals with presentations, discussion and interpretation of the data collected through questionnaire and interview. The discussion particularly focuses on respondents profile, SCM practices, and supply chain integration, challenges of SCM and Customer services.

Out of one hundred twenty five (125) questionnaires distributed to respondents one hundred nineteen (119) were returned (accepted).All responses were found valid and used for the analysis. and based on the responses obtained from the respondents data presentation and analysis were made as follows.

4.1.1. Results

4.1.1.1.Demographic Analysis of Respondents' Profile

The demographic profile of the sample respondents is presented and analyzed below. The purpose of assessing respondents' age, sex, is that, to determine whether the researcher considered heterogeneity of sample units. On the other hand assessing the work experience and education level of the respondents' is that, when the respondents are more experienced and educated they have better opportunity to understand the case and give better response than else.

Table 4. 1. gender of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
	Female	42	35.3	35.3	35.3
Valid	Male	77	64.7	64.7	100.0
	Total	119	100.0	100.0	

Source: Owen Survey(2016)

- Gender frequency of the respondents shows that the numbers of male respondents were more than female respondents. This is 64.7 % of the respondents were male, while 35.3 % were female.

- In this study, 34.5% of the respondents were within the age group of 20-25. The next age group of 26- 30 and above 40 show similar percentage, which is 21.8 %. On the other hand, respondents within age group of 36-40 show 10.9%. In addition, 31-35   age groups represent 6.8 % of valid respondents. and below 20 age groups represent 3.4 % of valid respondents.

Table 4.2. age of respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 20 years	4	3.4	3.4	3.4
	20-25 years	41	34.5	34.7	38.1
	26-30 years	26	21.8	22.0	60.2
	31-35 years	8	6.7	6.8	66.9
	36-40 years	13	10.9	11.0	78.0
	above 40 years	26	21.8	22.0	100.0
	Total	118	99.2	100.0	
Missing	missing value	1	.8		
Total		119	100.0		

Source: Own Survey(2016)

At last, one respondent (0.8%) did not mention in which age group he/she is. From this , the researcher can conclude that most of the respondents were 20-25 ages. This group covers 34.5% of the respondents to the questionnaire.

Table 4.3. years of work experience in the organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 years	42	35.3	35.9	35.9
	4-6 years	21	17.6	17.9	53.8
	7-11 years	23	19.3	19.7	73.5
	above 11 years	31	26.1	26.5	100.0
	Total	117	98.3	100.0	
Missing	missing value	2	1.7		
Total		119	100.0		

Source: Own survey(2016)

- As table 4.3 above clearly shows the frequency distribution of respondents work experience, the largest of the respondents 35.3 % have 1-3 years of work experience. In the same case, 26.1%   of respondents have above 11 years of work experience and followed by 7-11 years of experience, which accounts 19.3 % and 4-6 years of experience 17.6 %. The remaining two respondent (1.7%) did not respond. This implies that in total more than 63% of the respondents have more than 4 years of work experience with in KTSC and it is sufficient to judge and give views. This is because when the respondents are more and more experienced within the organization they have better opportunity to know more and more about the organization.

- As shown below in table 4.4 the highest education level attained by most of the respondents was firs degree holders which represents, 41.2% out of the valid respondents and followed by diploma holders which accounts 36.1%. education levels that are Grade 12 completed accounts 12.6%, certificate levels shows 5.9% Grade 10completed 2.5% Above second degree and below grade 8 shows similar results that is 0.8 % each out of the valid respondents, The least percentage was second degree and above and below grade 8 education level.

Therefore, out of valid respondents about 77% are diploma and above diploma holders.

Table 4.4. Educational qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below grade 8	1	.8	.8	.8
	grade 10 completed	3	2.5	2.5	3.4
	grade 12 completed	15	12.6	12.6	16.0
	Certificate	7	5.9	5.9	21.8
	Diploma	43	36.1	36.1	58.0
	first degree	49	41.2	41.2	99.2
	second degree and above	1	.8	.8	100.0
	Total	119	100.0	100.0	

Source: Own survey(2016)

4.1.1.2. Data Analysis of Supply Chain Management Performance Indicators

As it were revealed in the methodology part, the designed method is descriptive statistical analysis to analyze the five components of the conceptual framework developed for this study. In addition to the quantitative analysis, the qualitative information obtained through interviews from managers, suppliers and customers of KTSC were used to analyze the following issues. The analyses were on: Supply chain management practices, Challenges of SCM, Collaboration /integrated supply chain management, and Customer services. The above listed items are the most critical parts of the conceptual framework and basic research variables of this paper. Therefore, the discussion of the above conceptual framework components will answer the basic research questions and meets the stated objectives of this study. For the analysis of all these variables, mean and standard deviation is used. Particularly mean value of the respondents has considered as an important indicator to the extent of the company's practices on each items. To conclude, the overall performance of Kombolcha textiles.c practices on each variable, group mean was calculated and used.

The mean and group mean statistical values less than 2 indicates the poor performance, 2. satisfactory , 3.00   indicates good while 4.00 and 5.00 indicates very good and excellent performance of the company on that particular item and variable respectively.

4.1.1.2.1. Supply Chain Management Practices

As it was briefly mentioned in the literature part of this study, the most common supply chain management practices are supplier and customer relationship, internal operation, information sharing, information technology and training (Perry and Sohal 2000; Lazarovic et al., 2007). This study focused on the Kombolcha textile s.c SCM practices from these five perspectives. For each practices different items were developed and measured based on their mean and group mean values.

A. Suppliers and Customers Relationship (SCR)

Table 4.5 below indicates the extent of relationship that exists between suppliers, Customers and the case company. Accordingly, the group means of suppliers and customers' relationship is 1.95 which indicates poor performance with respect to the overall measures taken into consideration. Except for Customer's delivery adherence requirement, all items scored below 2. specifically joint product planning with major customers, and joint product planning with suppliers shows the mean value of 1.78, 1.87 respectively. These, mean values imply that

Kombolcha Textile   Share Company has   weak   relationship with its customers and suppliers particularly, on joint product planning.

Table 4.5 Suppliers and Customers Relationship Practice of SCM

S.No	Key performance indicators	N	Mean	Std. Deviation
1	Joint product planning with suppliers	118	1.8729	1.14389
2	The level of cooperativeness with suppliers	118	1.9068	1.22640
3	Compliance with customer's delivery in- full requirements	117	1.7692	1.03711
4	Compliance customer's delivery on time requirements	116	1.9828	1.12662
5	The level of cooperativeness with customers	119	1.9664	1.15665
6	Joint product planning with major customers	119	1.7899	.86234
7	Customer's delivery adherence requirement	116	2.4138	1.41464
Group mean			1.9574	

Source: Own survey(2016)

Compliance with customer's delivery in- full requirements and Compliance customer's delivery on time requirements represents mean values of 1.76 and 1.98 respectively. From the items used for customers and suppliers relationship, Customers' delivery adherence to requirements relatively represents the higher result which is 2.41. This implies that there is a gap between the customers' adherence requirement and company's actual performance. The reason for this gap is Ktsc is not able to deliver the required amount of products to the customers' due to the supply of insufficient and poor quality raw material like cotton product and   the capacity problem. The capacity problem is because of the Ktsc's weak relationship with its customers and suppliers on joint product planning as it was presented in table 4.5 above.

The level of cooperativeness with customers and suppliers scored mean value of 1.96 and 1.90 respectively.

B. . Internal Operation

As table 4.6 below illustrates that ten items were used in order to see the extent of the internal operation of the Kombolcha textile s.c. The mean value of respondents' reveals that management know-how regarding supply chain effectiveness and internal logistics flow is 3.31 and 3.15, respectively.

On the other hand, the fourth item, which is the extent of innovation in product, is relatively the lowest mean value which is 2.22 out of other internal operation perspectives of SCM practices. Up-to-datedness of production system, flexible production system to market change ,flexibility of production system to handle order patterns, and extent of automated quality control shows 2.52, 2.88, 2.94 and 2.91 respectively

Table 4.6 Internal Operation Practice of SCM

S.No	Key performance indicator	N	Mean	Std. Deviation
1	Up- to- datedness of production	118	2.525	1.4064
2	Flexibility of production system to handle order pattern	119	2.941	1.2507
3	The extent of production process automation	117	2.829	1.4461
4	The extent of innovation in product	118	2.229	1.2704
5	The extent of continuous and instantaneous product and service improvement	119	2.580	1.3623
6	Management know-how regarding supply chain effectiveness	119	3.319	1.1567
7	Flexible production system to market change	118	2.881	1.2277
8	Efficient utilization of resources	119	2.723	1.4017
9	Extent of automated quality control	119	2.916	1.4531
10	Internal logistics flow	119	3.151	1.1906
Group mean			2.8094	

Source: Own survey(2016)

Furthermore, continuous and instantaneous product and service improvement, the extent of production process automation, efficient utilization of resources have a mean value of 2.58,2.82 ,2.72 and internal logistics flows have a mean value 3.15

C. Information Sharing

Table 4.7 below indicates, the mean value of each items and group mean that can generalize the information sharing practice of the case company with its up and down-stream supply chain partners.

Table 4.7 Information Sharing Practice of SCM

S. No	Key performance indicators	N	Mean	Std. Deviation
1	Sales Forecast information sharing with customers	119	1.7815	1.14359
2	Sales Forecast information sharing with suppliers	119	1.8487	1.12475
3	Other product related information sharing with suppliers	119	2.2101	1.30757
4	Other product related information sharing by customers	118	2.6610	1.36639
5	Adequacy and quality of information sharing throughout the supply chain	119	2.1429	1.02747
6	Overall efforts of Inter-organizational information coordination and sharing	119	2.4790	1.53958
7	Sense of trust and confidence along the supply chain	119	2.0672	1.26713
	Group mean		2.170057	

Source: Own survey(2016)

The sales forecast information sharing with customers and sales forecast information sharing with suppliers scored mean value of 1.7.8 and 1.84 respectively. This implies that the case company has poor information sharing practice with its customers and suppliers particularly on sales forecast. The overall effort of inter-organizational coordination and information sharing has a mean value of 2.47. Whereas, other product related information with both suppliers and customers, scored 2.21, 2.66 mean values respectively. This indicates that there is a satisfactory performance in respect to other product related information sharing. Quality and adequacy of information sharing throughout the SC and sense of trust and confidence along the SC scored 2.14 and 2.06 mean value respectively. This implies that, there is information sharing among the SC partners but it is not sufficient and it lacks accuracy.

D. Information Technology

As table 4.8. below indicates, the adequacy of IT throughout the supply chain represent mean value of 1.97. On the other hand, the level of IT-based automated ordering from major customers

and the level of IT-based automated ordering from major suppliers represent mean value of 1.74 and 1.76 respectively. The mean value of Up-to-datedness of IT throughout the supply chain represent 1.75

Table 4.8 Information Technology

S.N	Key performance indicaters	N	Mean	Std. Deviation
1	The level of IT-based automated ordering to major customers	119	1.7479	1.05138
2	The level of IT-based automated ordering to major suppliers	117	1.7692	.97719
3	up-to-datedness of IT technologies throughout the supply chain	118	1.7542	1.06166
4	The adequacy of IT systems throughout the supply chain	116	1.9741	1.29522
	Group mean	1.81135		

Source: Own survey(2016)

Generally, the groups mean value of SCM practice from IT perspective is 1.81 , which is interpreted as there is poor IT application practice across the KTSC'S supply chain In addition to the data collected through questionnaire, interview was held with the general manager and marketing manager of the case company. According to the interview there are poor information technology facilities within the company. But, now the company is implementing ERP(Enterprise resource planning) system to connect marketing, purchasing, production, stores, property administration, and HR departments.

E. **Training practice**

Table 4.9 below shows the training practice of KTSC's. Even if the training practice is considered as one of SCM practices, all i.e., adequacy of training and development for management, employees training in supply chain concepts & management ,the overall adequacy of employee's training, provision of diversified skill training to employees, and giving training to downstream SC members / intermediaries scored mean value of 1.91 , 1.88,1.83, 1.87,1.72 respectively, The group mean scored 1.84, which is the least mean value next to IT, compared with other SCM practices group mean values.

Table 4.9 Training Practice of SCM

S.No	Key performance indicatres	N	Mean	Std. Deviation
1	Adequacy of training and development for management	117	1.9145	1.24964
2	Employees training in supply chain concepts & management	117	1.8803	1.19021
3	The overall adequacy of employee's training	118	1.8390	1.06995
4	Provision of diversified skill training to employees	118	1.8729	1.06656
5	Giving training to downstream SC members / intermediaries	117	1.7265	.83691
	Group mean	1.84664		

Source: Own survey(2016)

These all practices of SCM require the human resources to make SCM effective. In addition to the responses obtained through questionnaire, there is an interview conducted with human resource manager and human resource officer. According to their response, even though there is a budget for training for each department, still now there is no well organized training program within the company to the employees and managers. Even when some invitations come from government and other training institutions, simply some managers or employees have been sent to the training without consideration of the relevancy of the trainee to the company's real problem. There is no established criterion to evaluate and prepare employees and leaders for the training that fits or concerns them. Furthermore, per day at least two to three employees are leaving the company.

4.1.1.2.2. Challenges of Supply Chain Management

The third part of the conceptual framework developed for this study is challenges of SCM that consists of uncertainties and bullwhip effect. As illustrated in table 4.10, out of six items used to determine the extent of challenges in supply chain management: supply and manufacturing uncertainty , and demand uncertainty shows the lowest mean value, which is 1.92 1.84 and 1.96 respectively. Willingness to share risks and benefits scored a mean value of 2.15. Accordingly,

inventory fluctuation due to bullwhip effect, and institutional trust to share confidential data represented mean value of 2.30 and 2.35 respectively.

Table 4.10 Challenges /Barriers of SCM

S.No	Key performance indicators	N	Mean	Std. Deviation
1	supply uncertainty (supplier inability to carry out the promise)	118	1.9237	1.20651
2	Institutional trust to share confidential data	118	2.3559	1.41739
3	Willingness to share risks and benefits	118	2.1525	1.39980
4	Inventory fluctuation due to inaccurate information sharing(bullwhip effect)	113	2.3009	1.35545
5	Manufacturing uncertainty like, breakdown of machineries, interruption of power, poor process design etc	119	1.8403	1.24181
6	Irregular orders from inconsistent customers (Demand uncertainty)	118	1.96661	1.37083
	Group mean		2.0899	

Source: Own survey(2016)

The groups mean value for challenges of supply chain management of the case company are satisfactory which is, 2.08. Qualitative information were collected through interview from procurement, marketing and production managers and major customers and suppliers. These management bodies also confirmed that manufacturing, supply and demand uncertainties are their major problems

4.1.1.2.3. Collaboration in Supply Chain
The researcher has tried to see the extent of integration of the case company with suppliers, customers and cross functional units within the company.

a) Integration With suppliers
In this part, the researcher tried to see the level of integration between Kombolcha textile Share Company (KTSC) and its suppliers.

As illustrated in table 4.11, there are three items used to determine the extent of integration of Kombolcha textile s.c with its suppliers. Accordingly, The level of strategic partnership with

suppliers and the establishment of quick ordering system scored mean value of 1.88 and 1.94 respectively. Whereas stable procurement through networking indicates 2.15.

Table 4.11 Company Integration with Suppliers

S.No	Performance indicaters	N	Mean	Std. Deviation
1	The level of strategic partnership with suppliers	117	1.8889	1.02367
2	The establishment of quick ordering system	116	1.9483	1.09421
3	Stable procurement through network	117	2.1538	1.36214
	Group mean	1.997		

Source: Own survey(2016)

The group mean shows that 1.99 mean value. In addition to this, an interview was conducted with procurement and supply manager of the case company to consolidate the information obtained through questionnaire. According to the interview response, Kombolcha textile Share Company has no common supplier both in domestic and foreign cases. There is no stable procurement through networking. The researcher also interviewed both local and foreign purchasers to clearly understand the level of integration with suppliers. They also assure the same point as the procurement and supply manager. They replied that the company has no strategic/planned relationship with its suppliers. But, sometimes the company made contracts with the winner suppliers for three or six months. An interview was also conducted with 6 cotton suppliers found in Awash and Gondar area and they replied that there is no good relationship in strategic alliance, and stable procurement system through the SC network.

b) Integration with Customers

As table 4.12 below depicts, four items were used to evaluate the case company's integration with its customers or downstream of the SC. Follow-up customers for feedback and the level of market information sharing with major customers scored mean value of 2.66 and 2.52 respectively. which. Monitoring and measuring customers service level and frequency of Whereas, thvf5e group mean result shows 2.52 which implies that the case company's integration with its customers is satisfactory.

In addition to the mean value obtained through questionnaire, an interview was conducted with customers, marketing manager and sales man of KTSC.

Table 4.12 Company Integration with Customers

S.No	Key performance indicator	N	Mean	Std. Deviation
1	Follow-up customers for feedback	117	2.6667	1.25258
2	Monitoring and measuring customer service level	117	2.4530	1.36770
3	The level of market information sharing with major customers	117	2.5299	1.13390
4	Frequency of contacts with major customers	116	2.4655	1.18271
	Group mean	2.528775		

Source: Own survey(2016)

According to their response particularly the whole sellers, replied that as they do not have such a strong integration with the case company. As marketing manager and sales man responded there is very weak follow-up of customers for feedback, poor contacts/ meetings with customers. On the other extreme, as per the sales man's response, there is no planned or contract based order from whole sellers with the exception of foreign customers.

c) Cross functional integration with in a company

Table 4.13-below represents the extent of internal integration of KTSC's functional units. Data integration among internal functions through network, team work and intra-organizational coordination and Periodic intra-departmental meetings scored mean value of 2.50, 2.76 and 2.60 respectively. Relatively, the extents of production and sales department have scored better mean value than others which is 2.88. Information system integration among internal functional units is the least mean value which is 2.48.

On the other hand, the overall group mean of internal integration is, 2.64 which reflects the internal integration of the case company is good.

Table 4.13 Cross Functional Integration with in the Company

S. No	Key performance indicator	N	Mean	Std. Deviation
1	Data integration among internal functions through network	117	2.5043	1.52916
2	Information system integration among internal functional units	117	2.4615	1.56766
3	Teamwork and intra-organizational coordination	117	2.7692	1.48199
4	Extent of interaction between production , sales and procurement department	117	2.8803	1.34011
5	Periodic interdepartmental meetings	116	2.6034	1.41961
	Valid N (listwise)	116		
	Group mean		2.64374	

Source: Own survey(2016)

4.1.1.2.4. Customer Service Analysis

Table 4.14 above depicts that nine essential customers service attributes were used to investigate the extent of KTSC's orientation towards customers service performance.

Table 4.14 Customer Service.

S.N.o	Key performance indicators	N	Mean	Std. Deviation
1	Reduction of lead time/ speed of order handling	117	1.9402	1.34735
2	The accuracy of order processing for customers	116	2.2845	1.39444
3	Effectiveness and flexibility in meeting customers' requirement	116	1.8190	1.11589
4	Product accessibility	116	2.0345	1.50899
5	Low Stock out frequencies	112	2.2411	1.47193
6	Timely invoice completion	114	2.8684	1.58819
7	Extent of customers' complaints management	115	2.4087	1.54406
8	The extent of after sales service	113	1.9115	1.33335
9	Gap between customer perception/ expectation and company performance	118	1.9915	1.37434
	Group mean		2.1666	

Source: Own survey(2016)

In view of this, reduction of lead time, effectiveness and flexibility in meeting customers' requirement , the extent of after sales service, and gap between customer perception/ expectation and company performance represents 1.94, 1.81 and 1.99 respectively. On the other hand, the accuracy of order processing for customers ,product accessibility, low stock out frequency, and extent of customers' complaints management shows, 2.28, 2.03, and 2.40 respectively. Whereas timely invoice completion scored a high mean value 2.86. The researcher held an interview with marketing and production managers, and major customers of the case company and finally results in customer satisfaction and loyalty. As per the interview held with marketing and production managers of the case company reveals that in lead time reduction, there are problems resulted from both external internal factors. Sometimes due to shortage of materials, power interruption, break down of machines; the production department do not produce the required amount and make it ready to the customers'. But, to minimize the delay resulted from shortage of input materials as much as possible the case company has materials stock with in warehouse which pushed inventory cost up. For the issues related with effectiveness and flexibility in meeting customers' requirement and product accessibility, as marketing manager's response shows the company has two whole sellers at different regional levels(Mekele & Dessei) and about 12 whole sellers at Addis Ababa. In the case of meeting customers' requirement, at the time of shortage in input materials the company gives priority to some major customers. In the case of effectiveness in managing customers' complaints, at the very beginning the company checks the quality and other requirements before issuing the products. If any complaints come from customers the company could manage it as its rationality.

4.1.2. Discussion

4.1.2.1. Discussion on Data Analysis of Supply Chain Management Performance Indicators

4.1.2.1.1. Supply Chain Management Practices
I.   Suppliers and customers relationships
❖ According to Sunil, (2004) the most commonly known characteristics of suppliers and customers relationships are: joint product planning, cooperativeness, frequent meeting, and others. As Table 4 shows, the group means of suppliers and customers' relationship is 1.95 which indicates poor performance with respect to the overall measures taken into consideration. This implies the case company is not meeting the full requirements of the

customers as per their desire. On the other hand, customers are not fully satisfied in getting the amount of product they required. In line to this analysis, Tan et al., (1998) and Claycomb et al., (1999) states that customer relationships include the complete range of practices that are employed for the purpose of building long term relationships with customers & improving customer satisfaction. In order to experience successful relationship with customers and suppliers, there has to be a joint production and product planning. This is because, according to Lee, (2002) coordinating operational activities through joint planning with suppliers and customers results in inventory reduction, smoothing production, improve product quality, reducing supply uncertainty and lead-time.

❖ The mean value of joint product planning with major customers and suppliers reveals poor performance .The group mean value result implies that SCM practice from the perspective of suppliers and customers' relationship of the case company is also poor, that is 1.95. On the other hand, customers' delivery adherence requirement replies that the customers are more dependent on full quantity and timely delivery of their requirement. So that, this can adds pressure on Ktsc to meet its customers' requirement. But the current performance of the company to meet this is satisfactory.

❖ If the case company is not in a position to improve this and other supplier and customer relationship practices, without any doubt the case company's customers' have an opportunity to go to its competitor companies those provide these services in a better way than the case company. And the case company has also a great possibility to loss its major customer. Therefore, simple sale-buy and weak relationship of the case company with its suppliers resulted in not fully satisfy its customers adherence requirement on time due to insufficient and poor quality supply of raw material like cotton products.

II. Internal Operation

❖ The overall group mean value of KTSC's SCM practice from the perspective of internal operation is 2.80. In general, except for the extent of innovation in product(2.22) each item's and group mean values of internal operation practice is more than 2.5, ,which conveys good internal operation practices are there in Kombolcha textile s.c.

❖ Based on the overall analysis of the case company's internal operation practice the researcher concludes that it is good. However, this does not mean sufficient, because of the internal operations criticality for creating integration or relationship with external

participants or supply chain partners. According to lazarevic et al., (2007) internal operation is the most critical factor to measure organization's potential to go for external integration. These writers state that companies should be internally efficient and effective before embarking on external integration.

❖ Internal operation is the starting point to make the environment favorable for integration with the external partners. Handfield and Nichols (1999), states that Poor internal operations can lead to failure in coordinating with external partners. Up-to-datedness of production system, flexible production system to market change ,flexibility of production system to handle order patterns, and extent of automated quality control shows 2.52, 2.88, 2.94 and 2.91 respectively. According to Perry and Sohal, (2000) automated orders and automated productions are the key enablers to realize the quick response program.

❖ As stated by Lambert and Cooper (2000) a production system must keep pace with rapidly change in both order patterns and mass customization. In view of this theory, from the mean values presented in table 4.6, the extent of flexibility of Kombolcha textile Share Company to market change and handling order pattern is good, and it clearly reveals that there are problems prohibiting flexibility to handle these changes. In fact, the customers' preferences and the marketing environments are changing very rapidly over time. This change enforces organizations to adopt flexibility to meet the changing market and order patterns. Efficiency on resource utilization of internal operation has scored mean value of 2.72 which approximates to good performance. The intention of efficiency is to minimize overall cost of production, wastage of materials, time and effort, which ultimately ensures productivity and profitability.

❖ Furthermore, the result of continuous and instantaneous product and service improvement, the extent of production process automation, efficient utilization of resources and internal logistics flows shows as KTSC performance to the above mentioned variables are good.

❖ In order to make an internal operation effective and efficient, logistics flow , efficient utilization of resource and the auto machine production process plays an important role, it is also a base for continuous and instantaneous product and service improvement. Thus the current performance of the Kombolcha textile share company in product and service improvement is moderate, 2.58. It implies that, KTSC has to take corrective actions to meet the customers' preferences.

❖ Therefore, it implies that, Kombolcha textile s.c has an assignment to improve its internal operation to create effective relation with external partners.

III.   Information Sharing

❖ The theoretical evidence confirms that supply chain management rides on the back of information in order to meet the required resources at the right time, and at the right place, seamless and instantaneous information flow should exist across the value chain (Russell, 2006). With respect to the above theoretical justification, this study tried to investigate the practices of information sharing among the supply chain participants of the Kombolcha Textile s.c. Accordingly, seven items related to information sharing practice were used by the researcher.

❖ In SCM, information sharing is another important practice that should have to be given due attention in order to make the SC robust. Because, when there is distortion, inadequacy and lack of accuracy in information flows within the SC partners, it will negatively affect the SC participants.

❖ From the above presented data, the researcher can conclude that the information sharing practice among KTSC, its customers and suppliers is satisfactory. This is based on the group mean value obtained. Customers like whole sellers, distributors, agents and retailers are closer to the end customers. They have better opportunity for understanding the end customers' demand. Sharing forecast information with such customers would help the case company and consolidate its market demand forecasts.

❖ So that, having satisfactory relationship with such partners is not enough, and inadequate and insufficient information sharing practices make the forecast of the case company weak and unrealistic. According to Lee and Whang, (2000) poor information sharing between partners in SC will lead to many serious problems such as high inventory level, high demand uncertainty, inaccurate forecasts, low resource utilization, and high production costs. Furthermore to the above theory, many studies have reported that information sharing can bring many benefits to both suppliers and buyers, such as inventory reduction, and reduced manufacturing costs (Raghunatahan, 2003). The empirical study of Lazarovic et al., (2007) states that efficiency in meeting customers' requirement is significantly differentiated by the level and quality of information sharing among SC partners. Therefore, based on the analysis, empirical study and the current (21th) century real practice and importance of information

sharing and its impacts on any kind of organization, even if the group mean value shows satisfactory mean value, with respect to these stated issues the result is not sufficient to create effectiveness and efficiency in SCM activities.

IV.   Information Technology

❖ Advance in information technology have given opportunities for organizations to transform the way they manage their business Talluri (2000). As table 4.8 reveals that, four items were used to measure IT application of the case company. The level of IT-based automated ordering from major customers, the level of IT-based automated ordering from major suppliers and Up-to-datedness of IT throughout the supply chain indicates as there is a poor performance.Generally, the groups mean value of SCM practice from IT perspective is 1.81 , which is interpreted as there is poor IT application practice across the KTSC'S supply chain.

❖ According to the interview there are poor information technology facilities within the company. Even if the company is implementing ERP(Enterprise resource planning) system to connect marketing, purchasing, production, stores, property administration, and HR departments, it does not give real time and comprehensive reports, due to absence of supportive IT instruments or information system.

❖ According to Levi et al.,(2003) the objectives of IT in SCM are; to provide the information availability and visibility to supply chain partners, to enable the collaboration with organizations in the supply chain and to allow the decision making based on the total supply chain information. Currently, many manufacturing companies are using integrated information systems to manage their business activities. To share information there should be an up-to dated IT and integrated information system which is capable of connecting all functional units of the company and its external participants. Based on the data collected both in questionnaire and interview and the analysis made on the IT practices, the existing IT System of KTSC's supply chain cannot support effective SCM implementation.

❖ Therefore, based on the mean value of each items, group mean and interviews, the SCM practice of IT in the case company is poor and conveys that a lot has to be done to bring about change in the IT system.

V.   Training practice

❖ As presented in the literature review, the last (fifth) SCM practice is training. The ultimate objective of SCM is customer service as it was depicted in the conceptual framework

developed for this study. To provide good customer service, organizations are supposed to enhance and maintain existing skills and knowledge of employees.

❖ According to Bowersox et al, (2000) and Mentzer, et. al. (2004) the successful supply chain management implementation concept largely depends on human aspects of the organizations. With respect to this theory effective training and knowledge, based learning for both managers and employees of organizations is essential in developing and maintaining SCM skills.

❖ The group mean scored 1.84, which is the least mean value next to IT, compared with other SCM practices group mean values. This clearly implies that, there is a great problem with the human resource management area of the case company. It is a fact that whatever the extent of information technology, information sharing and other SCM practices is applied; without skilled and committed human resource it is nothing. If the case company would not take actions in order to solve such poor practice and related problems it creates great negative consequences on its SC.

❖ The impact of poor training program/practice is reflected on internal operation of the company, which is a spring board for external integration. As it was asserted by Gattoma & Clark (2003) managing supply chain actually involves the interaction between human behavior, IT, and infrastructures. In addition, training can enhance the ability of work force and the organization.

❖ But the current training practice of the case company does not support to achieve the above mentioned benefits. Therefore, based on the above analysis the researcher find out inconsistency between the theory and the real practices that is going on in the case company. And there is consistency between qualitative and quantitative information collected from the respondents. So that, the SCM practice from the training perspective of the case company at hand is poor. If it continues in such a way the company will be at risk in the future to achieve its objectives and to satisfy its customers.

4.1.2.1.2.Challenges of Supply Chain Management

❖ As illustrated in table 4.10, out of six items used to determine the extent of challenges in supply chain management: supply uncertainty (supplier inability to carry out the promise),and manufacturing uncertainty like, breakdown of machineries, interruption of power, poor process design etc, and demand uncertainty indicates that manufacturing,

uncertainty is the greatest challenge for the case company   followed by supply and demand.

❖ Willingness to share risks and benefits indicate a satisfactory performance.This implies that the participants in the SC of Kombolcha textile   Share Company are not willing enough to share risks and benefits associated with their supply chain. When there is poor willingness to share risks and benefits with the SC partners that conveys weak relationship and integration among the SC partners. The implication is that the supply chain practice is traditional. It means, partners/members with in the chain do their own decision and take the responsibility for any risk in a disintegrated manner.

❖ Accordingly, inventory fluctuation due to bullwhip effect, and institutional trust to share confidential data   indicates as the performance is satisfactory. Even though the mean value of inventory fluctuation due to bullwhip effect shows satisfactory performance, it conveys that there is distorted and inaccurate information flow within the SC of the case company. This implies that there is a relationship between bullwhip-effect, information sharing and IT practices of SCM. Therefore poor information sharing practice is resulted from poor IT which ultimately resulted in distorted information flows.

❖ The result of institutional trust to share confidential data shows as there is satisfactory institutional trust in sharing confidential information and as it is good for those of SC partners.

❖ The reason for manufacturing uncertainty less than other challenges is that, it was affected by both internal and external factors. Some of the internal factors are breakdown of machineries, ineffectiveness of employees, electric power interruption and external factors are change in demands of customers', and suppliers' inability to provide the required inputs according their promises. So that, manufacturing uncertainty of KTSC is victimized with these factors.

❖ For triangulating the analysis, qualitative information were collected through interview from procurement, marketing and production managers and major customers and suppliers. These management bodies also confirmed that manufacturing, supply and demand uncertainties are their major problems. According to the production manager's response, there are greater possibilities of stoppage of production due to quality of poor quality of raw materials, shortage of inputs (yarn for weaving), electric power

interruption and absence of orders from customers. Procurement and property administration manager was interviewed for supply uncertainty. According to his response, there is a shortage of supply of yarn for weaving(to produce the fabrics), and the reason is that the yarn product is exported to different countries like China, Turkey and also sold in the domestic market in reeled form. Furthermore, even if locally available to get quality yarn to feed weaving for fabric production it is expensive. Importing this input from abroad at the current situation is even costly.

❖ In addition, the case company has no common sources supplies or long term suppliers for the supply of cotton .This is because, participants in the SC of Kombolcha textile Share Company are not willing to share risks and benefits associated with their supply chain. The implication is that the supply chain practice is traditional. It means, partners/members with in the chain do their own decision and take the responsibility for any risk in a disintegrated manner. Finally, the marketing manager replied as, the demand is always changing. ''Some times, there is decrease in demand and at another day; the demand may be greater than expected''. Due to this, the customers may not get the full quantity when they need it. Major customers also confirmed the above problems i.e. shortage in supply and fluctuations in demand.

❖ Therefore, based on all of the above quantitative and qualitative analysis the case company's SC is exposed for different challenges. Out of these challenges Manufacturing uncertainty like, breakdown of machineries, interruption of power, poor process design, major problems that the case company has been facing. Next to these problems, supply and demand uncertainty is also another challenging factor that prohibits effective supply chain management. So that, these all challenges are mostly effected from the existence of poor relationships between SC partners, weak information sharing, poor IT and weak internal operation practices of SCM.

4.1.2.1.3. Collaboration in Supply Chain

❖ As companies migrate toward more extended supply chains, collaboration is becoming their most strategic activity. Collaboration may be with customers, suppliers and even within organization's functional units. Some of the features which many participants anticipate when entering in to collaboration are: joint planning, management and measurement, sharing goals, objectives, resources, information, risks and benefits with

partners (Sunil, 2004). When the level of collaboration is becoming more and more strong it leads to integrated and efficient SCM. Based on this, the researcher has tried to see the extent of integration of the case company with suppliers, customers and cross functional units within the company.

i. Integration With suppliers

❖ Table 4.11 shows the level of integration between Kombolcha textile Share Company (KTSC) and its suppliers. Integration is the process of combining or coordinating separate functions, processes, or producers and enabling them to interact in a seamless and continuous manner (Kenneth and Brian 2006).

❖ The level of strategic partnership with suppliers and the establishment of quick ordering system indicates that there is a poor performance between Ktsc and its suppliers in respect to strategic partnership. Whereas stable procurement through networking shows satisfactory performance. Furthermore, group mean value reveals as, there is poor integration between KTSC and its suppliers.

❖ In addition to this, an interview was conducted with procurement and supply manager of the case company to consolidate the information obtained through questionnaire. According to the interview response, Kombolcha textile Share Company has no common supplier both in domestic and foreign cases. This is due to the procurement method the case company follows is bidding and Performa . And any supplier who fulfils the specification and requirements of the company wins the bid or the Performa and the company buys the materials from those winner organizations.

❖ The interview result of cotton suppliers indicates as there is no good relationship in strategic alliance, and stable procurement system through the SC network . Due to the absence of integration with the manufacturers and the government, most of the cotton suppliers are shifted to other sectors like sugarcane and cereals farm. Some of the suppliers replied as the company provide them an advance payment so as to get a price and quality advantage.

❖ Therefore, based on information obtained from both sources (qualitative and quantitative) the level of integration between the suppliers and the case company is poor.

ii. Integration with Customers

❖ SCM suggests that, firms need to integrate with their suppliers and customers to achieve both financial and none financial growth objectives (Tan, 2001).

❖ As table 4.12 shows the case company's integration with its customers or downstream of the SC. Accordingly, the first item: follow-up customers for feedback and the level of market information sharing with major customers indicates moderate/good level of integration.

❖ Monitoring and measuring customers service level and frequency of contacts/meeting with major customers' indicates that there is satisfactory performance specifically in frequency of contact and monitoring and measurement. Even if the result shows satisfactory performance it is not enough /the case company is not in a position to pay attention for measuring the extent of customers' service level and to make an improvement to satisfy the customers. For doing so, meetings should have to be made with major customers frequently to discuss on what is going on in their supply chain. Whereas, the group mean result shows 2.52 which implies that the case company's integration with its customers is satisfactory. When the level of collaboration between SC partners is becoming strong and strong, it leads them to integration, which in turn makes the SC more effective. So as to make integration with customers' follow-up customer for getting feedback, monitoring and measuring the service level, good market information sharing, and frequent meeting with customers are some of the attributes to be considered.

❖ According to the interview response there is no such a strong integration of customers with the case company. Because, these whole sellers are not only buying and selling to retailers the case company's products, they also buy and sale other companies products. There is also very weak follow-up of customers for feedback, poor contacts/ meetings with customers and no planned or contract based order from whole sellers with the exception of foreign customers. The major customers simply ask when they need some products of the company, whether what they need are there in the stock or not. As a result of such practices, sometimes the whole sellers may not get in full quantity when they need it.

❖ To triangulate the analysis,based on the questioner and interview result, the total implication of the KTSC's integration with its customers is poor. This will leads to the

dissatisfaction of its customers and in a long-run there may be a chance losing its customers. If it is so, it may be difficult and dangerous to the company to survive and compete in this intensive competitive market environment.

iii.   Cross functional integration with in a company

❖ Eng (2005) reported that a cross-functional orientation in SCM has positive effects on customer satisfaction and supply chain responsiveness in terms of improved efficiency among different functions in the supply chain. Integration plays a decisive role for successful SCM (Kenneth and Brian 2006). To realize an effective internal operation functional integration plays a great role.

❖ Table 4.13. represents the extent of internal integration of KTSC's functional units. Accordingly, almost all items except the 2nd item: information system integration among internal functional units, the rest items scored a mean value greater than 2.5. This is really the reflection of poor SCM practice from IT perspectives. The case company has poor IT practice therefore: with such environment information system integration could be poor. On the other hand, data integration among the functional units of the case company is also highly related with IT application so that, even if its mean value approaches to satisfactory it is not as such sufficient. This implies that poor IT application practice also affects other factors like the extent of integration. On the other hand, the overall group mean of internal integration is, 2.64 which reflects the internal integration of the case company is good.

4.1.2.1.4. Customer Service Analysis

❖ The ultimate goal of an integrated, efficient and effective SC system is superior customer service: short lead-time, quick response to requirements, accurate delivery, product accessibility, risk sharing, complains handling etc (Kenneth 2006; Russell 2006; and Eyong 2009).

❖ The quantitative result indicates that there is a poor performance specifically on lead time reduction, after sales service, and performance expectation gap. On the other hand, the accuracy of order processing for customers ,product accessibility, low stock out frequency, and extent of customers' complaints management shows satisfactory performance. This shows that there is a good performance in regard to timely invoice completion. Lazarevic et al., (2007) empirically found that, SCM practices significantly

affect company's performance particularly lead time, inventory turnover, cost reduction and avoidance of product reject/return, product accessibility, and meeting customers' requirement.

❖ Accordingly, the groups mean value of customer service reveals that the case company's orientation towards customers service is satisfactory. And as it was presented in the conceptual framework developed for this study, customers service is the last component. This implies that, customer service is resulted from practices of supply chain management, level and nature of SC challenges, collaboration, and integration of the company with its suppliers, customers and internal functional units. Some of these variables (supplier customer relationship, training , IT and company integration with supplier) shows a poor performance. Whereas internal operation and cross functional integration with in the company shows good performance and the rest variables indicates satisfactory performance.

❖ This is in line with the theory of successful development of SCM performance has to focus on customers' needs and wants. Consequently the performance of the supply chain can affect customer satisfaction (Chandra and Kumar, 2000; Svensson, 2003).

❖ The researcher held an interview with marketing and production managers, and major customers of the case company to triangulate, and state the extent of services given to the customers' and which finally results in customer satisfaction and loyalty. As per the interview held with marketing and production managers of the case company reveals that in lead time reduction, there are problems resulted from both external internal factors. As their response the external factor is related with suppliers i.e., some inputs are bought from abroad and it takes up to six months to reach to the company which may increase lead time. Whereas from the internal factors there is inefficiency. Sometimes due to shortage of materials, power interruption, break down of machines; the production department do not produce the required amount and make it ready to the customers'. But, to minimize the delay resulted from shortage of input materials as much as possible the case company has materials stock with in warehouse which pushed inventory cost up. For the issues.

❖ For the issues related with effectiveness and flexibility in meeting customers' requirement and product accessibility, as marketing manager's response shows the

company has two whole sellers at different regional levels(Mekele & Dessei) and about 12 whole sallers at Addis Ababa. But it is not sufficient and at the current time some customers stopped their agreement with the company and shifted to other company. In the case of meeting customers' requirement, at the time of shortage in input materials the company gives priority to some major customers. And the level of flexibility is an average. In addition, most customers are not happy with prioritization principle of the company i.e. whenever there is serious shortage major customers would be given priority (Interview with customers buying from the company). On the other hand, customers buying from the retail shop namely: Kombolcha retail shop, and Addis Ababa branch office, complain the accessibility of the company's product in the right time, at the right quantity and place. With respect to compliant management, major customers replied as, the case company is not responding their complaints immediately, to solve this complain at least it took two to four weeks. Therefore, the above analysis of both quantitative and qualitative with different management bodies, and customers conveys that the company's orientation towards customers' service is poor.

CHAPTER FIVE

5.1. Summary, Conclusion and Recommendations

This chapter summarizes the purpose of the study, the major findings and conclusions, the study implication for theory and practice, and makes recommendation.

5.1.1. Summary of Findings

The purpose of this study was to assess kombolcha textile s.c's orientation towards managing its SC and how this impacts the customers' service. The KTSC's orientation of SC was evaluated through five SCM practices and three types of integrations that determine effectiveness. In addition, the impact of SCM orientation was examined through customer service level which is the ultimate goal of an effectively managed supply chain. Based on the quantitative and qualitative data analysis, discussion of results with respect to the basic questions, the following are the summary of major findings of this study.

- The degree of relationship across the supply chain of KTSC is leveled to be transactional or adversarial, which is characterized by less joint product planning with suppliers and customers' and independent decision making across the SC. The descriptive analysis and interview with management bodies , suppliers and customers has verified the prevalence of these characters of traditional relationship.

- With regard to internal operation, the descriptive data and interview analysis conveys that, there is good management know-how regarding supply chain effectiveness and internal logistics flow, moderate flexibility to market change and handling order pattern, resource utilization of internal operation, and product and service improvement. Relatively the cases company is weak in innovation of new products, continuous and instantaneous product and service improvement, and up-to datedness of production. In general, Based on the overall analysis of internal operation practice the researcher concludes that it is good. However, this does not mean sufficient, because of the internal operations criticality for creating integration or relationship with external participants or supply chain partners.

- Information sharing practices of SCM in Kombolcha textile s.c is generally satisfactory. But there is poor sales forecast information sharing with customers and suppliers which revealed mean value of 1.78 and 1.84 respectively.

- Supply chain management practice from information technology perspective of KTSC , is the poorest in respect to other SCM practices which revealed mean value of 1.81. The quantitative and qualitative analysis indicated that, there is poor and absence of IT & IS tools with in the case company.

- Supply chain management practice from training perspective of Kombolcha textile s.c is also the poorest next to information technology in respect to other SCM practices which revealed mean value of 1.84. Each items and the overall training practice performance shows very poor than expected. This adversely affects the effectiveness of SCM.

- Among the possible challenges of SCM, manufacturing uncertainty followed by supply and demand uncertainty which represents 1.84, 1.92 and 1.96 mean values respectively appeared as the major headache of the case company .

- Regarding to integration among the SC partners the group mean of KTSC integration with its supplier's shows 1.99 which indicates the poor performance level. Both qualitative and quantitative analysis reveals poor integration.

- The quantitative analysis of customers' integration conveys group mean value of 2.52 and it indicates as there is a good practice, but the qualitative analysis shows as the customers have no strong integration with the KTSC than buy-sale transition.

- Concerning to cross functional integration with in the company information system integration among internal functional units and data integration among internal functions through network,   scored mean value of 2.46, 2.50 respectively shows satisfactory performance, The overall internal integration is good represented by mean value of 2.64, but would not support external integration.

- With respect to orientation towards integrated superior customer service, both qualitative and quantitative analysis revealed that, the company's effectiveness and efficiency in meeting customers' requirement is poor and there is a big gap between customer perception/ expectation and company performance. At the time of shortage of materials the case company gives priority to major customers and this dissatisfies other customers. In general the case company's orientation towards customers' service is poor.

5.1.2. Conclusions

Based on the results of the study obtained and summary of findings the following conclusions are given.

- Generally, Kombolcha textile s.c's orientation towards SCM is traditional that lacks substantial indicators of an integrated, efficient and effective SCM. In addition, the quantitative analysis of the company's customer service group mean is moderate that is 2.16. Therefore, this can't ensure customer satisfaction with respect to customer service. Based on qualitative and quantitative analysis the investigator comes up with conclusion that the case company's orientation towards customer service is poor and SCM practices have direct impact on customers' service.

- The primary reason mentioned for poor level of customer service is the internal operations that have direct effect on the company's ability (potential) to embark on external integration. In other words, its effect is clearly reflected on customers not getting what they need when they need it, long lead time, and poor integration with suppliers, not having effective flexible production system that could respond to the changing market and customer's preference.

- From SCM practices the case company has a great problem on IT, training and company integration with supplier practices . These practices play a decisive role for creating effective and efficient SCM. Poor IT facilities lead to poor information sharing and poor information sharing practices makes a supply chain management ineffective. On the other hand, supply chain management need effective internal operation for creating integration with external partners. For making internal operation effective, the human resource is a critical factor and in order to have skilled, committed, and capable employees and managers, to utilize resources effectively and efficiently training plays a significant role. But the case company's IT, training and company integration practice to make the SC effective is the poorest out of the five SCM practices. Therefore, the case company's poorness in IT and training leads to poor/ week integration both in internal and external partners.

- The SCM main concept is creating a relationship with other partners through the SC to provide products and services in order to satisfy the customers. The relationship of the KTSC with its customers and suppliers is not strong enough, in sharing sales forecast,

cooperativeness, compliance customer's delivery on time requirements and delivery in-full requirements is moderate. Therefore, these relationship shows as the relationship between KTSC's SC participants are traditional, that is buy-sale relationship.

- The researcher concludes that the great challenges that prohibits effective SCM of KTSC's like, manufacturing, supply and demand uncertainties are because of poor relationships between SC partners.

5.1.3. Recommendations

- On the basis of the findings and conclusions reached, the following suggestions were forwarded in order to improve the Supply Chain Management of the case company. It is noticeably explained that internal integration is vital in increasing the potential of the company to get external integration. KTSC is suggested to integrate the internal operational units, so as to bring about flexible, responsive and efficient production. This can be done first, by networking the functional units of the organization with appropriate IT and integrated information system. Secondly, breaking functional silos to encourage coordination and interdependent work design accompanied with active work force and multipurpose machineries to improve flexibility and responsiveness to market and customers requirements.

- The human resource is the essential factor that performs all activities to make Supply Chain Management effective and efficient. At the current situation marketing competition, customer preferences, and everything is changing rapidly. Therefore, this change enforces companies to change their strategies, and operations. Out of these changes having skilled, agile, and lean man power is the one. So that, KTSC is highly suggested that to prepare training program for its employees and managers in order to enable them to be competent, committed, responsive, finally which improves internal operation and customers service. This can be done through creating relation- ship with training institutions, strengthen the internal human resource department, internal sourcing. Using appropriately the opportunities given by the government through sending the right person to the training program.

- The current information technology practice of the case company is poor and affects effective communication and integration of data within the company. The case Company should improve and invest on IT facilities to enhance information sharing both internally and externally. This can be done through hiring IT specialists or out sourcing. More importantly, the case company is suggested to improve its relationship with suppliers from simply buy-sale relationship to a modern supply chain relationship through establishing strategic or long term relationship, contract, and continuous information sharing in order to minimize supply uncertainty which resulted in demand and supply unmatched and dissatisfaction of customers of the case company. Because, this could help the case company to obtain the inputs at the right time and quantity from these suppliers and provide the required quantity by the

customers when they need it. So that, this will minimizes the dissatisfaction of customers due to shortage of materials.

- Another important issue that is suggested to the case company's marketing department is improving the relationship with customers through a continuous information sharing, follow-up them and get feedback, monitoring customers' perceptions towards service of the company, improving its compliant management through conducting market research for better responsiveness.

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APPENDIX- 1

St. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDY

MASTERS OF MARKETING MANAGEMENT PROGRAM

QUESTIONNAIRE TO BE FILLED BY RESPONDANTS

Dear respondent,

The purpose of this questionnaire is to gather data on the Practices and challenges of Supply Chain Management in Kombolcha Textile Share Company (KTSC). The researcher would like to confirm to you that the respondents as well as the data obtained through this questionnaire will remain confidential and will be used only for an academic purpose. So, your genuine, frank and timely response is vital for successfulness of the study. Therefore, I kindly request you to respond to each items of the question very carefully.

Thank you very much for your time and assistance!!!

Sincerely yours,

Aberash Tadess

Part I. Demographic information

Choose the suitable answer and tick (√) in the box given for each question.

1. **Sex:** Male ☐ Female ☐

2. . **Age:** Below 20 years ☐ 20-25 years ☐ 26-30 years ☐

   31-35 ears ☐ 36- 40 years ☐ above 40 years ☐

3. **Year of work experience in the organization:**

1-3 years ☐ 4- 6 years ☐ 7-11 years ☐ above 11 years ☐

4. **Educational Qualification:**

Below grade 8 ☐ Grade 10 completed ☐ Grade 12 completed ☐

certificate ☐ College diploma ☐ first Degree ☐ Second Degree and

above ☐

Part II. Supply Chain Management Related Questions

Using the following Rating Scales under the columns, ''**circle** only on one number from the given numbers in the box after reading the variable on the left hand.''

The numbers and abbreviations represent: 1- poor , 2-Satisfactory 3-good 4- Very good 5 - Excellent.

S. NO	VARIABLES	RATING NUMBERS				
A	**Suppliers and customer relationship**	poor	satisfactory	Good	v. good	Excellent
1	Joint product planning with suppliers	1	2	3	4	5
2	The level of cooperativeness with suppliers	1	2	3	4	5

3	Compliance with customer's delivery in- full requirements	1	2	3	4	5
4	Compliance customer's delivery on time requirements	1	2	3	4	5
5	The level of cooperativeness with customers	1	2	3	4	5
6	Joint product planning with major customers	1	2	3	4	5
7	Customer's delivery adherence requirement	1	2	3	4	5
B	**Internal Operation Practices**					
1	Up- to- datedness of production	1	2	3	4	5
2	Flexibility of production system to handle order pattern	1	2	3	4	5
3	The extent of production process automation	1	2	3	4	5
4	The extent of innovation in product	1	2	3	4	5
5	The extent of continuous and instantaneous product and service improvement	1	2	3	4	5
6	Management know-how regarding supply chain effectiveness	1	2	3	4	5
7	Flexible production system to market change	1	2	3	4	5
8	Efficient utilization of resources	1	2	3	4	5
9	Extent of automated quality control	1	2	3	4	5
10	Internal logistics flow	1	2	3	4	5
C	**Information Sharing Practices**					
1	Sales Forecast information sharing with customers	1	2	3	4	5
2	Sales Forecast information sharing with suppliers	1	2	3	4	5
3	Other product related information sharing with suppliers	1	2	3	4	5

4	Other product related information sharing by customers	1	2	3	4	5
5	Adequacy and quality of information sharing throughout the supply chain	1	2	3	4	5
6	Overall efforts of Inter-organizational informationcoordination and sharing	1	2	3	4	5
7	Sense of trust and confidence along the supply chain	1	2	3	4	5
D	**Information technology**					
1	The level of IT-based automated ordering to major customers	1	2	3	4	5
2	The level of IT-based automated ordering to major suppliers	1	2	3	4	5
3	up-to-datedness of IT technologies throughout the supply chain	1	2	3	4	5
4	The adequacy of IT systems throughout the supply chain	1	2	3	4	5
E	**Training practices**					
1	Adequacy of training and development for management	1	2	3	4	5
2	Employees training in supply chain concepts & management	1	2	3	4	5
3	The overall adequacy of employee's training	1	2	3	4	5
4	Provision of diversified skill training to employees	1	2	3	4	5
5	Giving training to downstream SC members / intermediaries	1	2	3	4	5
F	**Challenges/ Barriers for effective SCM implementation**					
1	supply uncertainty (supplier inability to carry out the promise)	1	2	3	4	5
2	Institutional trust to share confidential data	1	2	3	4	5
3	Willingness to share risks and benefits	1	2	3	4	5

4	Inventory fluctuation due to inaccurate information sharing(bullwhip effect)	1	2	3	4	5
5	Manufacturing uncertainty like, breakdown of machineries, interruption of power, poor process design etc	1	2	3	4	5
6	Irregular orders from inconsistent customers (Demand uncertainty)	1	2	3	4	5
G	**Supply chain collaboration**					
G1	**Company's integration with suppliers**					
1	The level of strategic partnership with suppliers	1	2	3	4	5
2	The establishment of quick ordering system	1	2	3	4	5
3	Stable procurement through network	1	2	3	4	5
G2	**Company's Integration with Customers**					
1	Follow-up customers for feedback	1	2	3	4	5
2	Monitoring and measuring customer service level	1	2	3	4	5
3	The level of market information sharing with major customers	1	2	3	4	5
4	Frequency of contacts with major customers	1	2	3	4	5
G3	**Cross functional integration within a company**					
1	Data integration among internal functions through network	1	2	3	4	5
2	Information system integration among internal functional units	1	2	3	4	5
3	Teamwork and intra-organizational coordination	1	2	3	4	5
4	Extent of interaction between production , sales and procurement department	1	2	3	4	5

5	Periodic interdepartmental meetings	1	2	3	4	5
H	**Customer service satisfaction**					
1	Reduction of lead time/ speed of order handling	1	2	3	4	5
2	The accuracy of order processing for customers	1	2	3	4	5
3	Effectiveness and flexibility in meeting customers' requirement	1	2	3	4	5
4	Product accessibility	1	2	3	4	5
5	Low Stock out frequencies	1	2	3	4	5
6	Timely invoice completion	1	2	3	4	5
7	Extent of customers' complaints management	1	2	3	4	5
8	The extent of after sales service	1	2	3	4	5
9	Gap between customer perception and expectation	1	2	3	4	5

APPENDIX- 2

Interview Questions for   KTSC Managers

1. How do you see the suppliers' capability? Are they permanent?
2. How do you evaluate the extent of information sharing practice between your company and your suppliers?
3. What about the extent of integration between your company and your suppliers?
4. Is there uncertainty of suppliers, sense of trust?
5. Do you think that it is important to establish strategic or long term relationship with suppliers?
6. How your company manages supplier's complaints?
7. What look like your supply chain system?
8. How do you see, your company's effort to maintain and develop existing and new suppliers?
9. Is there demand uncertainty?
10. Does your company have training program & criterion in order to make employees &managers competent?
11. How do you see provision of multi skill training for your employees?
12. How does your company manage employees' complaints?
13. Does your company have flexible /agile man power?
14. How do you see the employees' commitment and initiation for work and learning?
15. How do you see the internal operation practices of your company?
16. What look like your supply chain system?
17. How do you see, your company's effort to maintain and develop existing and new customers?
18. How your company manages customers' complaints?
19. How do you see making your products accessible for your customers both in quantity and quality?
20. How do you see the extent of information sharing practice between your company and customers?
21. Is there demand uncertainty?

22. How do you see team work, flexibility, integration with in the company for meeting change in market condition?

23. How do you see the general integration between your company and customers?

24. How do you see the extent of supply uncertainty?

25. How do you see the internal logistics system?

26. Do you have flexible production system to meet change in market and orders?

27. What about innovation of new products and improvement of existing products?

28. How do you see the extent of manufacturing uncertainty?

29. What about effective resource utilization?

APPENDIX- 3

Interview Questions for   KTSC Customers

1. How would you see your relationship with Kombolcha Textile S,C Share Company?

2. Does Kombolcha Textile Share Company provide the quantity you need at the promised date?

3. How do you see information sharing practice between you/your company with Kombolcha Textile Share Company? What about the level of integration with you/your company and Kombolcha TextileShare Company?

4. How would you see the company's compliant management and its effectiveness?

5. How do you see the accessibility of Kombolcha Textile Share Company?

6. What about the willingness to share risks and benefits with Kombolcha Textile Share Company?

7. How do you express the level of your/your company satisfaction with the service or product of Kombolcha Textile Share Company?

APPENDIX- 4

Interview Questions for   KTSC Suppliers

1. How would you see your relationship with Kombolcha Textile Share Company?
2. Does Kombolcha Textile Share Company provide any support you need at the promised date?
3. How do you see information sharing practice between you/your company with Kombolcha Textile Share Company? What about the level of integration with you/your company and Kombolcha Textile Share Company?
4. How would you see the company's compliant management and its effectiveness?
5. .How do you see the accessibility of Kombolcha Textile Share Company?
6. What about the willingness to share risks and benefits with Kombolcha Textile Share Company?

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Tesfaye Woldie (PhD.). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

   Aberash Tadesse

     Name   Signature

  St. Mary's University

January,2017

Addis Ababa

ENDORSEMENTS

This is to certify that Aberash Tadesse has completed her thesis entitled " Assessment of the practice and challenges of supply chain management in the case of Kombolcha Textile S.c."
As I have evaluated her thesis, it is appropriate to be submitted as a partial fulfillment requirement for the award of Degree in masters of Marketing Management.

Tesfaye Woldie (PhD)   ....

Advisor   Signature

St. Mary's University

January ,2017

Addis Ababa