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St. Mary's University, Ethiopia

SCHOOL OF GRADUATE STUDIES

**ASSESSMENT AND EVALUATION OF SUPPLY CHAIN
MANAGEMENT PRACTICE OF SELECTED GARMENT FACTORIES
IN ADDIS ABABA, ETHIOPIA**

BY:

ETENESH EJIGU

ID NO. SGS/0043/2008A

JANUARY 2018

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ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
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List of Abbreviations

AGOA- African Growth Opportunity Act

SC- Supply Chain

SCM- Supply chain management

SPSS- Statistical Packages for Social Science

GTP: Growth and Transformation Plan

ABSTRACT

This attempts to assess and evaluate supply management practices such as supplier relationship management, customer relationship management, level of information sharing, quality information sharing and training. The study also assesses the supply chain integration, challenges of Supply chain management and evaluates supply management performance. The study used descriptive research and the study used both quantitative and qualitative research approach In order to undertake this research, purposive sampling technique was employed to collect data from 15 garments factories in Addis Ababa, Survey questioner was collected data from 150 respondents selected from 15 garment factories. Personal interview was also conducted with selected managers. The data were analyzed by using descriptive statistics and presented in tables. Finally, the research came up with the following findings: Most SCM on Addis Ababa garment factories practices are weakly practiced within the garment factories SC. whereas training practices, Information sharing with customers is poor. Based on both quantitative and qualitative analysis, the garment factories have the poor relationship with their customers, suppliers, and customers' services. The supply chain integration problems in the Ethiopian garment factories have lack management's adequate knowledge of the SCM. Manufacturing, supply and demand uncertainties are the major challenges of the garment factories that prohibits effective implementation of SCM. Customer response time, manufacturing lead-time and customer complaints handling performance were in the problem.

Keyword: Supply chain management, Supply chain integration, Supply chain management challenges, Supply chain management performance.

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

In today's global market, competition is ever increasing and companies are widely adopting customer-focused strategies. Competition is no longer one company against other companies, but one supply chain against other supply chains (Shapiro .2003). Supply chain management is an approach that allows companies to respond to these challenges. Supply chain has become one of the top priorities on the strategic agenda of industrial and service businesses. The main purpose of any supply chain management system is to get the right product, in the right quantity, to the right place, at the right time (Chandra C, grabisj, 2009).

There is no restriction on technology transfer in the present world, the area of supply chain management becomes one of the key competitive fought nowadays between global companies and regions. New and latest technology devices are used for this purpose. Supply Chain Management is the coordinated set of techniques to plan and execute all steps in the global network used to acquire raw materials from vendors, transform them into finished goods, and deliver both goods and services to customers. It includes chain-wide information sharing, planning, resource synchronization and global performance measurements. Stevenson, William (2009).

The Garment factory is becoming an important segment in Ethiopian is manufacturing industry, which is playing a critical role in its economic development. As the textile sector is capital saving and labor intensive, it would reduce unemployment. According to the government's five years GTP II (2015/16-2019/20),By improving production capacity, productivity, quality and competitiveness of the textile and garment sub-sector, attracting more quality investments, ensuring sustainable and reliable input supply, forging strong input and market linkages, increasing the export performance significantly, strengthening its role in job creation and structural changes, it is planned to manufacture USD 2.18 billion worth of production and earn USD 779 million in export revenue by the end of plan period. In a competitive world where there are flows of technology transfer, supply chain management is one of key factor in global manufacturing business. Ethiopian's textile industry can be divided

into three main categories: public sector; handloom sector; and the organized private sector. The private sector is the fastest growing sector in the country (ETGI Catalogue, 2012). SCM is seen as management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole (Lambert and Cooper, 2000; Larson and Halldorsson, 2002).

The objectives of the supply chain and the performance measurements need to be understood in order to build the most effective supply chain. Performance measurements provide an approach to identify the success and potential of supply management strategies (Agrawal, N., Smith, S.A. & Tsay, 2007).

The pace of the changes is however, far from satisfactory and it is important to evaluate the factories to identify the performance parameters that would determine the future success and ensure a significant market share for Ethiopian's specifically in Addis-Ababa garments factories.

1.2 Statement of the Problem

Supply chain management is an issue in many industries as companies realize the importance of creating an integrated relationship with their suppliers and customers. The Supply Chain has become a way of improving competitiveness by reducing uncertainty and improving service. Moreover, supply chain management will play a pivotal role in managing demand, reducing cost of operation, and improving the quality of products, the prevailing poor practice in managing the supply chain particularly in the garment industry led the researcher to undertake this study

Even though government departments have started implementing the Supply Chain Management strategies, there are still some challenges and deficiencies that hinder appropriate implementation, Some of which include deficiencies in tender award systems, ineffectiveness of SCM training, lack of communication between management and SCM or implementing staff, as a result the implementing staff is not aware of the organization's goals regarding supply chain management activities. Lack of monitoring, evaluation and reporting is also another challenge Minner S, (2009). Yet the supply chain integration of Ethiopia is functioning by default, it is not well managed, and implemented to get the maximum possible benefits resulted from effective SCM, each partner with in the SC are using their own individual efforts to improve their own competitiveness (like, quality, cost, delivery lead time, and etc) but

in this competitive world such traditional (Only buyer seller relationship) will not make our garment factories effective,

The existing supply chain performance measurement systems are problematic because they commonly use cost as the primary measure and they do not reflect the strategic goals of the organization nor consider the effect of supply chain disruption due to uncertainty (TielmanNieuwoudt, 2010).

Another factor that relates the apparel industry to Supply chain management is the companies' connection with the retailers. While some apparel companies distribute their products directly to consumers, most manufacturers utilize the services of the retailers. The application of SCM system on the other hand helps in strengthening the relationship between both parties as well as in achieving positive business outcomes. Considering that the apparel sector encounters the problem of demand uncertainty, Supply chain management allows the companies to communicate with their retailers; this feature of the Supply chain management enables them to forecast product demand jointly Bruce, M., Daly, L. & Towers, N (2008).

According to the research conducted by (Ministry of Industry ,2003E.C), even though the industry benefits from duty- free privileges for the importation of machinery and spare parts, it has limited value since the manufacturers are not productive enough. This shows that the garment industries are facing problems beyond finance or capacity.

This study aims to fill the mentioned gaps. The research proposes to evaluate the implementation of supply chain management and to identify the performance parameters or challenges that can mean success for the Ethiopian Garment factories. Although, Supply Chain Management practice in our country is still in the infancy stages, there are small numbers of manufacturing companies integrating it to their organizational system. Furthermore, the Garment industry in particular is weak in its SCM practice. In addition, there are some challenges in the industry, which resulted in reducing the quality and demand of products manufactured domestically. One of the problems is poor Supply chain management practice of organizations in the industry. An investigation of garment factory supply chain management to evaluate the implementation challenges is critical to the success of the supply chain, as it will provide much needed input to the garment sector and help in removing some of the barriers to competition in the global market.

Based on different kinds of literatures reviewed and prevailed results are not based on systematic analysis and not sufficient to point out the wide-ranging factors that affect supply chain in Ethiopia. Some of the problems are due to lack of education among employees, lack of SCM understanding, poor supplier selection, less competitor to enter global market and long lead time to produce and deliver the product. Hence, the issue requires being study intensively. Therefore, the problem that should be addressed in this research in a title with Assessment and evaluation of supply chain management practice of Selected Garment factories in Addis Ababa, Ethiopia.

1.3. Basic Research Questions

To better understand the core issues related to evaluation of the implementation of supply chain in garment factories in Addis Ababa, the study should assess to answer the following sets of basic research questions:

1. How is the current practice in Garment factories supply chain management in Addis Ababa?
2. How are the Garment factories operating in Addis Ababa towards supply chain integration for customer service?
3. What are the supply chain challenges in the garment factories distribution system?
4. How are evaluate the supply chain performance of the Garment factories?

1.4 .Objectives of the Study

1.4.1. General Objective

- To assess and evaluation the practice of supply chain management in the garment factories in Addis-Ababa, Ethiopia

1.4.2. Specific Objectives

- To assess the current practice of supply chain management on Garment factories in Addis Ababa
- To evaluate whether the Garment factories are operating towards integrated into customer service.
- To assess the challenges garment factories distribution system.

- To evaluate the supply chain performance of the Garment factories

1.5. Significance of the Study

According to Carter (2009), supply chain management is crucial in order to improve company performance. Moreover, most recent studies indicated that supply chain management would directly lead to considerable improvement in firm's performance. Apart from previous studies engaged in the sector, this research was to evaluate the practices and challenges of Supply chain management on the targeting garment factories performance. Furthermore, this study is believed to contribute much in the garment sector by revealing how supply chain integration affects the sectors' performance and proposing recommendations, which are compatible with Ethiopian garment industries in order to improve the sector's performance. Moreover, it can be served as a reference material to academicians, policy makers, consultants and researchers who are interested to conduct research in the area.

The importance is the research; managers easily understood the problems and help them to solve it. In the case of the other organization to take a lesson from the other and to generate a new strategy to be an effective and competent organization, the employees will understand and easily enjoy on their task in basic scientific methods. The concerned bodies as if a government was understood where and how the problems will exist and what kind of policy issues needed to address the problem.

1.6. Scope of the Study

SCM encompasses vast areas of managerial practices however it is difficult and unmanageable to conduct the study in all areas summarizes of SCM in terms of time, finance and research manageability. Therefore, this study was delimited to the specific context that is practices of SCM in the case of Garment factories in Addis Ababa. The subjects of this study are operation managers, logistic and supply managers, marketing manager quality control managers and technical managers of the sample factories.

The study carried out only in 15 garment factories from 41 garment factories. The total number of respondents in each sample factory selected 150 sample respondents from 240 employees in the form of purposive sampling. The reason is that based on its near proximity to the researcher. This study used descriptive research method. The conceptual scope of this study is limited to the companies' point of reference towards five SCM practices (supplier relationship, customer relationship, level of information sharing, quality information sharing and trading), SCM Challenges, SCM performance and SCM integration

1.7. Limitation of the Study

To conduct this study there were various limitations. The following are believed to be some of the limitations to conduct this research

1. There were some limitations in the process data collection. There was the level of non-cooperation on behalf of some return questionnaires on time.
2. Availability of recent and well co-ordinate printed information about each organization and all about the industries.

1.8. Organization of the Paper

The objectives of this paper is important to evaluate the factories to identify the implementation of supply chain management that determined the future success for Ethiopian's specifically in Addis-Ababa garments factories The paper divided in to five chapters. Chapter one contain the introduction part which is dealing with back ground of the study, the research problem, objectives of the study, scope and significance of the study. The second chapter provided a brief review of the works done on the subject of the study. Under chapter three the research design and methodologies of the research would be presented. Chapter four summarized results and discussion of the study and finally, chapter five comprised three sections, which include summary of findings, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

These days, competitive global market place has high influence on business activities whether they are local or international on their own. Apparently, supply chains as the key part of global business are needed to be considered in particular. In supply chain management, it is necessary for industries to develop and organize networks of activities involved in procurement, production, delivery of production and delivery of products globally. Since its introduction in the early 1980s, supply chain management (SCM) has become one of the most popular concepts within management in general and within logistics in particular (baharanchi, 2009). Most of definitions of SCM are related to integration: “the entire concept of SCM is really predicated on integration” (carter, 2009).

2.2 Supply chain management

Various researchers have interpreted SCM. Based on the relatively recent development of the supply chain literature, it is not surprising that there has been much debate as to a specific SCM definition. Ganeshan and Harrison (1995) has defined SCM as a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers. Lee & Corey (1995) stated that SCM consists of the integration activities taking place among a network of facilities that procure raw material, transform them into intermediate goods and then final products, & deliver products to customers through a distribution system. Christopher (1998) defined the supply chain as the network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate customer.

SCM is the " strategic and systematic coordination of the traditional business functions and the tactics across these business functions within a particular firm and across businesses within a supply chain, for the purposes of improving the long-term

performance of the individual companies and the supply chain as a whole" (Mentzer et al. 2001).

Supply chain management represents a new management philosophy, which addresses the modern business demand, such as globalization, long-term strategic alliance, cross-organizational logistics management, joint planning and control of inventory. It particularly focuses on integration with a few competent suppliers both in product development and in inventory control. The integration spreads and spans the entire chain from suppliers, manufacturer, distributor, and retailer (Jaya, 2010).

In theory, any complex supply chain is the synthesis of these three components: supplier, manufacturer and customer. The three entities of supply chain respectively take one of the three great processes: supplying, manufacturing and customer ordering. Another two are inbound logistics and outbound logistics, which provide logistics service for the three basic entities. The former includes purchasing, inbound transportation and material warehousing. The latter concerns the functions of distribution, outbound transportation, finished products warehousing, and sales (Jaya 2004).

A supply chain is characterized by the flow of goods, services, money, and information both within and among business entities including suppliers, manufacturers, and customers. It also includes all types of organizations engaged in transportation, warehousing, information processing, and materials handling. Sourcing, procurement, production scheduling, manufacturing, order processing, inventory management, warehousing, and, finally, customer service are the functions performed throughout the supply chain. The ultimate goal of SCM is to meet customers' demand more efficiently by providing the right product, in the right quantity, at the right location, on the right time, and in the right condition.

2.3. Supply chain management objectives

Supply chain management objective is "to maximize the overall value generated rather than profit generated in a particular supply chain" (Hussain and Mohammad, 2010 pp 51). Besides, different authors described that; the objective of supply chain management is to enhance the "profitability" of a firm and the supply chain members, and also to increase "competitiveness" (Lambert et al 1998 pp 4). On the other hand, e.g. Baatz (1995 pp 46-52) classified the objective of SCM into two: as short term and long-term objective. Consequently, "the short term objective is primarily to

increase productivity and reduce inventory and cycle time, while the long-term objective is to increase customer satisfaction, market share and profits for all members of the supply chain”.

The main objective of supply chain management is to create value from the production to delivery process in a way, which creates better competitive advantage to parties involved in the chain by minimizing cost. Value is not inherent in products or services, but rather is perceived or experienced by the customer (Handfield, Monczka, Giunipero and Petterson, 2009:11)

2.4. Benefits of SCM

SCM is used in reduction of costs, sustaining high quality standards, in improving customer service and in adapting environmental pressures (Michael Q. 2006, pp 106). Despite the benefits of supply chain management, there is limited empirical research on how practitioners evaluate their suppliers and implement SCM practices and how these practices affects firm performance (Tan et al. (2002 pp 616).

2.4.1. Product Quality (Benefit and Goal of the SCM)

Product quality is the collection of features and characteristics of a product that contribute to its ability to meet given requirements. There are three views for describing the overall quality of a product.

First is the view of the manufacturer, who is primarily concerned with the design, engineering, and manufacturing processes involved in fabricating the product. Quality is measured by the degree of conformance to predetermined specifications and standards, and deviations from these standards can lead to poor quality and low reliability. Efforts for quality improvement are aimed at eliminating defects (components and subsystems that are out of conformance), the need for scrap and rework, and hence overall reductions in production costs.

Second is the view of the consumer or user. To consumers, a high-quality product is one that well satisfies their preferences and expectations. This consideration can include a number of characteristics, some of which contribute little or nothing to the functionality of the product but are significant in providing customer satisfaction.

A third view relating to quality is to consider the product itself as a system and to incorporate those characteristics that pertain directly to the operation and functionality of the product (kastro, 2006).

In order to improve competitiveness of a garment industry and build better reputation amongst consumers and competitors it is important to maintain level of quality of the garments. Quality affects all aspects of the organization and has dramatic cost implication. The most obvious consequence occurs when poor quality creates dissatisfied customers and eventually leads to loss of business.

Effective quality improvements should result in a future stream of benefits, such as reduced failure costs, lower appraisal costs, increased market share, increased customer base and more productive workforce. Improved quality increases productivity, hence, many excellent industries use quality as a powerful competitive tool.

There are many aspects of quality in garment operations including; quality of garment design, quality of production, quality of inspections, and quality of sales as well as quality of marketing of the final product, which, is as important as the quality of the garment itself (rahel, 2010).

2.4.2. Customer service

The customer service for textile sector carries great importance like the customer service for other sectors carry. Especially, if it is considered that gaining new customers create four times more costs than protecting existing customers from leaving, it can be seen that the customer service plays a great role for the firms. The significance of good customer service can be shown in financial terms, as it costs at least five times as much to win a new customer as it does to keep a current one. Many companies consider investments in complaint handling as means of increasing customer commitment and building customer loyalty. Firms are not well informed, however, on how to deal successfully with service failures or the impact of complaint handling strategies (khan, s., 2013).

Effective complaint handling can have a dramatic impact on customer retention rates, deflect the spread of damaging word of mouth, and improve bottom-line performance (lamming, r. C, 2010). Effective resolution of customer problems and relationship marketing are linked closely in terms of their mutual interest in customer satisfaction, trust, and commitment (morgan, 2009).

Complaint handling strategies are important particularly in managing customer relationships in textile industry. Challenges in managing quality, combined with the important role played by customers in the production process and evidence that

customer loyalty drives profitability, make complaint handling a critical "moment of truth" in maintaining and developing these relationships (dwyer, 2012) the higher level of customer service quality means higher level of customer satisfaction and results in better customer loyalty and high level of profitability (ghobadian, 2010).

2.4.3. Collaboration

Collaboration in supply chain refers to the information sharing (dabas and sternquist, 2012), joint decision making and benefit sharing between two or more supply chain members in order to improve profitability and satisfy the customer needs (simatupang and sridharan, 2009).

The major identified variables affecting the supply chain collaboration in garment sector in India are; top management commitment, information sharing, and trust among the supply chain partners, long term relationships and risk and reward sharing (anbanandamet al. 2011).

Companies in India are aware of the concepts of partnership and collaboration, but have their doubts over its successful implementation (altekhar, 2008) and hence, generally fail to form a long-term collaborative relationship. Major areas where supplier's involvement is initiated in the indian companies are quality improvement, jit implementation, supply planning and transactional performance mainly at the level of finished production (altekhar, 2008). Indian companies give priority to transactional convenience, material planning and resource optimization; over common R&D strategy, central auditing, and performance sharing and common business orientation while forming a collaborative relationship (altekhar, 2008).

2.5. SCM Practices

SCM stands on integration of activities from product development stage to delivering the product to the customer (A. Gunasekaran and Ngai 2004 pp 270). This shows that, all activities need to be integrated to achieve customer expectation and needs. Consequently, Lee et al., 2007 pp 445 indicated three essential linkages: supplier, internal and customer; and they described as follows:

Customer linkage: is concerned with planning, implementing, and evaluating successful relationships between providers and receipts. It is about "sharing of product information with customers, Fail to rejecting customer orders, interacting

with customers to manage demand, having an order placing system, sharing order status with customers during order scheduling, and product delivery phase”.

Supplier linkage: is about involving “suppliers in new products during the design stage, in production planning and inventory management, developing a rapid response order processing system with suppliers, placing a supplier network that assures reliable delivery, and exchanging information with suppliers”.

Internal linkage: is about:

Accessing to key operational data from the integrated database, highly integrated information system linking to various internal departments in an organization, accessing to inventory information throughout the supply chain, retrieving inventory status in real time,, utilizing a computer based planning system between marketing and production and with a high degree of information system integration for production processes (lee et. Al., 2007 446).

Having this issue to assess the practice of SCM in this paper, five aspects of SCM practices are considered which is cited by Petrovic- Lazarevic et al (2007) from Perry and Sohal(2000) and Petrovic –Lazarevic et al (2007). These SCM practices are: Supplier and Customer relationship, customer relationship, level of information sharing, quality information sharing, and training. The detail is discussed as follows:-

2.5.1. Supplier and Customer Relationship

It is defined as the long-term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits (Stuart, 1997; Balsmeier andVoisin, 1996; Monczka et al. 1998; Sheridan, 1998, Noble, 1997). Strategic partnerships with suppliers enable organizations to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Suppliers participating early in the product design process can offer more cost effective design choices, help select the best components and technologies, and help in design assessment (Tan et al, 2002). Strategically aligned organizations can work closely together and eliminate wasteful time and effort (Balsmeier and Voisin, 1996). An effective supplier partnership can be a critical component of a leading edge supply chain (Noble, 1997).

2.5.2. Customer Relationship

It comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction (Clay comb et al. 1999, Tan et al. 1998). Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers (Magretta, 1998). Tan Kc, et.al pointed out, customer relation practices have been shown to lead to significant \Improvement in organizational performance.

2.5.3. Level of Information Sharing

Information sharing has two aspects: quantity and quality. Both aspects are important for the practices of SCM and have been treated as independent constructs in the past SCM studies (Moberg et al. 2002; Monckzaetal. 1998). Level (quantity aspect) of information sharing refers to the extent to which critical and proprietary information is communicated to one's supply chain partner (Mockzaet al 1998). According to Stein and Sweat (1998), supply chain partners who exchange information regularly are able to work as a single entity. Together, they can understand the needs of the end customer better and hence can respond to market change quicker. Novack,et.al (1995) described, by taking the data available and sharing information can be used as a source of competitive advantage.

The statement of Lalonde (1998), which describes sharing of information, as one of the five building blocks that characterize a solid supply chain relationship, and have an impact on the performance of organizations' supply chain.

2.5.4 Quality of Information Sharing

It includes such aspects as the accuracy, timeliness, adequacy, and credibility of information exchanged (Moberg et al, 2002; Monckza et al. 2002). While information sharing is important, the significance of its impact on SCM depends on what information is shared, when and how it is shared, and with whom (Chizzo, 1998; Holmberg, 2000). It appears that there is a built in reluctance within organizations to give away more than minimal information (Berry et al. 1994) since information disclosure is perceived as a loss of power. Given these predispositions, ensuring the quality of the shared information becomes a critical aspect of effective SCM (Feldmann and Muller, 2003). Hall.J. (2000) illustrates, ensuring the quality of the

shared information becomes a critical aspect of effective SCM, Organizations need to view their information as a strategic asset and ensure that it flows with minimum delay and distortion.

Organizations need to view their information as a strategic asset and ensure that it flows with minimum delay and distortion. Tompkins and Ang (1999) noted that, consider the effective use of relevant and timely information by all the functional elements within supply chain as a key competitive advantage distinguishing factor.

2.5.5. Training

SCM requires a change in “mindset from adversarial to collaborative company interaction” (Stanley et al 2005 pp 6). The human resources readiness highly contributes for the successful implementation of SCM (Petrovic-Lazarevic, 2007 pp 11).

Organizations recognized as “excellent in supply chain management” practices do have a strong concern on “training and re-training of its employees” (C.Gowen and W.Tallon 2003 pp 34). Supply Chain Management success depends on the “human resource development” (C.Gowen and W.Tallon 2003 pp35).

There are different types of training that would be provided for job performers of an organization. Accordingly, C.Gowen and W.Tallon 2003 pp 40 described that, trainings like: ‘team-building skills for suppliers quality evaluation, problem-solving skills for suppliers partnerships, leadership skills for customer satisfaction evaluation, job skills for competitive benchmarking, and team building skills for continuous improvement teams’.

2.6. Performance measurement in the apparel industry SCM

According to chan (2003), the aim of supply chain management is to gain an advantage in terms of customer service and cost over competitors. Traditionally, performance measurement is defined as the process of quantifying the effectiveness and efficiency of action. It plays a critical role in monitoring performance, enhancing motivation and communication, and diagnosing problems. Furthermore, performance measurement helps identifying the success and potential of management strategies, and facilitating the understanding of the situation.

Performance measures are categorized into two groups; qualitative and quantitative. These measures involve customer satisfaction and responsiveness, flexibility, supplier

performance, and costs. There are three types of measures: resources, output, and flexibility. A framework for measuring the strategic, tactical and operational level of performance in a supply chain, which deals mainly with supplier, delivery, customer service, and inventory, and logistics costs, exists.

Customer satisfaction level is an indication of the required standard of service level of a particular company, which is closely related to the whole performance of its supply chain. For different industries, customers look at different measures, such as delivery service, where time is no doubt their major concern; whereas for parts manufacturing, the accuracy of specification may be the most important consideration. Thus, the weighting of each performance measurement can be different for each industry.

It is common practice for apparel retailers to deal with manufacturers, with centralized buying and considerable negotiation on prices, quality and delivery schedules. However, Popp (as cited in Bruce, Daly & Towers 2004) suggests that in addition, in many chains there is an intermediary, often an import or export agency, acting as a significant figure within the chain. The addition of the intermediary has come about because of increasing globalization within the industry. Globalization of the textile and clothing supply chain is currently intensifying, with many companies either sourcing components from overseas, or moving manufacturing to countries with lower labor costs. In addition, a number of factors, namely a short lifecycle, high volatility, low predictability, and high impulse purchase, characterize the fashion industry. (Bruce, Daly & Towers 2009) In the textile industry, sourcing strategies must reflect the performance capabilities of the supply base. In most cases, there are a variety of possible vendors that differ in cost, lead times and flexibility of production. Vendors with lowest cost generally offer virtually no flexibility booking capacity and shipment times of several weeks and often require that the total production be allocated relatively evenly throughout the year. Vendors that are more responsive may have shorter lead times and allow greater flexibility vis-a-vis production commitments. Additionally, different vendors may be willing to store limited amounts of finished product prior to delivery for a fee. (Agrawal, Smith & Tsay, 2002)

Retailers tend to leverage a portfolio of two types of vendors: type 1 vendors are characterized by long lead times, lower unit costs and less flexibility whereas type 2 vendors offer short lead times, high unit costs and more flexibility. This enables such

strategies as exploiting lower cost production for the most predictable segment of demand, while sourcing the more speculative segment via the more flexible, but more costly, vendors. Operational this in multi-product, multi-vendor setting is nontrivial and is further complicated by many production and logistical constraints. (agrawal, smith & tsay, 2010)

Apparel retailers deal with both fashion goods and basic goods to offer product variety to their customers. Basic and fashion goods can be classified based on the volume of production, degree of style variation, and frequency of style changes. For example, fashion goods are hard to forecast the demand; have high fashion level and seasonality, and have varied style change. Basic goods are relatively easy to forecast the demand, have low fashion level and limited seasonality, have a basic garment style that remains constant (lee & kincade, 2003). Therefore, the retailer will place the fashion goods with the type 2 vendor and the basic goods with the type 1 vendor.

Textile is a sector where quality is one of the key competitive factors, and current competition does not only concern the individual firm but, rather, involves the entire supply chain. Indeed, the quality of the final product that reaches the customer is clearly the result of a chain of successive, inter-linked phases: spinning, weaving, apparel and distribution. In this new competitive environment, quality, but must be a feature of all market segments—basic and fashion—to meet the specific requirements and tastes of all types of customers. Furthermore, quality cannot be restricted to the area of the intrinsic quality of the goods themselves, but must also consider even more operational aspects in (romano & vinelli, 2010).

The fashion industry is beset by problems of volatility, making it difficult to predict fashion trends and consumer demands. Despite recent improvements, traditional forecasting techniques cannot deliver the accuracy required for managing logistics in the fashion market. Hence, forecasting risks could be reduced by being less dependent on forecasts. This can be achieved by shortening lead times, since this allows better response to consumer demand. Speed-to-market has become a fundamentally important way to cope with the increasing demand for fashion variety. (birtwistle, fiorito & moore, 2011)

2.7. An Analytic Hierarchy Process (AHP) Model for Vendor Selection

Supplier selection decisions are taken following the creation of a supplier shortlist during the pre-qualification phase of the supplier relationship framework shown in figure. They are complicated decisions since various criteria must be considered in the process. A significant number of quantitative and qualitative supplier attributes should be examined. Assessments should be made using objective and subjective criteria, and tradeoffs should be established. A strategic approach towards purchasing may further emphasize the need to consider multiple criteria (onesime, xiaofei&dechen, 2009).

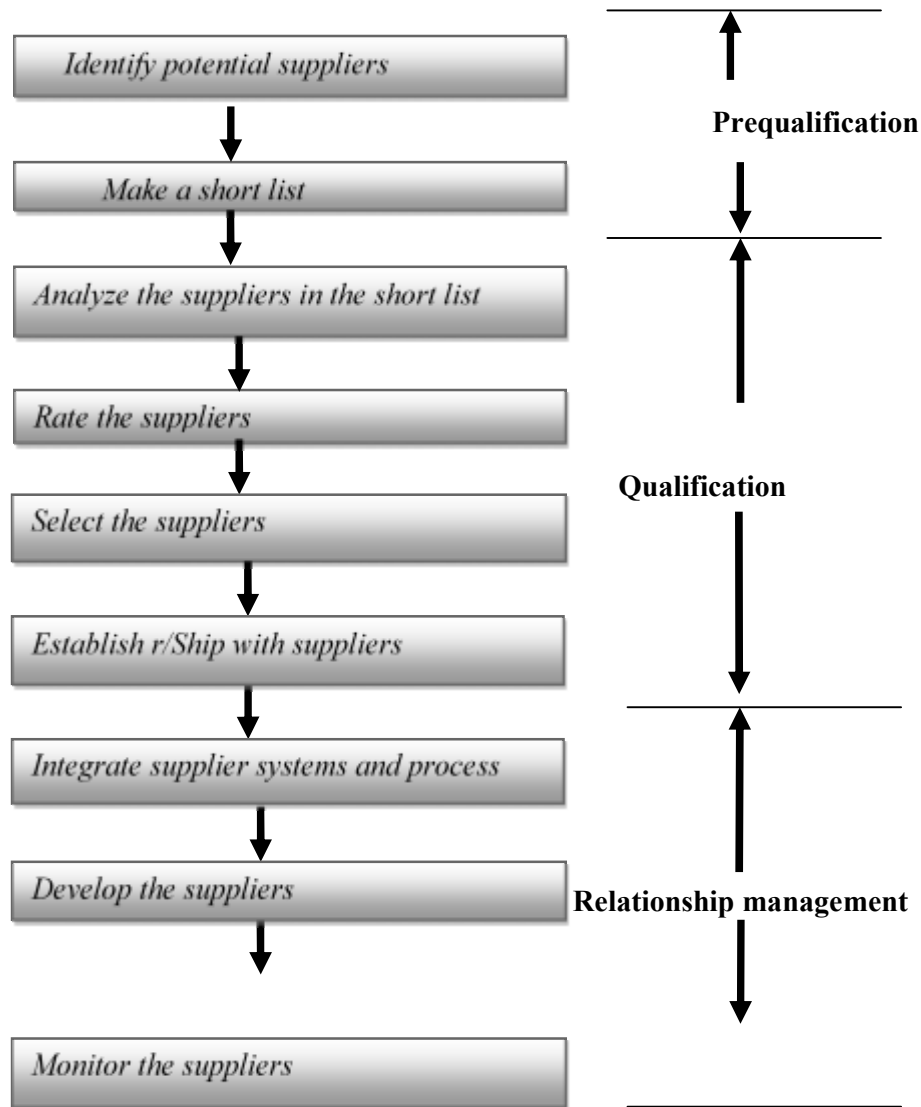
The evaluation of vendors is a complicated decision problem, (chan&chan, 2010). The complexity comes from: 1) the relative difficulty to conceptualize and structure the numerous components of the evaluation problem into an analytical framework; 2) the nature of the components in this process; some is quantitative whereas others are subjective; and 3) the large number of alternatives as the competition in the marketplace increases.

AHP is a decision making tool that decomposes a complex problem into a multi-level hierarchical structure of objectives, criteria, sub criteria and alternatives. Applications of AHP have been reported in numerous fields such as conflict resolution, project selection, budget allocation, transportation, health care and manufacturing (wang, huang&dismukes, 2009).

The AHP provides a framework to cope with multiple criteria situations involving tangible and intangible, quantitative and qualitative aspects (saaty, 2000, 2001). It consists of three steps:

1. Decomposing the complex problems into a hierarchy of different levels of elements.
2. Using a measurement methodology to establish priorities among the elements.
3. Synthesizing the priorities of elements to establish the final decision.

Figure 2.1. A Model for Supplier Relationship Management



Source: Lash & Janker, (2005)

First, a complex problem is broken down into sub-problems in hierarchical levels, which is a set of criteria or attributes relative to each sub-problem. The top level is the goal, and consists of only one element – the broad, overall objective. Subsequent levels may each have several elements. The elements are to be compared with one another against criterion in the next higher level, but must be of the same magnitude.

With reference to this case, the main goal is simply to choose the best or optimum supply chain. At the sequent levels, all the performance measures defined as listed. These are all the criteria necessary to achieve the goal (chan&chan, 2004). Once, all

available choices are listed and quantified, they are converted to weights that are used to priorities a portfolio of ideas. The weights of each element in each hierarchical level are aggregated to the next level.

Pair wise comparison (different alternatives or attributes) can be used to determine the priorities of each pair of criteria, indicating the strength with which one element dominates another with respect to a higher-level element. It provides a clearer priority for each of the criteria, using a nine-point scaling system. It helps to quantify intangible and non-economic factors included in the hierarchies, which make an explicit and informed trade-off among many attributes or criteria possible in selecting the best goal. (chan&chan, 2004)

The AHP helps to rank and make decision in a rational and systematic way. Weighting can be changed according to different companies and industries, thus it provides flexibility into the decision process (chan, 2003). Three features of the AHP differentiate it from other decision-making approaches: its ability to handle both tangible and intangible attributes; its ability to structure the problems, in a hierarchical manner, to gain insights into the decision-making process; and, finally, its ability to monitor the consistency with which a decision maker makes a judgment.

The AHP approach, as applied to the supplier selection problem, consists of the following five steps:

1. Specify the set of criteria for evaluating the supplier's proposals.
2. Obtain the pair wise comparisons of the relative importance of the criteria in achieving the goal, and compute the priorities or weights of the criteria based on this information.
3. Obtain measures that describe the extent to which each supplier achieves the criteria.
4. Using the information in step 3, obtain the pair wise comparisons of the relative importance of the suppliers with respect to the criteria, and compute the corresponding priorities.
5. Using the results of steps 2 and 4, compute the priorities of each supplier in achieving the goal of the hierarchy.

In this model, there are three vendors chosen in the suiting category who produce garments for a global apparel company based in the United States (us). Two of its vendors are located in turkey and the third vendor is located in Egypt. The goal is to

select the supplier that can provide the best material aligned with company strategies and is willing to build a collaborative relationship in the long-term. This goal is placed on the first level of the hierarchy. The competitive priorities proposed by watts are adopted with the addition of “trust” as the criterion in the supplier selection model. Thus, six criteria—namely cost, quality, delivery, flexibility, innovation and trust—are identified to achieve this goal, and constitute the second level of the hierarchy. The third level of the hierarchy involves the sub criteria that are chosen regarding the success factors for the apparel supplier (chan&chan, 2004).

There are three important sub-criteria, which can be considered as cost success factors for a textile company. The first one is the first cost, which is composed of the raw material (fabric and trims), the cut-and-sew, packing cost and the vendor’s profit.

The second one is the competitiveness of the landed cost. The landed cost is different from the first cost since other costs are included such as duty fees and transportation. In this case, one of the vendors is in Egypt and there is a trade agreement where Egyptian vendors can ship to the us duty-free, which brings a big advantage in reducing the costs. The third criterion is the fixed costs, which can be considered as the development costs that are put with the related vendor.

The quality factor is measured in terms of suppliers’ ability to provide samples in good quality. In the development and production process, many samples are requested from the vendors such as fit samples, promotional samples, shipment samples etc. It is important for the suppliers that the quality of the samples conforms to the buying firm’s specifications. The second sub-criterion is the passing rate of the shipment audits. The third sub-criterion is the returns to the vendor. Moreover, the conformance of the garments to the firm’s standards is being tested before the shipment and the results of the product integrity (pi) testing is used as a sub-criterion since it measures the quality of the vendor’s production capabilities.

Vendor’s ability and willingness of submitting the samples and costing to the buying firm is one of the delivery success factors that needs to be considered during the vendor selection process. Considering the shortening cycle times in fashion, speed is very important when evaluating the suppliers. This includes both the production lead-time (cut-to-ship time) and sampling turn time. In addition, the on-time shipment rate is one of the key success factors, which can be quantified very easily through the weekly reports. For each po, vendor commits a shipment date for a certain quantity. A

delay can cause to missed sales and financial loss, and shipping less quantity than ordered will have the same consequences. The timeliness of costing and its accuracy are also important.

Vendor's ability to change order volumes and to change the mix of ordered items (style, color, size etc.) is very important in the fashion industry. In addition, vendor's capability of handling quick response (qr) orders is an important criterion however especially in the suiting category where the fabrics have long lead times, it is often impossible to implement the qr system. Vendor's willingness to go to other countries to make joint ventures or strategic alliances to pursue for trading and cost advantages is another criterion important when widening the vendor base.

One of the innovation dimensions is to have an in-house design team to support buyer firm with new ideas and details as per the latest market trends. It is important that the vendor has a clear idea about the aesthetics of the buying firm's designer and execute it correctly on the product. Development and prototyping is the initiation of the final product so the sample room capacity of the vendor, and the speed and quality of sampling is one important success factor in the vendor selection process. Vendor's capability of thinking upfront to apprehend market trends will help the buyer to adopt the right product.

As far the trust between the company and its suppliers is considered, the dimensions of customer service include the vendor's ability of handling complaints, following up the orders etc. The financial stability is strongly expected from the vendors, as they are required to buy raw materials, open the letter of credits (l/cs) and so on. When evaluating the vendors, the in-house production capacity is always preferred; the usage of subcontractors increases the risk in the production process. The reliability of the vendor increases with in-house activities including cutting, sewing, washing, embroidery, printing, and packing. Exchange of sensitive information among partners brings the issue of confidentiality into attention. The compliance issues have been a very important matter in the late 90's, as the largest retailers went globally for sourcing; the attention of public was into the sweatshops in the developing countries where the workmanship is much cheaper. Therefore, firms created independent audit departments to ensure that the workers at the suppliers work in proper conditions, which are standardized in the certifications as well in order to establish and improve social responsibility.

The nine-point scale as suggested by saaty is used to assign pair wise comparisons of all elements at each level of the hierarchy. As suggested by saaty, the geometric mean approach, instead of the arithmetic approach, is used to combine the individual pair wise comparison matrices to obtain the consensus pair wise comparison matrices for the entire team. In the Mediterranean sourcing office of the company, the merchandise managers and merchandisers of the related category were questioned using this approach.

In order to construct the model, Web-HIPRE, an AHP program at www.hipre.hut.fi, was use to determine and calculate the normalized weights. This software has been designed to support hierarchy design, construction, and implementation for decision-making models and problem solving. It is based on the software called HIPRE +3 developed at Helsinki University of Technology (Mustajoki and Hamalainen, 2000). As per the survey results, the program normalized, the weight of each criterion (cost, quality, delivery, flexibility, innovation and trust) and the results show that the quality is the most important criterion whereas the innovation is the least important one.

2.8. Challenges of the supply chain management

Most SCM related-problems mainly occur from uncertainties and an inability to co-ordinate several activities and partners (Turban et al, 2000).

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).

2.8.1 Uncertainty

SCM 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.

2.8.2 Bullwhip Effect

Another barrier that different companies have been facing in their supply chain is bullwhip effect. The Bullwhip Effect is an observed phenomenon in forecast-driven distribution channels. The concept has its roots in Forrester's Industrial Dynamics (1961) and thus it is known as the Forrester Effect. This phenomenon has been

observed across most Industries resulting in increased cost and poorer service. 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.

2.9. Overview of the Challenges Faced by Ethiopian Textiles

Exporters

Despite the rise in export under the AGOA framework and the incentive provided by the Ethiopian government, Ethiopian exporters however have encountered a number of challenges. As the in-depth interview with members design manager indicates exporters have scarcity of raw material so they are forced to import from abroad for processing and then exporting again. In addition, bureaucracy when importing raw material is impossible. The customs office should relax some of the bureaucracy for those importing under AGOA. The government should address this issue very quickly before it goes out of hand. To quote one of the exporters, “the problem is not lack of order but lack of raw material”. So if they do not have raw material for the order, the exporters will not accept orders because they cannot predict how long it will take to import the material or they do not get the material they got one month ago from within the country. The other big challenge is that by 2007 AGOA will not allow exporters to import raw material from abroad. The exporters will be forced to work with the raw materials available in their own country and the quality has to match international standard.

It is my view that this will not be possible given the current reality of ETHIOPIA. In addition, if the government does not address the issue there is a great likelihood that the existing increment in export will dwindle.

As the interview with Ato Addis Alemayehu, representative of USAID on AGOA revealed the third problem which exporters face has to do with production of cotton. Ethiopia has cotton but producing textile from the raw material is problematic. Industries are re-developing their textile mills those like BahirDar, Combolcha and

Akaki textiles. The other challenge so far faced by exporters is the scarcity of skilled labor. The government is facing this challenge by training human resources through specialized schools so as to be able to have skilled manpower.

Companies are now starting to seriously look into those markets with government incentives and with the public forum that meet every three months every company from customs, Ethiopian airlines and all other sectors meet to work out some of the problems. And it is the view of Ato Addis Alemayehu that if they work out logistical problems and emphasize

marketing problems, Ethiopia may have a good chance to export to Europe if not to America due to closeness of the market.

The only support thus far in terms of AGOA is USAID project AGOA and which is a two-year project. It has put one person at the chamber of commerce to give support to textile sector. This project also works closely with the regional USAID office in Kenya and plans to have trade shows to the us with sponsoring Ethiopian companies with a co-sharing plan.

Furthermore, it is suggested by the USAID representative on AGOA that Ethiopian companies need to learn to work together. They will not go far otherwise. Kenya has taken advantage of AGOA because they work together and market the country first. Ethiopian companies lack the basic understanding that the competition is not here but out there with china and Korea (Rahel, 2007).

These days, competitive global market place has high influence on business activities whether they are local or international on their own. Apparently, supply chains as the key part of global business are needed to be considered in particular. In supply chain management, it is necessary for industries to develop and organize networks of activities involved in procurement, production, delivery of production and delivery of products globally. Since its introduction in the early 1980s, supply chain management (SCM) has become one of the most popular concepts within management in general and within logistics in particular (baharanchi, 2009). Most of definitions of SCM are related to integration: “the entire concept of SCM is really predicated on integration” (carter, 2009).

2.10. Conceptual Frame Work

A supply chain is characterized by the flow of goods, services, money, and information both within and among business entities including suppliers,

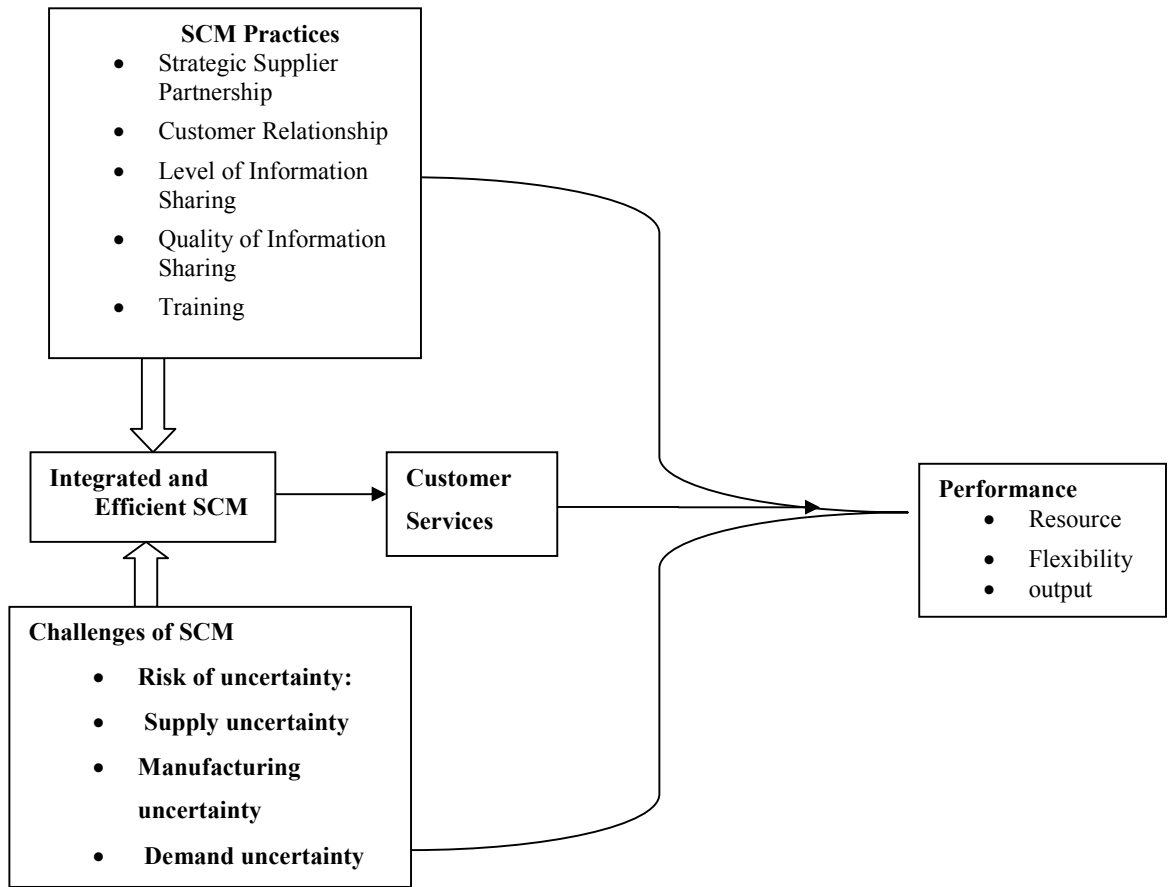
manufacturers, and customers. It also includes all types of organizations engaged in transportation, warehousing, information processing, and materials handling. Sourcing, procurement, production scheduling, manufacturing, order processing, inventory management, warehousing, and, finally, customer service are the functions performed throughout the supply chain. After going through tremendous literatures (journals, articles, books etc.), the researcher will try to extract the conceptual framework of this study in 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, customer relationship, level of information sharing, quality information sharing, and training.

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 measure for their appropriate level of integration and efficiency. To this end, the parameters of supporting elements that will 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 easygoing management system; it has many challenges especially bullwhip effects and uncertainties associated with strategic planning and implementation. According to the conceptual framework companies that are able to pass through all the practices in an integrated and efficient manner having red off impediment can provide a better customer service, which is the ultimate goal of SCM.

This conceptual framework is developing for the purpose of this study. Some components of the framework are adopted from different authors developed at different time; whereas other parts are taken from review literatures, which will findings of some other research

Figure 2.2. Conceptual Framework Developed for this study



Source: Eyong M, (2009)

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This part describes the methodologies that were used in this study: the selection of the target population, 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. Research Design

This study intends to evaluate implementation of supply chain management based on fundamental theories, principles and management philosophies that are supposed to be effective parameters just to measure the actual performance of the case factory's key business activities.

Descriptive research design was selected because of the nature of the study. A research design is the logic that links the data collected and the conclusions to be drawn to the initial questions of the study (Yin, 2003). Accordingly, the sample company's existing supply chain management practices and the challenges those prohibited its effectiveness were evaluated. That means the purpose of this study was to evaluate the underlying facts and /or actual circumstances existing within the case factories and it is down streams with regard to supply chain management practices and describing the facts.

3.2 Research Approach

The researcher preferred to use mixed approach because the data was used in two forms they are both qualitative and quantitative

Quantitative research (i.e., a positivist paradigm) historically has been the cornerstone of social science research. Purists call for researchers to “eliminate their biases, remain emotionally detached and uninvolved with the objects of study and test or empirically justify their stated hypotheses” (Johnson & Onwuegbuzie, 2004, p.14).

Qualitative purists support a constructivist or interpretive contend that multiple constructed realities abound that time-and context-free generalizations are neither desirable nor possible that research is value-bound, that it is impossible to differentiate fully causes and effects, that logic flows from specific to general and that

knower and known cannot be separated because the subjective knower is the only source of reality” (Johnson & Onwuegbuzie, 2004, p.14).

3.3. Type and Sources of Data

Data for this study was come from two sources, primary and secondary sources.

The primary data was gathered through field survey using self-administered questionnaires; interview.

The secondary data was obtained from research papers, journals, books and online resources. Written documents such as reports, as well as records made available by the case study institutions

3.4. Selection of the Target Population

The target population for a survey is the entire set of units for which the survey data are to be used to make inferences. Thus, the target population defines those units for which the findings of the survey are meant to generalize. According to the Statistical bulletin (2015), the target population Size is 41 garment factories located in Addis Ababa. Among these 15 garment factories was select purposively by the researcher for this study. The reason why the researcher prefers to use Purposive-sampling method is aiming to proximity and collects comprehensive and reliable information from the sources having relevant knowledge and/or experience directly related to the subject of the study. In this study, the researcher was tried to achieve reliable data by finding respondents who are well inform about the topics was asked in their respective organization. The target respondents within each company are managers whose work directly affects supply chain management practices. The respondents are 150 managers out of 240 managers responsible for supply chain management in their sample garment factories including- operation managers, logistic and supply mangers, marketing manager quality control managers and technical managers.

3.5. Sample and Sampling Technique

A purposive sampling technique was used to select sample population for this study. The data collection instrument that was used the study was questionnaire method, which is administered to a total sample of 15 garment factories and these was selected by purposive sampling technique. They were selected purposively due to their relevance of distribution and market concentration in different factories.

The next step was determining the actual sample size. The sample size was determined based on the following simplified formula (Yemane, 1967).

$$n = \frac{N}{1 + N(e)^2}$$

Where, **n** is number of respondent farmers,

N is the total number of employees involved in the SCM =240

e is the precision level. A 95% confidence level was taken and e= 0.05,

Then **n**= 150

The total sample size of respond based on the above sample size determination was 150.

Then considering the total numbers of respondents in each sample factory a total of 150 sample respondents were selected purposively and proportionately. Out of the total, 142 participants responded the questionnaire, 8 responses were excluded because of gross incompleteness. The response rate of the questionnaire was 95.0%. In-depth interview was used for 15 company directors.

Table 3.1: Addis Ababa garment factories Employees that have role in SCM sampling technique

No	Name of the Garments	Total population size	Sample size proportionally allocated
1	Abem Garment	8	5
2	Agusta Garment	40	25
3	Ambassador Garment	42	26
4	Asbem Garment	8	5
5	Edget Garment	8	5
6	Feleke Garment	10	6
7	GG Garment	10	6
8	GMM Garment	8	5
9	Gullele Garment	40	25
10	Haya Garment	8	5
11	Lucy Garment	8	5
12	Star Garment	26	17
13	Toto Garment	8	5
14	Wow Garment	8	5
15	Yonas Garment	8	5
Total		240	150

In addition, the sample respondents of this study was consist of operation managers, logistic and supply mangers, marketing manager, quality control managers and technical managers are included in the sample, whose work directly affects supply chain management practice and the level of knowledge of supply chain activities and operations on the sample factories. Then considering the total number of respondents in each sample factory, 150 sample respondents were selected proportionately. A research technique, using information on the implementation of SCM were gathered from people via using survey questionnaires. Interview was used for 15 company managers.

3.6. Methods of Data Analysis

The aim of this study was provided answers and give recommendations to questions raised concerning this research. The research method that was chosen for this study is a Cross sectional Study. The research instrument was containing open and close-ended questions. Both qualitative and quantitative data analysis techniques were used. The raw data obtain from the fieldwork through questionnaires were analyzed using SPSS, which were made computation precise, dependable, and not time consuming and statistical tools such as mean, standard deviation, and frequency of occurrence were used to analyze the collected data. The responses in the completed questionnaires were collected, coded, and entered into a data entry template. Summary tables and charts were used for describing data.

3.7. Reliability

Reliability refers to the extent to which data collection techniques or analysis procedures bring out reliable findings. In this research, respondents had been given enough time for answering the questionnaire and undertook to act with information as confidential; there was no subject error or bias. According to Bryman and Bell (2007), reliability analysis is concerned with the internal consistency of the research instrument. As several items in all the constructs were applied, the internal reliabilities of supply chain management practices, SCM Challenges, SCM performance and SCM integration were analyzed in the light of Cronbach's Alpha. This was verified by (Nunnally,1978) stating that the outcome of the reliability values for all the constructs are confirmed to be greater than 0.70, which are considered acceptable, while an alpha score of higher than 0.80 is considered a good measure of reliability.

Table 3.1. Reliability Statistics

Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
SCM practices	.873	.867	32
SCM integration	.727	.732	5
SCM Challenges	.776	.757	5
SCM performance	.729	.743	14
Total	0.911	0.905	56

As seen on above Table 4.1 the analysis of Cronbach's Alpha (measure of internal consistency) was computed as 0.911 in organizational performance, SCM Practices over 0.70, and competitive advantage in 0.905, respectively. Hence, this explains that a good level of internal consistency for the collected data

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This thesis paper makes an assesses and evaluates of supply chain management practice of selected garment factories in Addis Ababa, based on the conceptual frame work presented on previous section like the five SCM practices SCM Challenges, SCM performance and SCM integration. The questionnaire were distributed to garment factories for these, 150 questionnaires were distributed for managers142 questionnaire had been collected.

This part covers the demographic and general information of the garments, descriptive analysis on the knowledge and practice of the SCM, and questions that answer the SCM practices, SCM Challenges, SCM performance and SCM integration result of the qualitative part on the selected variables.

4.2. Demographic Variables

Among the sample garment manufacturers, one of them were established before 1980, 2 in between 1980-1990, 2 in between1991- 2000, 8 in between 2001-2010, and 2 after 2011; showing that most of the garments in Ethiopia were established in recent time. In terms of ownership, almost all 13 of the enterprises in the sample are privately owned and the rest 2 out of the selected garments were shared company.

Products are mainly mass-produced and are staple garments. There are few producers of fashion garments. As the respondents stated the key products manufactured by their company include shirts, knitwear, men suit ,sportswear, working garment, uniforms, underwear, men and women's clothing, curtains, bed sheets, Quilts, Pillow case, fitted sheets etc.

Table 4.1. Demographic characteristics of respondents

Demographic Questions		Responses of Customers	
		Frequency	Percentage
Gender	Male	98	69.0
	Female	44	31.0
	Total	142	100
Age	25-35	40	28.2
	35-45	18	12.7
	Over 45	84	59.1
	Total	142	100
Experience	Below 10	30	21.13
	10-15	67	47.18
	Over 15	45	31.69
	Total	142	100
Level of Education	Diploma	32	22.5
	Degree	73	51.4
	Master	37	26.1
	Total	142	100

Source: Survey result 2017

The table given above describes the general findings regarding demographic status of the data. Based on the respondents' gender issues more participants' are male which 69.0%, while 31.0% of them are Female. As shown in the finding majority of the service providers are Male

The age of employees, 28.2% are 25-35, 12.7% are 35-45 and 59.1% of the respondents are above 45years. The data tells us the factories had matured employees. Regarding to the work experience of the respondents 21.13% had below 10 years' experience, 10-15 years' experience, 47.18%, and 31.69% more than 15years experience. The result indicates almost all of the respondents had sound knowledge and experience.

Concerning the educational level of the employees of Addis Ababa garment factories result shows that 26% were masters, 51.4% were first-degree holder, and 22.5% were diploma holder. The result indicates that most of the respondents were qualified professionals so that they can easily understand and provide their opinion on research questionnaire.

4.3. SUPPLY CHAIN MANAGEMENT PRACTICE

Table 4.2. Suppliers Relationship Management

Items		Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std. Deviation
Our organization rely on few dependable suppliers	F	0	16	37	0	89	1.85	1.15
	%	0	11.3	26.0	0	62.7		
Our organization rely on few high quality suppliers	F	8	17	44	33	40	2.43	1.18
	%	5.6	12.0	31.0	23.2	28.2		
Our organization consider quality as number one criterion in selecting suppliers	F	34	19	15	20	54	2.71	1.63
	%	23.9	13.4	10.6	14.1	20.7		
Our organization strive to establish long term relationship with its suppliers	F	2	47	7	65	0	2.39	1.38
	%	1.4	33.1	4.9	45.8	0		
Our firm helps its suppliers to improve their product quality.	F	8	17	44	33	40	2.43	1.18
	%	5.6	12.0	31.0	23.2	28.2		
Our organization has continuous improvement programs that include its key suppliers	F	0	34	49	0	59	2.40	1.24
	%	0	23.9	34.5	0	41.5		
Your organization include its key suppliers in its planning and goal setting activities	F	0	22	66	20	34	2.53	1.02
	%	0	15.5	46.5	14.1	23.9		
Your organization actively involves its key suppliers in new product development processes	F	0	50	7	79	6	2.71	1.00
	%	0	35.3	4.9	55.6	4.2		
Your organization certifies its suppliers for quality	F	18	32	30	48	14	2.94	1.21
	%	12.7	22.5	21.1	33.8	9.9		
Our organization regularly solve problems jointly with its suppliers	F	0	53	15	0	74	2.33	1.42
	%	0	37.3	10.6	0	52.1		
Aggregate Mean							2.47	1.24

Source: Survey result2017

Concerning the SCM practice items like your organization rely on few dependable suppliers the participants 62.7% were strongly disagreed, no one were disagreed, 26.0% neutral, 11.3% were agreed and no one was strongly agreed. Therefore, from the result of the analysis made, one can infer that the organizations were not relying on few dependable suppliers. According to (Fernando Bernstein, 2010)the find that the manufacturer's optimal decision to diversify orders across multiple suppliers might not only arise as a result of managing supply risk, but it could also be due to the concavity of the manufacturer's revenue function or due to the suppliers facing diseconomies of scale in their production costs.

When we come to the second item" the organization relies on few high quality suppliers, 28.2% of the respondents were strongly disagreed, 23.2% of the respondents were disagreed, 31.0% of the respondents were neutral, 12.0%of the respondents were agreed, and 5.6% of the respondents were strongly agreed. The result shows that the organizations were not trust on few high qualities suppliers. According to (José Carreño Ramos, 1985), there is extensive number of studies both on QM and SCM in the literature, yet the studies examining them jointly are relatively limited in number. These prior studies examine mainly the application of QM in the supply chain environment, and its impact on performances and only a few of them consider the SCM concept.

Among of the respondents 20.7% of the respondents were strongly disagreed, 14.1% of the respondents were disagreed, 10.6%of the respondents were neutral, 13.4% of the respondents were agreed, 23.9%of the respondents were strongly agreed, on the organization consider quality as number one criterion in selecting suppliers. Most of the respondents replied that the organizations did use one criterion of quality for selecting suppliers. It is observed that supplier selection and evaluation methods were based on quoted price, quality, business relations, lead-time etc., constitute a multi-criteria or multi-objective decision-making problem. The overall objective of the supplier selection process is to identify, evaluate, contract with the suppliers and optimum quota allocation to the suppliers.

For the question asked that your organization strive to establish long term relationship with its suppliers, about of the respondents answered no one strongly disagree, 45.5% responded disagree, only 4.9% replied neutral, 33.1% agree and 1.4% strongly agree which majority of the respondents agreed the organization had not establish long

term relationship with its suppliers. According to Li et al., 2006, long term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits”.

For triangulating the analysis, procurement and supply manager was interviewed for supply uncertainty. According to his response, there is a shortage of supply for the products, and the reason is that there are few sources of supplies for such products. Furthermore, importing these inputs from abroad at the current situation is costly. In addition, the organization has no common sources supplies or long-term suppliers.

For the question does the firm helps its suppliers to improve their product quality, 5.6% respondents strongly agreed and 12.0% agreed, 31.0% neutral, 23.2% disagreed, and 28.2% strongly disagreed. This means most of the respondents agreed the organization were not help its suppliers to improve their product quality

Among the respondents, 41.5% strongly disagreed, no one disagreed, 34.5%neutral, and 23.9% was agreed and no one strongly agreed on the organization has continuous improvement programs that include its key suppliers. This means most of the respondents replied that the organization had not continuous improvement programs that include its key suppliers

The majority respondents replied that on the organization include its key suppliers in its planning and goal setting activities, no one % of the respondents strongly agreed, 15.5% agreed, 46.5 %neutral, 14.1%disagreed, and 23.9%strongly disagreed. It shows the organizations were not including its key suppliers in its planning and goal setting activities. According to Vonderembse& Tracey (1999) conducted a research study on the impact of supplier selection and involvement on manufacturing performance. They concluded that the level of supplier involvement in continuous improvement activities and in product development efforts is low in North American supply chains. Although many managers acknowledge the need for enhanced relationships in the channel, it is not being implemented consistently in the manufacturing sector. They also conclude that increased company/supplier involvement may have significant impact on supply chain performance.

The results also showed that, the organization actively involves its key suppliers in new product development processes 4.2% strongly disagree, 55.6% disagree, 4.9% neutral, and 35.3% agree to this fact and no one strongly agree. The result shows that

most of respondents replied, the organization actively involves its key suppliers in new product development processes is in the problem.

For the statement your organization certifies its suppliers for quality 9.9 % of the respondents were strongly disagreed, 33.8% disagree, 21.1%neutral, 22.5% agree and 12.7 % strongly agree. This means most of the respondents disagree that, the organizations certifies its suppliers for quality.

Furthermore about 52.1% of the respondents strongly disagreed, no one which is majority of the respondents just disagreed, 10.6 % are neutral, 37.3% agreed and no one responded strongly agreed on the organization regularly solve problems jointly with its suppliers. This means most of the respondents replied that, the organizations were not regularly solve problems jointly with its suppliers. The practices had not properly relationship between the organization and its suppliers. According to Gunasekaran et al. (2001) assert that a strategic partnership emphasizes long-term relationship between trading partners and “promotes mutual planning and problem solving efforts” (as cited in Li et al., 2006, p. 109).The aggregate mean2.47 value and standard deviation1.24 results implies that SCM practices from the perspectives supplier relationship of the garment factories is not strong. That means there is lack of proper supplier relationship management in the organizations.

Table 4.3. Customer Relationship Management (CRM)

Items		Strongly Agree	Agree	Neutal	Disagree	Strongly disagree	Mean	Std. Deviation
Your organization shares a sense of fair play with its customers	F	4	64	55	19	0	3.37	.74
	%	2.8	45.1	38.7	13.4	0	3.50	1.05
Your organization frequently interacts with customers to set its reliability, responsiveness, and other standards	F	15	71	41	0	15	2.45	1.02
	%	10.6	50.0	28.9	0	10.6		
Your organization has frequent follow-up with its customers for quality/service feedback	F	15	0	42	71	14	2.45	1.02
	%	10.6	0	29.6	50.0	9.9		

Your organization frequently measures and evaluates customer satisfaction	F	0	73	34	0	35	3.02	1.22
	%	0	51.4	23.9	0	24.6		
Your organization frequently determine future customer expectations	F	0	0	51	70	21	2.21	.68
	%	0	0	35.9	49.3	14.8		
Your organization facilitates customers' ability to seek assistance from it	F	0	36	47	44	15	2.73	.95
	%	0	25.4	33.1	31.0	10.6		
Your organization frequently evaluates the formal and informal complaints of its customers	F	0	31	51	40	20	2.65	.97
	%	0	21.8	35.9	28.2	14.1		
Aggregate Mean							2.80	0.96

Source: Survey result 2017

As is shown in Table 4.3., about 2.8% strongly agreed, 45.1% of the respondents agreed, 38.7 % are neutral, and 13.4% responded disagree and no one strongly disagreed on the organization shares a sense of fair play with its customers. This means most of the respondents agreed that the organization had shared a sense of fair play with its customers.

For the second category of question 10.6% of the respondents strongly disagreed, no one disagreed, 28.9% neutral, 50.0% replied agree and 9.9% strongly disagree on the organization frequently interacts with customers to set its reliability, responsiveness, and other standards. This shows that the organizations frequently interacted with customers to set its reliability, responsiveness, and other standards.

Regarding question to the garments about the organization has a frequent follow-up with its customers for quality/service feedback, 10.6 % replied strongly agree, no one replied agree, 29.6% replied neutral, 50.0% disagreed and 9.9% strongly disagreed. This shows that the organization lack of frequent follow-up with its customers for quality/service feedback.

Among the respondents, no one strongly agreed, 51.4 % agreed, 23.9%neutral, and no one disagreed and 24.6%strongly disagreed the organization frequently measures and evaluates customer satisfaction. This means most of the respondents replied that

the organization had moderate frequently measures and evaluates customer satisfaction.

The majority respondents replied that no one of the respondents strongly agreed and agreed 35.9 %neutral, and 49.3%disagreed and 14.8% strongly disagreed. This shows the greater portion of the respondents replied that the organizations were not frequently determined future customer expectations.

For the question does your organization facilitates customers' ability to seek assistance from it, 10.6% strongly disagreed,31.0% disagreed, 33.1% neutral, 25.4% agreed, and no one strongly agreed. This means most of the respondents agreed that the organizations were not facilitated customers' ability to seek assistance from it.

For the question of your organization frequently evaluates the formal and informal complaints of its customers, 14.1% of respondents strongly disagreed, 28.2% disagreed, 35.9% neutral and 21.8% respondents agreed. This shows that most of the respondents replied that the organization did not frequently evaluate the formal and informal complaints of its customers. According to Claycomb et al. 1999, Tan et al. 1998, It comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction. Customer relationship comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction. To conclude, most of the sample garments practices had not good relationships with supply chain members, including customers are needed for successful implementation of SCM programs. In customer relationship, management aggregate mean and standard deviation value is 2.80 and 0.96 respectively, which means the garment factories had weak relation with its partner

Table 4.4. Level of Information Sharing (LIS)

Items		Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std. Deviation
Our organization shares its business units' proprietary information with its trading partners	F	0	52	64	26	0	3.18	.720
	%	0	36.6	45.1	18.3	0		
Our organization informs its trading partners in advance of changing needs	F	0	17	54	54	17	2.50	.85
	%	0	12.0	38.0	38.0	12.0		
Our organization's trading partners share proprietary information with your organization	F	42	58	38	4	0	3.97	.82
	%	29.6	40.8	26.8	2.8	0		
Our organization's trading partners keep your organization fully informed about issues that affect its business	F	15	48	41	38	0	3.28	.97
	%	10.6	33.8	28.8	26.8	0		
Our organization's trading partners share business knowledge of core business processes with your organization	F	0	15	40	15	72	1.98	1.10
	%	0	10.6	28.2	10.6	50.7		
Aggregate Mean							2.98	0.89

Source: Survey result 2017

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 garment factories. Accordingly, the researcher used five items related to information sharing practice.

As shown in Table 4.4. about 36.6% of the respondents agreed, which is the majority of the respondents just agreed, 45.1 % are neutral, and 18.3% responded disagree and no one strongly disagreed on the organization shares its business units' proprietary information with its trading partners. This means most of the respondents agreed that

the organizations had shared its business units' proprietary information with its trading partners

For the second category of question no one of the respondents strongly agreed, 12.0% agreed, 38.0% neutral, 38.0 % replied disagree and 12.0% strongly disagree on the organization informs its trading partners in advance of changing needs This shows the organizations didn't inform its trading partners in advance of changing needs. Regarding question to the garments about the organization's trading partners share proprietary information with your organization, 29.6 % replied strongly agree, 40.8 replied agree, 26.8% replied neutral, 2.8% disagreed and no one strongly disagreed. This shows that the organizations trading partners did share proprietary information with your organization.

Among the respondents, 10.6% strongly agreed, 33.8 % agreed, 28.8% neutral, and 26.8%has disagreed and no one strongly disagreed on the organization's trading partners keep your organization fully informed about issues that affect its business. This means most of the respondents replied that the organization did trading partners keep your organization fully informed about issues that affect its business.

The majority respondents replied that 50.7% of the respondents strongly disagreed, 10.6% disagreed, 28.2 %neutral, 10.6% agreed, and no one strongly agreed on the organization is trading partners share business knowledge of core business processes with your organization. This shows most of the respondents agreed that the organization had trading partners share business knowledge of core business processes with your organization. According to Lee and Wang, (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. The organization has better information sharing practice with its customers than with its suppliers or trade partner. In SCM, level of information sharing is another important practice that should have to be given due attention in order to make the SC robust. Because, when there are distortion, inadequacy, and lack of accuracy in information flow within the SC partners, it will negatively affect the SC participants. Based on the analysis the level of information sharing of the organizations, the aggregate mean value, and standard deviation value

are 2.98 and 0.89 respectively shows inadequacy and quality information sharing and not sufficient to create effectiveness and efficiency in SCM activities.

Table 4.5. Quality Information Sharing

Items		Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std. Deviation
Information exchange between our organization and its trading partners is timely	F	0	30	97	15	0	3.10	.55
	%	0	11.5	37.2	10.6	0		
Information exchange between our organization and its trading partners is accurate	F	0	0	61	65	16	2.31	.66
	%	0	0	43.0	45.8	11.3		
Information exchange between your organization and its trading partners is complete	F	0	37	31	59	15	2.63	.98
	%	0	26.1	21.8	41.5	10.6		
Information exchange between your organization and its trading partners is adequate	F	2	47	7	86	0	3.08	.96
	%	1.4	33.1	4.9	60.6	0		
Information exchange between your organization and its trading partners is reliable	F	17	34	31	46	14	2.87	.76
	%	12.0	23.9	21.8	32.4	9.9		
Aggregate Mean							2.80	0.78

Source: Survey result 2017

As it is shown in Table 4.5. about no one strongly agrees, 11.5% of the respondents agreed, which is a majority of the respondents just agreed, 37.2 % are neutral, and 10.6% responded disagree and no one strongly disagreed on information exchange between our organization and its trading partners is timely

This means most of the respondents agreed that the Information exchange between our organization and its trading partners is timely.

Information exchange between our organization and its trading partners is accurate, 11.3% strongly disagree, 45.8% of the respondents disagreed, 43.0% are neutral, and no one responded agree and strongly agreed. This means most of the respondents agreed that the information exchange between our organization and its trading partners is not accurate.

Among the respondents, no one strongly agreed, 26.1 % agreed, 21.8% neutral, and 41.5 % has disagreed and 10.6% strongly disagreed on information exchange between your organization and its trading partners is complete. This means most of the respondents replied that information exchange between your organization and its trading partners is not complete.

The majority respondents replied that 1.4% of the respondents strongly agreed, 33.1% agreed, 4.9% neutral, 60.6% disagree and no one strongly disagreed on information exchange between your organization and its trading partners is adequate. This shows the greater portion of the respondents agreed that information exchange between your organization and its trading partners is not adequate.

For the question of Information exchange between your organization and its trading partners is reliable, 9.9% respondents disagreed, 32.4% disagreed 21.8% neutral and 23.9%% respondents agreed, 12.0% strongly agree. This shows that most of the respondents replied that. Information exchange between your organization and its trading partners were not reliable. Tompkins and Ang (1999) noted that, consider the effective use of relevant and timely information by all the functional elements within the supply chain as a key competitive advantage distinguishing factor The aggregate mean value and standard deviation value in the garment factories are 2.80 and 0.78 respectively. This implies that level of information sharing is the problem.

Table 4.6. Training

Items		Very low	Low	Average	High	Very High	Mean	Std Deviation
Giving Adequacy of training to management development about SCM	F	15	4	97	30	72	3.77	1.37
	%	10.6	2.8	35.9	0	50.7		
Giving training in supply chain concepts to Employees & management	F	15	88	4	35	0	2.41	.97
	%	10.6	62.0	2.8	24.6	0		
The overall adequacy of employees training about SCM	F	49	58	19	16	0	2.01	.96
	%	34.5	40.8	13.4	11.3	0		
Provision of diversified SCM skill training to employees	F	31	96	15	0	0	1.88	.55
	%	21.8	67.6	10.6	0	0		
Giving training to downstream SC members /intermediaries	F	0	30	73	39	0	3.06	.69
	%	0	21.1	51.4	27.5	0		
Aggregate Mean							2.63	0.91

Source: Survey result2017

As presented in the literature review, the last forth 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.

Table 4.6Above shows, five items developed to investigate the training practice of Garment Factories. The training practice is considered as one of SCM practices.

Adequacy of training and development for management and, for the most participant 10.6% were very low, 2.8% low, 35.9%, average and 50.7% was very high. This shows that most respondents replied that, it had adequacy of training and development for management.

Employees training in supply chain concepts & management, 10.6% were very low, 62.0% low, 2.8% was average, 24.6% high. Most of the respondents replied that there are low employees training in supply chain concepts &management.

The overall adequacy of employees training, 34.5% were very low, 40.8% low, 13.4% average and 11.3% high and no one very high. This shows that most of the respondents replied the overall adequacy of employees training is low.

Provision of diversified skill training to employees, 21.8% were very low, 67.6% low, 10.6%, average, no one was high and very high. Most of the respondents replied that Provision of diversified skill training to employees was low.

Giving training to downstream SC members, no one was very low, 21.1% low, 51.4% average, 27.5% high and no one was very high. Most of the respondents replied that the organization giving training to downstream SC members were high.

According to interviewee response, 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. According to the aggregate mean value 2.63, there is no established criterion to evaluate and prepare employees and leaders for the training that fits or concerns them. The organizations would negative consequences on its SCM. The vivid impact of poor training program/practice is reflected on garment factories. According to Gattoma & Clark asserted it, (2003) managing supply chain actually involves the interaction between human behavior, IT, and infrastructures. In addition, training can enhance the ability of employees and the organization its customers. The aggregate mean value and standard deviation value for quality information sharing of the garment company are moderate which is, 2.63 and 0.91 respectively. The implication SCM practice from the training perspective of the garment factories at hand is poor. If it continues in such a way, the factories will be at risk in the future to achieve its objectives and to satisfy its customers. It is a fact that whatever the extent of information technology, information sharing and other SCM practices is difficult applied without skilled and committed human resource. These all practices of SCM require the human resources to make SCM effective.

4.4. SUPPLY CHAIN INTEGRATION

Table 4.7 Supply Chain Integration

Items		Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std.Deviation
Firms in our supply chain establish more frequent contact with each other	F	0	28	62	52	0	2.83	.73
	%	0	19.7	43.7	36.6	0		
Informs its trading partners in advance of changing needs.	F	0	35	4	88	15	2.97	.94
	%	0	24.6	2.8	62.0	10.6		
Our firm extends its supply chain beyond its customers /suppliers	F	0	42	85	15	0	3.19	.60
	%	0	29.6	59.9	10.6	0		
Our firm participates in the marketing efforts of its customers.	F	0	0	15	96	31	3.59	.67
	%	0	0	10.6	67.6	21.8		
Our firm participates in the sourcing decisions of its suppliers	F	0	111	16	0	15	3.57	.94
	%	0	78.2	11.3	0	10.6		
Aggregate Mean							3.23	0.78

Source: Survey result 2017

As it is shown in Table 4.7. 36.6%, 43.7%, and 19.7% of the respondents replied disagree, neutral, and agree respectively on having firms in our supply chain establish more frequent contact with each other. This shows more respondents replied that the organizations do not have supply chain establishes more frequent contact with each other.

For the second category of question, 24.6% agreed, 2.8% neutral, 62.0 % disagreed and 10.6 % are strongly disagreed that informs its trading collaborates in advance of changing needs. This shows most of the respondent replied that the organizations had not its trading partners in advance of changing needs.

Our firm extends its supply chain beyond its customers/suppliers, 10.6%, 59.9%, and 29.6%, respectively replied, disagreed, neutral, and agree. This also shows that most of the garments did extend its supply chain beyond its customers/suppliers.

Among the respondents, 10.6 %neutral, 67.6 %disagreed, and 21.8%strongly disagreed on the Our firm participates in the marketing efforts of its customers. This

shows most of the respondents replied that the firms did not participate in the marketing efforts of its customers.

The firm participates in the sourcing decisions of its suppliers, no one strongly agreed and 78.2% agreed, 11.3% neutral, and 10.6% strongly disagreed on firm participates in the sourcing decisions of its suppliers. This means most of the respondents replied that the firms participate in the sourcing decisions of its suppliers were not strong. According to Lazarevic et al., (2007) internal operation is the most critical factor to measure organization is potential to go for external integration. These writers state that companies should be internally efficient and effective before embarking on external integration. Therefore, it implies that the garment factories have an assignment to improve its internal operation to create an effective relationship with external partners.

The supply chain integration problems in the Ethiopian garment industry are lack of management's adequate knowledge in the subject matter. In addition, there is also a problem of understanding of quality by itself in terms of the global market standards. Although most of the respondents agreed that they perform almost all of the supply integration practices, it does not prove that the sector has excellent supply integration. Talking about effective supply integration in Ethiopian garment industry, which is in its infancy stage, when it is a challenge even for the developed countries that have sophisticated supply chains, would be far from the truth. This indicates that there is a problem of alignment as well as linkage in the upward stream supply chain of Ethiopian garment industry. Based on the overall the aggregate mean and standard deviation value 3.23 and 0.78 respectively of the garment factories internal operation practice the researcher concludes that it is weak, because of the internal operations criticality for creating integration or relationship with external participants or supply chain partners.

4.5 Challenges/ Barriers for effective SCM implementation

Table 4.8.Challenges/ Barriers for effective SCM implementation

Items		Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std. Deviation
Supply uncertainty (supplier inability to carry out the promise)	F	0	93	34	15	0	3.54	.67
	%	0	65.5	23.9	10.6	0		
Willingness to share risks and benefits.	F	16	19	77	15	15	3.04	1.05
	%	11.3	13.4	54.2	10.6	10.6		
Inventory fluctuation due to inaccurate information sharing (bullwhip effect)	F	0	36	47	44	15	2.73	.95
	%	0	25.4	33.1	31.0	10.6		
Manufacturing uncertainty like, break down of machineries, Interruption of power, poor process design etc. Adequate	F	0	100	27	15	0	3.19	.60
	%	0	70.4	19.0	10.6	0		
Irregular orders from inconsistent customers(Demand uncertainty)	F	2	47	86	7	0	3.30	.585
	%	1.4	33.1	60.6	4.9	0		
Aggregate Mean							3.16	0.73

Source: Survey result 2017

As it is shown in Table 4.8. no one respondents strongly agreed, 65.5% respondents agreed, 23.9% respondents neutral 10.6% respondents disagreed and no one respondents strongly disagree on Supply uncertainty (supplier inability to carry out the promise). This means more respondents replied that the organizations had Supply uncertainty (supplier inability to carry out the promise).

Willingness to share risks and benefits shows, 11.3% respondents strongly agreed, 13.4% respondents agreed, 54.2% respondents neutral, 10.6% respondents disagreed and 10.6% respondents strongly disagreed. This implies that the participants in the SC of garment factories are willing to share risks and benefits associated with their supply chain.

Inventory fluctuation due to inaccurate information sharing (bullwhip effect), 10.6% strongly disagreed, 25.4% disagreed, 33.1% neutral, 31.0% agree, 10.6% strongly agree. This shows the majority of the respondents replied that the organizations have Inventory fluctuation due to inaccurate information sharing (bullwhip effect).

Furthermore, about no one of the respondents strongly disagreed, 10.6% disagreed, 19.0% neutral, 70.4% agree and no one strongly agrees, on Manufacturing uncertainty like, break down of machinery, Interruption of power, poor process design etc. This means most of the respondents replied that the garments had for manufacturing uncertainty weighted more than other challenges is that, it was affected by both internal and external factors. Some of the internal factors are a breakdown of machinery, ineffectiveness of employees, electric power interruption, and external factors are the change in demands of customers', and suppliers' inability to provide the required inputs according to their promises. So that, manufacturing uncertainty of Garment Factories is victimized by these factors.

The results also showed that Challenges/ Barriers for effective SCM implementation 'Irregular orders from inconsistent customers (Demand uncertainty) no one strongly disagrees, 4.9% disagree, 60.6% neutral, 33.1% agree and 1.4% agree to this fact. The majority respondents replied that the garments have irregular orders from inconsistent customers it easily mislead manufacturers to make wrong forecasts, which cause excess inventory or insufficient supply.

For further, consolidating quantitative analysis and qualitative information were collected through the interview from logistic, marketing and production managers. 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 the shortage of inputs and absence of orders from customers. Finally, the marketing manager replied as the demand is always changing. "Sometimes, there is a 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. Weak Information sharing, poor IT and weak internal operation practices of SCM.

The in-depth interviews issues related to customers' unique requirements emerged quiet consistent with the quantitative data. This is also confirmed by the majority interviewee respondents said that "one of the main challenges in our garment does not know our customer's unique requirements as a result of this we can't say easily, we cannot satisfy our customers. In addition to the main problem related to the customer's unique requirement not meet was our organization didn't know how much customers do have, individual customer need is difficult to know as of this our customer satisfaction is under big question.

According to the interview response, most of the respondents have no knowledge about the supply chain management. However, some respondents have knowledge about the supply chain management.

Based on the above analysis results, the aggregate mean value and standard deviation for challenges of supply chain management are 3.16 and 0.73 respectively. It implies that there are exposed to different challenges. Among the possible challenges of SCM, Supply uncertainty, manufacturing, supply and demand uncertainties are major challenges for effective SCM implementation. Inventory fluctuation due to inaccurate information (bullwhip) effect is also another challenge for the case companies SC. There is also poor willingness to share risks and benefits among the SC partners. So that, these all challenges are mostly affected by from the existence of poor relationships between SC collaborates, weak information sharing, and weak internal operation practices of SCM.

4.6. SUPPLY CHAIN MANAGEMENT PERFORMANCE

Table 4.9. Flexibility

Items		Strongly better	Better	Neutral	Worse	Strongly worse	Mean	Std. Deviation
Ability to respond to and accommodate demand variations, such as seasonality.	F	16	32	53	41	0	3.16	.97
	%	11.3	22.5	37.3	28.9	0		
Ability to respond to and accommodate the periods of poor manufacturing performance such as machine breakdown.	F	31	38	38	35	0	3.45	1.08
	%	21.8	26.8	26.8	24.6	0		
Ability to respond to and accommodate the periods of poor supplier performance	F	7	28	64	43	0	2.99	.83
	%	4.9	19.7	45.1	30.3	0		
Ability to respond to and accommodate the periods of poor delivery performance	F	18	0	51	58	15	2.63	1.11
	%	11.4	0	35.9	40.8	10.6		
Ability to respond to and accommodate new products, new markets or new competitors.	F	0	51	37	54	0	2.97	.86
	%	0	35.9	26.1	38.0	0		
Aggregate Mean							3.04	0.94

Source: Survey result 2017

As it shown Table 4.9. 11.3%, 22.5%, 37.3, and 28.9% of the respondents replied, strongly better, better, neutral, and worse respectively on Ability to respond to and accommodate demand variations, such as seasonality. This means more respondents organization's had not the ability to respond and accommodate demand variations, such as seasonality.

Among the respondents, no one strongly worse, 24.6% worse, 26.8% neutral, 26.8% better and 21.8% was strongly better on the ability to respond to and accommodate the periods of poor manufacturing performance such as machine breakdown. This means a greater portion of organization has had ability to respond to and

accommodate the periods of poor manufacturing performance such as machine breakdown.

Ability to respond and accommodate the periods of poor supplier performance, 30.3% worse, 45.1 % neutral, 19.7% better and 4.9% strongly better. This shows majority of the respondents agree organization's hadn't able to respond to and accommodate the periods of poor supplier performance

Furthermore, about 10.6% of the respondents strongly worse 40.8% worse, 35.9% neutral, no one better and 11.4% strongly better. This shows the majority of the respondents agree organization has had ability to respond to and accommodate the periods of poor delivery performance.

Ability to respond to and accommodate new products, new markets or new competitors, no one of the respondents strongly worse, 38.0% worse, 26.1% neutral, 35.9% better and no one strongly better. This shows a majority of the respondents had the ability to respond to and accommodate new products, new markets or new competitors. According Beamon (1998) identifies flexibility metrics, as applied to supply chain analysis, describe the range of possible operating conditions that are profitably achievable by the chain. Examples of flexibility metrics include the number of automobiles that a plant can profitably produce in six hours and the shortest delivery lead-time that the distribution center can profitably achieve. The aggregate mean and standard deviation value in the garment factories are 3.04 and 0.94 respectively. This means supply chain flexibility performance is moderate

Table 4.10. Resource

Items		Strongly better	Better	Neutral	Worse	Strongly worse	Mean	Std. Deviation
Total cost of resources used	F	2	47	86	7	0	3.30	.58
	%	1.4	33.1	60.6	4.9	0		
Total cost of distribution, including transportation and handling cost	F	18	32	30	48	14	2.94	1.21
	%	12.7	22.5	21.1	33.8	9.9		
Total cost of manufacturing, including labor, maintenance and re-work cost	F	0	53	74	0	15	3.16	.880
	%	0	37.3	52.1	0	10.6		
Cost associated with held inventory	F	0	0	51	20	71	1.85	.91
	%	0	0	35.9	14.1	50.0		
Return on investment	F	18	32	30	48	14	2.94	1.21
	%	12.7	22.5	21.1	33.8	9.9		
Aggregate Mean							2.847	0.96

Source: Survey result 2017

As it is shown in Table 4.10, 1.4 %, of the respondents replied strongly better, 33.1% better and 60.6% neutral, and 4.9% worse respectively on the total cost of resources used. This shows a majority of the respondents agree organizations were the better total cost of resources used. According to Chan (2003), the aim of supply chain management is to gain an advantage in terms of customer service and cost over competitors. SCM plays a critical role in monitoring performance, enhancing motivation and communication, and diagnosing problems. Furthermore, performance measurement helps to identify the success and potential of management strategies and facilitating the understanding of the situation.

Among the respondents, 9.9% strongly worse, 33.8% worse, 21.1% neutral, 22.5% better and 12.7% was strongly better on the total cost of distribution, including transportation and handling the cost. This shows a majority of the respondents were the worse total cost of distribution, including transportation and handling cost the total cost of manufacturing, including labor, maintenance and re-work cost 10.6% strongly worse, 52.1 % neutral, 37.3% better and no one strongly better. This shows a majority

of the respondent's total cost of manufacturing, including labor, maintenance, and re-work cost were better.

Furthermore, 50.0% of the respondents strongly worse, 14.1% worse, 35.9%neutral, no one better and strongly better. This shows a majority of the respondents agree organization’s supply chain performance on Cost associated with held inventory is strongly worse.

Return on investment, 9.9% of the respondents strongly worse, 33.8% worse, 21.1% neutral, 22.5% better and 12.7% strongly better. This shows a majority of the respondents agree organization’s supply chain performance return on investment is worse.

According Beamon (1998) identifies the goal of the resource measures is a high level of efficiency and the purpose of the resource measures is efficient resource management that is critical to profitability. The general goal of the resources is resource minimization. Resource performance measures include the total cost of resources used, total distribution cost, a total cost of manufacturing, costs associated with held inventory and return on investment (ROI).Resource performance metrics measure the level of resources used to meet the system’s objectives. Resources are generally measured in terms of the minimum requirements (quantity) or a composite efficiency metric (resource utilization) and are explicitly tied to flexibility and (usually) output. The aggregate mean value2.84 and 0.96 standard deviations it indicates in the garment factories had problem supply chain resource performance.

Table 4.11. Output

Items		Strongly better	Better	Neutral	Worse	Strongly worse	Mean	Std. Deviation
On time deliveries	F	0	0	51	20	71	1.85	.91
	%	0	0	35.9	14.1	50.0		
Customer response time	F	0	26	64	52	0	3.18	.72
	%	0	18.3	45.1	36.6	0		
Manufacturing lead time	F	0	24	66	52	0	3.19	.70
	%	0	16.9	46.5	36.6	0		
Customer complaints	F	17	34	31	46	14	2.95	1.20
	%	12.0	23.9	21.8	32.4	9.9		
Aggregate Mean							2.79	0.88

Source: Survey result2017

According Beamon (1998) identifies Output performance metrics measure the effectiveness of which supply chains are able to supply. Ideally, output performance metrics correspond to an organization's strategic goals and to its customers' goals and values.

About on-time delivery performance, firms were asked to respondent's 50.0% strongly worse, 14.1% worse and 35.9% neutral, no one better and strongly better. This shows that majority of the respondents just agreed the organization's supply chain has been on-time delivery performance were worse.

Besides, most of the interviewee respondents replied that; evaluate the frequency of delivery of items, overall distribution capacity of items and costs for a given value for the customer in the organizations. As it was stated the interviewees, "it is difficult to deliver the right product at the right time to the right because of lack of infrastructure and raw material and other bureaucracy". Therefore, if they do not have the raw material for the order, the exporters will not accept orders. Because they cannot predict how long it will take to import the material or they do not get the material.

Among the respondents, no one strongly worse, 36.6% worse, 45.1% neutral, 18.3% better and no one was strongly better on Customer response time. It shows that majority of respondents replied that Customer response time performance is the problem.

Manufacturing lead-time, 36.6% strongly worse, 46.5 % neutral, 16.9% better and no one strongly better which shows a majority of the respondents agree the garments manufacturing lead-time performance is worse.

Furthermore, about 9.9% of the respondents strongly worse, 32.4% worse, 21.8% neutral, 23.9% better and 12.0% strongly better which is a majority of the respondents just agreed Customer complaints performance were worse. According to Dwyer, 2012 Complaint handling strategies are important particularly in managing customer relationships in the textile industry. Challenges in managing quality, combined with the important role played by customers in the production process and evidence that customer loyalty drives profitability, make complain handling a critical "moment of truth" in maintaining and developing these relationships The higher level of customer service quality means higher level of customer satisfaction and results in better customer loyalty and high level of profitability. According Beamon (1998) identifies Output performance metrics measure the effectiveness of which supply chains are

able to supply. Ideally, output performance metrics correspond to an organization's strategic goals and to its customers' goals and values. The aggregate mean value and standard deviation are 2.79 and 0.88 respectively, which means supply chain output performance had a weakness.

4.7 General variable analysis

The supply chain management practice, supply chain integration, supply chain challenges and supply chain performance shows in the below table.

Table 4.12 Supply Chain Practice

Items	Mean	Std. Deviation
Supplier Relation Management	2.47	1.24
Customer Relation Management	2.80	0.96
Level of information sharing	2.98	0.89
Quality of information sharing	2.80	0.78
Training	2.63	0.91
Average	2.73	0.97

Source: Survey result 2017

The above table shows that Supplier Relation Management in supply chain management practice is the first problem, the mean value 2.47 and standard deviation value 1.24. The second problem is Training, that is the value 2.63 and standard deviation 0.91, customer relationship management is the third problem which is mean value 2.80 and standard deviation 0.96. The mean value 2.80 and standard deviation 0.78 and Quality of information sharing is the fourth problem and the last problem is level of information sharing the mean value 2.98 and standard deviation 0.89.

Table 4.13. Supply Chain Performance

Items	Mean	Std. Deviation
Flexibility Performance	3.04	0.94
Resource Performance	2.84	0.96
output Performance	2.79	0.88
Average	2.89	0.93

Source: Survey result 2017

The above table shows that output Performance is the first problem that is mean and standard deviation value are 2.79 and 0.88 respectively. The second problem is Resource Performance the mean value 2.84 and standard deviation 0.96 .and the third problem is Flexibility Performance the mean value 3.04 and standard deviation 0.94..

Table 4.14. General Variable Value

Items	Mean	Std. Deviation
SCM Practice	2.73	0.97
Supply Chain Integration	3.23	0.78
Supply Chain Challenges	3.16	0.73
Supply Chain Performance	2.89	0.93
Average	3.008	0.853

Source: Survey result 2017

The above table 4.7 shows SCM Practice 2.73 mean value and 0.97 standard deviations have the first problem in supply chain practices, Supply Chain Performance have the second problem in supply chain practices, which shows 2, 89 mean value and 0.93 standard deviations the third value is Supply Chain Challenges mean value and standard deviation 3.16 and 0.73 respectively. Supply Chain Integration has 3.23 mean value and 0.78 stand devotion value has the four ranks.

CHAPTER FIVE

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 SUMMARY OF FINDINGS

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 Garment factories orientations of SC were evaluated through five SCM practice, SCM integrations, SCM Challenges, and SCM performance.

Practice of supply chain management on Garment factories

- Most of the respondents believe that in the supplier's relationship, management had lack of supplier selection, they had no common supplies or long-term relationship with suppliers, lack continuous improvement activities in product development efforts, regularly solve problems with its suppliers are very weak.
- This study has shown that in the organizations have not adequate customer's relationship and lack of frequently interact and follow up with the customer, evaluate customer complaints and customer's satisfaction, frequently determine future customer expectation are not strong.
- Information sharing practices of SCM in the case company is generally moderate. However, the overall efforts in coordinating and sharing information across the trade partners are not strong. In addition, the shared information lacks adequacy and quality.
- This study shown most of respondents said that quality information exchange between the organizations and its trading partners were not accurate, complete, adequate and reliable.
- Majority respondents said that the organization had lack effective training and knowledge, based learning for both managers and employees of organizations. In addition, there is no essential in developing and maintaining SCM skills.

Evaluate whether the Garment factories in Addis Ababa are operating towards integrated internal operation for customer service

- With respect to orientation towards integrated customer service, both qualitative and quantitative analysis shown that, is poor and there is a problem of alignment as well as linkage in the upward stream supply chain of garments factories.
- Based on the analysis result the garment factories, internal operation practice is weak for internal operations criticality for creating integration or relationship with external participants or supply chain partners.

Challenges in garment factories distribution system

- Most of respondents believe that manufacturing, supply and demand uncertainties are their major challenges for effective SCM implementation and the inventory fluctuation due to inaccurate information is another challenge. There is also poor willingness to share risks and benefits among the SC partners

Evaluate the supply chain performance of the selected the Garment factories

- According to the questioner result, Customer response time, manufacturing lead-time and customer complaints performance were in the problem.
- Performance of garments factories had weak performance in comparison to other firms. Such as poor manufacturing performance, supplier performance, delivery performance and accommodate new product.

5.2 CONCLUSIONS

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

Assessing of practice of supply chain management on Garment factories was researcher objective from this point of SCM practices findings suggested that lack of proper supplier selection, establish a long-term relationship with suppliers. In addition, the customer relationship in the organization is the problem. It did not follow up and evaluate customer compliant and customer satisfaction lack of coordinate adequate and quality information sharing and exchange of quality information is weak and they have lack of effective training and knowledge both managers and employees.

Evaluate whether the Garment factories in Ethiopia are operating towards an integrated internal operation for customer service is another motivation to address by the researcher from this Study was that generally, the garment firms' orientation towards SCM is lack of substantial indicators of an integrated, efficient and effective

SCM. In addition, the garment firm's orientation towards customer service is poor and SCM practices have a direct impact on customers' service, which is long lead-time, and poor complaints management, poor integration with suppliers and customers. Moreover, they have a weak effective flexible production system that could respond to the changing market and customer's preference.

The challenges of supply chain management relationship of the garment factories were the third objective based on this the following conclusion is driven with its customers and suppliers are not strong, willingness to share risk and benefits is moderate. Therefore, these shows the relationship between garment factories of supply chain participants are weak. The researcher concludes that the great challenges that prohibit effective SCM of garment factories; like manufacturing, supply and demand uncertainties and fluctuation of inventories due to distorted information (bullwhip effect) are poor because of relationships between trade partners.

To conclude that evaluate the supply chain performance of the selected the Garment factories in the garment factories have weak performance; they have poor manufacturing performance, poor supplier performance, low delivery performance and accommodate new product. Besides the transportation and handling cost, manufacturing cost, Cost associated with held inventory and return on investment have a weakness. This implication that there are some challenges and deficiencies that hinder appropriate implementation, some of which includes lack of awareness about the supply chain management performance, knowledge about the supply chain management, not identifying problems related to supply chain management and lack of proper monitoring and evaluation.

5.3 RECOMMENDATIONS

Based on the findings of the research, the following recommendations are proposed.

- The effective practice of supply chain practice in garment factories managers, operational workers, and others has a need to have long-term training on supply chain management should be arranged by internal (i.e. the garments themselves) and external (i.e. garment associations and institutions) parties. So as to managers by applying of different concepts of supply chain management and applications to improve the implementation of supply chain management and external advisor

requirements need in practicing form other best-applied companies or universities have a knowledge on SCM especially garment industry .

- It is noticeably explained that, internal integration is vital in increasing the potential of the factories to get external and internal integration in garment factories are suggested to integrate the internal operational units, to bring about flexible, responsive and efficient production this helped by software which helps to facilitate each unite have sufficient knowledge on SCM integration what is going on in daily operation this can be done first, by networking the functional units of the organization with appropriate IT and integrated information system. Next breaking functional to encourage coordination and interdependent work design accompanied with the active workforce and multipurpose machinery to improve flexibility and responsiveness to market and customers' requirements. The other thing Researcher and development and another department should have room to suggest what currently need and other competitors do and give a direction to managers.
- The Garment factories should improve its relationship with suppliers, be establishing a 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 Garment factories. For the reason that could help it to obtain the inputs at the right time and quantity from these suppliers and provide the required quantity by the customers when they need.
- Garment factories marketing department must be improve 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 and possible crate software which helps to collect feedbacks, analyzed list the priorities what to do and get a direction from the needs of the customers.
- In the garment factories of performance measurement must be concerned how to integrate for better performance it helps to identify the success and potential of management strategies, and facilitating the understanding of the situation and

employees have a great concern on this issue based on Supply chain management monitoring and evaluation practice will improve.

REFERENCE

- A. Gunasekaran, a. E. N., 2004. Information systems in supply chain integration management, *European Journal of Operational Research*. pp. 269-295.
- Agrawal, N. S. A. S. a. A. A. T., 2002. Multi-Vendor Sourcing in a Retail Supply Chain. *Production and Operations Management*. Volume 11, pp. 157-182.
- Agrawal, N. S. S. & A., 2007. Multi-vendor sourcing in retail supply chain: Production and Operations Management Ahn.
- Aligning Supply Chain Strategies with Product Uncertainties”, C. M. R., 2006. Li et al.,. 1005-119.
- al, L. e., 1998. Supply Chain Management: Implementation Issues and Research Opportunities,. *Journal of Logistics Management*., 9(2).
- al, L. e., 2007. Relationship between supply chain performance and degree of linkage among. *An International An International Journal* 12/6 Emerald Group Publishing Limited
- Altekar, R. V. (., 2008. Managing Supply Chain in Indian Manufacturing Sector: A Critical Study with Special Reference to Supplier Partnership”, *South Asian. Journal of Managemen*, Volume 11, pp. 48-65.
- Anbanandam, R. B. D. K. a. S. R., n.d. Evaluation of supply chain collaboration: a case of apparel retail industry in India”, *International Journal of Productivity and Performance Management*., 6(2), pp. 82-98.
- Anon., 2008. Experiment Resources.. Types of Research Designs. Retrieved on February 3, 2012 from Experiment Resources
- Baatz, E., 1995. CIO100-best practices: the chain gang. Volume 18, pp. 46-52.
- Beamon, B. a. W. T., 1998. A process quality model for the analysis, improvement and control of supply chain systems. *Logistics Information Management*, 11(2).
- Bell, E. & A., 2007. *Business research methods*, New York: Oxford university press..
- Bernstein, F., 2010. Pricing and Replenishment Decisions.” *Wiley Encyclopedia of Operations Research and Management Science*.. s.l.:s.n.
- Berry, D. T. D. R. & N., 1994. Supply chain management in the Electronic products industry. *International Journal of Physical Distribution and Logistics Management*. Volume 10, p. 2032.

- Bowersox, D. J., 2000. Ten mega trends that will Revolution supply chain Logistics. *Journal of Business Logistics*, 21,2; 1-15.
- Bruce, L. B. K. S. R. & W. H., 2009. Channel evolution: How new multichannelthinking can deliver competitive advantage.. *Journal of Direct, Data and Digital MarketingPractice*., 4(10), pp. 329-335.
- Bruce, M. D. L. & T. N., 2004. Lean or agile: a solution for supply chain management fortextile and clothing industry?. *International Journal of Operations and Production Management*., 4(10), pp. 151-170.
- Carter., P. L., 2009. *Supply Chain Integration: Challenges and Good Practices*. (CAPS research).Arizona: Institute of Supply Management.. s.l.:s.n.
- catalogue, T. a. G. I., 2012. *Ethiopian Textiles*.. Addis Abeba : s.n.
- Chan F.T.S., C. H. K., 2010. An AHP model for selection of suppliers in the fast changing fashion market. *International Journal of Advanced Manufacturing Technology*, Volume 51, pp. 1195-1007.
- Chandra C, G. J., 2009. Role of flexibility in supply chain design and modeling—introduction to thespecial issue.Omega..
- Chan, F. & C. H., 2004. Development of supplier selection model—a case study in theadvanced technology industry.. *Proceedings of the Institution of Mechanical Engineers*, pp. 1807-1824..
- Chan, F., 2003. Performance measurement in a supply chain. *The International Journal ofAdvanced Manufacturing Technology*, Volume 21, pp. 534-548.
- Charles R. Gowen III, a. W. J. T., 2003. Enhancing supply chain practicesthroughhuman resource management:. *Journal of Management Development*, 22(1).
- Chizzo, S. A., 1998. *Supply chain strategies: solutions for the customer-driven enterprise*.
- Christopher, M., 1998. *Logistics and supply chain management : strategies for reducing cost andimproving service*. 2 ed. London.: Financial Times; Pitman,.
- Christopher, M., 1998. *Logistics and Supply Chain Management: Strategies for Reducing Cost andImproving Service*., 2 ed. London.: Financial Times..
- Claycomb, C. D. C. & G. R., 1999. The effect of just in time with customers on organizational design and performance.. *International Journal ofLogistics Management*, Volume 10, pp. 37-85.

- Claycomb, C. D. C. & R., 1999. The effect of just in time with customers on organizational design and performance. *International Journal of Logistics Management*, Volume 10, pp. 37-58.
- Dabas, C. S. a. S., 2012. Organized retailing in India: upstream channel structure and management. *Journal of Business & Industrial Marketing*, 27(3), pp. 176-195.
- Davis, T. (., 1193. Effective supply chain management. *Sloan Management Review*. Volume 34, pp. 35-46.
- Dooley, G. C. a. F., 1998. *Supply Chain Management: Issues and Practices for Small and Rural Manufacturers*, the Upper Great Plains Transportation Institute North Dakota State University,.
- Eyong, M., 2009. *Creating a competitive Supply Chain: evaluating the impact of lean & agile supply chain*.
- Eyong, M., 2009. *Creating a competitive Supply Chain: evaluating the impact of lean & agile supply chain*.
- Fawcett, S., 2001. *Achieving World-Class supply chain Alignment: Benefits, Barriers, and Bridges*. Centre for Advanced Purchasing Studies. s.l.:s.n.
- Feldmann M, M., 2010. *An incentive scheme for true information providing in supply chains..* s.l.:s.n.
- Francas D, M. S., 2009. *Manufacturing network configuration in supply chains with product recovery*. Omega.
- Grant, A. M., 2008. The significance of task significance: Job performance effects, relational mechanisms, and boundary conditions.. *Journal of Applied Psychology*, Volume 93, pp. 108-124.
- Gunasekaran, A. P. C. & T. E., 2001. Performance measures and metrics in a supply chain environment.. *International Journal of Operations and Production Management*, 2(21), pp. 71-78.
- Handfield, R. M. R. G. L. & P. J., 2009. *Sourcing and supply chain management*. 4 ed. USA: Ontario:.
- HossieniBaharanchi, S. R., 2009. Investigation of the impact of Supply Chain Integration on Product Innovation and quality. *Research notes*,. Volume 16, pp. 81-83.

- Industry, M. o. T. a., 2003. Study Report on The Development Strategy of Ethiopian Cotton/Textile/ Garment Sub sectors, draft report, China textile Planning Institute. Beijing, China.: s.n.
- IRMPress, I. P. M. Q., 2006. Purchasing and Supply Chain Management: Strategies and Realities. UAS: RM.
- J., C., 2003. Selecting the Right Supply Chain for a Customer in Project Business. Helsinki, University Of Technology.
- JF., S., 2011. Challenges of strategic supply chain planning and modeling. international conference - aided process operations.
- JF, S., 2003. Challenges of strategic supply chain planning and modeling. In: Proceedings of fourth. international conference-aided process operations.
- Kastro Jimma, 2006. Unleashing the Potential of MSMEs in Ethiopia. (Cluster development project).. Addis Ababa.: United Nations Industrial Development Office (UNIDO)..
- Khan, S., 2013. Attaining Customer Satisfaction! The Role of Customer Value and Relation Base Marketing A Study of Policy Holders of Peshawar Pakistan". international Journal of Managing Value and Supply Chains, 4(1), pp. 11-24.
- Koufteros, X. A., 1995. Time-based manufacturing developing a nomological network of constructs and instrument development, Doctoral Dissertation, University of Toledo.
- Krishina, S. J., 2004. Supply chain performance management: concepts and cases. 1 ed. s.l.: ICFAI University Pr.
- Lalonde, B. J., n.d. 1998. Building a Supply Chain Relationship", Supply Chain Management Review, , Volume 10, pp. 37-58.
- Lambert, D. a. C. M., 200. Issues in Supply Chain Management" Industrial Marketing Management, Volume 29, pp. 65-83.
- Lamming, R. C. C. N. D. H. D. A. a. P. W., 2010. Transparency in Supply. Journal of Supply Chain Management, 37(1), pp. 4-10.
- Larson, P. A., 2002. he Journal of Supply Chain Management. What is SCM? And, Where is it?", pp. 36-44.
- Lazarevic, P. S. A. B. I., 2007. Supply chain management practices & supply chain performance in the Australian Manufacturing Industries. In Monish university.

- Lee Hau L., a. C. B., 1995. The Evolution of Supply Chain-Management Models and Practice. pp. 42-63.
- Lee, H. L. a. C. B., 1992. Managing Supply Chain Inventory: Pitfalls and Opportunities,. pp. 65-73.
- Lee, Y. & D., 2003. US apparel manufacturers' company characteristic differences based onSCMactivities. *Journal of Fashion Marketing and Management*, 7(1), pp. 31-48.
- Levi, D. K. p. a. L. E., 2003. *Designing and managing the supply chain..* 3 ed. New Delhl: McGraw-Hill.
- Mentzer, J. T. D. W. K. J. S., 2001. Defining Supply Chain Manageme. *Journal of Business Logistics*, 22(2), pp. 1-25.
- Mettler, T. & P., 2009. E-procurement in hospital pharmacies: An exploratory multi-case study from. *Journal of Theoretical and Applied Electronic Commerce Research*, Volume 4, pp. 23-28.
- Moberg, C. R. C. B. D. G. A. & T. W., 2002. Identifying antecedents of informationexchange within supply chains. *International Journal of Physical Distribution and Logistics*, 32(9), pp. 755-770.
- Monczka, R. P. K. H. R. & R. G., 1998. Success factors in strategicsupplier alliances: the buying company perspective. Volume 29, pp. 555-5577.
- Nassar, H. A. H. A. a. M. O., 2010. Supply chain Integration: definition andchallenges. *Proceeding of the international multi conference of engineers and computer scientists*. Hong Kong: IMECS.
- Noble, D., 1997. Purchasing and supplier management as a future competitive edge. *Logistics*. 5(5), pp. 23-27.
- note, I. o. t. i. o. S. C. a. q., 2009. S. R. HossieniBaharanchi. Volume 16, pp. 81-83.
- Novack RA, L. C. R. L., 1995. *Creating logistics value: themes for the future*. Oak Brook, IL:Council of Logistics Management.
- Nunnally JC, B. I., 1978. *Psychometric Theory*. 3 ed. New York:: McGraw-Hill.
- Onesime, O. X. X. & Z., 2004. decision support system for suppliersselectionprocess.*International Journal of Information Technology and Decision Making*. *International Journal of Information Technology and Decision Making*, 3(3), pp. 453-470.

- Onesime, O. X. X. & Z., n.d. A decision support system for supplier selection process. *International Journal of Information Technology and Decision Making*, 3(3), pp. 453-470.
- P., R. G. a. T., 1995. Harrison, An Introduction to Supply Chain Management, [Online]
Available at: http://silmaril.smeal.psu.edu/misc/supply_chain
- Petrovic-Lazarevic, S. S. A. a. B. I., 2007. Supply Chain Management Practices and Supply Chain Performance in the Australian Manufacturing Industry. Australia: Monash University.
- Quayle, M., 2006. Purchasing and Supply Chain Management: Strategies and Real.
- Rahel Abebe., 2007. Opportunities and Challenges of Development for Africa in the Global Arena, The Case of Ethiopian Textile Sub-Sector, African Economic Conference.
- Perry, M. a. S. S., 2000. Quick Response Practices and Technologies in Developing Supply. *International Journal of Physical Distribution and Logistic*, Volume 31, pp. 627-639.
- Petrovic-Lazarevic, S. a. A., 2002. Supply Chain Management Performance Evaluation, Working Paper.
- Rahel Sor, n.d. Performance Measurement and Improvement of Ethiopian Garment. Resources., E., 2008. Types of Research Designs.
- Romano, P. & A., 2010. Quality management in a supply chain perspective. *International Journal*, Volume 21, pp. 446-460.
- Russell, H. S., 2006. Supply Chain Management: More than integrated logistics, airforce. *Journal of Logistics*, XXXI(2).
- Saaty, T. L., 2000. Fundamentals of decision-making and priority theory with the analytic hierarchy process. s.l.:Pittsburgh, PA: RWS.
- Sonja Petrovic-Lazarevic, A. a. I. B., 2007. Supply Chain Management Practices and Supply Chain Performance in the Australian Manufacturing Industry, working paper. 21(7).
- Srai, J. & Gregory, M., 2005. Supply Chain Capability Assessment of Global operations us in Maturity. s.l.:s.n.
- Stanley E. Fawcett, G. M. M. a. M. W. M., 2005. The Effect of People on the Supply Chain World.

- Stein T, S. J., 2009. supply chains. Informationweek. Volume 708, pp. 36-46.
- Suhong Li, B. R.-N. T. R.-N. S. S., 2006. The Impact of supplyChainManagementPracticesonCompetitiveAdvantageandOrganizationalPerformance. AnInternationaljournal of Management Science, Volume 34, pp. 107-124.
- Tan, K. L. S. & W. J., 2002. Supply chain management: A strategicperspective. International Journal of operations and production management,, 22(6), pp. 614-631.
- TielmanNieuwoudt, V. t. i., 2010. opportunities and challenges, the supply Chain.
- Tompkins J, A. D., 1999. What are your greatest challenges related to supply nchain performance measurement?. 6(31), p. 66.
- Turban, E. L. J. K. D. a. C. H., 2000. Electronic Commerce: A Managerial Perspective. s.l.:Prentice-Hall,.
- Waters, D., 2003. An introduction to supply chain management.. New York.: Macmillan.
- Whang, L. a., n.d. Information sharing in a supply chain.. International Journal of Technologymanagement, Volume 20, pp. 373-387.
- Yin, R. K., 2003. Case studies Research, design and methods. 3 ed. s.l.:Thousand Oak.

APPENDIX - 1

QUESTIONNAIRE AND INTERVIEW

St. MARY'S UNIVERSITY

School Of Graduate Studies

Dear Respondent,

My name is Etenesh Ejigu. I am a student in postgraduate program of the St. Mary University, one of the pioneer's private higher education is instituting in Ethiopia. I am conducting this research to fulfill the partial requirement for the Master of Business Administration (MBA) degree. The topic of my reversal entitled "Assessment and evaluation of supply chain management practice of Selected Garment factories in Addis Ababa, Ethiopia "designed to collect primary data on the topic under caption. The information you are provide is only for academic proposal its confidentiality is guarantee. Hence, it is not necessary to write your name. I would be grateful, therefore, if you kindly take a few minutes of your previous time to fill out this questionnaire as genuinely and completely as possible.

Thank you.

PART ONE: GENERAL INFORMATION

This part of the questionnaire tries to gather some general information about the background of the respondent and the company.

- 1.1. Name of the company: _____
- 1.2. Year of establishment: _____
- 1.3. Total number of employees: _____
- 1.3.1 Sex of the respondent: _____
- 1.3.2. Age of the respondent: _____
- 1.3.3. Work experience of the respondent: _____
- 1.4. What is/are your company's product(s)? _____

PART TWO: A. SUPPLY CHAIN MANAGEMENT PRACTICES

The following questions are about how your organization has been implementing supply chain management practices. In general, kindly identify your agreement on the following practices. Please indicate your level of agreement on the following statements based on your experience working in this company. The rating is from 1=strongly disagree to 5= strongly agree

SECTION 1: SUPPLIERS RELATIONSHIP MANAGEMENT						
Item	Variables	5	4	3	2	1
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Our organization rely on few dependable suppliers					
2	Our organization rely on few high quality suppliers					
3	Our organization consider quality as number one criterion in selecting suppliers					
4	Our organization strive to establish long term relationship with its suppliers					
5	Our firm helps its suppliers to improve their product quality.					
6	Our organization has continuous improvement programs that include its key suppliers					
7	Your organization include its key suppliers in its planning and goal setting activities					
8	Your organization actively involves its key suppliers in new product development processes					
9	Your organization certifies its suppliers for quality					
10	Our organization regularly solve problems jointly with its suppliers					

CRM –The following questionnaire pertain to information to your customers, and your firm’s relation with them, please indicate your level of agreement on the following based on your level of agreement experience working in this company. The rating 1=strongly disagree to 5=strongly agree.

Customer Relationship Management (CRM)						
Item	Variables	5	4	3	2	1
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Your organization shares a sense of fair play with its customers					
2	Your organization frequently interacts with customers to set its reliability, responsiveness, and other standards					
3	Your organization has frequent follow-up with its customers for quality/service feedback					
4	Your organization frequently measures and evaluates customer satisfaction					
5	Your organization frequently determine future customer expectations					
6	Your organization facilitates customers’ ability to seek assistance from it					
7	Your organization frequently evaluates the formal and informal complaints of its customers					

LIS- It refers to the level of the firms the firm’s practices of information sharing to its respective trading partners. Please indicate your level of agreement on the following statements based on your experience working in this company. The rating is from 1=strongly disagree to 5= strongly agree

Level of Information Sharing (LIS)						
Item	Variables	5	4	3	2	1
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Our organization shares its business units’ proprietary information with its trading partners					
2	Our organization informs its trading partners in advance of changing needs					
3	Our organization’s trading partners share proprietary information with your organization					
4	Our organization’s trading partners keep your organization fully informed about issues that affect its business					
5	Our organization’s trading partners share business knowledge of core business processes with your organization					

QIS-This includes the accuracy, timeliness, and dependability of the firm's information sharing to its trading partners. Please choose and circle the appropriate number to indicate the extent to which you agree or disagree with statement.

Please indicate your level of agreement on the following statements based on your experience working in this company. The rating is from 1=strongly disagree to 5=strongly agree

Quality of Information Sharing (QIS)						
Item	Variables	5	4	3	2	1
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Information exchange between our organization and its trading partners is timely					
2	Information exchange between our organization and its trading partners is accurate					
3	Information exchange between your organization and its trading partners is complete					
4	Information exchange between your organization and its trading partners is adequate					
5	Information exchange between your organization and its trading partners is reliable					

Please indicate your level of agreement on the following statements based on your experience working in this company. The rating is from 1=Very High to 5=Very low

Training						
Item	Variables	5	4	3	2	1
		Very low	Low	Average	High	Very High
1	Adequacy of training and development for management					
2	Employees training in supply chain concepts & management					
3	The overall adequacy of employee's training					
4	Provision of diversified skill training to employees					
5	Giving training to downstream SC members /intermediaries					

B. SUPPLY CHAIN INTEGRATION

The following questions are about how your organization has been implementing supply chain integration. In general, kindly identify your agreement on the following practices. Please indicate your level of agreement on the following statements based on your experience working in this company. The rating is from 1=strongly disagree to 5= strongly agree

SECTION 2 :SUPPLY CHAIN INTEGRATION						
Item	Variables	5	4	3	2	1
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Firms in our supply chain					

	establish more frequent contact with each other					
2	Informs its trading partners in advance of changing needs.					
3	Our firm extends its supply chain beyond its customers/suppliers					
4	Our firm participates in the marketing efforts of its customers.					
5	Our firm participates in the sourcing decisions of its suppliers					

C. Challenges/ Barriers for effective SCM implementation

Please indicate your level of agreement on the following statements based on your experience working in this company. The rating is from 1=Strongly Disagree to 5=Strongly Agree

SECTION 3:Challenges/ Barriers for effective SCM implementation						
Item	Variables	5	4	3	2	1
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Supply uncertainty (supplier inability to carry out the promise)					
2	Willingness to share risks and benefits.					
3	Inventory fluctuation due to inaccurate information sharing (bullwhip effect)					
4	Manufacturing uncertainty					

	like, break down of machineries, Interruption of power, poor process design etc. Adequate					
5	Irregular orders from inconsistent customers (Demand uncertainty)					

D. SUPPLY CHAIN PERFORMANCE

The following questions are about how your organization’s supply chain has been performing in comparison to other organizations or firms in the same Garment Factories. In general, kindly indicate the performance level of your organization’s supply chain.

SECTION 4: SUPPLY CHAIN PERFORMANCE						
Please indicate the performance level of your firm’s supply chain in comparison to other firms in the Garment industry. The rating is from 1= Strongly Worse to 5= Strongly Better						
Item	Variables	5	4	3	2	1
		Strongly Better	Better	Neutral	Worse	Strongly Worse
Supply Chain Flexibility Performance [FP]						
1	Ability to respond to and accommodate demand variations, such as seasonality.					
2	Ability to respond to and accommodate the periods of poor manufacturing					

	performance such as machine breakdown.					
3	Ability to respond to and accommodate the periods of poor supplier performance					
4	Ability to respond to and accommodate the periods of poor delivery performance					
5	Ability to respond to and accommodate new products, new markets or new competitors.					
Supply Chain Resource Performance[RP]						
1	Total cost of resources used					
2	Total cost of distribution, including transportation and handling cost					
3	Total cost of manufacturing, including labor, maintenance and re-work cost					
4	Cost associated with held inventory					
5	Return on investment					
Supply Chain Output Performance [OP]						
1	On time deliveries					
2	Customer response time					
3	Manufacturing lead time					
4	Customer complaints					

APPENDIX - 2

QUESTIONNAIRE AND INTERVIEW

St. MARY'S UNIVERSITY

School Of Graduate Studies

INTERVIEW GUIDE

1. How do you define supply chain management based on the context of your organization?
2. What are the major challenges of factories supply chain management in Ethiopia
3. How do you evaluate the total integration, collaboration and coordination along the supply chain management of factories products?
4. What are the challenges not to meet the requirements of your customers?
5. What efforts made by your organization to increase the availability of garment products?
6. How do you evaluate the frequency of delivery of items
7. How do you evaluate the overall distribution capacity of items
8. How do you evaluate the costs for a given value for the customer?

DECLARATION

I, the undersigned, declare that is my original work, prepared under guidance of “**Assessment and Evaluation of supply chain Management Practice of Selected Garment Factories in Addis Ababa, Ethiopia**”. All sources of materials used for 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.

Declared by:

Name: EteneshEjigu

Signature_____

Date_____

Place and date of submission: St. Marry University, January 2017

ENDORSEMENT

This thesis has been submitted to ST. MARY'S UNIVERSITY. School Of Graduate Studies for examination with my approval as a university advisor

Advisor: _____

Signature: _____

St. Mary's university

Date
