ADDIS ABABA UNIVERSITY

SCHOOL OF COMMERCE

DEPARTMENT OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT

STUDY ON SUPPLY CHAIN MANAGEMENT PRACTICES A CASE STUDY OF FAFA FOOD SHARE COMPANY

BY

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CANDIDATES DECLARATION

I hereby declare that the work which is presented in this thesis entitled **the study on supply chain management practices in the Faffa Food Share Company** is original work of my own and has not been presented for a degree in any other University, and that all the sources of materials used for the thesis have been duly acknowledged.

Daniel Moti

(Candidate)

Signature ----------

Date ----------

This is to certify that the above declaration made by the candidate is correct to the best of my knowledge.

DR MathiwosHinsermu
(Thesis Advisor)

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DEDICATION

I dedicate this thesis to my family. This study is the fruit of their sacrifice and dedication to supporting my studies and career

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ACRONYMS AND ABBREVIATIONS

APICS American Production and Inventory control Society

CI Customer Integration

CPFR Collaborative Planning, Forecasting and Replenishment

CSCMP Council of Supply Chain Management Professions

CTM Collaborative Transportation Management

ERP Enterprise Resource Planning

FFSC Faffa Food Share Company

ICT Information Communication Technology

IIS Integrated Information System

I T Information Technology

JIT Just- In-Time

MRP Material Requirement Planning

SAP System Application and Product

SC Supply Chain

SCM Supply Chain Management

SCR Supplier and Customer Relationship

SCOR Supply Chain Operational Reference

SI Supplier Integration

SPC Statistical Process Control

VMI Vendor Managed Inventory

LIST OF FIGURE

ABSTRACT

Different companies may adopt different supply chain management practices to enable them achieve the objectives if their supply chain. This becomes necessary due to the fact that the modern business environment puts managers in demanding situations where they have to balance between the demands of consumers and the company's desire for growth and enhanced profitability. Most of the managers have therefore realized that for them to efficiently and effectively manage such a situation, they must focus on supply chain management from a strategic perspective. Companies all over the world are pursuing supply chain as the latest methodology to reduce costs, increase customer satisfaction, better utilize assets, and build new revenues. To conduct this study the research has five objectives these are To study the existing practices of supply chain management from the five SCM practices perspectives ,To investigate and get insight about the level of integration and coordination of the case company with its suppliers and customers, To investigate and measure the perceived performance of the supply chain flexibility and adaptability and to get better insight in the case company, To identify factors affecting implementation of supply chain strategies at Faffa Food Share Company and To identify measures to be taken to improve supply chain management at Faffa Food Share Company. For the accomplishment of this, the study was employed through descriptive design in which the selections of the respondents were carried out by using judgmental, purposive and convenience sampling techniques. The total numbers of FFSC employees are 251 out these, 50 employees was considered as a sample unit. Both primary and secondary sources of data were used for this study. Likert scaled questionnaire and interviews were used as instruments for data collection. The data was analyzed by using descriptive statistics and presented in tables. The major findings indicates that, most SCM practices are poorly practiced with in the FFSC's SC. whereas IT and training practices are poorly applied which represented with group mean value of 2.437 and 1.972 respectively. Sales forecast information sharing with customers is poor that convey 2.34 mean value. Based on both quantitative and qualitative analysis the case company has poor relationship with its customers and suppliers. General management incapability, High management cost, Improper distribution time management and Improper production schedule which conveys mean value of 3.94, 3.84,3.70 and 3.56 are the major headaches or challenges of the case company's SC which prohibits effective implementation of supply chain management.

CHAPTER ONE: - INTRODUCTION

1.1 Background of the study

In today's competitive business there is an increased focus on delivering value to the customer. The focus on attention of most of businesses is providing products and services that are more valuable compared to its competitors. Concurrent to the focus on customer value, the marketplace in which businesses operate today is widely recognized as being complex and turbulent (Christopher, 2000; Goldman *et al.*, 1995). The growth of supply chain aims to improve profitability, customer response and ability to deliver value to the customers and also to improve the interconnection and interdependence among firms. Due to market expanding from domestic market to global market increase customer demands, for instance demanding lower prices, faster delivery, higher quality products or services and increase the variety of items (Braunscheidel, 2005). According to Towil and Christopher, (cited in Thatte, 2007), the end customer in the marketplace today determined by the success of failure of supply chains management practices. They stated that getting the right product, at the right price, at the right time to the customer is not only improved competitive success but also the key to survival.

For any firm to earn good returns and create value for its customers, embracing excellent supply chain management (SCM) practices is very paramount. Implementation of sound supply chain management practices provides a firm with a competitive advantage over its competitors and enables it to enhance its revenues and drastically reduce its operational costs. Effective and efficient supply chain management now has become a very valuable and important way to remain competitive in the market and to improve the organizational performance (Moberg, Cutler, Gross, &Speh, 2002). It plays a very important role in staying competitive because the competition among the organizations is effected by the SCM. Therefore organizations have to understand the concepts and the practices of SCM if they have to remain competitive and enhance their profitability (Childhouse&Towill, 2003).

Because of globalization, steep competition, change in market demand and the rapid adoption of outsourcing, today's organizations are operating in a "networked" business environment. As far as the business world is concerned the customer, who is perceived as the ''king'', is the driver of change in the market place. Their changing attitudes are pushing businesses to rethink their strategies. In general, business environment is characterized by unpredictability and changeability. Therefore, adopting a more integrated approach to supply chain (SC) relationship management has been increasingly viewed as a way of meeting changing customer needs (Eyong, 2009).

The integration of supply chain processes can provide an effective means by which costs can be reduced and customer service levels improved. To achieve it, organizations should become part of an extended, integrated supply network can also expect that this will require an infrastructure enabling effective information flows and streamlined logistics. The most effective network therefore is the mix of information requirements, physical logistics and collaboration right, providing shared benefits to a majority of partner organizations (Power, 2005).

As it was mentioned by Neeley, (2006) that Forrester was the first researcher who gave the concept that would eventually become Supply Chain Management. Forrester's theory of distribution management was introduced in 1950's. This theory was about an understanding of inter-organizational relationships and coordination.

Supply chain management (SCM) has raised the interest in the past years as organizations started to realize that, the actions taken by one member of the chain actually have an influence on the profitability of other members in the chain. This scheme generated the act of competing as a part of supply chain against the other supply chains instead of competing as a single firm against other individual firms (Silver. et al., 1998).

This is due to the fact that, nowadays the new source of business competition lies outside the walls of organizations, and it is determined by how effectively companies link their operations

with their supply chain partners such as suppliers, manufacturers, distributors, wholesalers, retailers and end customers (Silver. et al., 1998).

Therefore, Supply chain management offers a management philosophy to manage activities and integrate with down-streams, up-streams as well as firms internal supply chain operations (Ross, 1998).

With the growth of inter-network competition, individual business may no longer compete solely as independent company but must do as supply chains. Companies associated in the same network require efficient supply chain integration in order to optimize their collective performance. Moreover, numerous companies have started to appreciate that, as SCM plays a major role in building a sustainable competitive edge for their products in highly competitive markets (Jones, 1999).

Because of the collaboration between members of the chain, supply chain management gives significant opportunities to the firms involved in terms of cost reductions, revenue enhancement, flexibility, customer satisfaction, speed and economy of time (Forrester, 1958 cited in Neeley, 2006).

Morten (2003) concluded the general understanding of the business environment in most industries as, competition has been increasing and the condition under which business is running becomes more turbulent. By understandably this, many companies are now focusing on improving and developing their supply chain processes because it can play a significant role in customer service and their profitability.

Currently the Ethiopian business environment is becoming customer driven, competitive and technology based. Hence, it is unquestionable that companies should build an integrated and efficient system through which resources would flow in a seamless and instantaneous manner across the supply chain (Assefa. B, 2011).Yohannes.A (2015) also suggest that the previous practices of Ethiopian manufacturing industries with regard to supply chain management is traditional in that, partners involved across the supply chain act independently in designing,

developing and executing strategies with minimum effort made to align strategies with the partners doing business with them particularly suppliers, whole sellers, distributors, and customers.

Fasika, Thiobe& Marcus (2014) get result that, the degree of integration is low when it comes to Ethiopian firms but there were some promising initiatives undergoing. And, also suggests that the current supply chain integration requires information and communication technologies that enhance data management in great way both from automated sources such software applications

(Addis T, 2015) adds that, in Ethiopia in most of product and service giving activities have a major gaps regards to their performances and that could be due to lack of adequate SCM practices. Lazarovic (2007) suggest that Supply Chain Management is now recognized as a critical business process for companies manufacturing or distributing products. This is because customers' demand for most products are ever more demanding in response time, in choice and in seeking more competitive prices Russell,(2006) as a coping up strategy suggest that the relationship with suppliers and other partners should be supported with an appropriate level of collaboration, information technology, information system and lean –agile principles .

Therefore, the researcher has, thus, been inspired to conduct a study on the practices of SCM in Faffa Food Share Company and forward possible suggestions that will enable the company to be competitive.

1.2. Company background

Faffa Foods Share Company was established 50 years ago in 1962, to produce a balanced diet for malnourished children. Faffa Foods was a public enterprise, which was privatized to Petram Private Limited Company, seven years ago; in the year 2008. Under the new ownership, Faffa foods Share Company has expanded its capacity, diversified and introduced new products. At present, the company has an installed capacity to produce more than 21.6 thousand tons of nutritious foods per annum.

Faffa food Share Company, for over 50 years, has been and continues to be a pioneer of the food processing industry in Ethiopia. The company aims to reduce the risk of malnutrition among children by producing low cost high protein food for children who are being weaned from breast milk. Faffa is one of the top suppliers of baby foods for Ethiopian children, including fortified foods and breakfast cereals. It is the only choice for many Ethiopian families. While it's commercial products provide the needed nutrition for children to be mentally, and physically healthy, it is also one of the main suppliers of relief products to areas afflicted by malnutrition and in severe cases, famine. Their overall goal is to produce and sell various kinds of pre-cooked baby foods, semi-cooked supplementary foods, protein enriched fortified flours emergency foods and related products of high nutritional value that are also affordable in response to the growing demands of consumers. Looking into the future, the company is planning to produce new products and remain competitive and strongly focused on consumer satisfaction by providing the healthiest and most nutritious food products to the public.

Regarding the market demand, Faffa food Share Company has a strong market share of 20% in baby foods, 18% in milk, 30% in relief and 1% in snacks (Faffa Foods Share Company Business Plan, 2014 -2016).

The Addis Ababa city market channel survey conducted by Faffa Foods Food Share Company in 2012 indicates that 90.71% of the products are distributed and reaches the consumer through retail shops, 1.64% through supermarkets, 0.2% by wholesalers and others 7.63%. The findings clearly show that all suppliers are competing on the basis of marketing and distribution of their products, mainly through retail shops. Faffa Food Share Company distributes its products through retail networks mainly through private retail shops that constitute 98% of its total sales. The reaming 2% is distributed through own retail shops, supermarkets and mini market stores. The company has competitive advantage over its competitors in terms of the size of retail outlets, availability and visibility of its most parts of the Addis city and major towns in the regional states. In addition the established partnerships with retail outlets, door to door delivers, and credit sales provision are an added value to its competitiveness in the market. (Faffa Foods SC - Business Plan (2014 -2016).

Vision

To play a leading role in building mentally and physically capable generation producing highly nutritional value products while becoming an internationally competitive business entity.

1.3.Statement of the Problem

It is natural that every business organization whether small or large, private or government, domestic or international operate in a turbulent and uncertain environment. In the context of changing customer expectations, technological discontinuities, increasing environmental uncertainties, business managers have a big challenge of making the right strategic choice and setting their strategic priorities in order to allocate their resources to different functions in an efficient manner for business success. Due to this, managers must develop new tools, new concepts, new strategy and the new mindsets to cope with the turbulent and chaotic environments leading to discontinuous change (Jain, 1997).

As competition in the 1990s intensified and markets became global, so did the challenges associated with getting a product and service to the right place at the right time at the lowest cost. Organizations began to realize that it is not enough to improve efficiencies within an organization, but their whole supply chain has to be made competitive. The understanding and practicing of supply chain management (SCM) has become an essential prerequisite for staying competitive in the global race and for enhancing profitably (Tan KC etal 2002*).*

Companies which have recognized opportunities that exist there in the supply chain management and directed their effort towards developing a competitive supply chain based on speed, flexibility, innovation, quality & responsiveness had significantly improve customer service and their profitability. Therefore, the primary goal of supply chain management is to enhance competitive performance by closely integrating the internal functions within a company & closely linking them with external operations of suppliers, customers, and other channel members (Kim, 2006).

For seeking the efficient and effective cooperation between organizations of a supply chain, each chain member must seek not only to improve its own individual competitiveness (i.e. quality, cost, delivery lead time, and etc.) but also improve the competitiveness and performance of all enterprises in its supply chain. This involves sharing of information, working together to reduce costs, cut lead-time and building total quality into all the stages of the supply chain (Davis, 1993).

Makweba&Xu, (2009) concluded that, the majority of food processors operate individually without any strong relationship with their downstream partners apart from sell-buy relationship. Each member within the network seeks to optimize individual profit rather than the entire supply network. This is an implication of yet, reform heterogeneous supply chains is not an easy task, since each company has individual work structure, organizational structure, work flow, information flow, and culture.

With the use of SCM, enterprises can rationalize manufacturing processes across functional or organizational boundaries, and possess up-to-date production schedule of suppliers and avoid the bullwhip effect and finally promote the product and service quality (Yan and Cheng 2001).

Lazarevicetal., (2007) disclosed that, in order to make the SCM effective there must be effective implementations of the supply chain management practices, namely good supplier and customer relationship, information sharing, internal operation, information- technology and training of employees among the upstream, internal and down streams of the supply chain. This would be applicable to the extent of expected degree when there is trust and honest among the supply chain members.

On the other hand Lee et al., (2000) suggested that trading partner companies, should get out of mere coordination and move towards collaborative SCM in an effort to reduce the information imbalances that result in the “bullwhip’’ effect, while increasing their responsiveness to market demand and customer service.

In recent days the organizations competes on supply chain management rather than individually. Any organization can get a competitive advantage on another organization through effective and efficient supply chain management (Hassini, 2008). This concept concluded that supply chain management is the basis for all organizational worlds to compete with each other's. It shows that there is nothing else but supply chain management on which the organizations can survive.

Any organization's ability to show effective performance always based on successful and effective adoption of supply chain activities with proper sequence and practices. These practices includes information distribution, facilities management and be objective. And barriers to supply chain management actually increase a firm's performance when a firm competes with those barriers to create linkage between supply chain activities (Richey et al., 2009). If any firm want to perform effectively it must adopt the ways of information distribution, management of facilities such as logistics, transportation and where housing. It also exists in reality that barriers of supply chain management are actually play to increase the organization's performance when it compete with them to create smooth flow among the supply chain activities.

Olsson and Skjolde, (2008) conclude as, a food supply chain is complex, time-critical and dynamic and the Swedish consumers' are experienced with products that is lower food quality than achievable, shorter shelf life than possible, more waste than necessary and in the worst case, health risks due to a combination of limited knowledge in all steps in the food supply chain and certain negligence in the food handling.

Therefore, food supply chain needs effective management, integration, knowledge, and due attention throughout the supply chain. If properly implemented SCM can improve the company's responsiveness, flexibility and efficiency (Olsson and Skjolde, 2008).

However, most of the researches related to the supply chain managements were carried out in developed countries which have different economic, political, technology, social, legal and cultural status. As a result, it may be difficult to directly apply and generalize that the same practices and collaboration as well as problems of SCM exists in Ethiopia. This is because of Ethiopia has different Economic, political, social, legal and cultural status than other countries.

In Ethiopia the practice of integration, collaboration, and having willingness and the trend of managing the SC from supplier to the customer is traditional i.e., not more than just buy–sale/ transactional relationship. Even if there is SC by default it is not well managed, and implemented for getting the benefits resulted from effective SCM. Hailemichael (2011) also suggested that supply chain management practice in Ethiopia is in the beginning stages, there are small numbers of companies integrating it to their organizational system. But ,many manufacturers and distributors are waking up to the potential for the major cost reduction and service improvements offered by implementing best practices in their supply chain(Haque& Islam, 2013). So that, each partners with in the SC are using their own individual efforts to improve their own competitiveness (like, quality, cost, delivery lead time, and etc.) but it is not as such effective. In summary, there was less insight about the level of integration and collaboration with supply chain upstream and downstream partners, agility, and supply chain implementation strategies. FFSC is one out of these companies.

1.4. Basic research questions

The purpose of this studyis primarily aimed to answer, the practices of supply chain management inFaffa Food Share Company and more specifically to answer the following basic research questions.

1. What looks like the case company's strength regarding supply chain management practices?

2. What is the level of integration and collaboration of the case company with its suppliers and Customers?

3. How flexible and adaptable is the supply chain management of the case company?

4. What are challenges faced by the case company in implementing supply chain strategies?

5. What measures should be taken to improve supply chain management at FFSC?

1.5. Objectives of the study:-

1.5.1 General objective:-

The general objective of this paper was to study supply chain management practices of the case companywith the aim of identifying gaps, potentials and constraints for development of effective and efficient supply chain management practices.

1.5.2 Specific objective:-

In relation to the general objective of the study, the specific objectives of this study are:-

- To study the existing practices of supply chain management from the five SCM practices perspectives;

- To investigate and get insight about the level of integration and coordination of the case company with its suppliers and customers.

- To investigate and measure the perceived performance of the supply chain flexibility and adaptability and to get better insight in the case company.

- To identify factors affecting implementation of supply chain strategies at Faffa Food Share Company.

- To identify measures to be taken to improve supply chain management at Faffa Food Share Company.

1.6Significance's of the study.

As different literatures point out, the supply chain management concept and strategy have significant role for any Food manufacturing company, provided that companies implement the supply chain management successfully. Effective and efficient supply chain management creates value to customer as well as the rest of the supply chain actors and enables the supply chain firms to maintain or gain competitive advantages over their competitors. Besides, in the contemporary business environment, individual firms will not perform and compete independently. There is no more competition among individual firms, but it is among the supply chain network.

Therefore, the assessment and result of this study about the contemporary global management philosophy which is daily managers conversation at the edge of complex and dynamic business world is believed to have the under mentioned paramount significances to business practitioners, academicians, regulators and government and the case company. So, the result of this research will have contribution as mentioned below;-

Business practitioners

Findings from this study indicated the performance of organization depended on how well it implements SCM practices. The main reason to why companies struggle to accomplish in the business world is to maximize profits while minimizing operation costs and this cannot be successfully achieved unless their organizational performance is higher in terms of deliver dependability, cost saving, quality products and services, forecasting accuracy, flexibility, sales growth, just to mention the few. Therefore the study demonstrated tangible benefits organization achieved when effectively and efficiently implement SCM practices and vice versa is true.

Academicians

The study's findings provided a room to other researchers to use it as reference point to their future studies related to this subject matter. It will enable them to see the gap of what is unknown, what needs further research, elaboration and improvement. It added value to the body of knowledge in bridging the gap between theories and practical implementation of SCM practices in food processing firms.

Regulators and the government

The study provided an aid to the government of Ethiopia and policy makers towards their development process of improving the food industry in the country. The study came up with an understanding and encouragement to the regulatory organs, policy makers to take some necessary actions to address the importance of implementing efficiently and effectively SCM practices in food processing firms so as to improve their organizational performance and increase their competitive advantage in the global markets.

The case company

It will also be used as an input for the case company in designing and implementing effective and efficient supply chain strategy that will significantly improve company's performance in terms of profitability and customer satisfaction.

1.7 Scope of the Study

SCM encompasses vast areas of managerial practices. Even though it is difficult to exhaustively mention the SCM areas due to varying literatures, and infant nature of field with regard to practical implementation of models and frameworks, the following are the major one; collaboration, Information technology, Logistics operation, Leadership and supply chain, Green supply chain and Integrated supply chain. However, it is difficult and unmanageable to conduct the study in all areas that summarizes SCM in terms of time, finance, and research manageability. Therefore, the scope of this study will be delimited to specific context that is practices of SCM in the case of Faffa Food Share Company. The subject scope of this study is

also limited to the company's point of reference towards supplier and customer relationship, information sharing, information technology, training, internal operations, supply chain collaboration/integration , supply chain flexibility and adaptability, challenges of supply chain management strategies and measures to be taken to improve supply chain challenges .The area of the study is also limited to the case company i.e., Faffa Food Share Company and the down streams of the supply chain.

1.8Limitation of the study

Among the major limitation the research was face lack of Cooperation of the respondents and their commitment to completely fill the questionnaires.The other limitation that the study was conducted on the organization sides which uncover the other stakeholders such as government (Government regulation on industries) and this factor limited the outcome of the research. Since, it was difficult to cover entire domain of supply chain just in one study. The research sample didn't incorporate all the supply chain participants namely the suppliers and customers due to time constrained so that it couldn't be applied to the complete chain of the company under investigation.On the other hand constructs of SCM are not only limited to SCM practices selected in this study. Therefore it was not representing all constructs that could explain SCM practices.

1.9 Organization of the study

The research paper was organized into five chapters. **The first chapter** contains background, statement of the problem, objectives, research questions, significance of the study, scope of study, limitations of the study and organizations of paper. **The second chapter** deals with the literature review which shows a review of related topics for the research and conceptual framework of the study with operational definition. **The third chapter** is research methodology which includes, research design, unit of analysis, sampling and sampling technique, data collection and instrument, data analysis techniques and ethical considerations. **The fourth chapter** handles data analysis, result and discussion. **The fifth chapter** finalize the paper by

summarizing the major findings, giving conclusion and recommendations, by listing limitation of the study and by giving suggestion for further study

1.10Definition of terms

Bullwhip effect- it is the distortion of information with in the supply chain which lead to an increment of inventory fluctuation than really expected.

Integration: is the process of combining or coordinating separate function processes, or producers and enabling them to interact in a seamless manner (Sunil, 2004).

Lean supply chain is a philosophy that seeks to shorten the time between the customer order and the shipment to the customer by eliminating waste.

Supply chain: it is all inter-linked resources and activities needed to create and deliver products and services to customers (Sunil, 2004).

Supply Chain Management: is a network of relationships, with the goal to deliver superior value, i.e., the 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 (Christopher 2005).

The case company: -Faffa Food Share company

CHAPTER 2- RELATED LITERATURE REVIEW

This chapter presents a summary of the conceptual framework, theoretical literature and empirical literature reviewed by the researcher. Theoretical literature reviews includes various concepts and theories related to supply chain management. Empirical literature review includes review of various empirical studies conducted o supply chain management practice while the conceptual framework describes various variables of the study.

2.1 INTRODUCTION

The world is becoming a more complex business environment where offshore production, partnership, time to market, customization and cost reduction, risk mitigation, etc. are essential for survival in the competitive market. In the modern era of technology, manufacturing firms are looking forward to increase their efficiencies and performances using advance information technology in supply chain management. Supply chain management is one of the major tools that play a vital role to enhance organizational efficiency in this world of new technology. Supply chain management is focusing on management of activities from raw material sourcing to final product distribution to the end user. It includes the suppliers of raw material, transformational processes, delivery of final product to the end user. Supply chain management includes the activities inside and outside the manufacturing companies that are done by the supply chain partners to deliver values to final customers. It means the management of organization must create check and balance on internal and external activities of organization. To increase organizational efficiency, the integration among supply chain activities is very essential. Supply chain management includes how a company share information and take action in order to ensure the best flow of product from raw material to end user (Irum, et al., 2013). Nowadays, business companies compete on supply chain management rather than competing individually with internal competencies. Any organization can get a competitive advantage over its competitors through effective and efficient supply chain management (Hassini, 2008). According to this author, supply chain management is the basis for all business organizations to compete with each other. It also means supply chain management enables companies even to survive through supply chain effectiveness and efficiency. Supply chain practices include information sharing, facilities

management, transportation, sourcing, distribution and linkages with partners. For a company to perform effectively, it must adopt the ways of information distribution, management of facilities such as logistics, transportation and warehousing (Richey, et al., 2009). To improve the overall performance of supply chain, the members of supply chain may behave as a part of a unified system and coordinate with each other. Thus "coordination" comes into focus for successful supply chain performance and firm's competitive advantages.

Supply chain management is increasingly being recognized as the integration of key business processes across the supply chain. For instance, Hammer (2001) argues that since companies have implemented processes within the firm, they need to integrate them between firms. Streamlining cross-company processes is the next great frontier for reducing costs, enhancing quality, and speeding operations. He further asserts that this decade's productivity wars will be fought using the supply chain. The victors will be those companies that are able to take a new approach to business, working closely with partners to design and manage processes that extend across traditional supply chain boundaries. They will be the ones that make the leap from efficiency to super efficiency in the supply chain through implementation of good supply chain management practices.

Effective SCM requires mutually sharing risks and rewards that yield a competitive advantage. Risk and reward sharing should happen over the long term since it is important for long-term focus and cooperation among the supply chain members. There are a number of Supply chain management practices that organizations may adopt according to the need the organizations has. Tan et al. (2002) argue that there are six main supply chain management practices that are common in most organizations. The first practice involves the need to integrate the supply chain of an organization so that real-time processing and information sharing is made possible. Some organizations also take keen interest on the characteristics of their supply chains to ensure they meet company objectives. The other practices include customer service management and Just in Time practice in production and delivery of products.

2.1.2 Definitions of SCM

Different author at different time have given various definition for the newly emerged management philosophy, supply chain management (SCM), even if the authors were relatively intended to mean the same thing especially on the fundamental concept, and principles. For better understanding the following definitions are presented and considered to be the theme of this study.

Chopra, Sunil and Mendl (2001) define a supply chain as all stages involved, directly or indirectly, in fulfilling a customer request. They also assert that a supply chain not only includes the manufacturer and suppliers, but also transporters, warehouses, retailers, and customers themselves. This implies that a supply chain is a network of firms that work together to deliver value to a customer. Every business enterprise fits into one or more supply chains and has a role to play in each of them. The pace of change and the uncertainty about how markets will evolve has made it increasingly important for companies to be aware of the supply chains they participate in and to understand the roles that they play. Those companies that learn how to build and participate in strong supply chains will have a substantial competitive advantage in their markets (Willey, 2009).

Logistics, in contrast to supply chain management, is the work required to move and position inventory throughout a supply chain. As such, logistics is a subset of supply chain management and occurs within the broader framework of a supply chain. Logistics is the process that creates value by timing and positioning inventory. It is the combination of a firm's order management, inventory, transportation, warehousing, materials handling, and packaging as integrated throughout a facility network. Integrated logistics serves to link and synchronize the overall supply chain as a continuous process and is essential for effective supply chain connectivity (Bowersox et al., 2000). Supply chain management can be viewed as a systemic and strategic coordination of operational functions both within a given company and also between supply chain partners working within a chain, with a view towards improving the long-term performance of each company that is part of the chain and of the whole of the chain itself (Mentzer, et al., 2001).

Martin Christopher (1980) defines supply chain management as: supply chain management is a network of relationships with the goal to deliver superior value, i.e., the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to supply chain as whole. It would be useful to look at some definitions of supply chain and supply chain management: supply chain is all interlinked resources and activities needed to create and deliver products and services to customers (Sunil, 2004).

The known authors Heizer and Render (2011) define SCM as the integration of the activities that procure materials and services, transform them into intermediate goods and final products, and deliver them to customers. These activities include purchasing and outsourcing activities, plus many other functions that are important to the relationship with suppliers and distributors. SCM includes determining transportation vendors, credit and cash transfers, suppliers, distributors, warehousing, and forecasting and production information.

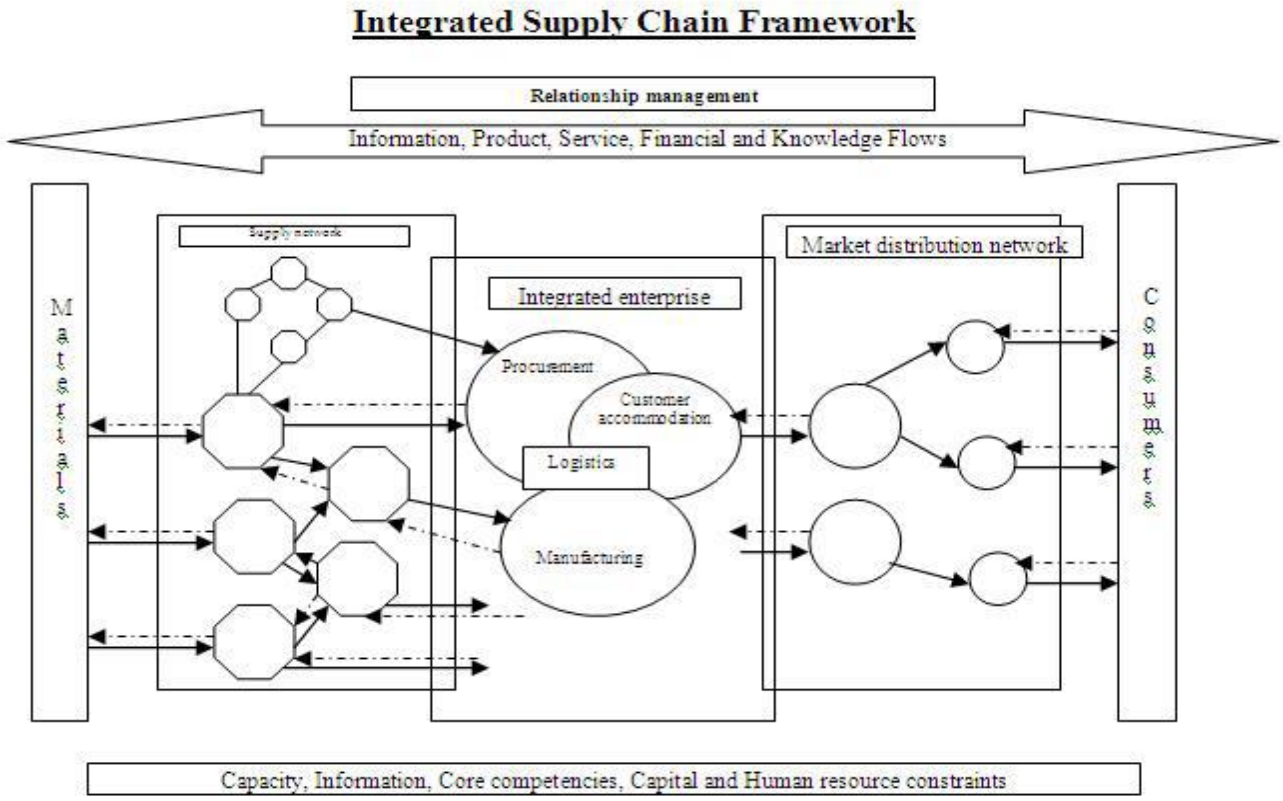
American Production and Inventory Control Society (APICS, 1990) define the supply chain as the processes from the initial raw materials to final consumption of the finished products linking across supplier-user industries. The supply chain constitutes all functions within and outside an industry, which enable the value chain to make products and provide services to customers (Inman, 1992). Some researchers suggested a clearer SCM definition by adding the information system necessary to monitor all of the activities (Lee, 2002; Morgan, 1995; Talluri, 2002).

Recently, the Council of SCM Professionals (CSCMP), which is the premier organization of supply chain practitioners, researchers, and academicians, has defined SCM as: "SCM encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, SCM integrates supply and demand management within and across companies" (Ballou, 2007). Scott and Westbrook (1991) described SCM as the chain linking each element of the manufacturing and supply process from raw materials to the end user. This management philosophy focused on how firms utilized their suppliers' processes, technology, information, and capability to enhance competitive advantage

and the coordination of the manufacturing, materials, logistics, distribution and transportation functions within an organization (Lee and Billington, 1992). SCM is an integrative philosophy to manage the total flow of a distribution channel from supplier to the ultimate user (Cooper et al., 1997).

The Global Supply Chain Forum identified eight key processes that make up the core of supply chain management (Cooper, et. al., 1997): customer relationship management, customer service management, demand management, order fulfillment, manufacturing flow management, procurement, product development and commercialization and returns management. The general concept of an integrated supply chain is typically illustrated by a line diagram that links participating firms into a coordinated competitive unit in Figure 2.1 below. An integrated supply chain is multi-firm relationship management within a framework characterized by capacity limitations, information, core competencies, capital, and human resource constraints. Within this context, supply chain structure and strategy results from efforts to operationally link an enterprise with customers as well as the supporting distribution and supplier networks to gain competitive advantage. Business operations are therefore integrated from initial material purchase to delivery of products and services to end customer. Value to the partners results from the synergy among firms comprising the supply chain with respect to five critical flows: information, product, service, financial, and knowledge (Bowersox et al., 2000).

Figure 2.1 Integrated Supply Chain Frameworks. Source: Adapted from supply chain faculty of Michigan State University (Bowersox et al., 2000).



Each firm engaged in a supply chain performs logistical activities. Such logistical activities should be integrated within that firm and within overall supply chain performance. The generalized supply chain arrangement illustrated in Figure 2.1 above, logically and logistically links a firm and its distribution and supplier network to end customers. This means that the integrated value-creation process must be managed from material procurement to end-customer product and/or service delivery. The integrated supply chain perspective shifts traditional channel arrangements from loosely linked groups of independent businesses that buy and sell inventory to each other toward a managerially coordinated initiative to increase market impact, overall efficiency, continuous improvement, and competitiveness (Bowersox et al., 2000).

2.1.3 Evolution of SCM

Though there are different thought SCM were emerged from the term Logistics. Before the 1950s, logistics was thought of in military terms (Ballou, 2007). According to Tan (2001), the

primary operation strategy to minimize unit production cost is mass production in 1950s and 1960s. It had to do with procurement, maintenance, and transportation of military facilities, material, and personnel. The study and practice of physical distribution and logistics emerged in the 1960s and 1970s. Then physical distribution and logistics were envisioned to have broad responsibilities for managing activities associated with product flow from the points of raw material acquisition to the end consumer (Ballou, 2007). In the 1970s however, material requirements planning was developed and managers realized the impact of huge work in process inventories on manufacturing cost, quality, product development and delivery lead time (Tan, 2001). Also Rushton *et al.,* (2000) stated that in 1970s development of distribution concept that was included in the functional structure of the organization. According to Ballou (2007), Logistics were emerged by integrating different fragment activities of material management and physical distribution in such period. The intense global competition of the 1980s forced world class organizations to offer low cost, high-quality, and reliable products with greater design flexibility. Manufacturers utilized just in time and other management programs to improve manufacturing efficiency and cycle time (Tan, 2001).

The concept and need for integrated logistics systems were organized by some companies. The concept of SCM emerged in 1990s due the need of focusing not only on organization's boundaries but also those function outside the boundaries that contribute to the provision of the product to the final customer. In addition to the procurement professional professionals, logistics experts carried the concept a step further to incorporate the physical distribution, transportation, and warehousing functions. The evolution of SCM continued into the 1990s as organizations further extended best practice in managing corporate resources to include strategic suppliers and the logistics function in the value chain (Rushton *et al*., 2000; Tan, 2001). Since the issues of logistics were mainly considered as inbound and to some extent are taking some activities if outbound, SCM were emerged in 1990s by including activities such as strategic planning, information services, marketing/sales and finance (Ballou, 2007).

As stated by Oliver and Webber cited in Lambert and Cooper, (2000), the term SCM was originally introduced by consultants in the early 1980s and has subsequently gained tremendous attention. Also the interest in SCM has steadily increased since the 1980s when firms saw the

benefits of collaborative relationships within and beyond their own organization. Firms are finding that they can no longer compete effectively in isolation of their suppliers or other entities in the supply chain (Lummus and Vokurka, 1999).

Also the research of Lambert and Cooper (2000) shows that managing the supply chain involves three closely interrelated elements: the supply chain network structure; the supply chain business processes; and the management components. They suggested that the structure of activities or processes within and between companies is vital for creating superior competitiveness and profitability, and that successful SCM requires integrating business processes with key members of the supply chain. The implementation of SCM involves identifying the supply chain members with whom it is critical to link, what processes need to be linked, and what type/level of integration applies to each process link. The objective of SCM is to create the most value, not simply for the company, but for the whole supply chain network including the end customer (Lambert and Cooper, 2000).

Historically, the concept of supply chain existed right from the evolution of trade. Supply chain management pass through four stages: Early age, MRP age, ERP age and SCM age.

EARLY Age

During this time there was fragmented supply chain approach. Customers and suppliers were treated as an external entity and most of the time ignored for any strategic decisions. Organizations were looking at the various departments including sales, production, finance, human resource, etc. as a separate functionalities and no cohesiveness were observed among them. Every department was considered as an isolated island and hostile relationship were observed with other trading organizations like suppliers and wholesalers. The scenario started changing by the advert of the MRP system.

MRP Age

MRP (Material Requirement Planning) is a system of planning and scheduling the time- phased material requirement for production operation. The aim is to make available either purchased or company materials before they are required by the next stage of production.

To make materials available at the right time and place, the purchasing and production departments start to work together. As a result purchasing and production planning department were seen as functionalities and primal application of integration philosophy was seen through MRP age.

ERP Age

ERP (Enterprise Resource Planning) is business management system that is supported by multi-modal application software; integrate all departments or functions of an enterprise. In this age all departments were seen as one entity. There existed a common language and one approach in the entire decision making across the organization. Other entities like distributors, retailers or suppliers were not tightly integrated through in ERP. We can say that ERP helped organizations to integrate all its internal supply chain operations but failed to extend the integration across the external supply chain. In fact the key deliverable expected from ERP system was tightly integrated organizations. The relationships between the trading organizations were improving which has referred as partnership. This evolution ultimately resulted in to supply chain management.

Supply Chain management Age

SCM function is the outgrowth of the unified evolution of manufacturing management and logistics management function. The concept logistics management itself involved from the unified evolution of materials management and sales and distribution management.
In SCM age, all organized players are seen as one entity. It means the manufacturing organization closely operate with all other trading partners including customers at one side and suppliers at the other.

The firm integrated all of its internal supply chain operation as well as the external supply chain operations to deliver value to the final customers particularly and supply chains in general compete more today on the basis of time and availability of getting a defect- free product to the customer faster and more reliably than the competition is no longer seen as a competitive advantage, but simply a requirement table in the market. Customers are demanding products,

consistently delivered faster, exactly out time and with no damage. Each of these necessitates closer coordination with suppliers and distributors.

This global orientation and increased performance based completion, combined with rapidly changing technology and economic conditions, all contribute to market place uncertainty. This uncertainty requires greater flexibility on the part of individual companies and supply chains, which in turn demands more flexibility in supply chain relationships (Christopher1998).

2.1.4 Benefit of Supply Chain Management

SCM has been growing in importance, from the early practice of concentrating on internal processes to the web-linking of supply chain partners. Firms have been pressed to increase their operational efficiencies to stay competitive. Companies have begun to see the value in effective supply chain relations. Benefits found resulting from electronic SCM include lower inventory levels, quicker response to problems, higher quality levels, higher customer satisfaction, and more diverse product offerings. As internal processes have been improved, external relationships have been examined as the next area of business improvement. Yet, the supply chain must also become more open with its information sharing, and supply chain partners will need to develop a greater degree of trust. Clearly, the benefits of a pull-based operation are there if companies are willing to collaborate. Electronic SCM allows for the entire supply chain to become a community, dedicated to efficient operations and customer service (Lancaster *et al*., 2006).

Kim, (2006) studied effect of SCM practices, integration and competition capability on performance. It was found that the role of supply chain integration as an intervening variable means that even if a firm has excellent SCM practices and competition capabilities, close strategic alignment and coordination with its supply chain partners are indispensable for linking such SCM practices and competition capability to firm performance improvement. Accordingly, the strategic integration approach which properly utilizes partners' existing facilities and technologies by the way of short-term lease or contract may be advisable rather than the new investments on transaction-specific assets with partners.

Making a SCM a competitive advantage requires meeting two main challenges, the strategic challenge and the integration challenge. Developing deeper insight into how to determine what to outsource and when to partner is the key to addressing the first, and the ability to align interests, develop partnership networks and manage complexity and risk across the extended enterprise is crucial to meeting the second. Companies that can rise to both will set themselves apart (Leavy, 2006).

SCM appears to treat all organizations within the value chain as a unified and virtual business entity. It includes activities such as planning, product design and development, sourcing, manufacturing, fabrication, assembly, transportation, warehousing, distribution, and post-delivery customer support. In a truly and integrated supply chain, the final consumers pull the inventory through the value chain instead of the manufacturer pushing the items to the end users (Tan, 2001).

SCM often is the basis for a firm's competitive strategy, which is driven by increased outsourcing, expanding global operations, and heightened need for logistics customer service. Not only has managing supply chain costs become more important, as these costs are used in tradeoff with production costs, but supply chain strategy is increasingly viewed as a source for contributing to the revenues of the firm (Ballou, 2007).

2.2 Theoretical Literature Review

2.2.1. Drivers of Supply Chain Development and main initiatives

In today's global economy, companies face increasing pressure to reduce costs while maintaining production and quality levels to deliver results to the customers. Handfield, (2002) summarized the basic drivers for SC development as: Ever-increasing customer demand in terms of product and service cost, quality, delivery, technology, and cycle time brought by global competition.

Companies all over the world are pursuing supply chain as the latest methodology to reduce costs, increase customer satisfaction, better utilize assets, and build new revenues. In order to achieve these goals, companies must successfully overcome a numbers of challenges/ problems (Makweba&Xu, 2009).The consequence of this development is that companies are putting more and more efforts into developing new ways to increase competitiveness on the market in terms of more efficient and effective supply chain management.

2.2.2 Key Components of Supply Chain Management

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

2.2.3. Antecedents of Cooperative Behavior (Trust & Commitment)

Trust is the belief, willingness, and extent to which the partners rely on with whom one has confidence and will act in ways that will bring positive outcomes for the firms and does not want to take unexpected actions that may bring a negative outcome (Ganesan& Shankar, 1994).

Commitment of trading partners in the supply chain is the willingness of each partner to exert effort on behalf of the relationship along the supply chain (Balsmeiere& 1996; Lee & Kim 13 1999). Therefore, the two fundamental components for improving the relationship among supply chain are trust & commitment (Ruyter et al. 2001).

Trust & commitment among the supply chain partners will improve relationship with their future value. In order to make the relationship to be continued the supplier of supply chain must deliver the correct stock, in the correct quantity, at a price that is reasonable to both parties. This will increase the trust & commitment levels of the supplier relationship. When the relationship is becomes collaborative, it will allow the supply chain participants to maximize the efficiency of their capabilities, resources & lower their cost (Achim& Ritter 2003). Collaboration can be with suppliers and customers. Customer collaboration is gaining grip in many industries that are pushing to become more demand driven. Customer collaboration embraces the ability to sense demand signals and automatically replenish the customer's inventory on the basis of actual demand. This is most commonly seen in consumer products and other industries that operate downstream distribution structures that extend to retailers (www.sap.com/contactsap).

2.2.4. SUPPLY CHAIN INTEGRATION & COLLABORATION

The paradigm of supply chain management has gone through huge developments efforts to enhance the benefit out of it. Supply chain management seeks to enhance competitive performance by integrating the internal cross-functional units within a company in the supply chain and effectively linking them with the external operations of suppliers, customers, and other channel members to be successful (Otchere et al., 2013).

The objective of supply chain management is to maximize the overall value generated by the supply chain rather than profit generation by a single member company. Although the importance of supply chain integration is widely acknowledged, seamless coordination is rarely achieved in practice owing to several challenges (Hussain and Nassar, 2010). In recent years, there has been a great deal of empirical evidence to show that successful supply-chain integration can improve a firm's performance and competitive advantage (Wiengarten et al., 2010). Internal integration involves cross functional teams of specialists working together, sharing information, making product and making manufacturing decisions jointly and simultaneously (Otchere et al. 2013). Internal integration is a process of inter-functional interaction, collaboration, coordination, communication and cooperation that bring functional areas together into a cohesive organization (Zhao et al, 2011). Companies with a low internal integration strategy will achieve

low level of external integration and companies implementing the full internal integration strategy will have the highest levels of external integration. Generally, it is believed that firms achieve a relatively high degree of internal integration before they attempt to develop a higher degree of external integration (Otchere et al. 2013).

According to (Otchere et al, 2013), external integration is the other aspect of supply chain integration among the supply chain partners to gain competitive advantages over competitors. As the competitive environment is becoming increasingly challenging, companies are undertaking efforts to compete along multiple fronts. Nowadays, many firms find it difficult to compete in the competitive market environment by relying on their internal resources and competencies alone. They are becoming aware of the importance of collaboration with their customers and suppliers to obtain information and complementary resources so as to build competitive advantages. External supply chain integration reveals two major areas of emphasis: (a) customer integration (CI) and (b) supplier integration (SI). Customer integration is also known as forward integration which refers to the process of interaction and collaboration between an organization and its customers to ensure an effective flow of products, information and resources to customers (Zhao et al. 2002). Customer integration involves sharing demand information which enables the manufacturer to understand better the customer needs and to forecast better customer demand, as well as collaborative involvement of customers with respect to product design, provision of better quality products at lower cost and more flexibility in responding to customer demand (Flynn et al. 2010). Supplier integration is also known as backward integration which refers to the process of interaction and collaboration between the manufacture and its suppliers to ensure an effective flow of input supplies (Zhao et al, 2011). Supply chain management executives face unique challenges in the endeavor to integrate supply chain strategies with the overall corporate business (competitive) strategies and hence, coordination is rarely achieved in practice (Otchere et al, 2013). Most supply chain integration challenges emanate either from uncertainties or inability to co-ordinate several activities and partners. Customers are demanding better quality products, higher levels of service and reduced prices (Sweeney, 2011).

2.2.5. COLLABORATIVE PLANNING, FORECASTING, & REPLENISHMENT

CPFR is a process which stands for collaborative planning, forecasting and replenishment in the supply chain. The idea behind this process is to make collaborative actions by all members of the supply chain to come up with a shared vision and objective. Supply Chain partners along the chain share information based on customer trends and needs to create a single forecast that is visualized at all times by its members to react accordingly to sudden changes in demand (Cassivi, 2006). Retailers have the advantage of knowing the latest trends and customer's behaviours. Large manufacturers are implementing CPFR as a model to forecast and plan actions based on collaboration with retailers (Fliender, 2003). CPFR process generates cost reductions in large manufacturers due to short lead times and specially controls on the inventory levels in the supply chain (Caridi et al., 2006). Efficient consumer response is a strategy where retailers and suppliers work together in a cooperative manner to bring products to the final customer in a more efficient, faster, less expensive but still profitable way to the members of the supply chain (Corsten and Kumar, 2005). CPFR is the integration of all the members of the supply chain including the retailers and all the distributers involved .The potential benefit of this process is seen with the sharing of the information throughout the supply chain if they are effectively coordinated (Fliender, 2003). The use of electronic methods such as advanced software facilitates sharing of information.

Category management and efficient replenishment need to implement collaborative forecasting and planning in order to establish win -win situations of trading partners (Holmstrom, et al., 2002). A push-pull system is followed in a CPFR process. The push part of the supply chain is followed by upstream suppliers which work in a make – to - stock process in a just in time basis. Collaborative forecasts are used to determine lot sizes and stock level. This will ensure a low inventory on downstream companies. Downstream companies work in a make- to - order process or "pull" process. Based on historical data, they trigger the orders to the upstream suppliers to meet demands. The main objective of the system is quick response to rapid changes. CPFR increases level of relationship among the supply chain partners, improves the communication channels by jointly managing the process and sharing of information (Cassivi, 2006). Collaborative planning is a fundamental part of supply chain management. It is the first step of

CPFR with two fundamental stages: front-end agreement and joint business plans. Partners also develop collaboration initiatives and terms (Cassivi, 2006). Absence of collaborative planning with supply chain partners leads to significant negative impacts on supply chain performance (Attaran, 2004). Trust and the quality of information, with advanced IT infrastructure, shared between companies have a significant impact on effective collaborative planning and the performance of a supply chain (Petersen, et al., 2005). Collaborative Forecasting reduces bullwhip effects and improves supply chain performance (Eksoz and Mansouri, 2012). According to (Voudouris, et al., 2008), the overall objective of collaborative forecasting is "to synchronize demand forecasts between all customers and suppliers". Collaborative forecasting increases the accuracy of the aggregate forecasts. The potential benefits of collaborative forecasting reduce inventory holding cost and shortage cost, optimize the use of production capacity and adhere to production plans (Aviv, 2004). With all the challenges, collaborative forecasting enables to overcome inherent problems with traditional forecasting.

Owing to the complex nature of collaborative forecasting schemes, the challenges are categorized by Voudouris et al., 2008 as follow: human interactions and biases, traditional behaviors, communication and defining accountability among the partners. The importance of information technology to launch collaborative forecasting by supply chain partners has been addressed by many scholars (Aviv, 2007). Collaborative Replenishment is the third stage of CPFR, which includes making and fulfilling orders.

In the "replenishment" stage, it is required to generate orders according to sales forecast in order to connect collaborative replenishment directly to a forecasting activity (Liu and Sun, 2012). Collaborative replenishment spreads replenishment activities across the supply chain and facilitates collaborative inventory management in the supply chain operations. The benefits include improved customer service levels, increased order accuracy and decreased inventory. Transportation is also a key element in collaborative replenishment arrangements. There is relationship between collaborative transportation and CPFR. Collaborative transportation management (CTM) requires a conversion of order forecasts developed via CPFR into shipment forecasts, and insuring accurate fulfillment through collaboration (Esper and Williams, 2003).

Companies should combine CTM and CPFR in order to integrate customer procurement forecast processes and logistics demands (Chen and Chen, 2009).

According to Panahifar et al., 2013, successful collaboration arrangement need key enablers. These enablers for CPFR implementation vary due to the differences of industries and characteristics of the supply chain. The important enablers include: the creation of a high level of trust (Panahifar et al., 2013) and the importance of information (Petersen et al., 2005), reduced information distortion in the supply chain (Nishat Faisal et al. 2007). Senior management support, commitment and a clear communication/business plan are also two key prerequisites for successful collaboration (Panahifar, et al., 2013). Significant inhibitors (barriers) to the successful implementation of CPFR include: absence of shared targets; lack of budget for collaborative software; lack of partner trust; difficulties to calculate benefits; executive support obstacles; lack of real time coordination of information exchange; no adequate information technology and expertise (Min and Yu,2008). According to Chung and Leung, 2005), lack of adequate collaborative software is one of the barriers to collaborative schemes. Fear of losing competitive information (financial reports, manufacturing schedules, inventory values, intellectual property issues and information sharing by adversaries), lack of technical expertise, the availability and cost of technology have been cited as some of the main obstacles to CPFR implementation (Cassivi, 2006). CPFR implementation challenges are of two levels: fundamental and technical consisting of lack of trust, lack of mutual incentives and the need for security protocols in order to safeguard both buyers and sellers from leaks of proprietary information (Attaran and Attaran, 2007).

Companies implementing CPFR successfully ensure the following benefits: forecasting accuracy, reducing the amount of exchanged information, reducing the bullwhip effect, increased responsiveness, enhanced customer service quality, improved inventory management, operational efficiency, product availability assurance, improving design process, stronger relationship between partners, decreased supply chain cycle time, increased customization capability, reduced replenishment cycle time, increased revenues and earnings, increased margins, increasing shareholder wealth, decreasing cost of production, planning and deployment, maximum efficiency of members, a reduction of inventory in the supply chain, decreasing

working capital, reduction in production and inventory costs, reduced overall costs, increasing the sales of products and reduction in stock-outs (Kim and Mahoney, 2010).

According to Larsen et al., 2003 , CPFR , as a collaboration initiative among two or more parties in the supply chain with joint planning like promotional activities ,synchronized forecasting, and undertaking joint replenishment processes, generates the following benefits: increased sales, higher service levels, faster order response time, lower product inventories, faster cycle times, reduced capacity requirements, reduced number of stocking points, improved forecast accuracy and lower system expenses.

2.2.6.Supply chain management practices

(Tan et al., 2002) define supply chain management practices as a set of activities undertaken in an organization to promote effective management of its supply chains. From this definition one can conclude that components of SCM practices includes supply and material management issues, operations, information technology and sharing (ICT) and customer service (Tan et al. 2002). Other components such as technology, cost, inventory management, competitiveness and external regulations, according to McMullen (1996) needs to be managed effectively to achieve to business goals of each supply chain members which leads to value creation to end customer.

There are five basic dimensions/perspectives of supply chain management practices. These are namely; supplier and customer relationship, information sharing, internal operation, information technology and training (Perry &Sohl, 2000; Lazarevic et al., 2007).

2.2.6.1 Supplier and Customer Relationship (SCR)

Supplier and customer relationship is defined as a set of firms' activities in managing its relationships with customers and suppliers to improve customer satisfaction and synchronize supply chain activities with suppliers, leverage suppliers' capacity to deliver superior products to customers. This is due to the ultimate objective of SCM is to deliver products to the satisfaction of end customers (Tan, 2001).

Close customer relationship allows a company to be more responsive in fulfilling customers' demand and differentiate its product from competitors, sustain customer loyalty, &dramatically extend the value it provides to its customer through improving customer satisfaction by proactively seeking customers' needs and requirements. The ability to build a close relationship with customers will bring companies in to a long-lasting competitive edge (Bowersox et. al, 1999).

Supply chain management suggests that firms need to integrate with their suppliers and customers to achieve both financial and non- financial growth objectives .In today's competition, firms with a superior ability to provide services that customers perceive as valuable incur an important competitive advantage(Tan, 2001).

Stank et al, (2001) asserted that, the industry leaders increasingly build competencies to integrate with suppliers and customers and find that, these competencies lead them to supply chain excellence. Coordinating operational activities through joint planning with suppliers also results in inventory reduction, smoothing production, improve product quality, reducing supply uncertainty and lead time reduction (Lee, 2002).

Makweba&Xu, (2009) in their study, reviled that customers' need to be given its deserved weight. In today's competition, firms with a superior ability to provide services that customers perceive as valuable incur an important competitive advantage.

The food processors need to make commitments to learn what customers need and set strategies that implement customer friendly process relationship rather than the existing one buy-sell traditional relationship. This is because; in most cases customers base their purchasing decisions on the service they receive, not just on price. Therefore, quality and availability of the product that provides superior service to the customers is very important for the firm (Makweba&Xu, 2009).

2.2.6.2 Internal Operation

In addition to the upstream and downstream integration, SCM also emphasize on the importance of both effectiveness and efficiency of firm's internal operations on its performance. This is due to a significant element of SCM practice is an internal operations and they are the basis for developing a competitive advantage before embarking into external integrations. Poor internal operations can lead to failure in coordinating with external partners (Handfield& Nichols, 1999). To judge the SCM practice as an effective and value adding the internal operation should be flexible in responding to changing market needs, which is expressed on the basis of agility principles. This means that, a production system must be able to perform rapid change over in both order patterns and mass customization (Lambert &Cooper, 2000).

Thus, the effectiveness of SCM can be examined by the ultimate effect it would have on customer satisfaction through responsiveness and lower price resulting from lean internal operations. Automated orders and automated productions are the key enablers to realize the quick response program (Perry and Sohal, 2000).

2.2.6.3 Information Sharing

Information sharing is connected with IS, which is further connected to risk of uncertainty (bullwhip). This is because information sharing is highly considered the way to reduce demand uncertainty that result due to distorted information transfer across the value chain(Lee,2000).Information sharing is critical element of SCM. The way companies share information whatever the confidential level: determine success of collaboration. The nature of information to be shared across supply chain differs based on the degree of integration, institutional trust and availability of infrastructure that facilitate the practice. In principle, information flow across the value chain should real time, continuous, instantaneous and cost effective. For accurate and timely continuous and secured information sharing an appropriate information system must be in place. To this end most international companies engaged in SC collaboration like, Toyota, Dell and Wal-Mart have installed well-structured and Integrated information system(IIS) particularly: ERP and SAP(www SCM practices of Wal-Mart,WWWSCM practices of Toyota).

2.2.6.3.1 Level and Quality 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. Level (quantity aspect) of information sharing refers to the extent to which critical and proprietary information is communicated to one's supply chain partner. Shared information can vary from strategic to tactical in nature and from information about logistics activities to general market and customer information. Many researchers have suggested that the key to the seamless supply chain is making available undistorted and up-to-date marketing data at every node within the supply chain. By taking the data available and sharing it with other parties within the supply chain, information can be used as a source of competitive advantage. Sharing of information is one of five building blocks that characterize a solid supply chain relationship. According to Stein and Sweat as cited in (Karim and Rafiee, 2014), 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 (Karim and Rafiee, 2014).In this study, information sharing in supply chain is conceptualized as the extent of sharing business knowledge formally or informally with supply chain partners. Also it is associated with the amount of information shared among supply chain partners in downstream and upstream side of the supply chain and also the information intensity.

Quality of information sharing includes such aspects as the accuracy, timeliness, adequacy, and credibility of information exchanged. 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. Literature is replete with example of the dysfunctional effects of inaccurate/delayed information, as information moves along the supply chain. Divergent interests and opportunistic behavior of supply chain partners, and informational asymmetries across supply chain affect the quality of information. It has been suggested that organizations will deliberately distort information that can potentially reach not only their competitors, but also their own suppliers and customers. It appears that there is a built in reluctance within organizations to give away more than minimal information 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. Organizations need to view their information as a strategic asset and ensure that

it flows with minimum delay and distortion (Li et.al, 2006). Therefore, for the purpose of the study, information quality is conceptualized as accuracy, timeliness, adequacy, information exchanged reliability and completeness.

2.2.6.4 Information Technology (IT)

Nowadays, since IT is involved in every step of operation in each company, therefore it is not surprising that organizations' Supply Chain Management supported by adopting IT. Talluri, (2000) makes the comment that the advances in IT systems have given opportunities for organizations' to transform the way they manage their business.

In SCM, IT is highly regarded as a major enabler in achieving effective SCM. As a supply chain spans many organizations in developing products to customers both up-stream, downstream and many functional areas within a company, the implementation of IT allows the companies to increase communication and coordination of various value adding activities with their partners and between functions within their own operation (Simchi- levi et al, 2000).

In addition, to advance development of the internet technology offers significant opportunities for cost reduction, increasing flexibility, increasing response time, and improving customer services (Lee and Whang, 2001).

The benefits of IT in SCM do not come from the capabilities of IT itself; instead the significant benefits come from the combination of its application with corporate strategy and the nature of relationship between companies. IT will improve collaboration and coordination between supply chain members in the environment where trust and long–term commitment between partners exist (Chae, 2005).

Li et al, (2005) reviled that, the objectives of IT in SCM are; to provide the information availability and visibility to supply chain partners, to enable the collaboration with organizations in the supply chain and to allow the decision making based on the total supply chain information.

2.2.6.5 Training

Lee and whang, (2000) argue that information visibility throughout a supply chain will bring significant impact if companies do not have a capability to utilize the information in effective ways. Hence companies need to consider the skills requirements and education when integrating their value-adding activities with their partners (Gattoma& Clark, 2003).

The major concept of SCM is collaboration and seamless integration between various value adding activities with in individual companies and across different organizations along a supply chain. Beginning this concept in to practice requires significant changes in corporate culture as well as a new level of human performance. Successes full implementation of SCM concept largely depends on human aspects of organizations (Bowersox et al, 2000; Mentzer, et. al. 2004).

The review literature of different studies indicates that, there are various complicated and sophisticated operations and decision making those primarily demand knowledge based employees. To this end, organizations are supposed to enhance and maintain existing skills and knowledge of employees. Continuous development and skill building activities demand are sources of competent employees (Lazarovic, et al., 2007).

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

2.2.7. SUPPLY CHAIN PERFORMANCE

Supply chain performance can be measured both in terms of customers' level of satisfaction and the costs incurred (Estampea, et al., 2013). Customer's satisfaction level is a sign of the required standard service level of a company, which is closely related to the whole performance of its supply chain (Chan, 2003). Evaluating supply chain performance is a complex process as it involves several actors collaborating and interacting each other to achieve a given strategic supply chain objectives (Estampea, et al., 2013). Companies to improve the overall supply chain performance and to track the supply chain operations, they share supply chain information among the partners to reduce the lack of demand visibility as it goes from downstream end customer to upstream partners in the chain, work closely with customers and suppliers in order to

improve information and product flows, and reduce surprises from demand fluctuations, enhance internal processes integration, work with suppliers to reduce lead times, reduce risk of supply disruption, mitigate the bullwhip effect, reduce supply chain cost of all members through collaboration and trust. (Krajewski, et al., 2010). Supply chain performance is influenced by several factors like sourcing strategy, distribution strategy and, inventory management strategy, collaboration with partners, information technology, etc.

According to Jonsson (2008), strategic sourcing and the development of the supplier relationship is really significant for the company's and supply chain performance. The efficiency and the competitiveness of the company's supply chain can be affected by the choice of, sourcing strategy, collaboration strategy with suppliers. Suppliers are as equally important as the customers for a company's performance and competitiveness.

2.2.8. Supply Chain Management Problems

The supply chain management must address the following problems such as; poor distribution network configurations (number and location of suppliers, production facilities, distribution centers, warehouses and customers), poor distribution strategy lack of information needed to integrate systems and processes through the supply chain to share valuable information, including demand signals.

According to Baily and Farmer, (2000), one of the most important aspects for the buyer of assuring supplies is the maintenance of good supplier relationships. Good supplier relationships can be a major asset to the buyer not only in assuring supplies but also in maintaining quality levels and good prices. Good supplier relations have always been an important factor in the maintenance of supplies. This change has been brought by the increasing use made by buyers of techniques such as quality assurance, zero defect policies, statistical process control (SPC) and Just-in-Time (JIT), all of which place additional responsibilities on to suppliers who will only be willing to accept them if they see some long-term benefit for themselves in the relationship.

So in return for accepting these additional responsibilities it has become common to offer the supplier a long – term prospect of business in what is referred to as a partnership relationship

with both parties offering and accepting complementary responsibilities and helping to solve problems to their mutual benefit. The partnership approach clearly influences the nature of the relationship between buyer and sellers. Choosing the right supplier is frequently the key to obtaining quality, performance and price. One of the most important aspects of the supplier selection process for important contracts is the plant visit known as the vendor audit or capability survey. It is most important that such surveys for the determination of supplier capability are conducted objectively (Baily et al, 2005).

According to Monezka et al (2002) , when inventory moves so fast that firms essentially hold zero inventory on hand, they are following a system known as the lean supply chain – a combination of Just-in-Time purchasing, Just-in-Time transportation and just –in-time production. All three elements combined to create a supply chain that minimizes inventory investment and eliminate waste.

John Shook (2000) defines lean as a philosophy that seeks to shorten the time between the customer order and the shipment to the customer by eliminating waste. Womack and Jones (2006), in their book Lean Thinking, argue that all activities associated with lean attempt to achieve three objectives: flow, pull and striving for excellence. Flow means that inventory moves through the supply chain. Those in charge of materials at the plant their key metric is to have inventory available for production schedule and a secondary focus of not having too much or too little inventory. Those in charge of inbound and outbound yard at the plant should be managing all the inbound trailers, having high asset utilization and velocity in the shipping yard, and high productivity in the work place.

Practitioners of lean supply chain focus on eliminating physical waste (in the form of inventory) and process waste (unnecessary steps in a value chain or time during which assets or goods are unnecessarily idle). Lean supply chain focuses on driving waste out of the entire value chain for a product. To have a truly lean supply chain firms have to go outside their four walls. They have to reach their suppliers because there are going to be constraints present at but their suppliers and customers (Nussle and Morgan 2004). Implementing a Just-in-time (JIT) purchasing system is

the first major element of a lean supply chain. A JIT purchasing system means receiving frequent receipts of materials from suppliers to meet immediate requirement.

A JIT purchasing system is an operating philosophy that does not tolerate high inventory levels, less than perfect quality, or other inefficiency and waste between buyer and seller. It is a continuous supply chin improvement process that requires cooperation, coordination and information sharing to eliminate inventory throughout the supply chain (Monezka et al 2002).
JIT – in Time transportation, another key element of a lean supply chain refers to the efficient movement of goods between the buyer and seller. This involves frequent deliveries of smaller quantities directly to the point of use at the purchaser. A lean transportation network relies on company – owned or contracted vehicle that pick up and deliver according to a regular and repeatable schedule in a closed loop. JIT transportation systems feature certain innovations that can further eliminate supply chain waste. This includes specialized transportation vehicles that allow easy loading and unloading of smaller quantities. The second innovation includes the extensive use of returnable plastic or steel containers. As drivers pickup materials from suppliers they leave empty containers that were used in earlier deliveries (Moneszka et al, 2002).

2.2.9. Measures and Tools to Manage and Improve Supply Chain Management

Any supply chain activity or system can be managed better or improved. To this end there are metrics and tools to help achieve this goal. Tyndall et al. (2006) have proposed looking at three facets: total cost approach, enterprise wide demand/supply matching, and a dashboard of select metrics (consisting of operational costs, time to response, margins, and customer service).
Another more comprehensive approach is called SCOR, or Supply Chain Operational Reference (Supply Chain Council, 2001). This consists of a series of 18 metrics that measure customers/quality, time, costs, and asset utilization. With these metrics a firm can measure and strive to keep improving supply chain performance by getting a better score (Supply Chain Council, 2001). Firms are advised to use competitive benchmarking to review their performance in each category against the industry leaders, and then endeavor to emulate their success. Some proponents recommend other tools such as process mapping, and reengineering to review current supply chain processes and improve them based on customer needs (Poirier, 2009).

2.3 Empirical Literature Review

2.3.1. Global Strategy of Supply Chain Management

Some recent study regarding supply chain integration in European firms show that many firms have adopted enterprise resource planning systems and also established some electronic links with their supply chain partners. Enterprise resource planning systems generally support internal coordination across functional activities; however it is less supportive in decision-making across organizational boundaries. The results from the survey also confirm that supply chain integration is more a rhetoric than reality in most industries in Europe. Regarding transparency of inventory and sensitive data, most companies are quite cautious when it comes to sharing such data. Very few companies have established joint decision-making with their key suppliers or customers. However, a majority of the respondents confirmed that some consultation took place with their supply chain partners (Bagchi, 2005).

In the same year there are researches that compared the supply chain integration and performance of US and East Asian Companies. The variables used are information sharing, internal integration and external integration with suppliers. It was found that US companies tend to use various means in ensuring information sharing process is smooth and share the information to the extent production plans and systems. But East Asian firms are using internal integration via internal control primarily to reduce costs, but the US firms emphasized on operational integration of physical process flows between a company and its suppliers and customers. Regarding external integration both East Asian and US firms show long term partnership with suppliers and customers that lead to achieve competitive advantage (Zailani and Rajagopal, 2005).

Alirezaet al. (2011) study on Malaysia Electronic Industry to present a model for supply chain performance by employing supply chain design, supply chain information sharing, and flexibility and delivery components as independent variables influencing supply chain performance.

Kannan and Tan (2005) studied the linkages between just in time, total quality management and SCM in business performance, According to the study, at strategic level, linkages exist between just in time, total quality management, and SCM. While some companies may understand the

inherent relationships between the three and actively exploit their synergy, those that do not maybe inadvertently achieving the benefits of synergy. By explicitly and effectively integrating just in time, total quality management, and SCM practices into operations strategy, the potential exists to add value and to better position oneself to respond to competitive pressures. At an operational level, just in time, total quality management, and SCM practices can be deployed together to create value. The extent to which various practices correlate with each other and with performance is evidence that while the three may have distinct characteristics and goals, there are elements of each that are common and which can be successfully reinforced by each other. Lastly, in addition to having a focus on quality, understanding supply chain relationships is a key driver of performance. Whether it is by coordination and integration of activities throughout the supply chain or by recognizing capabilities of immediate suppliers, understanding supply chain dynamics has a significant impact on performance. As the trend towards outsourcing and focusing on core competencies increases, organizations will be under greater pressure to effectively leverage supplier and customer relationships. The results demonstrate that doing so be a significant driver of a firm's success (Kannan and Tan, 2005).

According to the study on SCM practices of the Hong Kong manufacturing companies, it shows that there is little progress towards SCM implementation. SCM is immature and not fully recognized in the city. The main reason may be due to the application of information and communication technologies and insufficient skills (Chin *et al*., 2004).

McMullan, (1996) studied the SCM practice in Asia Pacific region. It addresses the SCM practice from four key areas namely; management issues, roles and responsibilities, competitive strategies and performance management. The result of the study show that; many firms will be required to change their organizational structures, relationships with supply chain members and performance measurement systems to achieve this. New information technology to enhance communication throughout the supply chain will be required as well in order to increase service levels and reduce operating costs. Supply chain management managers will have to decide which areas offer the greatest strategic value for the supply chain. Over time, these capabilities will become an entry requirement for those wishing to compete. However, first movers are likely to

continue to benefit from their pioneering efforts, and continue pushing forward seeking further differentiation.

Moslem (2013), conducted research on impact of supply chain management practices on competitive advantage in manufacturing companies of Khuzestan province (Iran) by using strategic partnerships with supplier, customer relationship, information sharing , Quality of information sharing and internal lean practices as independent variables affecting the competitive advantage. The result from this study was indicates as there is relationships between SCM practices and competitive advantage.

2.3.2. Developing Countries Experience

Msimangira, (2003) studied the SCM practices of Botswana companies. The result of the study shows that supply chain management is not as such a strategic rather it is a clerical and operational activities only. Top managers don't recognize its importance and also there are very limited trainings and education are available for SCM as a profession.

Voordijk (1999) studied obstacles and precondition of logistics and manufacturing as case study of the East African country of Eritrea, The result showed that each element of the supply chain network causes problems. The basic condition for logistics and manufacturing are well developed infrastructure: such as transport system and telecommunication network, enabling environment: such as sound industrial policy and educational system for skill development, and at firm level: such as purchasing materials, manufacturing capabilities and export and distribution. Such factors impede the efficient logistics and manufacturing of the country. To solve such obstacles the government has to follow two types of policy. On the one hand, it has to reduce its own role by giving public firms more autonomy and by eliminating the remaining regulatory and legal obstacles that constrain private (domestic and foreign) enterprises from investing. On the other hand, the government has to strengthen its role in the national economy by increasing investments in the transport and communication infrastructures. Also firms have to improve their local linkages in order to decrease their supply, production and distribution problems. The institutional infrastructure just mentioned can be important in getting to know local business partners. In addition, firms have to seek co-operation with foreign companies in order to solve their supply chain problems.

One study regarding logistics management of South Africa shows that there is still in the quarter of supply chain confusion. The position close to the center can possibly be explained by the fact that South Africa is still in the early phases of integration of logistics activities. Understanding for logistics has increased but the practice still lags behind. Logistics management is still fragmented. Logistics activities are still managed with a functionally fragmented approach. The major advantage of the integrated logistics concept is the higher efficiency that stems from integrated management. The other challenges are that there is lack of holistic management. The fact that management in South Africa is primarily functionally oriented resulted in a lack of holistic management. In addition, there is lack of integrative systems. Owing to the lack of a holistic approach, integrative systems will naturally lag behind (Cilliers and Nagel, 1994).

2.3.3. Ethiopian Experience

SCM practices and challenges in different industry of Ethiopia were studied in different dissertations. The results of different researches in the practices of SCM in different commercial sectors of Ethiopia are poor. Admaw (2010) studied the practice of SCM for Ethiopian textile firms. It was found that, SCM practices in Ethiopian textile firms are weak and not considering SCM as a strategic tool for competition. Business managers of the textile firms didn't give attention for SCM theories and practices. Also Dereje, (2012) studied the impact of SCM practices on the organizational performances in metal and engineering industries. The result of the study shows that the implementation of SCM in this industry is weak. Also the SCM practices don't have any relationship with organizational performances except internal lean practices. In addition, Belay, (2011) studied the practices of SCM in cement industries. The result of the thesis shows similar to other industries in the country i.e. the practice of SCM in cement industry is almost poor. There seems that since the demand outweighs the supply of the cement, which contributes for not using SCM as a competitive strategy.

Mesfin (2007) also studied the SCM and model development study as a case study of Mesfin Industrial Engineering plc. The result of this study shows that most of the employees of the company don't have awareness of SCM. The company also don't use supply chain cost analysis rather than using the traditional accounting system. Also there are problems in their warehouses.

Besides to the above machine handling problem, ageing, poor preventive maintenance, lack of proper operation, and wear of spare parts are the main reasons for the breakage of machines in Mesfin Industrial Engineering.

2.4 Conceptual Framework

There are three elements of conceptual framework developed for this study. First, supply chain practice consists of five sub-elements such as supplier and customer relationship, information sharing, internal operation, information technology and training (Perry &Sohl, 2000; Lazarevic et al., 2007). Moreover, there is an antecedent of cooperative behavior such as trust & commitment influencing supply chain practice & supply chain performance indicators.

Second, supply chain performance indicators include four sub-elements such as flexibility, efficiency, food quality & responsiveness. Finally, the competitive advantage includes elements such as price, quality, sales growth & time to market. (Beamon 1999; Li 2002; Luning*et al*. 2002; Gunasekaran*etal*. 2004; Aramyan*et al*. 2006).

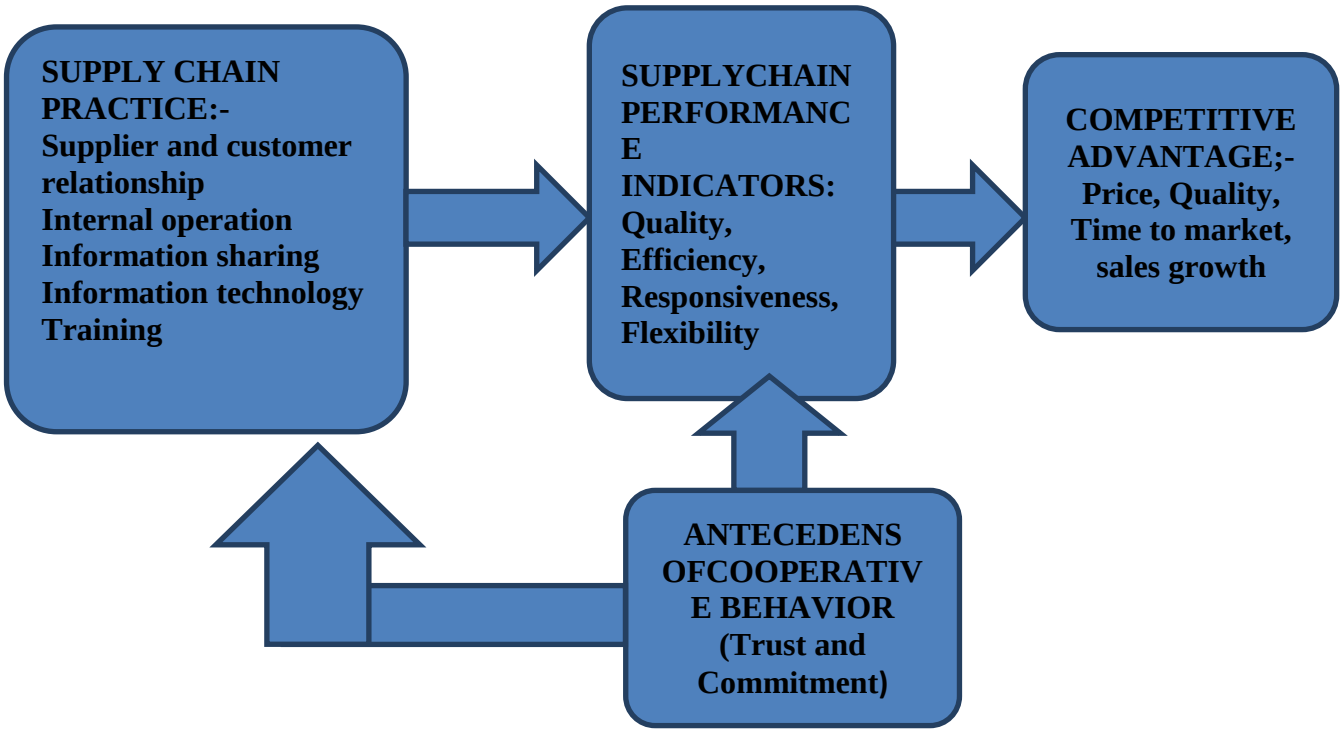


Figure 2.2: Conceptual Framework Developed for this study

CHAPTE 3: RESEARCH METHODOLOGY

3.1 Introduction

In this chapter the research design and methodology used in the study has been described. The geographical area where the study will be conducted, the research design, the research approach, the subject of the study, the case company, the participants of the study, the type of data source, the type of research, the research instrument used to collect the data, the methods of data collection, method of data analysis, the limitation of the research, and the ethical consideration will be discussed in this part of the research.

Determining an appropriate research methodology is considered as an important element in this research study. Establishing the research methodology involves approach to the entire process of a research study, starting from the theoretical underpinnings and spanning to data collection and analysis, and extends to developing the solutions for the research problems being investigated.

Research methodology in essence is focused around the problems to be investigated in a research study and therefore varies according to the problems investigated. It is important to have consistency between research questions, the research methodology and theoretical approaches.

3.2 Research Design

This study was intended to investigate SCM practices based on fundamental theories, principles and management philosophies that are supposed to be effective parameters just to evaluate the actual performance of the case company's key business activities. Accordingly, the case company's existing SCM practices and the challenges those prohibited its effectiveness will be evaluated. That means the purpose of this research is to find out the underlying facts and /or actual circumstances existing within the case company with regard to SCM practices and describing the facts. Therefore, the researcher preferred to use descriptive research type, which helps to use both qualitative and quantitative data analysis.

3.2. Unit of analysis

The unit of analysis for the case study is FAFA Food Share Company the pioneer food processing industry in Ethiopia which was established with the objective of reducing the risk of malnutrition among children in Ethiopia by providing low cost and high protein weaning food.

3.3. Sampling and Sampling Technique

The exact sample unit of respondents was considered from company's management and employees on the basis of judgmental/non-probability sampling technique. This is due to non-probability sampling method is where samples are chosen on the basis of their availability or accessibility (Diamantopoulos &Schlegelmilch, 2000).That is purposive sampling helps to address respondents those who have direct relationship with the issue at hand as it used by Assefa B. (2011),Bogale,A,(2015).

The total number of FFSC's (Faffa Food Share Company's) employees are 251 out of this about 75 employees are not educated. Therefore, from the remaining 176 employees 50 will be considered as a sample respondents as per the MalhoraNaresh's sample determination method, considering the heterogeneity of sample respondents on the basis of position within the organization. In addition to this an interview was held with management bodies of the company.

Table 3.1 Sample Size Determination

Population size	**Sample size**		
	Low	**Medium**	**High**
51-90	**5**	**13**	**20**
91-150	**8**	**20**	**32**
151-280	**13**	**32**	**50**
281-500	**20**	**50**	**80**

501-1200	**32**	**80**	**125**
1201-3200	**50**	**125**	**200**
3201-10000	**80**	**200**	**315**
10001-35000	**125**	**315**	**500**
35001-150000	**200**	**500**	**800**

***(*Source: MalhoraNaresh, Marketing Research: an applied approach, 2007)**

3.4. Data collection and instrument

In this study both primary and secondary sources of data was utilized through Questionnaires, interview, and literature review.

The primary data conducted in the form of personal interviews procurement and supply manager, product manager, marketing manager and human resource managers and through questionnaires which is distributed to employees of the company. As the secondary data; books, articles, journals, magazines, and broachers were reviewed. This research is conducted by using a well-structured questionnaire as a data collection instrument which is distributed to the whole 50 employees.

Donlon (1996), Tan et.al (2001) and Lazarevic, Sohal, Bower&Baihaqi (2007) used 5 point likert scale to measure the indicators of supply chain management practices. So, a close ended 5 point likert scale questionnaire was administered to collect data from the sample respondents. The questionnaire has 5 rating scales ranging from 1- very low to 5- very high. . Data gathered through questionnaires is simple and clear to analyses and it allows for tabulation of responses and quantitatively analyzes certain factors. Furthermore to this it is time efficient for both the

respondents and researcher. The questionnaire was structured in such a way that it includes all relevant parts of and information to clearly acquaint the respondents.

In order to obtain sufficient information the researcher has used personal interview with management bodies of the case company. Research issues like awareness, practices of SCM, strategic view and logical justifications of the case company was addressed through interviews which are difficult to obtain trough questionnaire in as much detailed as required.

3.5. Data analysis techniques

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

As determined in the data collection tool for this study, data were collected in both questionnaire and interview. After successful gathering of the data, the data collected were analyzed by using both descriptive statistics (tables, mean and standard deviation).

3.6 VALIDITY AND RELIABILITY

Reliability and validity are terms that refer to the quality of the measures used in a research study. Reliability refers to the internal consistency and validity refers to the accuracy of the measure.

Validity

According to Kothari (2004), the respondents, the situations, the interviewer, and the data collection instrument can be sources of error in research. Error may arise because of the defective measuring instrument (E.g. questionnaire in this study). The use of complex words,

beyond the comprehension of the respondents, ambiguous meanings, poor printing, inadequate space for replies, response choice omissions, etc. are some of the things that make the measuring instrument defective and may result in research measurement errors.

Validity is concerned with two main issues: whether the instruments used for measurement are accurate and whether they are actually measuring what they want to measure. The two different dimensions to the concept of validity (Winter, 2000) are: internal and external validity. Internal validity ensures that the researcher investigates what s/he claims to be investigating. Internal validity is the extent to which the measurements of the questionnaire provides the data needed to meet the purpose of the study or validity refers to the extent to which the questionnaire measures what the researcher intends to measure to ensure internal validly. External validity concerned with the extent to which the research findings can be generalized to wider population.

In this study, the questionnaire is developed based on intensive related literature review and well documented and periodically reviewed supply chain operation reference (SCOR) model. Therefore, the researcher believes that the data collection tool will measure what it is intended to measure. This means, internal validity is achieved. As this study is a multiple case study whose findings cannot be inferred for the total population. Therefore, external validity is the common gap in case studies.

Reliability

Reliability test is another important test of measurement tools in research. A measuring instrument (questionnaire) is reliable if it provides consistent results. A reliable data collection questionnaire provides consistent result with repeated measurements of the same subject of the study and with the same instrument. This reliability can be tested by comparing the results of repeated measurements. Reliability is the degree of consistency with which an instrument measures the constructs it is designed to measure. Reliability is known as to what extent the research findings can be replicated, if another study is undertaken using the same research methods (Ritchie and Lewis, 2003). This means the measure (data collection tools) should provide the same answer on another occasion or similar result should be obtained by another researcher using the same measuring instrument (Saunders et. al., 2007). There are four treats for

reliability including participant error, participant bias (may not tell the truth for fear of top managements), interviewer error (when different people undertake the interview), and researcher's bias during interpretation (Robson, 2002).

During data collection for this study, the researcher officially requested with support letters from the Addis Ababa University School of Commerce to the aforementioned case companies for data collection for the respondents to have convenient condition and 20 minutes to respond to the questionnaires. Therefore, the researcher believed that the respondents' error and bias is minimal to affect the reliability of the findings. The researcher's error and bias will not affect the reliability of the study due to the fact that the data collection instrument is a well-structured and self-administrated questionnaire and the data will be analyzed objectively using statistical tools (SPSS)

3.6.Ethical considerations

Research in business industry was found to be very boring. In the country where the importance of research was still unidentified, the researcher expects to suffer a lot toconvince the importance of this research to improve business. Even in some managers and employees were not quite positive to handle questionnaires. However it is research ethics to gather necessary information with patience till the researcher concluded everything that he/she needs from respondents. All information that was collected from the respondents were treated with confidentiality without disclosure of the respondents' identity. Moreover, no information was modified or changed, hence information gotten was present as collected and all the literatures collected for the purpose of this study was appreciated in the reference list.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

4.1 Results/Findings of the Study

In this part data that were collected using, questionnaires, interview and document review are presented. The data was vital to investigate the SCM management practices of FFSC, Supply chain integration/collaboration, Supply chain agility, Factors Challenging implementation of supply chain strategies and Measurement that should have to be taken in order to implement effective Supply chain management strategies.

Interviews were used to collect data from Procurement and supply manager, Human Resource Manager, Marketing Manager, and Production Manager. Questionnaires were used to collect the data from employees of Faffa Food Share Company. In addition; document is reviewed to assess some of the SCM practices of the company. The results are organized as follows.

4.1.2 Frequency Analysis of the Respondents' Profile

In the questionnaires presented for the respondents, the first five questions demand to cite their gender, age, work experience, education level and job level. The purpose of assessing respondents' age, sex, is that, to determine whether the researcher considered heterogeneity of sample units. On the other hand assessing the work experience and education level of the respondents' is that, when the respondents are more experienced and educated they have better opportunity to understand the case and give better response than else.

Table 4.1 Gender Frequency

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	39	78	78	78
	Female	11	22	22	100
	Missing	0	0	0	0
	Total	50	100	100	100

(Source: researcher's survey)

Gender frequency of the respondents shows that the numbers of male respondents were almost three times as female respondents. This is 78% of the respondents were male, while 22 % were female respondents.

As table 4.2 below shows that, the researcher divided the age of the respondents in to three categories, starting from 18-29 years of age to above 40. In this study, the researcher can conclude that more than half of the respondents were between 18-29 ages. This group covers 56% of the respondents to the questionnaire.

Table 4.2 Respondents' frequency distribution of age

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
	18-29	28	56.0	56.0	56
	30-39	12	24.0	24.0	80
	Above 40	10	20.0	20.0	100
	Total	50	100	100	100

(Source: researcher's survey)

The next age group with valid percent of 24% is respondents gain aging between 30- and 39. On the other hand, respondents within age group of above 40 have nearly the same percentage within age group of 30-39 which is 20 percentages.

As table 4.3 below clearly shows the frequency distribution of respondents work experience, the largest of the respondents 36 % (18) have from 5-10 years' work experience In the same case, 24% (9) of respondents have from 2-5 years of work experience and followed by below 2 years work of experience, which accounts 22%(11) and 18 % (9) respondents represents having above 10 years of experience. This implies that in total more than 78% of the respondents have more than 2 years of work experience with in the case company and it is sufficient to judge and give

views. This is because when the respondents are more and more experienced within the organization they have better opportunity to know more and more about the organization

Table 4.3Respondents' frequency distribution of Experience

valid		Frequency	Percent	Valid Percent	Cumulative Percent
	Below 2 years	11	22	22	22
	2-5 years	12	24	24	46
	5-10 years	18	36	36	82
	Above 10 years	9	18	18	100
	Total	50	100	100	

(Source: researcher's survey)

Table 4.4 Educational level Frequency

As shown below in table 4.4 the highest education level attained by most of the respondents was BA/BSC holders which represents, (23) 46% out of the valid respondents and followed by college diploma (14)28% and Grade 12 complete which accounts (6)12%. (3)6% of the respondents ware second degree holder and there was no respondents that represents below college certificate

valid		Frequency	Percent	Valid Percent	Cumulative Percent
	Grade 10 Complete	4	8	8	8
	Grade 12 Complete	6	12	12	20
	College Diploma	14	28	28	48

	BA/BSC	23	46	46	94
	MA/MBA/MSC	3	6	6	100
	Total	50	100	100	

(Source: researcher's survey)

Table 4.5Respondents' frequency distribution of jobs position

From the table below among the respondent 4(8%) of them are department manager 6(12%) of them are division head 28(56%) of the respondents are senior officers and the remaining 12(24%) are on the position like officers and supervisor.

valid	Job position	Frequency	Percent	Valid Percent	Cumulative Percent
	Department Manager	4	8	8	80
	Division Head	6	12	12	20
	Senior officers	28	56	56	76
	Other	12	24	24	100
	Total	50	100	100	

(Source: researcher's survey)

4.2 Descriptive Statistical Analysis

As it were revealed in the methodology part, the designed method is descriptive statistical analysis to analyze the five components of the conceptual framework developed for this study. Considering the existing supply chain management experiences, respondents were asked to indicate the level of their agreement about supply chain management related to their respective companies from the alternative questions arranged in five point Likert scale method, where 1 stands for very low (the worst performance) and where 5 stands very high (the best performance). For the purpose of the analysis three (average) was used as a cut-off point. Where, more than three is considered as better level of performance while less than three was considered

as low level of performance which needs improvement and management concern. In addition to the quantitative analysis, the qualitative information obtained through interviews from both managers and employees of FFSC is used to analyze the following issues. The analyses were on: Supply chain management practices, Supply chain collaboration/Integration, Supply chain flexibility and adaptability, Factors affecting implementation of supply chain strategies and Measurement that should have to be taken by the case company to implement effective supply chain management strategies.

The above listed items are the most critical parts of the conceptual framework and basic research variables of this paper. Therefore, the discussion of the above conceptual framework components will answer the basic research questions and meets the stated objectives of this study. For the analysis of all these variables, mean and standard deviation is used. Particularly mean value of the respondents has considered as an important indicator to the extent of the company's practices on each items. To conclude, the overall performance of the case company's practices on each variable, group mean was calculated and used.

The mean and group mean statistical values approaching to 2.00 and less indicates the poor performance, 3.00, average/moderate while 4.00 and 5.00 indicates higher and very high/excellent performance of the company on that particular item and variable respectively.

4.2.1 Supply Chain Management Practices

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

1. Suppliers and Customers Relationship (SCR)

According to Sunil, (2004) the most commonly known characteristics of suppliers and customers relationships are: joint product planning, cooperativeness, frequent meeting, and others. To

measure Faffa Food Share Company's orientation concerning the SCR eight items were developed by the researcher.

Table 4.6 Suppliers and Customers Relationship Practice of SCM

S/N	Items	Number	Mean	Standard Deviation
1	Your company consider quality as number one criteria in selecting suppliers	50	3.08	1.140
2	Your company regularly solve problems jointly with its suppliers	50	2.26	.986
3	Your company has been helping your suppliers to improve their product quality.	50	2.20	1.212
4	Your company includes its key suppliers in its planning and goal setting activities	50	2.12	.961
5	Your company frequently interacts with customers to set reliability, responsiveness and others.	50	2.32	1.039
6	Compliance with customers delivery in full requirement	50	2.64	1.148
7	Compliance with customers delivery on time requirements	50	2.52	1.074
8	Your company frequently interact with customers to set joint product planning	50	2.64	1.064
Group Mean			2.47	

(Source: researcher's survey)

Table 4.6above indicates the extent of relationship that exists between suppliers, Customers and the case company. Accordingly, the group means of suppliers and customers' relationship is 2.47 which is poor performance with respect to the overall measures taken into consideration.

Specifically, the case company relationship with its key suppliers in their planning and goal setting activities and the case company's frequency of interaction with its customers, to set reliability, responsiveness, and other standard for them , shows the mean value of 2.12, and 2.32 respectively. These, mean values imply that Faffa Food Share Company has poor relationship with its customers and suppliers. In line to this analysis, Tan et al., (1998) and Claycomb et al., (1999) states that customer relationships include the complete range of practices that are employed for the purpose of building long term relationships with customers & improving customer satisfaction.

From the table above, Relatively, the high and the lowest mean values are scored by the case company consider quality as number one criteria in selecting suppliers and the case company includes its key suppliers in its planning and goal setting activities that is 3.08and 2.12respectively. On the other hand, the mean value of the case company in regularly solving problems jointly with its suppliers, the case company rating level of helping its suppliers to improve their product quality and the frequency of interaction with its customers to set joint product planningwas 2.26, 2.20 and 2.64 respectively which is poor performance.

Whereas Compliance with customers' delivery in full requirement and Compliance with customers' delivery on time requirements represents relatively similar mean values which is 2.64 and 2.52 respectively. This implies the case company is not meeting the full requirements of the customers as per their desire. On the other hand, customers are not fully satisfied in getting the amount of product they required. The reason for this gap is the case company is not able to deliver the required amount of products to the customers' due to shortage of certain raw materials. The shortage of raw materials is because of the FFSC's weak relationship with its customers on joint product planning as it was presents in table 4.6 above.

In order to experience successful relationship with customers and suppliers, there has to be a joint production and product planning. This is because, according to Lee, (2002) Coordinating operational activities through joint planning with suppliers and customers results in inventory reduction, smoothing production, improve product quality, reducing supply uncertainty and lead-time.

Therefore, even the mean value of the case company in including the key supplier's in its planning and goal setting activitiesreveals poor performance of such practice (2.12). The group mean value result implies that SCM practice from the perspective of suppliers and customers' relationship of the case company is poor, that is 2.47.

On the other hand, customers' delivery adherence requirement replies that the customers are more dependent on full quantity and timely delivery of their requirement. So that, this can adds pressure on the case company to meet its customers' requirement. But the current performance of the company to meet this is poor. If the case company is not in a position to improve this and other supplier and customer relationship practices, without any doubt the case company's customers' have an opportunity to go to its competitor companies those provide these services in a better way than the case company. And the case company has also a great possibility to loss its major customer. Therefore, simple sale-buy and weak relationship of the case company with its suppliers resulted in not fully satisfy its customers adherence requirement on time due to shortage raw materials certain raw materials.

2. Internal Operation

Internal operation is the starting point to make the environment favorable for integration with the external partners. Handfield and Nichols (1999), states that Poor internal operations can lead to failure in coordinating with external partners.

As table 4.7 below illustrates that eight items were used in order to see the extent of the internal operation of the case company.

Table 4.7Internal operation practice of SCM

S/N	Items	N	Mean	Std. Deviation
1	Up-to-datedness of production	50	2.76	.822
2	Extent of production process automation	50	2.80	1.069
3	The extent of innovation in product	50	2.66	.872
4	The extent of continuous and instantaneous product and service improvement	50	2.80	.904
5	Management know-how regarding supply chain effectiveness	50	2.56	.837
6	Efficient utilization of resources	50	2.68	.935
7	Extent of automated quality control	50	3.10	.995
8	Internal logistics flow	50	2.84	1.167
Group Mean			**2.775**	

(Source: researcher's survey)

According to Perry and Sohal, (2000) automated orders and automated productions are the key enablers to realize the quick response program.

The mean value of respondents' reveals that extent of automated quality control and Internal logistics flow is 3.102.84 respectively.

Up-to-datedness of production system, extent of production process automation, the extent of innovation in product, the extent of continuous and instantaneous product and service improvement shows 2.76, 2.80,2.66 and 2.80 respectively.

On the other hand, the fifth item, which is the Management know-how regarding supply chain effectiveness, is relatively the lowest mean value which is 2.56 out of other internal operation perspectives of SCM practices.

Efficiency on resource utilization of internal operation has scored mean value of 2.68which approximates to moderate performance. The intention of efficiency is to minimize overall cost of production, wastage of materials, time and effort, which ultimately ensures productivity and profitability.

Furthermore, continuous and instantaneous product and service improvement and internal logistics flows have almost similar mean value that is 2.80 and 2.84 respectively. In order to make an internal operation effective and efficient, logistics flow plays an important role. Thus the current performance of the case company in product and service improvement is moderate, 2.80. It implies that, FFSC has to take corrective actions to meet the customers' preferences. Finally, the overall groups mean value of FFSC's SCM practice from the perspective of internal operation is 2.56. In general, each item's and group mean values of internal operation practice is more than 2.56, which conveys moderate/average internal operation practices are there in FFSC.

Based on the overall analysis of the case company's internal operation practice the researcher concludes that it is moderate. However, this does not mean sufficient, because of the internal operations criticality for creating integration or relationship with external participants or supply chain partners. According to lazarevic et al., (2007) internal operation is the most critical factor to measure organization's potential to go for external integration. These writers state that companies should be internally efficient and effective before embarking on external integration.

Therefore, it implies that, the case company has an assignment to improve its internal operation to create effective relation with external partners.

3. Information Sharing

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

Table 4.8 below indicates, the mean value of each items and group mean that can generalize the information sharing practice of the case company with its up and down-stream supply chain partners.

Table 4.8 Information sharing Practice of SCM

S/N	Items	N	Mean	Std. Deviation
1	Sales forecast information sharing with customers	50	2.34	1.334
2	Sales forecast information sharing with suppliers	50	2.76	.938
3	Adequacy and quality of information sharing throughout the supply chain	50	2.40	.926
4	Overall efforts of Inter-organizational information coordination and sharing	50	2.42	.906
5	Sense of trust and confidence along the supply chain	50	2.52	.974
Group Mean			2.488	

(Source: researcher's survey)

Relatively, the high and the lowest mean values are scored by sales forecast information sharing with suppliers and sales forecast information sharing with customers that is 2.76 and 2.34 respectively. On the other hand, Sense of trust and confidence along the supply chain scoredmean value of 2.52.

This implies that the case company has poor information sharing practice with its customers than with its suppliers particularly on sales forecast. Both adequacy and quality of information sharing throughout the SC and the overall effort of inter-organizational coordination and information sharing has relatively the same mean value which is 2.40 and 2.42 respectively.

In SCM, information sharing is another important practice that should have to be given due attention in order to make the SC robust. Because, when there is distortion, inadequacy and lack of accuracy in information flows with in the SC partners, it will negatively affect the SC participants' .Raghunathan, S. (2001). The mean value of the respondents on adequacy and quality of information sharing throughout the SC implies that, there is information sharing among the SC partners but it is not sufficient and it lacks accuracy.

From the above presented data, the researcher can conclude that the information sharing practice between FFSC and its customers is poor. This is based on the mean value obtained with respect to sales forecast information sharing which scored 2.34.

In fact, customers like whole sellers, distributors, agents and retailers are closer to the end customers. They have better opportunity for understanding the end customers' demand. Sharing forecast information with such customers would help the case company and consolidate its market demand forecasts. So that, having poor relationship with such partners is a cause for poor information sharing practices which make the forecast of the case company weak and unrealistic. According to Lee and Whang, (2000) poor information sharing between partners in SC will lead to many serious problems such as high inventory level, high demand uncertainty, inaccurate forecasts, low resource utilization, and high production costs.

Furthermore to the above theory, many studies have reported that information sharing can bring many benefits to both suppliers and buyers, such as inventory reduction, and reduced manufacturing costs (Yu et al, 2001; and Raghunatahan, 2003).However, the information sharing practice of the case company with in its supply chain particularly on sales forecast is poor which is the group mean value score 2.48.

The empirical study of Lazarovic et al., (2007) states that efficiency in meeting customers 'requirement is significantly differentiated by the level and quality of information sharing among SC partners. Therefore, based on the analysis, empirical study and the current (21th) century real practice and importance of information sharing and its impacts on any kind of organization, the

group mean value shows poor performance, with respect to these stated issues the result is not sufficient to create effectiveness and efficiency in SCM activities.

4. Information Technology

This study tried to investigate the supply chain practices related to IT and delivery systems among the supply chain participants of the case company. Accordingly, seven items related to information technology practice were used by the researcher.

Table 4.9 Information technology practice of SCM

S/N	Items	N	Mean	Std. Deviation
1	The level of IT- based ordering from major customers	50	2.24	960
2	The level of IT- based automated ordering to major suppliers	50	2.36	.921
3	Up –to-datedness of IT technologies throughout the supply chain	50	2.34	1.042
4	The adequacy of IT systems throughout the supply chain	50	2.22	.932
5	Adequate investment are made in developing technology for SCM practices	50	2.84	1.037
6	The company creates compatible Information system for supply chain members	50	2.32	.935
7	SCM software systems (like ERP, EDI) are used	50	2.16	1.131
Group Mean			2.437	

(Source: researcher's survey)

Advance in information technology have given opportunities for organizations to transform the way they manage their business Talluri (2000).

From the above presented data, adequate investments are made in developing of IT throughout the SC represent mean value of 2.84. On the other hand, the mean value of up-to-datedness of IT throughout the supply chain, The adequacy of IT systems throughout the supply chain, IT-based automated ordering from major customers , IT-based automated ordering to major suppliers, SCM software are used and company creates compatible IS for SC members revealed that 2.34, 2.22,2.24 , 2.36,2.16 and 2.32 mean value respectively.

As table 4.9 reveals that, seven items were used to measure IT application of the case company. Out of seven items developed to see the extent of IT application in Faffa Food Share Company's SC, except item five surprisingly all of the items scored the mean value approximate to 2.

Generally, even if there is adequate investment are made through the SC, the mean values of SCM practice from IT perspective interpreted as there is poor IT application practice across the FFSC'S supply chain. Turban, McLean &Wetherbe, (2004), illustrates as, good experience in information technology have a positive effect on the firm's ability to enhance customer satisfaction and supply chain responsiveness.

In addition to the data collected through questionnaire, interview was held with the communication and IT team leader of the case company. According to the interview there are enhanced information technology facilities within the company. But, there is no practices done on the technology through supply chain integration. Nowadays, the company is implementing intra-network connection facilities to connect marketing, purchasing, production and administration departments.

According to Levi et al.,(2003) the objectives of IT in SCM are; to provide the information availability and visibility to supply chain partners, to enable the collaboration with organizations in the supply chain and to allow the decision making based on the total supply chain information. Currently, many manufacturing companies are using integrated information systems to manage their business activities. To share information there should be an up-to dated IT and integrated

information system which is capable of connecting all functional units of the company and its external participants.

Based on the data collected both in questionnaire and interview and the analysis made on the IT practices, the existing IT System of FFSC's supply chain cannot support effective SCM Implementation. Therefore, based on the mean value of each items and interviews, the SCM practice of IT in the case company is poor and conveys that a lot has to be done to bring about change in the IT system.

E. Training practice

As presented in the literature review, the last (fifth) SCM practice is training. The ultimate objective of SCM is customer service as it was depicted in the conceptual framework developed for this study. To provide good customer service, organizations are supposed to enhance and maintain existing skills and knowledge of employees.

Table 4.10Training Practice of SCM

S/N	Items	N	Mean	Std. Deviation
1	Giving training to downstream supply chain members/intermediaries	50	1.80	.808
2	Provision of diversified skill training to employees	50	1.92	.752
3	The overall adequacy of employees training	50	1.78	.764
4	Employees training in supply chain concepts and management	50	1.88	.824
5	Adequacy of training and development for management	50	2.48	1.092
Group Mean			1.972	

(Source: researcher's survey)

According to Bowersox et al, (2000) and Mentzer, et. al. (2004) the successful supply chain management implementation concept largely depends on human aspects of the organizations.

With respect to this theory effective training and knowledge, based learning for both managers and employees of organizations is essential in developing and maintaining SCM skills.

Table 4.10 above shows five items developed to investigate the training practice of FFSC's. Even if the training practice is considered as one of SCM practices, with exception of the fifth item i.e., adequacy of training and development for management which scored mean value of 2.48, the remaining mean values of other items is less than 2.00 including the group mean. The group mean scored 1.972, which is the least mean value, even compared with other SCM practices group mean values.

Giving training to downstream supply chain members/intermediaries, Provision of diversified skill training to employees, The overall adequacy of employees training and Employees training in supply chain concepts and management scored mean value of,1.80,1.92,1.78,1.88 and 2.48 respectively.

This clearly implies that, there is a great problem with the human resource management area of the case company. It is a fact that whatever the extent of information technology, information sharing and other SCM practices is applied; wit out skilled and committed human resource it is nothing. These all practices of SCM require the human resources to make SCM effective.

In addition to the responses obtained through questionnaire, there is an interview conducted with human resource manager and human resource officer. According to their response, still now there is no well-organized training program within the company to the employees and managers. Even when some invitations come from government and other training institutions simply some managers or employees have been sent to the training without consideration of the relevancy of the trainee to the company's real problem.

There is no established criterion to evaluate and prepare employees and leaders for the training that fits or concerns them. Furthermore, per week at least three to five employees are leaving the company. If the case company would not take actions in order to solve such poor practice and related problems it creates great negative consequences on its SC. The vivid impact of poor

training program/practice is reflected on internal operation of the company, which is a spring board for external integration.

As it was asserted by Gattoma& Clark (2003) managing supply chain actually involves the interaction between human behavior, IT, and infrastructures. In addition, training can enhance the agility of work force and the organization. But the current training practice of the case company does not support to achieve the above mentioned benefits.

Therefore, based on the above analysis the researcher find out inconsistency between the theory and the real practices that is going on in the case company. And there is consistency between qualitative and quantitative information collected from the respondents.

So that, the SCM practice from the training perspective of the case company at hand is poor. If it continues in such a way the company will be at risk in the future to achieve its objectives and to satisfy its customers.

4.2.2 Collaboration in Supply Chain

As companies migrate toward more extended supply chains, collaboration is becoming their most strategic activity. Collaboration may be with customers, suppliers and even with in organization's functional units. Some of the features which many participants anticipate when entering in to collaboration are: joint planning, management and measurement, sharing goals, objectives, resources, information, risks and benefits with partners (Sunil, 2004).

When the level of collaboration is becoming more and more strong it leads to integrated and efficient SCM. Based on this, the researcher has tried to see the extent of integration of the case company with suppliers and customers

4.2.2.1. Collaboration With suppliers

In this part, the researcher tried to see the level of integration between Faffa Food Share Company and its suppliers. Collaboration is the process of combining or coordinating separate

functions, processes, or producers and enabling them to interact in a seamless and continuous manner (Kenneth and Brian 2006).

Table 4.11Collaboration with Suppliers

S/N	Items	N	Mean	Std. Deviation
1	The level of strategic partnership with suppliers	50	2.74	.828
2	The establishment of quick ordering system	50	2.76	1.001
3	The company seeks long-term stable relationships with suppliers	50	2.82	1.004
4	Stable procurement through network	50	2.70	.953
5	Regularly solve problems jointly with our suppliers	50	2.68	1.115
6	Helped suppliers to improve their product quality	50	2.62	1.067
7	Included our key suppliers in corporation's planning ad goal setting activities	50	2.48	1.147
Group Mean			2.69	

(Source: researcher's survey)

As illustrate in Table 4.11, there are seven items used to determine the extent of integration of the case company with its suppliers. Accordingly, relatively to other items the high mean value was scored on the company seeks long-term stable relationship with suppliers which are 2.82, followed by the establishment of quick ordering system and level of strategic partnership with

suppliers with the mean value of 2.76 and 2.74 respectively. The mean value of the Stable procurement through networking indicates 2.70.Furthermore the groups mean shows that 2.69 mean value. The groups mean value approximately reveals as, moderate integration between FFSC and its suppliers.

In addition to this, an interview was conducted with procurement and supply manager of the case company to consolidate the information obtained through questionnaire. According to the interview response, Faffa Food Share Company has no common supplier both in domestic and foreign cases. This is due to the procurement method the case company follows is bidding. And any supplier who fulfills the specification and requirements of the company wins the bid and the company buys the materials from those winner organizations. According to the interview there is no stable procurement through networking. Therefore, based on information obtained from both sources (qualitative and quantitative) the level of integration between the suppliers and the case company is poor.

4.2.2.2. Collaboration with customers

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

Table 4.12 Collaboration with customers

S/N	Items	N	Mean	Std. Deviation
1	Follow up customer for feedback	50	2.44	1.146
2	Monitoring and measuring customer service level	50	2.32	.978
3	The level of market information sharing with major customers	50	2.56	.884

4	Customer feedback is used to improve customer relations, processes, products and services	50	2.64	1.191
5	The organization has systematic processes for handling customer complaints	50	2.48	1.092
6	Integrate with key customers in inventory carrying decision	50	2.36	.827
Group Mean			2.47	

(Source: researcher's survey)

As table 4.12 above depicts, six items were used to evaluate the case company's integration with its customers or downstream of the SC. Accordingly, the item that is organization has systematic processes for handling customer complaints, monitoring and measuring customer service level, follow up customer feedback and Integrate with key customers in inventory carrying decision scored mean value of 2.48, 2.32, 2.44 and 2.36 respectively, which is approximates to bad level of integration. Customer feedback is used to improve customer relations, processes, products and services and the level of market information sharing with major customers indicates mean value of, 2.64 and 2.56respectively which shows medium level of collaboration.

This implies that the case company is in a bad position to pay attention for measuring the extent of customers' service level and to make an improvement to satisfy the customers. On the other hand, the customer response on this related items, shows in the Table 4.12

Therefore, based on the above data the mean value of both monitoring and measuring customers' service level and the level of market information sharing with major customers indicates poor result which is 2.36 and 2.56 respectively. This implies that the case company is not in a position to pay attention for measuring the extent of customers' service level and to make an improvement to satisfy the customers. On the other extreme, for doing so, Customer feedback is used to improve customer relations, processes, products and services from major customers to discuss on what is going on in their supply chain. But, these attributes scored poor mean values

which is 2.64. Whereas, the group mean result shows 2.47 which implies that the case company's integration with its customers is weak.

In addition to the mean value obtained through questionnaire, an interview was conducted with, marketing manager and sales man of FFSC. As marketing manager and sales man responded there is very weak follow-up of customers for feedback, poor contacts/ meetings with customers. In addition to this the marketing manager of the case company replied as not only with the supply chain participants, but also with some of the company's agents who are acting as distributors of company's products that the current integration is poor. Because of this, the case company is enforced to stop its relationship with some agents.

On the other extreme, as per the sales man's response, there is no planned or contract based order from whole sellers. The major customers simply ask when they need some products of the company, whether what they need are there in the stock or not. As a result of such practices, sometimes the whole sellers may not get in full quantity when they need it.

The ultimate goal of an integrated, efficient and effective SC system is superior customer service: short lead-time, quick response to requirements, accurate delivery, product accessibility, risk sharing, complains handling etc. (Christopher1998; Kenneth 2006; Russell 2006; and Eyong 2009).

Therefore, the total implication of the FFSC's integration with its customers is poor. This will leads to the dissatisfaction of its customers and in a long-run there may be a chance losing its customers. If it is so, it may be difficult and dangerous to the company to survive and compete in this intensive competitive market environment.

4.2.3 SUPPLY CHAIN AGILITY (FLEXIBILITY & ADAPTABILITY)

In this part, the researcher tried to see the level Faffa Food Share Company Supply chain agility.Supply chain agility represents how fast a supply chain responds to the changes in environment, customer preference, competitive forces and etc.

Table 4.13supply chain agility (Flexibility& Adaptability)

S/N	Items	N	Mean	Std. Deviation
1	Suppliers are flexible to accommodate a 25% increase/decrease in raw material demand change above the forecasted quantity	50	2.32	.978
2	The faffa food share company is flexible in production facility to accommodate a 25% increase/decrease in demand of finished products from the forecasted quantity	50	3.24	.822
3	The faffa food share company is flexible in delivery schedule to accommodate changes by 25% earlier/later than the delivery schedule	50	3.30	1.298
4	The faffa food share company's production is adaptable to meet extra demand of customers through overtime work, to produce more than the normal production and meet the unplanned need	50	2.96	1.049
5	The faffa food share company rapidly adjusts its production capacity to address demand changes.	50	3.06	1.150
6	Distributors adjust transportation capacity to respond to small volume demand of customers	50	2.74	.922
Group Mean			2.94	

(Source: researcher's survey)

According to the data in the Table 4.13 above, the groups mean supply chain agility performance is 2.94 which is moderate/average performance. However, the lowest mean is scored by Suppliers are flexible to accommodate a 25% increase/decrease in raw material demand change above the forecasted quantity and Distributors adjust transportation capacity to respond to small volume demand of customers which was mean value of 2.32 and 2.94 respectively. This shows that the suppliers' and distributors' flexibility and adaptability to respond to unplanned increase in demand is low. Whereas, the data indicates that the Faffa Food Share Company is relatively flexible and adaptable to unplanned changes in production capacity and delivery schedule.

The qualitative data collected using interview indicate that distribution agents distribute the products to the retail out lets in Addis Ababa according to the territories assigned once a day in the morning using 5 ton trucks and release their drivers. When they receive call from few retailers for product deliveries in the afternoon may be in the afternoon, the distributor find it uneconomical to respond to small demands using big trucks and tell them to wait until the next day morning due to the fact that they are not using small trucks like 3 tons truck or 1 ton pickup cars to be flexible and adaptable to the demand fluctuations. Especially the local strategic suppliers are less flexible/adaptable to the changes in demand from Faffa Food Share Company's from their plans due to the existing capacity limitation. However, the foreign suppliers have the capacity to accommodate unplanned changes in demand and hence they are flexible and adaptable to changes.

4.3.3 Factors Affecting Supply Chain Strategies

Although it has been shown from sections above-supply chain practice in this organization was not effective and somewhere stressing supply chain management in this organization. The third objective of this study aimed at identifying factors affecting implementations of supply chain management strategies at FFSC's. And eight instruments was aspired to identify factors affecting supply chain strategies and submitted to the respondent to give their opinions concerning with the matter. Questions were in the Likert scale ranging from very low with variable raised to very high with the factor affecting supply chain strategies.

The eight items/variables analyzed were general management incapability, employees' incapability, high management cost, low product quality performance, process and technology incapability, improper production scheduling, policies and regulatory appliance, improper distribution time management and supplier(s) misbehave

The mean scores were employed to compute for the factors affecting implementations of supply chain strategies. The following numerical value and interpretation were used in this regard.

Mean Range	Response Mode	Interpretation
=5	Very high	A very high challenge.
4.00-4.75	High	High challenge
3.00-3.75	Average/moderate	Moderate challenge
2.00-2.75	Low	Low challenge
1.00- 1.75	Very low	Very low challenge

Table 4.14: Factors Affecting Supply Chain Strategies

S/N	Items	N	Mean	Std. Deviation
1	General management incapability	50	3.94	.793
2	Employees incapability	50	3.12	1.100
3	High management cost	50	3.84	.681
4	Low product quality performance	50	2.54	1.092
5	Improper production schedule	50	3.56	1.264
6	Policies and regulatory appliance	50	2.64	.985
7	Improper distribution time management	50	3.70	.763
8	Suppliers misbehave	50	3.58	1.052
	Group Mean		3.365	

(Source: researcher's survey)

Table 4.14presents factors causing challenges in implementation of supply chain management in FFSC. General management incapability ranked highest with mean value of3.94 which is approximate to highly challenging factors followed by High management cost,Improper distribution time management, Suppliers misbehave ,Improper production schedule and Employees incapability which was mean value of 3.84, 3.70, 3.58, 3.56 and respectively. The following two items were also rated not so much: low product quality performance with mean value of 2.54 and policies and regulatory appliance 2.64.Generally, average mean was (3.365) which is moderate. These items give an implication that challenges of above mentioned factors in implementation of supply chain management in FFSC is at average level.

From interviews with procurement and supply manager, the study also found that supply chain management at FFSC is also affected by factors related to suppliers of raw materials. These factors include; late delivery of raw materials, delivery of poor quality raw materials and delivery of raw materials in a lower quantity that the order one. All these factors disrupt the production process and may result in low production. If you willgo back in the table (Table 4.14) you will see that supplier misbehavior was rated as the challenger in FFSC supply chain. Therefore researcher tried his best to found out which measures were taken to reduce or to eliminate challenges from suppliers, and discussion with procurement officer on the issue of quality of raw materials supplied to FFSC.

In the interview process some other challenges were revealed some were outside and other inside of FFSC control. It was frequently mentioned that poor road infrastructure in the country was among the major factor affecting distribution of finished products by FFSC through its wide network throughout the country. Since the main method of distributing finished products by the company is through road, poor road infrastructure deeply affects the logistical planning of distribution of products to consumers by making the process more expensive. This can be the reason why high management cost was ranked as a high challenge in the implementation of supply chain strategies.

Other factors which affect supply chain management at FFSC include are caused by poor management and poor communication between the management, shortage of foreign currency

and price inflation. It was researcher opinion that the management of FFSC should strive to establish clear lines of communication between its staff members and between its various departments. In order to overcome supply management challenges arising from poor management and communication between staff members in various departments of FFSC.

4.3.4 Measures to Improve Supply Chain Management

The last specific objective of the present study needed to identify measures to be taken to improve supply chain management at FFSC. The results were analyzed using thematic analysis. The results present the common themes that emerged from the interviews as they support this objective. It should be noted that the themes do not indicate the number of respondents who identified a specific theme, and in many instances the respondents mentioned the same theme. In certain instances, researcher asked respondents probing questions in order to confirm the common themes. The themes emerging from the discussion regarding measures to improve supply chain management: improve team working and management, to expand market, employee more professional people, new machines, increase of employees' awareness, deliver at right time and increase production. The above proposition was explained one by one wherein both primary data and secondary data were used to support the arguments.

4.3.4.1 Improve team working and management

Actually it has been reported that supply chain is all about integrated approach, a team work and about collaboration. So in simple, team working is about motivated team working towards success with a common goal. Researcher argued that success of any supply chain largely depends upon collaboration and team work; because supply chain has many facets which are integrated and an independent approach would defeat the very objective of supply chain.

Harland, 1996).felt that supply chain is about management of network of activities involved in delivering a product or service, "Supply chain management (SCM) is the management of a network of interconnected businesses involved in the ultimate provision of product and service packages required by end customers

Supply Chain is a process/system that manages customer order from receipt to delivery through its network of related activities that have primary focus to manage seamless/faultless flow of information, product and also cash flows. Apart from managing product, information, and cash flows supply chain would target maximization of return on investment to the shareholders. In order to maximize profitability of the organization, all functions/activities within supply chain should have common goal and work as a team collaborating with other functions within the business.

4.3.4.2 To Expand Market

It was clearly stated by some respondent that FFSC need to craft it marketing plan and strategize an expansion implementation plan. Since geographical expansion of business is another way to achieve growth it was suggested that in order to win today business competition and grab big market share FFSCL have to increase outposts/satiations for it products, to have more agents outside Addis Ababa and even outside the country.

During this study researcher used to tall to different people concern with the issues which were frequently arose and the whole study in general. In the discussion with one professional marketer researcher noted his saying that "Market expansion can consist of opening an office in a new location or simply putting a salesman in a new market, or even using the benefits of the internet to expand your company."

Researcher of present study advice management of FFSC to open more sales point all over the country as the idea has been supported by interviewee and other supporting secondary materials. Moreover there is the need to conduct another study examining applicability of FFSC's products and customer satisfaction, in view of the fact that this study did not cover this part.

4.3.4.3 Employee more Professional People

It is clear to the manufacturers that developing countries especial African countries are the nations at risk when it comes to preparing their young people for real life and real jobs. The timing could not be worse. As competition intensifies in the global marketplace, developing countries' manufacturers are having a tough time finding qualified people to replace the retiring baby boom generation in increasingly high-tech and sophisticated jobs. While manufacturing

provides good, family-supporting jobs with the highest average salary among all business sectors, young people, the education programs do not offer manufacturing's promising career opportunities. The education and business communities must work more closely together to align educational programs with the academic and occupational skills necessary for 21st century manufacturing careers.

4.3.4.4 New Machines

Almost every respondent who participated in this objective wanted FFSC to adopt new technologies and migrate from use of old machine to modern machine. They clearly state trucks used were very old which in turn mechanical break down every time. Sometime organization incurred more costs by hiring trucks when most of its trucks were down for mechanical problems. Additionally there were also suggestions from these interviews for management of FFSC to buy new production machines.

This problem of using outdated machine is not only in the case company-it is the problem of our country or all developing countries in general. From informal source of data researcher found clue that in developing countries enterprises have a slower technology adoption rate and more difficulties realizing the technology's benefit than those in developed countries. Findings from the study by Faisal (2012) shown that African companies online sales is virtually nil. According to research conducted by Mensah and Marfo (2009) in Ghana revealed that about 65% manufacturing companies uses lower technologies in production. Although poor technology had been shown to be epidemic disease of manufacturing industries in African countries but researcher advised FFSC to start adopting new technologies so that it can hit at least east Africa market.

4.3.4.5 Increase of Employees' Awareness

From interviews with respondents, the researcher also found that lack of awareness on supply chain management among some staff members at FFSC also affects supply chain management effectiveness. Lack of awareness on supply chain management issues often results in poor planning of transportation logistics such as; calculation of transportation costs and optimization of distribution routes

4.3.4.6 Increase Production

The study argued that productivity growth is important to the any firm (either manufacturing, service, or sales farms) because more real income means that the firm can meet its (perhaps growing) obligations to customers, suppliers, workers, shareholders, and governments (taxes and regulation), and still remain competitive or even improve its competitiveness in the market place. Interviewed officers had noticed low productivity in FFSC and put forward that there was need to increase output while minimizing input in manufacturing activities in Faffa Food Share Company. It is better to know that productivity is the ratio of output to inputs in production; it is a measure of the efficiency of production.

CHAPTER FIVE

SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

This chapter presents summary of findings which are organized as the research objective, conclusions that are drawn from the findings and recommendations based on the findings.

5.2SUMMARY OF FINDINGS

The study was directed by five specific objectives these are to study the existing practices of supply chain management from the five SCM practices perspectives, to investigate and get insight about the level of integration and coordination of the case company with its suppliers and customers, to investigate and measure the perceived performance of the supply chain flexibility and adaptability and to get better insight in the case company, to identify factors affecting implementation of supply chain strategies at Faffa Food Share Company and To identify measures to be taken to improve supply chain management at Faffa Food Share Company.
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 finding indicate that the degree of relationship across the supply chain of FFSC is leveled to be transactional or adversarial, which is characterized by poor performance regarding to the case company considers quality as number one criterion in selecting suppliers, the case company regularly solves problems jointly with their suppliers, the case company has been helping their suppliers to improve their product quality, the case company includes their key suppliers in their planning and goal setting activities, the case company frequently interact with customers to set reliability, responsiveness, and others, the case company compliance with customers delivery in full requirement, the case company compliance with customers delivery on time requirements and the case company frequently measure and evaluate customer satisfaction. The descriptive analysis and interview with management bodies has verified the prevalence of these characters of traditional relationship.

The study indicate that with regard to internal operation, the descriptive data and interview analysis conveys that, there is moderate automated quality control system and management know-how regarding supply chain effectiveness. Relatively the case company is weak in innovation of new products, efficient resource utilization, and up-to datedness of production.
With regard to information sharing, the descriptive data and interview analysis conveys that, there is poor information sharing with customer, moderate related to suppliers. Again the overall efforts in coordinating and sharing information across the supply chain partners are weak. Even the shared information lacks adequacy and quality.

Regarding to information technology, the quantitative and qualitative analysis indicated that, poor and absence of IT & IS tools with in the case company which scored 2.437 groups mean.

Supply chain management practice from training perspective of FFSC is the poorest in respect to other SCM practices which revealed mean value of 1.972. Each items and the overall training practice performance shows very poor than expected. This adversely affects the effectiveness of SCM.

Regarding to integration among the SC partners the group mean of FFSC integration with its supplier's shows 2.76 which approximate to moderate level. But the qualitative analysis reveals poor integration. The quantitative analysis of customers' integration conveys group mean value of 2.51 and it is really poor even if it approaches to moderate the customers have no strong integration with the FFSC than buy-sale transition.

With regarding to integration among the SC partners the group mean of FFSC integration with its supplier's shows 2.69 which approximate to moderate level. But the qualitative analysis reveals poor integration. The quantitative analysis of customers' integration conveys group mean value of 2.47 and it is really poor even if it approaches to moderate the customers have no strong integration with the FFSC than buy-sale transition.

Concerning to, supply chain agility the descriptive data and interview analysis conveys that, there is moderate supply chain flexibility and Adaptability with group mean value of 2.94 which approximate to moderate level.

The results of the challenges faced by FFSC in implementing supply chain strategies were as follow: General management incapability, high management cost of supply chain and improper distribution time management were ranked high with mean of 3.94, 3.84 and 3.70 respectively. And followed by Suppliers misbehave (3.58), Improper production schedule (3.56) Employees incapability (3.12), Policies and regulatory appliance (2.64), and Low product quality performance (2.54).Generally, average mean was (3.365) which imply challenges were moderate.

Lastly the selected respondent clearly state measures to be taken to improve supply chain management at FFSC. And measures to improve supply chain management at the case company are: improving team work and management, expanding market, employing more professional people, using new machines, increasing employees' awareness, delivering at the right time and increasing production

5.3 CONCLUSIONS

Based on the results of the study obtained and summary of findings the following conclusions are given. The eventual conclusion of this study is that generally, the case company's orientation towards SCM is traditional that lacks substantial indicators of an integrated, efficient and effective SCM.

Based on qualitative and quantitative analysis the investigator comes up with conclusion that the case company's orientation towards internal operation is poor and which have direct impact on the company's ability (potential) to embark on external integration. In other words, its effect is clearly reflected on customers not getting what they need when they need it, long lead time, and poor complaints management, poor integration with suppliers, not having effective flexible production system that could respond to the changing market and customer's preference.

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

The SCM main concept is creating a relationship with other partners through the SC to provide products and services in order to satisfy the customers. The relationship of the FFSC with its customers and suppliers is not strong, in sharing sales forecast, cooperativeness, joint product planning, is poor. Therefore, these relationship shows as the relationship between FFSC's supply chain participants are traditional, that is buy-sale relationship.

The case companies were flexible to manage unplanned demand fluctuations to certain extent. However, their local suppliers were less flexible to handle unplanned changes of demand due to capacity limitation. The distributors were also less flexible to handle small orders at any time of request.

Based on the results of the study obtained the fourth specific objective was asking for the challenges faced by FFSC in implementation of supply chain strategies. In general the study concluded that the challenges were moderate, mean score method was applied to intemperate the results of this objective and the average mean score was 3.365 which was interpreted as the moderate challenge. Areas which shown to be somehow challenging in implementation of the supply chain strategies were: General management incapability, High management cost, improper distribution time management and suppliers misbehave. While challenges from other remained 4 items were rated not so much.

5.4 RECOMMENDATION

On the basis of the findings and conclusions reached, the following suggestions were forwarded in order to improve the Supply Chain Management of the case company. It is noticeably explained that collaboration is vital in increasing the potential of the company to satisfied customers. FFSC is suggested to integrate suppliers and customers, so as to bring about flexible, responsive and efficient production. This can be done first, by networking the functional units of the organization with appropriate IT and integrated information system.

It's known that the human resource is the essential factor that performs all activities to make Supply Chain Management effective and efficient. At the current situation marketing competition, customer preferences, and everything is changing rapidly. Therefore, this change

enforces companies to change their strategies, and operations. Out of these changes having skilled, agile, and lean man power is the one. So that, FFSC is highly suggested that to prepare training program for its employees and managers in order to enable them to be competent, committed, responsive, finally which improves internal operation and customers service which then result in customer satisfaction. This can be done through creating relation- ship with training institutions, strengthen the internal human resource department, internal sourcing and by using appropriately the opportunities given by the government through sending the right person to the training program.

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

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

The case company should work with distribution agents to be more flexible and adaptable to quickly respond to small volume demands of customers at any time by arranging small capacity transportation means instead of ignoring for economic reasons.

The case company should have to work on challenges affecting supply chain strategies which hinder the performance of its operation.

5.5SUGGESTIONS FOR FURTHER STUDY

Even if this study has limitation the following suggestion for future study were arrived atThis study is used only one case company that is Faffa Food Share Company and the finding was as described above .But supply chain management maybe influenced by contextual factors such as environmental uncertainty, company environment, Government support, uncertainty aspect from overseas and etc…

It's interesting to see study on supply chain management by incorporating data from both supplier and customers in other company case.

And also it is interesting to see the impact of supply chain management practice on organizational profitability or on the level of customer satisfaction.

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APPENDICES

APPENDICES

Appendix: A

ADDIS ABABA UNIVERSITY

SCHOOL OF COMMERCE

POST GRADUATE STUDIES IN LOGISTICS & SCM

SUPPLY CHAIN PRACTICE QUESTIONNAIRE

Dear Sir/Madam,

I am undertaking my master's thesis on the title "**Study on supply chain management practices' A case study ofFaffa Food Share Company**" as a partial fulfillment requirement for M.A degree in Logistics & Supply Chain Management.

Considering that your response and participation is essential to contribute to the body of knowledge in the areas of supply chain management and to the success of this study, I kindly request you to participate in this data collection process. All responses will be kept confidential and will not be traceable to individual respondents.

You will be asked questions concerning the company's current supply chain management practices. If you are unable to complete the questionnaire yourself, please entrust the task to another who is knowledgeable about supply chain management practices, supply chain collaboration/ integration, supply chain flexibility and adaptability and supply chain management problems. There are no rights or wrong answers to the following questions. I only interested in your opinion regarding supply chain management practices.

Completing the questionnaire will take about 20 minutes. Kindly spare a few minutes from your valuable time and busy schedule to complete the questionnaire as your participation is valuable and indispensable for the success of this study.

Please put the check mark (X) in the box of your choice and your attempt to answer all the questions is highly appreciated. I confirm that the entire data collection and analysis will be held

confidential and ethical. Please be aware that it is not necessary to mention your name and that of your company.

Once you have completed the questionnaire, I am willing to physically collect or you mail it directly to me using my e-mail address indicated below. Thank you in advance for your cooperation and in case of enquiry, please do not hesitate to contact me at my address below.

Finally, I thank you for your concern and patience while responding to the questionnaire.

Daniel MotiNegera

Master's Degree Program Candidate

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SECTION-1 RESPONDENT'S PROFILE

The following questions are about the respondents profile in the organization. Kindly indicate the appropriate characteristics of the respondent's profile using (X).

2.1 Respondent's Sex Male ☐ Female ☐ 2.2 Respondents Age 18- 29 ☐ 30-39 ☐ Above 40 ☐ 2.3 Respondent's qualification level: Grade 10 completed ☐	2.4 Respondents current position in the company Department manager ☐ Division Head ☐ Senior Officers ☐ Others ☐

Grade 12 completed ☐ Certificate ☐ College Diploma ☐ B.A/B.SC ☐ MA/MBA/MSC and Above ☐	2.5. respondents work experience Below 2 years ☐ 2-5 years ☐ 5-10 years ☐ Above 10 years ☐

Appendix: B

SECTION 2: INSTRUMENT FORSUPPLY CHAIN MANAGEMENT PRACTICES

The following questions are about how your organization has been implementing supply chain management practices. Using the following rating scale under the columns',"circle only one number from the given numbers after reading the description on the left hand."

The number represent 1-Very low 2- Low 3- Average 4- High 5- Very high

2.1supplier and customer relation ship

Code	**Description**	**Rating numbers**				
SCMP/SSR1	We consider quality as our number one criteria in selecting suppliers	**1**	**2**	**3**	**4**	**5**
SCMP/SSR2	We regularly solve problems jointly with our suppliers	**1**	**2**	**3**	**4**	**5**
SCMP/SSR3	We have helped our suppliers to improve product quality	**1**	**2**	**3**	**4**	**5**

SCMP/SSR4	We include our key suppliers in our planning and goal setting activities	**1**	**2**	**3**	**4**	**5**
SCMP/SCR1	We frequently interact with customers, to set reliability, responsiveness, and other standard for us	**1**	**2**	**3**	**4**	**5**
SCMP/SCR2	Compliance with customers delivery in full requirement	**1**	**2**	**3**	**4**	**5**
SCMP/SCR3	Compliance with customers delivery on time requirements	**1**	**2**	**3**	**4**	**5**
SCMP/SCR3	We frequently interact with customers to set joint product planning	**1**	**2**	**3**	**4**	**5**

2.2 Internal operation						
Code	**Description**	Rating numbers				
SCMP/IO1	Up-to-datedness of production	**1**	**2**	**3**	**4**	**5**
SCMP/IO2	Extent of production process automation	**1**	**2**	**3**	**4**	**5**
SCMP/IO3	The extent of innovation in product	**1**	**2**	**3**	**4**	**5**
SCMP/IO4	The extent of continuous and instantaneous product and service improvement	**1**	**2**	**3**	**4**	**5**
SCMP/IO5	Management know-how regarding supply chain effectiveness	**1**	**2**	**3**	**4**	**5**
SCMP/IO6	Efficient utilization of resources	**1**	**2**	**3**	**4**	**5**
SCMP/IO7	Extent of automated quality control	**1**	**2**	**3**	**4**	**5**
SCMP/IO8	Internal logistics flow	**1**	**2**	**3**	**4**	**5**

2.3Information sharing practice						
Code	**Description**	**Rating numbers**				
SCMP.IS1	Sales forecast information sharing with customers	**1**	**2**	**3**	**4**	**5**
SCMP.IS2	Sales forecast information sharing with suppliers	**1**	**2**	**3**	**4**	**5**

SCMP.IS3	Adequacy and quality of information sharing throughout the supply chain	**1**	**2**	**3**	**4**	**5**
SCMP.IS4	Overall efforts of Inter-organizational information coordination and sharing	**1**	**2**	**3**	**4**	**5**
SCMP.IS5	Sense of trust and confidence along the supply chain	**1**	**2**	**3**	**4**	**5**

2.4 Information technology

Code	**Description**	**Rating numbers**				
SCMP/IT01	The level of IT- based ordering from major customers	**1**	**2**	**3**	**4**	**5**
SCMP/IT02	The level of IT- based automated ordering to major suppliers	**1**	**2**	**3**	**4**	**5**
SCMP/IT03	Up –to-datedness of IT technologies throughout the supply chain	**1**	**2**	**3**	**4**	**5**
SCMP/IT04	The adequacy of IT systems throughout the supply chain	**1**	**2**	**3**	**4**	**5**
SCMP/IT05	Adequate investment are made in developing technology for SCM practices	**1**	**2**	**3**	**4**	**5**
SCM/IT06	The company creates compatible Information system for supply chain members	**1**	**2**	**3**	**4**	**5**
SCM/IT07	SCM software systems (like ERP, EDI) are used	**1**	**2**	**3**	**4**	**5**

2.5 Training practices

Code	**Description**	**Rating numbers**

SCMP/TP1	Giving training to downstream supply chain members/intermediaries	**1**	**2**	**3**	**4**	**5**
SCMP/TP2	Provision of diversified skill training to employees	**1**	**2**	**3**	**4**	**5**
SCMP/TP3	The overall adequacy of employees training	**1**	**2**	**3**	**4**	**5**
SCMP/TP4	Employees training in supply chain concepts and management	**1**	**2**	**3**	**4**	**5**
SCMP/TP5	Adequacy of training and development for management	**1**	**2**	**3**	**4**	**5**

2.6 supply chain integration/collaboration with suppliers and customers						
Code	**Description**	**Rating numbers**				
A	**collaboration with suppliers**					
SCC/S1	The level of strategic partnership with suppliers	**1**	**2**	**3**	**4**	**5**
SCC/S2	The establishment of quick ordering system	**1**	**2**	**3**	**4**	**5**
SCC/S3	The company seeks long-term stable relationships with suppliers	**1**	**2**	**3**	**4**	**5**
SCC/S4	Stable procurement through network	**1**	**2**	**3**	**4**	**5**
SCC/S5	Regularly solve problems jointly with our suppliers	**1**	**2**	**3**	**4**	**5**
SCC/S6	Helped suppliers to improve their product quality	**1**	**2**	**3**	**4**	**5**

SCC/S7	Included our key suppliers in corporation's planning ad goal setting activities	**1**	**2**	**3**	**4**	**5**
B	**collaboration with suppliers and customers**					
SCC/C1	Follow up customer for feedback	**1**	**2**	**3**	**4**	**5**
SCC/C2	Monitoring and measuring customer service level	**1**	**2**	**3**	**4**	**5**
SCC/C3	The level of market information sharing with major customers	**1**	**2**	**3**	**4**	**5**
SCC/C4	Customer feedback is used to improve customer relations, processes, products and services	**1**	**2**	**3**	**4**	**5**
SCC/C5	The organization has systematic processes for handling customer complaints	**1**	**2**	**3**	**4**	**5**
SCC/C6	Integrate with key customers in inventory carrying decision	**1**	**2**	**3**	**4**	**5**

2.7 Supply chain agility(flexibility and Adaptability)

Code	**Description**	**Rating numbers**				
AGL1	Suppliers are flexible to accommodate a 25% increase/decrease in raw material demand change above the forecasted quantity	**1**	**2**	**3**	**4**	**5**
AGL2	The faffa food share company is flexible in production facility to accommodate a 25% increase/decrease in demand of finished products from the forecasted quantity	**1**	**2**	**3**	**4**	**5**
AGL3	The faffa food share company is flexible in delivery schedule to accommodate changes by 25% earlier/later than the delivery schedule	**1**	**2**	**3**	**4**	**5**

AGL4	The faffa food share company's production is adaptable to meet extra demand of customers through overtime work, to produce more than the normal production and meet the unplanned need	**1**	**2**	**3**	**4**	**5**
AGL5	The faffa food share company rapidly adjusts its production capacity to address demand changes.	**1**	**2**	**3**	**4**	**5**
AGL6	Distributors adjust transportation capacity to respond to small volume demand of customers	**1**	**2**	**3**	**4**	**5**

2.8 Factors affecting supply chain strategies

Code	**Description**	**Rating numbers**				
SCS1	General management incapability	**1**	**2**	**3**	**4**	**5**
SCS2	Employees incapability	**1**	**2**	**3**	**4**	**5**
SCS3	High management cost	**1**	**2**	**3**	**4**	**5**
SCS4	Low product quality performance	**1**	**2**	**3**	**4**	**5**
SCS5	Improper production schedule	**1**	**2**	**3**	**4**	**5**
SCS6	Policies and regulatory appliance	**1**	**2**	**3**	**4**	**5**
SCS7	Improper distribution time management	**1**	**2**	**3**	**4**	**5**
SCS8	Suppliers misbehave	**1**	**2**	**3**	4	**5**

2.9 what are others factors challenging implementation of supply chain strategies at faffa food share company?----------

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In your own opinions, what measurement FFSC should have to take in order to implement effective supply chain management strategies?----------

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THIS IS THE END.

THANK YOU FOR YOUR VALUABLE INPUT AND KIND COOPERATION.

YOUR KIND PARTICIPATION IS MUCH APPRECIATED.

THANK YOU AGAIN.

As a token of my appreciation for your kind assistance, I would like to send you a copy of the findings of this study OR to invite you to attend the thesis defense program. Could you please provide me with your contact address or e-mail _____

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List of interview questions:

For Marketing Manager

1. What look like your supply chain system?
2. How do you see, your company's effort to maintain and develop existing and new customers?
3. How your company manages customers' complaints?
4. How do you see making your products accessible for your customers both in quantity and quality?
5. How do you see the extent of information sharing practice between your company and customers?

For Human resource Manager

1. Does your company have training program & criterion in order to make employees & managers competent?
2. How do you see provision of multi skill training for your employees?
3. Does your company have flexible /agile man power?
4. How do you see the employees' commitment and initiation for work and learning?

For Production Manager

1. Do you have flexible production system to meet change in market and orders?
2. What about innovation of new products and improvement of existing products?
3. What about effective resource utilization?
4. How would you see the company's compliant management and its effectiveness?
5. How do you express the level of your/your company satisfaction with the service or product of Faffa Food Share Company?

For Procurement and Supply Manager

1. How do you see the suppliers' capability? Are they permanent?
2. How do you evaluate the extent of information sharing practice between your company and your suppliers?
3. What about the extent of integration between your company and your suppliers?
4. Is there uncertainty of suppliers, sense of trust?
5. Do think that it is important to establish strategic or long term relationship with suppliers?