

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

**STUDY ON SUPPLY CHAIN MANAGEMENT PRACTICES-
A CASE STUDY OF KALITY FOOD SHARE COMPANY**

BY

Assefa Balda



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ADVISOR: D.r Tufail Ahmad

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Assefa Balda

**College of Management, Informatics, and Economic
Science**

Approved by Board of Examiners:

Advisor

Signature

date

Examiner

Signature

date

DECLARATION

I, the undersigned, declare that, this study **“The study on supply chain management practices- a case study of Kality Food Share Company”** is my original work and has not been presented for a degree in any other university, and that all sources of materials used for the study have been duly acknowledged.

Declared by:

Name_____

Sign_____

Date_____

Confirmed by Advisor:

Name_____

Sign_____

Date_____

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Acronyms

CLM :-	Council of Logistics Management
CSCMP:-	Council of Supply Chain Management Professionals
CPFR : -	Collaborative Planning, Forecasting and Replenishment
IS :-	Information system
IT :-	Information technology
KFSC :-	Kality Food Share Company
SC:-	Supply Chain
SCM:-	Supply Chain Management
SCR :-	Supplier and Customer Relationship

Abstract

Supply chain management (SCM) is the means by which firms engaged in creating, distributing, and selling products, can join forces to establish a supply network with an unbeatable competitive advantage-has emerged as one of the most powerful business-improvement tools around. 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. The purpose of this paper is to study the practices of supply chain management from the five SCM practices perspectives i.e Supplier and customer relationship, internal operations, information sharing, information technology and training and to see the integrations among SC partners. 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 KFSC employees are 456 out these, 35 employees was considered as a sample unit furthermore, 40 customers were interviewed. 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 moderately practiced with in the KFSC's SC. where as IT and training practices are poorly applied which represented with group mean value of 2.12 and 1.95 respectively. Sales forecast information sharing with customers is poor that convey 2.22 mean value. Based on both quantitative and qualitative analysis the case company has poor relationship with its customers and suppliers and poor customers' services. Manufacturing, supply and demand uncertainties which conveys mean value of 3.41, 2.83 and 2.77 are the major headaches or challenges of the case company's SC which prohibits effective implementation of SCM.

1. Introduction

1.1 Background of the study

The current economic environment in Ethiopia has been providing opportunities for the private sectors to participate actively in investment activities as opposed to the previous socialist policies which put investment activities under state control. Among these investment areas food sector is the one.

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).

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 understanding 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. The current 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.

Russell, (2006) as a coping up strategy suggests 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 investigator has, thus, been inspired to conduct a study on the practices of SCM in Kality food Share Company and forward possible suggestions that would enable the company to be competitive.

1.2 Company Background

Kality food Share Company is established in 1938 and occupies a pioneering status signalling a major break through in the onset industrialization in Ethiopia.

Over the last seven decades of its existence, this giant industry had been consistently mining a wealth of experience in industrial production and marketing of a mix of food products. The factory used to be widely popular for its traditional out puts branded a “Colon Alpi” and later “cerealina”. This subsequently earned its name in the old days.

The present Kality Food Share Company has grown in to a far-reaching reputation for mounting quality and taste of its products among the consumer public all over the country.

Kality Food Share Company enjoys an ideal premise located at the heart of Kality an ever blooming industrial zone of the country-situated only 17 Kilo meters from metropolitan Addis Ababa along the artery motorway stretched through resort town of Debrezeit.

VISION

The vision of Kality Food Share Company’s vision is: being a pioneer, reputable, model food industry (source: company profile).

1.3 Rationale of the study

Even if it is clear that, currently other sectors of industry are playing a significant role for the economic growth of Ethiopia, in addition to these sectors it is not a new history that for a long period of time and still now the Ethiopia economy is dominated by agriculture.

One of many management philosophies that boost the growth, flexibility and management efficiency is SCM, that operate under an integrated, collaboration and efficient value chain all over the world but its effective implementation varies country to country. In the other extreme, there are many research works on various business practices in Ethiopia particularly; financial performance, technology application, and etc. Unfortunately, the investigator of this paper is hardly come across sufficient research works on this timely global management philosophy, SCM which effect competitive advantage in many proxies if managed well.

The justification for targeting on food processing sector is that, Food price increases are creating severe difficulties for poor people and have led to political unrest in many parts of the world. Currently in Ethiopia the price of food related items are increasing and even there is shortage of some food items on the market this may be due to poor supply chain management, collaboration, and other factors across the supply chain partners. Therefore, the rationale of this research is to build awareness of supply chain management and to fill the empirical gap.

1.4 Statement of the Problem

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).

Lazarevic et al., (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 (SCM) 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.

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 management's 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. 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. KFSC is one out of these companies.

Therefore, the overall intention of this study was to assess the case company's orientation towards supply chain management practices and its performance level pertaining to customer service.

Basic research questions

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

1. What do the current supply chain managements practices of Kality Food Share Company looks like?
2. What is the collaboration/integration among key players of the SC?

3. How the case company is working towards integrated internal operation for customer service?

1.5 Objectives of the study

The general objective of this paper was to study/look into the practices and orientation of the case company towards managing its SC in an integrated and effective way and assessing problems hindering its effectiveness.

More specific objectives of this study where:

- 1.To study the existing practices of supply chain management from the five SCM practices perspectives;
2. To assess the extent of collaboration/integration among the SC partners;
3. To assess the case company's orientation of internal operation towards customer service.

1.6 Significances of the study

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

Specifically, this study has the following main significances:

- It paves the way for educators or training institutions to consider when designing training on the issues relating to the SCM.
- It serves as a spring board to conduct further and more detail study in the area; this is because at the current situation there are only few researches were conducted in the related area in Ethiopia.

1.7 Scope of the Study

Supply chain management (SCM) enables to see the members of the supply chain (SC) as an integrated whole and elicit synergy impact. In short, an effective and efficient SCM has the importance of cost minimization, reducing lead time, defect prevention, operational flexibility, system integration, resource utilization and ultimately customer satisfaction.

SCM encompasses vast areas of managerial practices. 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 was delimited to specific context that is practices of SCM in the case of Kality food Share Company. The subject scope of this study is also limited to the company's point of reference towards collaboration, supplier and customer relationship, information sharing, information technology, internal operations of SCM and customer services. The area of the study is also limited to the case company i.e, Kality Food Share Company and the down streams of the supply chain.

1.8 Limitation of the study

The research sample didn't incorporate all the SC participants namely: the suppliers in the sample due to time constrained so that it couldn't be generalized/applied to the complete SC of the company under investigation.

On the other hand the sample size of customers may not represent the total customers because of its size was not sufficient. And it did not incorporate customers at different regional levels.

1.9 Definition of terms

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

Logistics- is the management and movement of goods, services, information and other resources from the point of origin to the point of consumption including storage and warehousing (Eyong, 2009).

Lean logistics: means doing more with less time, less space, less human effort, less machinery, less material with high cost precision and giving the customer what they want (Eyong, 2009).

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

Supply chain: 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).

1.10 Organization of the Paper

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

2. Literature Review

2.1 Historical Development of Supply Chain Management

Before the term supply chain was coined, the term used for management and movement of product and services was logistics. The development of logistics was originally undertaken by the military in ancient times (Britannica, 1994). Therefore Supply Chain Management is driven from Logistics concept. The term supply chain management was coined in, 1982 by Keith Oliver, a management consultant at Booz Allen Hamilton (Cortada, 2001). Oliver used the term to develop a vision for tearing down functional silos that separated production, marketing, and distribution. As Cortada stated the concept was enlarged upon efficiencies and mutual benefits associated with information sharing and decision coordinating to up and down a supply chain.

In 2005, the Council of Logistics Management (CLM) changed its name to the Council of Supply Chain Management Professionals (CSCMP) (Council of SCM, 2005 cited in Christopher, 2005).

A supply chain is simply sequentially-connected organizations and activities involved in creating and making a product available. Conversely, if one looks in the reverse direction at the same activities, a supply chain can be viewed as a demand chain

2.2 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.

2.3 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 any one think about SCM should have to consider these issues.

2.4 Collaboration in Supply Chain

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

communication between members of a supply chain which is amplified through successive linkages (Lee 2000).

In fact a very immediate and available opportunity when two or more companies involve in a chain is, the situation where partners would be able to recognize each other's competencies and combine them in order to satisfy the customer requirements. Some other features which may participant anticipate when entering in a partnership are joint planning, management and measurement; and sharing goals, objectives, benefits, resources, information, and risks with partners. Collaboration is a recognized term which could explain and entail all of the above features (Sunil, et, al. 2004).

Some companies have achieved integration through information sharing and inter-organizational collaboration. In a study to measure the degree of integration among the companies it was found that information sharing and inter-organizational integration were the underlying factors for integration with suppliers and customers in areas like supply chain design, inventory management, and customer relationship management (Bagchi & Chu ha, 2005). But from time to time Firms have been struggling to balance their competitive and cooperative relationships with other firms and stakeholders in the supply chain (Morgan et. al., 2007).

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

2.4.1 Antecedents of Cooperative Behaviour (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 out come (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

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 maximise 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).

2.4.2 Collaborative Planning, Forecasting and Replenishment (CPFR)

CPFR is aimed at improving collaboration between buyer and supplier so that customers' service is improved while inventory management is made more efficient.

It is quite obvious that when each company have more information available regarding the customer demand the better the forecast may be. Therefore, in CPFR which was familiarized for the first time in 1995 by Wal-Mart, it was seen that collaboration is used to solve the errors in forecasts (Ross 1998).

The cooperative behaviours, such as trust & commitment will influence both supply chain practice & supply chain performance indicators (Ruyter et al., 2001).

Levi et al, (2003) stated that, forecasts are always wrong, thus it is impossible to predict the precise demand for a specific item; even with the most advanced forecasts techniques are

used. While this expression is quite true, but a very effective method which company may able to alleviate inaccuracy in the forecasts is collaboration.

2.5 Practices of Supply Chain Management

SCM practices are defined as a set of activities undertaken in an organization to Promote effective management of its supply chain. 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.

A number of literatures show many different perspectives of SCM practices (Tan et al., 2002; Chen and Paulraj 2004; and Li, 2002 and 2005). These different writers perspectives suggested a multi-dimensionality of SCM that covers set of activities and processes from upstream, firm's internal operations to downstream of the supply chain.

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 and thanks to globalization, customers can choose from an increased number of suppliers (Lazarovic et al., 2007).

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 and Sohl 2000; Lazarovic et al., 2007).

2.5.1 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).

The growth of mass customization & personalized service is leading to an era in which relationship management with customers is becoming crucial for corporate survival (Wines 1996).

The customer relationships include the complete range of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers & improving customer satisfaction (Tan et al. 1998; Claycomb et al. 1999).

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).

SCM suggests that firms need to integrate with their suppliers and customers to achieve both financial and non financial growth objectives (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).

2.5.2 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 and Nichols, 1999).

Internal operation summarizes all activities related to production system and internal, logistics flow (Handfield and 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 and Cooper 2000). Power and Soha (2001) find that technology utilization, continuous improvement and computer based automation in manufacturing are some of characteristics of agile/flexible organization.

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).

2.5.3 Information Sharing

Information sharing is an important aspect in achieving perfect integration in a supply chain. Cross functional integration and inter organizational integration requires the visibility of information across the supply chain. Poor information sharing between partners in a supply

chain will result in poor coordination that will lead to many serious problems such as high inventory levels, inaccurate forecasts, low resource utilization, and high production costs. Indeed, information sharing is highly considered as the way to reduce demand uncertainty (Lee and Whang, 2000; Lee, 2002).

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 Raghunathan, 2003).

The way companies share information whatever the confidential level or not; determines the success of the collaboration. The nature of information to be across the supply chain differs based on the degree of integration, institutional trust and availability of infrastructure that facilitate the practice (Lazarovic, et al., 2007).

Therefore, an informatics perspective is vital in the supply chain since information flow is an integral part of SCM and material flow is closely dependent on information flow.

2.5.3.1 Types of Shared Information

Sales Data: In the traditional supplier-buyer relationship, companies communicate demand information exclusively in the form of orders. Indeed, orders from downstream serve as a critical source of information about future businesses.

When the information is transferred in the form of orders tends to be distorted, can misguide upstream partners in their inventory and production decisions. It ultimately harms the efficiency of the supply chain in the form of excess raw material inventory, unplanned purchases of supplies, additional manufacturing expenses created by excess capacity, inefficient utilization and overtimes, excess warehousing expenses, premium shipping costs, and poor customer service level (Lee, et al. 1997).

Sales Forecast: To exploit the vendors' superior forecasting capabilities, retailers including Wal-Mart formed an initiative called Collaborative Planning, Forecasting and Replenishment

(CPFAR), which calls for the retailers and the manufacturers to exchange knowledge and jointly develop forecasts and replenishment plans.

The common form of forecast sharing involves a downstream site sharing the information to the supplier, as it is closer to the market and is thus better positioned to forecast future market demand Tsay (1997).

Inventory Level: One of the most common data shared between supply chain partners is inventory level. Access to supply chain inventory status can contribute to lowering the total inventory level in the supply chain. If the retailer and the manufacturer independently manage their respective inventories without sharing inventory status information, they may end up having duplicate safety inventories or stock-outs at both locations (Milgrom and Roberts, 1998)

Other Information Sharing: Other information often shared in a supply chain include may be performance metrics and capacity. Performance metrics include product quality data, lead times, queuing delays at workstations and service performance. By sharing this type of information, the supply chain can identify the bottlenecks of the chain and improve the overall performance (Tsay, 1997).

2.5.3.2 Level of information sharing

Level of information sharing refers to the extent to which critical & proprietary information is communicated to one's supply chain partner. Many researchers have suggested that the key to make supply chain effective and efficient is making available undistorted & up-to-date marketing data at every node within the supply chain (Balsmeier et. al.1996; Childhouse and Towill, 2003)

The impact of information sharing on SCM depends on what information is shared, quality on shared information, and company's capability in using and translating the information in to a supply chain strategy and operational activities (Moberg et al, 2002). Basically, Information sharing can vary from strategic to tactical & from information about logistics activities to general market & customer information (Mentzer et al. 2004).

2.5.3.3 Quality of information sharing

Quality of information sharing includes aspects such as the accuracy, timelines, adequacy, & credibility of information exchanged. As information sharing is vital, its major impact on supply chain management depends on what information is shared, when & how it is shared, & with whom it is shared (Monczka et. al., 1998; Moberg et. al. 2002).

Having, different interests & opportunities by supply chain participants affect the quality of information. Given these predispositions ensures that, the quality of the shared information becomes a critical aspect of effective supply chain practice (Feldmann and Muller 2003).

Therefore, organizations need to view their information as a strategic asset & ensure that it flows with minimum delay & distortion (Feldmann et al. 2003).

2.5.4 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, down-stream 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 with in 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) revealed 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.

2.5.5 Training

Effective SCM requires managers to have an understanding of supply chain dynamic and ability to use information based tools. Lee and whang, (2000) argue that information visibility throughout a supply chain will bring significant impact if companies do not have a capability to utilize the information in effective ways. Hence companies need to consider the skills requirements and education when integrating their value-adding activities with their partners (Gattoma and Clark, 2003).

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

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

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

2.6 Supply Chain Performances

Empirical studies by Ross (1998), confirmed the theory that, SCM practices considerably improve companies performance. Moreover, the results specifically highlight that IT and information sharing significantly contributes to more performance measures than supplier and customer relationship practice.

With regard to the relationship between SCM strategies and operational performance, Tan et al., (2002) observed that the following SCM-related strategies were significantly related to overall product quality and overall customer service: namely determination of customer's needs, reduction in response time and supplier delivery time, improvement of integration activities, trust among supply chain members, communication of future needs, use of information sharing, and assistance of suppliers in JIT (just in time) capability.

The supply chain performance is now increasingly perceived as critical means for attaining a competitive edge over others competitors. The traditional way of measuring performance based on cost alone has giving way to more innovative approach incorporating non-cost performance measures like quality, flexibility, time, and the need for customer satisfaction (Ashish, 2006).

The driving force for a supply chain performance is the supply chain performance enablers: delivery speed, new product introduction, collaboration across enterprise boundary, data interchange, flexibility, and customer responsiveness. This in turn leads to a positive effect on the overall cost, lead time, quality, and service level, over all capacity, which constitutes supply chain determinants. The current market situations require increasing service levels and quality in union with low cost and small lead times (Ashish, 2006).

Supply chain performance is a two dimensional definition which consists of effectiveness & efficiency. Effectiveness is about 'doing the right things' & efficiency is about 'doing things right'.

Supply chain effectiveness relates to the preference of the end-consumer & the sole indicator is consumer satisfaction (David et al. 2006). Therefore, customer satisfaction is comes from meeting customer requirements, fitness for use, continuous improvement, elimination of waste, customer support, flexibility to meeting demands, design and engineering, quality assurance, inventory and etc (Eyong, 2009).

2.7 Challenges /Barriers of Supply Chain Management

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

Fawcett, (2001) identified top ten barriers to supply chain management these are: Inadequate information sharing, Poor/conflicting measurements, Inconsistent operating goals, Organizational culture or structure, Resistance to change- lack of trust, Poor alliance management practices, Lack of supply chain vision (understanding), Lack of managerial commitment, Constrained resources, No employee dedication/ empowerment.

Currently, companies are striving for lower cost so that they will be competitive in the market while they have to maintain their service level. The key factor to offering the features that the customers want at the level of service they are willing to pay for is to minimize the lead time. One approach suggested to solve this problem is synchronised material movement where all parts of the supply chain have access to the information at the same time (Waters, 2003).

2.7.1 Uncertainty

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

(1) Manufacturing uncertainty: Machine breakdowns that lead to the postponement of production, poor process design that causes a bottleneck in production or produces product of

poor quality, are the manufacturing variables accounting for the late delivery and reduction in customer satisfaction.

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

(3) Supply uncertainty: Normally, suppliers fail to commit to promised dates, possibly due to poor material quality, machine breakdowns or deficiency in natural resources and so forth.

Wilding, (1998) states one key issue known to impact on the effectiveness of a supply chain is that of uncertainty. The major source of supply chain uncertainty is the demand forecast, which may be influenced by several factors such as competition, prices, technological development, customers' general confidence, and more.

Other uncertainties exist in delivery times which depend on many factors ranging from machine failures to road conditions and traffic jams that may interfere with shipments.

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

2.7.2 Bullwhip Effect

Another barrier that different companies have been facing in their supply chain is bullwhip effect. The Bullwhip Effect is an observed phenomenon in forecast-driven distribution channels. The concept has its roots in Forrester's Industrial Dynamics (1961) and thus it is also known as the Forrester Effect. This phenomenon has been observed across most industries resulting in increased cost and poorer service.
(http://en.wikipedia.org/wiki/Bullwhip_effect).

Hau, et al., (2004), concluded as, one of the most common problem that hamper the smooth functioning of SCM is the so-called bullwhip effect which is resulted from inaccurate or

distorted information flows. The bullwhip effect has been viewed as one of the forces that paralyze supply chains.

The major Consequences of bullwhip effects are:

- Inefficient production or excessive inventory.
- Low utilization of the distribution channel.
- Necessity to have capacity far exceeding average demand.
- High transportation costs.
- Poor customer service due to stock outs.

2.8. Conceptual Framework

2.8.1 Major components of the Conceptual Framework

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

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

According to Eyong M, (2009) having this practices in a typical organization is not sufficient to judge an enterprise's SCM as integrated and efficient or generally poor. He states that each practice should be measured for their appropriate level of integration and efficiency. To this end, the parameters of supporting elements that were used to measure the efficiency and integration level are collaborative SCM, information systems and leadership.

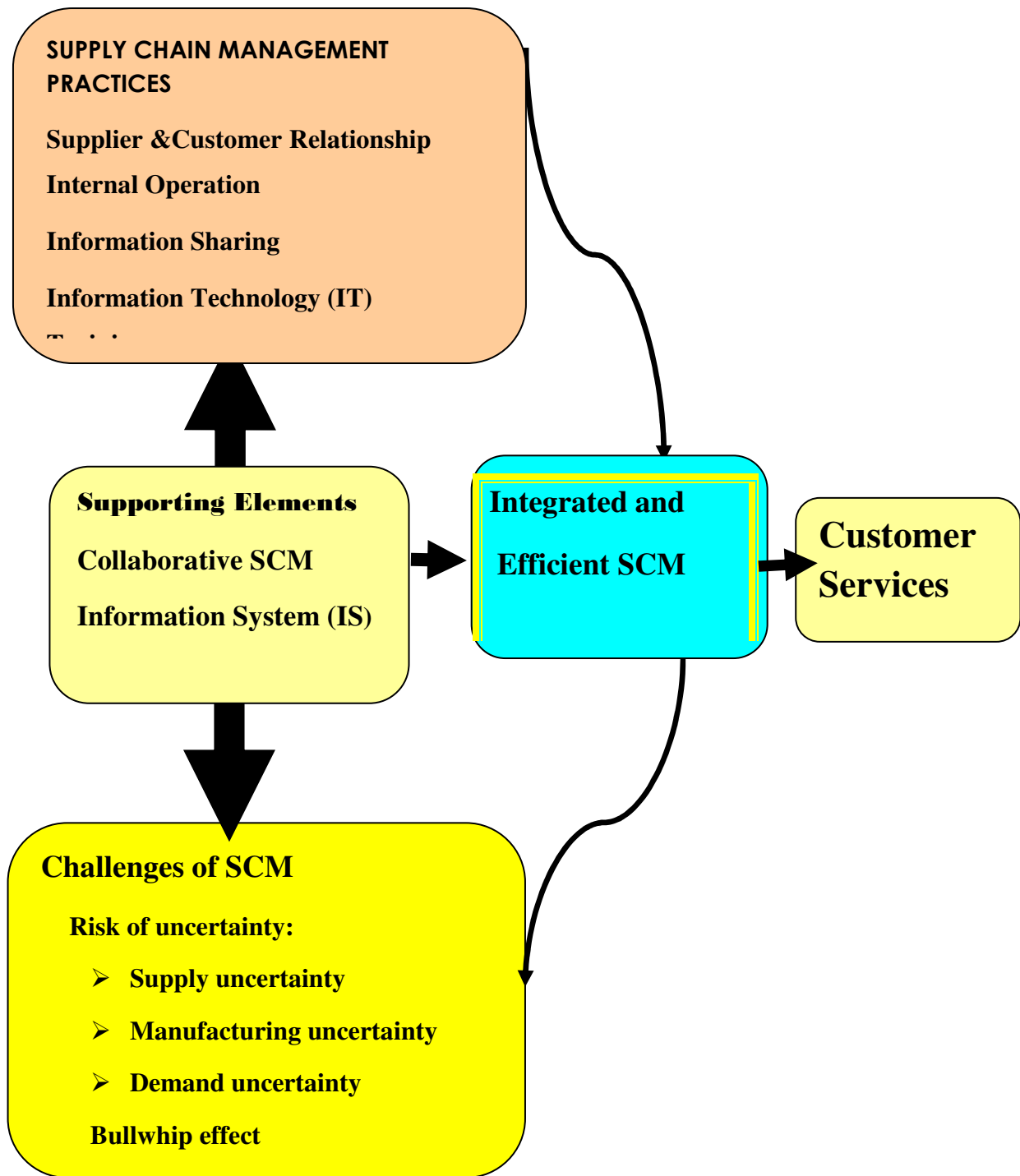


Figure 2.1: Conceptual Framework Developed for this study.

On the other extreme, literatures indicate that SCM is not an easy going management system; it has many challenges especially bullwhip effects and uncertainties associated with strategic planning and implementation.

According to the conceptual frame work companies that are able to pass through all the practices in an integrated and efficient manner having red off impediment can provide a better customer service which is the ultimate goal of SCM.

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

3. Methodology

This part describes the methodologies that were used in this study: the choice of particular research designs, sampling techniques, sources of data and data collection tools along with an appropriate justification associated with each approach.

3.1 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 were 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 Sampling Technique

Even though supply chain management is necessary for both manufacturing and service companies, this study was targeted on the food processing company particularly Kality Food Share Company.

Furthermore, the exact sample units of respondents were considered from company's management and employees on the basis of judgmental/non-probability sampling technique. Purposive sampling technique was used to interview managers who are directly related with the topic under investigation. The researcher preferred convenience sampling to contact the customers who are located at long distance with infrequent visit to the case company, this is due to its difficulty to address the whole customers and not exactly known lists of customers' within the case company. Therefore, these respondents were addressed as per their arrival or availability at the case company.

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

Table 3.1 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
3021-10,000	80	200	315
1001-35000	125	315	500
35001-150000	200	500	800

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

The total number of KFSC's (Kality Food Share Company's) employees are 456 out of this about 120 employees are not educated. Therefore, from the remaining 336 employees 35 were considered as a sample respondents as per the Malhora Naresh's sample determination method, considering the heterogeneity of sample respondents on the basis of position within the organization. In addition to this an interview was held with management bodies of the company.

Due to absence of up to date complete customers list at the case company, the researcher were used a sample size of 40 customers as a sample unit by taking into consideration the time and its manageability. The interview was made on selected day and time where by more customers visit the company particularly Monday, Wednesday and Friday mooring as per information obtained from sales department of the case company. Accordingly, the

researcher interviewed 40 customers within six days with the help of researcher administered interview questions.

3.3 Data Collection Tools

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

The primary data conducted in the form of personal interviews with customers, procurement and supply manager, product manager, marketing and human resource managers and through questionnaires which is distributed to employees of the company. As the secondary data; books, articles, journals, magazines, and brochures were reviewed.

On the other hand, the collection of relevant to validate the investigation demands appropriate and convenient techniques of data collection. Accordingly, in this study both questionnaire and interview were used together.

Questionnaire: close ended questionnaire in a 5 point likert scales was used 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.

Further more 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.

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

3.4 Data Analysis

In general there are two types of data analysis techniques namely: qualitative and quantitative where by the choice of these methods greatly depends on the type of 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).

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

4. Results and Discussion

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

Out of thirty five (35) questionnaires distributed to respondents thirty two (32) were returned (accepted). From the accepted responses one was found invalid where as the remaining thirty one (31) responses were found valid and used for the analysis. This accounts for 88.57% of response rate. Thus, based on the responses obtained from the respondents data presentation and analysis were made as follows.

4.1 Frequency Analysis of the Respondents' Profile

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

Table 4.1 Gender Frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	24	77.4	77.4	77.4
	Female	6	19.4	19.4	80.6
	Missing	1	3.2	3.2	3.2
	Total	31	100.0	100.0	100.0

(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 77.4% of the respondents were male, while 19.4 % were female respondents and one respondent (3.2%) is invalid because this respondent did not clarify his /her sex.

As table 4.2 below shows that, the researcher divided the age of the respondents in to five categories, starting from 20- 25 years of age to above 40.

In this study, the researcher can conclude that most of the respondents were above 40 ages. This group covers 29% of the respondents to the questionnaire.

Table 4.2 Respondents' frequency distribution of age

		Frequency	Percent	Valid Percen	Cumulative Perce
Valid	20-25 Years	5	16.1	16.7	16.7
	26-30 Years		25.8	26.7	43.3
	31-35 Years	5	16.1	16.7	60.0
	36-40 Years	3	9.7	10.0	70.0
	Above 40 Years	9	29.0	30.0	100.0
	Total	30	96.8	100.0	
Missing	999	1	3.2		
Total		31	100.0		

(Source: Researcher's Survey)

The next age group with valid percent of 25.8 is respondents gain aging between 26- and 30. On the other hand, respondents within age group of 20-25 and 31-35 show similar percentage, which is 16.1%. In addition, 36-40 age groups represent 9.7 % of valid respondents. At last, one respondent (3.2) did not mention in which age group he/she is. Surprisingly, there was no respondent below age of 20.

As table 4.3 below clearly shows the frequency distribution of respondents work experience, the largest of the respondents 45 % (14) have more than eleven (11) years of work experience. In the same case, 29% (9) of respondents have from 1-3 years of work experience and followed by 4-6 years of experience, which accounts 16% and 6.5 % (2) respondents represents having 7-10 years of experience. The remaining one respondent (3.2%) did not respond. This implies that in total more than 67.5% of the respondents have more than 4 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 with in the organization they have better opportunity to know more and more about the organization.

Table 4.3 Respondents' frequency distribution of Experience

	Year of experience	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 years	9	29.0	30.0	30.0
	4-6 years	5	16.1	16.7	46.7
	7-10 years	2	6.5	6.7	53.3
	Above 11 years	14	45.2	46.7	100.0
	Total	30	96.8	100.0	
Missing	Missing	1	3.2		
Total		31	100.0		

(Source: researcher's survey)

As shown below in table 4.4 the highest education level attained by most of the respondents was college diploma holders which represents, (9) 29% out of the valid respondents and followed by first degree holders which accounts (8) 25.8%. Surprisingly three education levels that are Grade 10 completed, Grade 12 completed and certificate levels shows similar results that is 9.7% each out of the valid respondents.

Table 4.4 Respondents' frequency distribution of qualifications

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below grade 8	2	6.5	6.9	6.9
	Grade10 completed	3	9.7	10.3	17.2
	Grade 12 completed	3	9.7	10.3	27.6
	Certificate	3	9.7	10.3	37.9
	College diploma	9	29.0	31.0	69.0
	First degree	8	25.8	27.6	96.6
	Second degree and above	1	3.2	3.4	100.0
	Total	29	93.5	100.0	
Missing	Missing	2	6.5		
Total		31	100.0		

(Source: researcher's survey)

Only two (6.9%) respondents are below grade eight. Out of the valid response, the least percentage was second degree and above education level, which is one (3.2%). Finally, two (6.5%) respondents were not responding their education level. Therefore, out of valid respondents about 57% are diploma and above diploma holders.

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. In addition to the quantitative analysis, the qualitative information obtained through interviews from both managers and customers of KFSC's is used to analyze the following issues. The analyses were on: Supply chain management practices, Challenges of SCM, Collaboration /integrated supply chain management, and Customer services.

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

A. 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 Kality Food Share Company's orientation concerning the SCR seven items were developed by the researcher.

Table 4.5 below indicates the extent of relationship that exists between suppliers, Customers and the case company. Accordingly, the group means of suppliers and customers' relationship is 2.74 which is average/moderate performance with respect to the overall measures taken into consideration. Specifically, joint product planning with major customers,

and joint product planning with suppliers, shows the mean value of 2.32, and 2.53 respectively. These, mean values imply that Kality Food Share Company has poor relationship with its customers and suppliers particularly, on joint product planning. 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.

Table 4.5 Suppliers and Customers Relationship Practice of SCM

S/N	Items	N	Mean	Std. Deviation
1	Joint product planning with suppliers	31	2.5333	1.00801
2	The level of cooperativeness with suppliers	31	2.8065	1.04624
3	Customers' delivery adherence requirement	31	3.0968	1.04419
4	Compliance with customers delivery in full requirement	31	2.7742	.92050
5	Compliance with customers delivery on time requirements	31	2.7742	1.05545
6	The level of cooperativeness with customers	31	2.9032	1.04419
7	Joint product planning with major customers	31	2.3226	1.04521

(Source: researcher's survey)

Where as Compliance with customers' delivery in full requirement and Compliance with customers' delivery on time requirements represents similar mean values of 2.77. 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. From the items used for customers and suppliers relationship, Customers' delivery adherence to requirements relatively represents the higher result which is 3.09. This implies that there is a gap between the customers' adherence requirement and company's actual performance. 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 raw materials particularly pasta and macaroni products. The shortage of raw materials is because of the KFSC's weak relationship with its customers on joint product planning as it was presents in table 4.5 above.

The level of cooperativeness with suppliers scored mean value of 2.80. 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 joint product planning with major customers reveals poor performance of such practice (2.32). The group mean value result implies that SCM practice from the perspective of suppliers and customers' relationship of the case company is moderate, that is 2.74.

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 moderate. If the case company is not in a position to improve this and other supplier and customer relationship practices, with out 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 like for pasta and macaroni products.

B. Internal Operation

Internal operation is the starting point to make the environment favourable 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 4.6 below illustrates that ten items were used in order to see the extent of the internal operation of the case company.

The mean value of respondents' reveals that Management Know-how regarding supply chain effectiveness and extent of automated quality control is 3.03 and 3.00, respectively.

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

On the other hand, the fourth item, which is the extent of innovation in product, is relatively the lowest mean value which is 2.67 out of other internal operation perspectives of SCM practices.

Up-to-datedness of production system, flexible production system to market change and flexibility of production system to handle order patterns shows 2.74, 2.87, and 2.96 respectively.

Table 4.6 Internal Operation Practice of SCM

S/N	Items	N	Mean	Std. Deviation
1	Up-to-datedness of production	31	2.7419	1.18231
2	Flexibility of production system to handle order pattern	31	2.9677	.87498
3	The extent of production process automation	31	2.9355	.99785
4	The extent of innovation in product	31	2.6774	1.13687
5	The extent of continuous and instantaneous product and service improvement	31	2.9032	.90755
6	Management Know-how regarding supply chain effectiveness	31	3.0323	.87498
7	Flexible production system to market change	31	2.8710	.92166
8	Efficient utilization of resources	31	2.7742	1.17501
9	Extent of automated quality control	31	3.0000	1.09545
10	The extent of internal logistics flow	31	2.9333	1.17248
Group Mean			2.8837	

(Source: researcher's survey)

As stated by Lambert and Cooper (2000) a production system must keep pace with rapidly change in both order patterns and mass customization. In view of this theory, from the mean values presented above in table 4.6, the extent of flexibility of Kality Food Share Company to market change and handling order pattern is moderate, and it clearly reveals that there are problems prohibiting flexibility to handle these changes. In fact, the customers' preferences and the marketing environments are changing very rapidly over time. This change enforces organisations to adopt flexibility to meet the changing market and order patterns.

Efficiency on resource utilization of internal operation has scored mean value of 2.77 which 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 2.93. 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, 2.90. It implies that, KFSC has to take corrective actions to meet the customers' preferences. Finally, the over all group mean value of KFSC's SCM practice from the perspective of internal operation is 2.88. In general, each item's and group mean values of internal operation practice is more than 2.6, which conveys moderate/average internal operation practices are there in KFSC.

Based on the over all 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.

C. 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, seven items related to information sharing practice were used by the researcher.

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

Table 4.7 Information Sharing Practice of SCM

S/N	Items	N	Mean	Std. Deviation
1	Sales forecast information sharing with customers	31	2.2258	1.02338
2	Sales forecast information sharing with suppliers	31	2.6129	1.02233
3	Other product related information sharing with suppliers	31	2.8387	1.00322
4	Other product related information sharing with customers	31	2.8710	1.02443
5	Adequacy and quality of information sharing throughout the S	31	2.6452	.79785
6	Over all efforts of inter-organizational coordination and information sharing	31	2.5806	.80723
7	Sense of trust and confidence along the supply chain	30	3.0000	.98261
Group mean			2.6820	

Relatively, the high and the lowest mean values are scored by sense of trust and confidence along the SC and sales forecast information sharing with customers that is 3.00 and 2.22 respectively. On the other hand, the Sales forecast information sharing with suppliers scored mean value of 2.61. This implies that the case company has poor information sharing practice with its customers than with its suppliers particularly on sales forecast. The overall effort of inter-organizational coordination and information sharing has a mean value of 2.58.

Where as, other product related information with both customers and suppliers, adequacy and quality of information sharing throughout the SC scored 2.87, 2.83 and 2.64 mean values 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. 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 KFSC and its customers is poor. This is based on the mean value obtained with respect to sales forecast information sharing which scored 2.2. 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 Raghunathan, 2003).

However, the information sharing practice of the case company with its customers particularly on sales forecast is poor the groups mean value of SCM practice from information sharing perspective shows 2.68, which is moderate.

The empirical study of Lazarovic et al., (2007) states that efficiency in meeting customers' requirement is significantly differentiated by the level and quality of information sharing among SC partners.

Therefore, based on the analysis, empirical study and the current (21th) century real practice and importance of information sharing and its impacts on any kind of organization, even if the group mean value shows moderate mean value, with respect to these stated issues the result is not sufficient to create effectiveness and efficiency in SCM activities.

D. Information Technology

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

As table 4.8 reveals that, four items were used to measure IT application of the case company. Out of four items developed to see the extent of IT application in Kaliti Food Share Company's SC, surprisingly all of the items scored the mean value approximate to 2.

The adequacy of IT throughout the supply chain and the level of IT-based automated ordering from major customers represent mean value of 2.00. On the other hand, the mean value of Up-to-datedness of IT throughout the supply chain, IT-based automated ordering from major customers and IT-based automated ordering to major suppliers revealed that 2.2, 2.06 and 2.19 mean value respectively.

Generally, the groups mean value of SCM practice from IT perspective is 2.12, which is interpreted as there is poor IT application practice across the KFSC'S supply chain.

Table 4.8 Information Technology Practices of SCM

(Source: researcher's survey)

S/N	Items	N	Mean	Std. Deviation
1	The level of IT-based automated ordering from major customers	31	2.0645	.89202
2	The level of IT- based automated ordering to major suppliers	31	2.1935	.87252
3	Up-to-datedness of IT throughout the supply chain	31	2.2258	.80456
4	The adequacy of IT systems throughout the supply chain	31	2.0323	.65746
Group Mean			2.1290	

Eng (2005) 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 general manager and marketing manager of the case company. According to the interview there are poor information technology facilities with in the company. But, now the company is implementing intra-network connection facilities to connect marketing, purchasing, production and administration departments. However, it does not give real time and comprehensive reports, due to absence of supportive IT instruments or information system.

According to Levi et al.,(2003) the objectives of IT in SCM are; to provide the information availability and visibility to supply chain partners, to enable the collaboration with organizations in the supply chain and to allow the decision making based on the total supply chain information.

Currently, many manufacturing companies are using integrated information systems to manage their business activities. To share information there should be an up-to dated IT and integrated information system which is capable of connecting all functional units of the company and its external participants.

Based on the data collected both in questionnaire and interview and the analysis made on the IT practices, the existing IT System of KFSC's supply chain can not support effective SCM implementation.

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

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 4.9 Training Practice of SCM

S/N	Items	N	Mean	Std. Deviation
1	Adequacy of training and development for management	31	2.4333	1.10433
2	Employees training in supply chain concepts & management	31	1.9677	.91228
3	The overall adequacy of employees training	31	1.9355	.99785
4	Provision of diversified skill training to employees	31	1.7419	.77321
5	Giving training to down stream SC members	31	1.6774	.83215
Group mean			1.9512	

(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 4.9 above shows five items developed to investigate the training practice of KFSC's. Even if the training practice is considered as one of SCM practices, with exception of the first item i.e., adequacy of training and development for management which scored mean value of 2.43, the remaining mean values of other items is less than 2.00 including the group mean. The group mean scored 1.95, which is the least mean value, even compared with other SCM practices group mean values.

Employees training in supply chain concepts & management, the overall adequacy of employees training, Provision of diversified skill training to employees, and giving training to down stream SC members scored mean value of, 1.9677, 1.9355, 1.7419, and 1.6774 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; with 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 with in 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 with out 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. Further more, per day 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 behaviour, 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 Challenges of Supply Chain Management

The third part of the conceptual framework developed for this study is challenges of SCM that consists of uncertainties, bullwhip effect.

As illustrated in table 4.10, out of six items used to determine the extent of challenges in supply chain management: willingness to share risks and benefits shows the lowest mean value, which is 2.38. This implies that the participants in the SC of Kality Food Share Company are not willing to share risks and benefits associated with their supply chain.

When there is poor willingness to share risks and benefits with the SC partners that conveys weak relationship and integration among the SC partners. The implication is that the supply chain practice is traditional. It means, partners/members with in the chain do their own decision and take the responsibility for any risk in a disintegrated manner.

The remaining items scored moderate mean values. Accordingly, inventory fluctuation due to bullwhip effect, and institutional trust to share confidential data represented mean value of 2.63 and 2.77 respectively. The result of institutional trust to share confidential data shows moderate institutional trust in sharing confidential information and as it is good for those of SC partners.

Where as the mean value of inventory fluctuation due to bullwhip effect conveys that there is distorted and inaccurate information flow with in the SC of the case company. This implies that there is a relationship between bullwhip-effect, information sharing and IT practices of SCM. Therefore poor information sharing practice is resulted from poor IT which ultimately resulted in distorted information flows.

Table 4.10 Challenges / Barriers of SCM

S/N	items	N	Mean	Std. Deviation
1	Supply uncertainty (supplier inability to carry out the promise)	31	2.8387	1.06761
2	Institutional trust to share confidential data	31	2.7742	.88354
3	Willingness to share risks and benefits	31	2.3871	.88232
4	Inventory fluctuation due to bullwhip effect	30	2.6333	1.06620
5	Manufacturing uncertainty	31	3.4194	1.11876
6	extent of demand uncertainty	31	2.7742	.99028
Group mean			2.8045	

(Source: researcher's survey)

As it was analyzed above the quantitative analysis of information sharing and IT practices of the case company revealed moderate and poor group mean values, respectively.

On the other hand, manufacturing uncertainty is the greatest challenge for the case company, followed by supply uncertainty and demand uncertainty, which represents 3.41, 2.83, and 2.77 mean values respectively. The groups mean value for challenges of supply chain management of the case company are moderate which is, 2.80. The reason for manufacturing uncertainty weighted more than other challenges is that, it was affected by both internal and external factors. Some of the internal factors are breakdown of machineries, ineffectiveness of employees, electric power interruption and external factors are change in demands of customers', and suppliers' inability to provide the required inputs according their promises. So that, manufacturing uncertainty of KFSC is victimized with these factors.

For further, consolidating quantitative analysis and qualitative information were collected through interview from procurement, marketing and production managers and major customers. These management bodies also confirmed that manufacturing, supply and demand uncertainties are their major problems. According to the production manager's response, there are greater possibilities of stoppage of production due to shortage of inputs and absence of orders from customers. Particularly, for pasta and macaroni products, there is shortage of supply. Some times, there is also power interruption, which enforces to stoppage of production.

For triangulating the analysis, procurement and supply manager was interviewed for supply uncertainty. According to his response, there is a shortage of supply for the above-mentioned products, and the reason is that domestically there are few sources of supplies for such products (i.e. pasta and macaroni). Furthermore, importing these inputs from abroad at the current situation is costly. In addition, the case company has no common sources supplies or long term suppliers. This is because, the company buys its inputs through bidding and always the company that wins the bid will supply the items.

Finally, the marketing manager replied as, the demand is always changing. "Some times, there is decrease in demand and at another day; the demand may be greater than expected". Due to this, the customers may not get the full quantity when they need it. Major customers also confirmed the above problems i.e. shortage in supply and fluctuations in demand.

Therefore, based on all of the above quantitative and qualitative analysis the case company's SC is exposed for different challenges. Out of these challenges manufacturing, supply and demand uncertainties are major problems that the case company has been facing. Next to these problems, inventory fluctuation due to bullwhip effect is also another challenging factor that prohibits effective supply chain management. So that, these all challenges are mostly effected from the existence of poor relationships between SC partners, weak information sharing, poor IT and weak internal operation practices of SCM.

4.2.3 Collaboration in Supply Chain

As companies migrate toward more extended supply chains, collaboration is becoming their most strategic activity. Collaboration may be with customers, suppliers and even 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, customers and cross functional units with in the company.

4.2.3.1 Integration With suppliers

In this part, the researcher tried to see the level of integration between Kality Food Share Company (KFSC) and its suppliers.

Integration is the process of combining or coordinating separate functions, processes, or producers and enabling them to interact in a seamless and continuous manner (Kenneth and Brian 2006).

Table 4.11 Company Integration with Suppliers

S/N	Items	N	Mean	Std. Deviation
1	The level of strategic partnership with suppliers	31	3.0000	.89443
2	The establishment of quick ordering system	31	2.6774	.90874
3	Stable procurement through network	31	2.6129	1.02233
Group mean			2.7634	

(Source: researcher's survey)

As illustrated in table 4.11, there are three 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 level of strategic partnership with suppliers which are 3.00, followed by the establishment of quick ordering system, 2.67. The mean value of stable procurement through networking indicates 2.61.

Furthermore the group mean shows that 2.76 mean value. The group mean value approximately reveals as, moderate integration between KFSC 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, Kaliti 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 fulfils 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.

Due to the inconsistency between the response of the procurement and supply manager and the respondents of questionnaires, the researcher interviewed both local and foreign purchasers to clearly understand the level of integration with suppliers. They also assure the same point as the procurement and supply manager. They replied that the company has no strategic/planned relationship with its suppliers. But, some times the company made contracts with the winner suppliers for three or four months.

Therefore, the researcher tried to identify the area for the respondents' difference through triangulated analysis. Even if the group mean value of company integration with suppliers reveals as moderate it is not convincing. Because it is inconsistent with qualitative information of the responses found through interviews from procurement and supply department. The respondents of the questionnaire assumed the three to four month contractual relationship as a strategic alliance which does not actually exist. Therefore, based on information obtained from both sources (qualitative and quantitative) the level of integration between the suppliers and the case company is poor.

4.2.3.2 Integration with Customers

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

Table 4.12 Company Integration with Customers

S/N	Items	N	Mean	Std. Deviation
1	Follow-up customers for feedback	31	2.6129	.91933
2	Monitoring and measuring customer service level	31	2.3871	.88232
3	The level of market information sharing with major customers	31	2.6129	.84370
4	Frequency of contacts with major customers	31	2.4516	.92516
Group mean			2.5161	

(Source: researcher's survey)

As table 4.12 above depicts, four items were used to evaluate the case company's integration with its customers or down stream of the SC. Accordingly, the first item: follow-up customers for feed back and the level of market information sharing with major customers scored mean value of 2.61 each which is approximates to moderate level of integration. Monitoring and measuring customers service level and frequency of contacts/meeting with major customers' indicates mean value of, 2.38 and 2.45 respectively.

When the level of collaboration between SC partners is becoming strong and strong, it leads them to integration, which in turn makes the SC more effective. So as to make integration with customers' follow-up customer for getting feed back, monitoring and measuring the service level, good market information sharing, and frequent meeting with customers are some of the attributes to be considered.

The mean value of Follow-up customers for feedback and the level of market information sharing with major customers are 2.61 mean values each which conveys that it is moderate.

Therefore, based on the above data the mean value of both Monitoring and measuring customers' service level and frequency of contacts/meetings with major customers indicates poor result which is 2.38 and 2.45 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, meetings should have to be made with major customers to discuss on what is going on in their supply chain. But, these attributes scored poor mean values which is 2.45. Where as, the group mean result shows 2.51 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 customers, marketing manager and sales man of KFSC. According to their response particularly the whole sellers, replied that as they do not have such a strong integration with the case company. Because, these whole sellers are not only buying and selling to retailers the case company's products, they also buy and sale other companies products.

As marketing manager and sales man responded there is very weak follow-up of customers for feed back, poor contacts/ meetings with customers. In addition to this the marketing manager of the case company replied as not only with the whole sellers, 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 with the exception of government customers, particularly ministry of defence. 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, some times the whole sellers may not get in full quantity when they need it.

Therefore, the total implication of the KFSC'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.

4.2.3.3 Cross functional integration with in a company

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

Table 4.13 Cross Functional Integration with in the Company

S/N	Items	N	Mean	Std. Deviation
1	Data integration among internal functions through network	31	2.5806	.92283
2	Information system integration among internal functional units	31	2.4839	.92632
3	Team work and intra-organizational coordination	31	2.8710	1.11779
4	Extent of integration between production and sales department	31	2.9355	1.06256
5	Periodic intra departmental meetings	31	2.6774	1.32633
Group mean			2.7097	

(Source: researcher's survey)

Table 4.13-above represents the extent of internal integration of KFSC's functional units. Accordingly, almost all items except the 2nd item: information system integration among internal functional units, the rest items scored a mean value greater than 2.5, namely: data integration among internal functions through network, team work and intra-organizational coordination and Periodic intra-departmental meetings scored mean value of 2.58, 2.87 and 2.67 respectively.

Relatively, the extents of production and sales department have scored better mean value than others which is 2.93. Information system integration among internal functional units is the least mean value which is 2.48. This is really, the reflection of poor SCM practice from IT perspectives.

The case company has poor IT practice therefore: with such environment information system integration could be poor. On the other hand, data integration among the functional units of the case company is also highly related with IT application so that, even if its mean value approaches to moderate it is not as such sufficient. This implies that poor IT application practice also affects other factors like the extent of integration. On the other hand, the over all group mean of internal integration is, 2.70 which reflects the internal integration of the case company is moderate.

4.2.4 Customer Service Analysis

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

Table 4.14 Customer Service Descriptive Statistics

S/N	Items	N	Mean	Std. Deviation
1	Reduction of lead time/speed of ordering handing	31	2.5161	.88961
2	The accuracy of order processing for customers	31	2.7419	1.06357
3	Effectiveness and flexibility in meeting customers requirement	31	2.6774	.83215
4	Product accessibility	31	2.8710	1.02443
5	Low stock out frequencies	31	2.6774	1.07663
6	Timely invoice completion	31	2.8065	1.07763
7	Effectiveness in customers' complaints management	31	2.3871	.84370
8	The extent of after sales service	31	2.3226	.87129
Group mean			2.625	

(Source: researcher's survey)

Table 4.14 above depicts that eight essential customers service attributes were used to investigate the extent of the case company's orientation to wards customers service Performance. In view of this, except effectiveness in customers' complaints management and the extent of after sales service all items scored a mean value of greater than 2.5. Reduction of lead time, the accuracy of order processing for customers, effectiveness and flexibility in meeting customers' requirement represents 2.51, 2.74 and 2.67 respectively.

On the other hand, product accessibility, low stock out frequency, timely invoice completion shows, 2.87, 2.67 and 2.80 respectively, but effectiveness in customers' complaints management and the extent of after sales service are represents poor performance that is 2.38, and 2.32 mean values respectively.

Lazarevic et al., (2007) empirically found that, SCM practices significantly affect company's performance particularly lead time, inventory turnover, cost reduction and avoidance of product reject/return, product accessibility, and meeting customers' requirement.

Accordingly, the groups mean value of customer service reveals that the case company's orientation to wards customers service is moderate. And as it was presented in the conceptual framework developed for this study, customers service is the last component. This implies that, customer service is resulted from practices of supply chain management, level and nature of SC challenges, collaboration, and integration of the company with its suppliers, customers and internal functional units. All of these variables except training and IT practices of SCM shows a moderate performance.

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

The researcher held an interview with marketing and production managers, and major customers of the case company to triangulate, and state the extent of services given to the customers' and which finally results in customer satisfaction and loyalty.

As per the interview held with marketing and production managers of the case company reveals that in lead time reduction, there are problems resulted from both external internal factors. As their response the external factor is related with suppliers i.e., some inputs are bought from abroad and it takes up to four months to reach to the company which may increase lead time. Where as from the internal factors there is inefficiency. Some times due to shortage of materials, power interruption, break down of machines; the production department do not produce the required amount and make it ready to the customers'. But, to minimize the delay resulted from shortage of input materials as much as possible the case company has materials stock with in warehouse which pushed inventory cost up.

For the issues related with effectiveness and flexibility in meeting customers' requirement and product accessibility, as marketing manager's response shows the company has different agents at different regional levels and about eight retailers at Addis Ababa. But it is not sufficient and at the current time the company stopped its agreement with some agents. In order to make products accessible to the customers' the case company has been using both direct and indirect shipping system.

In the case of meeting customers' requirement, at the time of shortage in input materials the company gives priority to some major customers. And the level of flexibility is an average. In the case of effectiveness in managing customers' complaints, at the very beginning the company checks the quality and other requirements before issuing the products. The main reason for doing this is in order not to take any risk. If any complaints come from customers the company could manage it as its rationality.

In addition, most private customers are not happy with prioritization principle of the company i.e. whenever there is serious shortage government institutions would be given priority (Interview with customers buying from the plant). On the other hand, customers buying from the retailers namely: Kality main shop, Teklehymanot shop, and Saris shop complain the accessibility of the company's product in the right time, at the right quantity and place.

With respect to compliant management, major customers replied as, the case company is not responding their complaints immediately, to solve this complain at least it took two weeks.

Therefore, the above analysis of both quantitative and qualitative with different management bodies, and customers conveys that the company's orientation towards customers' service is poor.

5. Summary, Conclusion and Suggestions

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

5.1 Summary of Findings

The purpose of this study was to assess the case company's orientation towards managing its SC and how this impacts the customers' service. The KFSC's orientation of SC was evaluated through five SCM practices and three types of integrations that determine effectiveness. In addition, the impact of SCM orientation was examined through customer service level which is the ultimate goal of an effectively managed supply chain.

Based on the quantitative and qualitative data analysis, discussion of results with respect to the basic questions, the following are the summary of major findings of this study.

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

With regard to internal operation, the descriptive data and interview analysis conveys that, there is good automated quality control system, moderate flexible production system for handling order patterns and market change, and internal logistic flow. Relatively the cases company is weak in innovation of new products, efficient resource utilization, and up-to-datedness of production.

Information sharing practices of SCM in the case company is generally moderate. But there is poor information sharing on sales forecast with customers and suppliers which revealed mean value of 2.22 and 2.61 respectively. Again the overall efforts in coordinating and sharing information across the supply chain partners are weak. Even the shared information lacks adequacy and quality.

Concerning information technology, the quantitative and qualitative analysis indicated that, poor and absence of IT & IS tools with in the case company which scored 2.12 groups mean.

Supply chain management practice from training perspective of KFSC is the poorest in respect to other SCM practices which revealed mean value of 1.95. Each items and the over all training practice performance shows very poor than expected. This adversely affects the effectiveness of SCM.

Among the possible challenges of SCM, manufacturing, supply and demand uncertainties appeared as the major headache of the case company with mean values of 3.41, 2.83 and 2.77 respectively. Inventory fluctuation due to in accurate information (bullwhip) effect is also another challeges of the case companies SC. There is also poor willingness to share risks and benefits among the SC partners.

Regarding to integration among the SC partners the group mean of KFSC 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 KFSC than buy-sale transition.

Concerning to the internal integration, data integration through network and information system integration among internal functional units are poor and would not support external integration. But, the overall internal integration is moderate represented by mean value of 2.70.

With respect to orientation towards integrated superior customer service, both qualitative and quantitative analysis revealed that, the company's effectiveness and efficiency in meeting customers' requirement is poor and effectiveness in handling customers' compliant is poor and customers were dissatisfied with the company's compliant management. At the time of shortage of materials the case company gives priority to major customers and this dissatisfies other customers. In general the case company's orientation towards customers' service is poor.

5.2 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. In addition, the quantitative analysis of the company's customer service group mean is moderate that is 2.62. Therefore, this can't ensure customer satisfaction with respect to customer service. Based on qualitative and quantitative analysis the investigator comes up with conclusion that the case company's orientation towards customer service is poor and SCM practices have direct impact on customers' service.
- The primary reason mentioned for poor level of customer service is the internal operations that have direct effect on the company's ability (potential) to embark on external integration. In other words, its effect is clearly reflected on customers not getting what they need when they need it, long lead time, and poor complaints management, poor integration with suppliers, not having effective flexible production system that could respond to the changing market and customer's preference.
- From SCM practices the case company has a great problem on 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 KFSC with its customers and suppliers is not strong, in sharing sales forecast, cooperativeness, joint product planning, is moderate. Therefore, these relationship shows as the relationship between KFSC's SC participants are traditional, that is buy-sale relationship. The researcher concludes that the great challenges that prohibits effective SCM of KFSC's like, manufacturing, supply and demand uncertainties and fluctuation of inventories due to distorted information (bullwhip effect) are because of poor relationships between SC partners.

5.3 Suggestions

On the basis of the findings and conclusions reached, the following suggestions were forwarded in order to improve the Supply Chain Management of the case company.

- It is noticeably explained that internal integration is vital in increasing the potential of the company to get external integration. KFSC is suggested to integrate the internal operational units, so as to bring about flexible, responsive and efficient production. This can be done first, by networking the functional units of the organization with appropriate IT and integrated information system. Secondly, breaking functional silos to encourage coordination and interdependent work design accompanied with agile work force and multipurpose machineries to improve flexibility and responsiveness to market and customers requirements.
- The human resource is the essential factor that performs all activities to make Supply Chain Management effective and efficient. At the current situation marketing competition, customer preferences, and every thing 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, KFSC is highly suggested that to prepare training program for its employees and managers in order to enable them to be competent, committed, responsive, finally which improves internal operation and customers service. This can be done through creating relation- ship with training institutions, strengthen the internal human resource department, internal sourcing. Using appropriately the opportunities given by the government through sending the right person to the training program.
- The current information technology practice of the case company is poor and affects effective communication and integration of data with in 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 minimize the dissatisfaction of customers due to shortage of materials.

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

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APPENDICES

APPENDIX 1

QUESTIONNAIRE

The purpose of this questionnaire is to gather data on the Practices of Supply Chain Management in Kaliti Food Share Company (KFSC). The study is purely for academic purpose and thus not affects you in any case. So, your genuine, frank and timely response is vital for successfulness of the study. Therefore, I kindly request you to respond to each items of the question very carefully.

Part I. Respondents Profile

1. Sex: Male ☐ Female ☐

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

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

3. Year of work experience in the organization:

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

4. Educational Qualification:

Below grade 8 ☐ Grade 10 completed ☐

Grade 12 completed ☐ certificate ☐ College diploma ☐ first Degree ☐

Second Degree and above ☐

5. Field of your Specialization _____

6. Your current position _____

APPEDIX 2

Profile for Supply Chain Management Practices

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

The numbers represent: 1- Very Low, 2-Low, 3-Average, 4-High and 5 -Very High

S/N	Variables	Rating Numbers				
A.	Suppliers and customers relationship	Very low	Low	Average	High	Very high
1	Joint product planning with suppliers	1	2	3	4	5
2	The level of cooperativeness with suppliers	1	2	3	4	5
3	Customer’s delivery adherence requirement	1	2	3	4	5
4	Compliance with customer’s delivery in- full requirements	1	2	3	4	5
5	Compliance customer’s delivery on time requirements	1	2	3	4	5
6	The level of cooperativeness with customers	1	2	3	4	5
7	Joint product planning with major customers	1	2	3	4	5
B.	Internal Operation Practices					
1	Up- to- datedness of production	1	2	3	4	5

2	Flexibility of production system to handle order pattern	1	2	3	4	5
3	The extent of production process automation	1	2	3	4	5
4	The extent of innovation in product	1	2	3	4	5
5	The extent of continuous and instantaneous product and service improvement	1	2	3	4	5
6	Management know-how regarding supply chain effectiveness	1	2	3	4	5
7	Flexible production system to market change	1	2	3	4	5
8	Efficient utilization of resources	1	2	3	4	5
9	Extent of automated quality control	1	2	3	4	5
10	Internal logistics flow	1	2	3	4	5
C	Information Sharing Practices					
1	Sales Forecast information sharing with customers	1	2	3	4	5
2	Sales Forecast information sharing with suppliers	1	2	3	4	5
3	Other product related information sharing with suppliers	1	2	3	4	5
4	Other product related information sharing by customers	1	2	3	4	5
5	Adequacy and quality of information sharing throughout the supply chain	1	2	3	4	5
6	Overall efforts of Inter-organizational information coordination and sharing	1	2	3	4	5
7	Sense of trust and confidence along the supply chain	1	2	3	4	5

D.	Information technology					
1.	The level of IT-based automated ordering from major customers	1	2	3	4	5
2	The level of IT-based automated ordering to major suppliers	1	2	3	4	5

3	up-to-datedness of IT technologies throughout the supply chain	1	2	3	4	5
4	The adequacy of IT systems throughout the supply chain	1	2	3	4	5
E	Training practices					
1	Adequacy of training and development for management	1	2	3	4	5
2	Employees training in supply chain concepts & management	1	2	3	4	5
3	The overall adequacy of employee's training	1	2	3	4	5
4	Provision of diversified skill training to employees	1	2	3	4	5
5	Giving training to down stream SC members /intermediaries	1	2	3	4	5
F	Challenges/ Barriers for effective SCM implementation					
1.	supply uncertainty (supplier inability to carry out the promise)	1	2	3	4	5
2	Institutional trust to share confidential data.	1	2	3	4	5
3	Willingness to share risks and benefits.	1	2	3	4	5
4	Inventory fluctuation due to inaccurate information sharing (bullwhip effect)	1	2	3	4	5
5	Manufacturing uncertainty like, break down of machineries, interruption of power, poor process design etc	1	2	3	4	5
6	Irregular orders from inconsistent customers (Demand uncertainty)	1	2	3	4	5
G	Supply chain collaboration					
G1	Company's integration with suppliers					
1	The level of strategic partnership with suppliers	1	2	3	4	5
2	The establishment of quick ordering system	1	2	3	4	5
3	Stable procurement through network	1	2	3	4	5

G2	Company's Integration with Customers					
1	Follow-up customers for feedback	1	2	3	4	5
2	Monitoring and measuring customer service level	1	2	3	4	5
4	The level of market information sharing with major customers	1	2	3	4	5
5	Frequency of contacts with major customers	1	2	3	4	5

G3	Cross functional integration within a company					
1	Data integration among internal functions through network	1	2	3	4	5
2	Information system integration among internal functional units	1	2	3	4	5
3	Teamwork and intra-organizational coordination	1	2	3	4	5
4	Extent of interaction between production and sales department	1	2	3	4	5
5	Periodic interdepartmental meetings	1	2	3	4	5
H	Customer service satisfaction					
1	Reduction of lead time/ speed of order handling	1	2	3	4	5
2	The accuracy of order processing for customers	1	2	3	4	5
3	Effectiveness and flexibility in meeting customers' requirement	1	2	3	4	5
4	Product accessibility	1	2	3	4	5
5	Low Stock out frequencies	1	2	3	4	5
6	Timely invoice completion	1	2	3	4	5
7	Extent of customers' complaints management	1	2	3	4	5
8	The extent of after sales service	1	2	3	4	5

APPINDEX 3

List of interview questions:



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?



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. How does your company manage employees' complaints?
4. Does your company have flexible /agile man power?
5. How do you see the employees' commitment and initiation for work and learning?
6. How do you see the internal operation practices of your company?



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?
6. Is there demand uncertainty?

7. How do you see team work, flexibility, integration with in the company for meeting change in market condition?
8. How do you see the general integration between your company and customers?



For Production Manager

1. How do you see the extent of supply uncertainty?
2. How do you see the internal logistics system?
3. Do you have flexible production system to meet change in market and orders?
4. What about innovation of new products and improvement of existing products?
5. How do you see the extent of manufacturing uncertainty?
6. What about effective resource utilization?



For Customers

1. How would you see your relationship with Kality Food Share Company?
2. Does Kality Food Share Company provide the quantity you need at the promised date?
3. How do you see information sharing practice between you/your company with Kality Food Share Company? What about the level of integration with you/your company and Kality Food Share Company?
4. How would you see the company's compliant management and its effectiveness?
5. How do you see the accessibility of Kality Food Share Company?
6. What about the willingness to share risks and benefits with Kality Food Share Company?
7. How do you express the level of your/your company satisfaction with the service or product of Kality Food Share Company?