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THE ROLE OF SUPPLY CHAIN MANAGEMENT ON AVAILABILITY OF FAST MOVING CONSUMER GOODS: THE CASE OF SUGAR COMMODITY IN BOLE SUB CITY, ADDIS ABABA CITY ADMINISTRATION

THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF ART IN LOGISTICS & SUPPLY CHAIN MANAGEMENT

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STATEMENT OF CERTIFICATION

This is to certify that the thesis carried out by **Ashenafi Gezae,** on the topic entitled "**the role of supply chain management practices on the availability of fast moving consumer goods: the case of sugar product in bole sub city, AACA**" is his original work and is suitable for submission for the award of Masters of Art Degree in Logistics and Supply Chain Management.

Advisor

Tariku Jebena (PhD)

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Date & Signature

Declaration

I, the under signed here, declare that this thesis entitled, **"The role of supply chain management practices on the availability of fast moving consumer goods: the case of sugar product in bole sub city, AACA"** is my original work and to the best of my knowledge has not been presented for a degree by any other person, and that all the sources of material used for this thesis has been duly acknowledged.

Declared by:

Ashenafi Gezae

_____

Date & Signature

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List of Abbreviations and Acronyms

FMCG: Fast moving consumer goods
SCM: Supply Chain Management

CR: Continuous Replenishment

SCR: Supplier and Customer Relationship

GDP: Growth Development Program

ICT: Information Technology and Sharing

ISM: Institute of Supply Chain Management

A.A.C.A: Addis Ababa City Administration

EDI: Electronic Data Interchange

MT: Metric Tone

OSA: On- Shelf –Availability

CSL: Cycle Service Level

OOS: Out- Of -Stock

Abstract

The objective of this study was to assess the role of SCM practices on availability of sugar commodity with particular location to Bole sub city Retailers. This research is to fill the research gaps that were not addressed by any one of the earlier studies. The study followed mixed. The research design used was explanatory design. The data collection process depended up on primary and secondary data. Yamane Formula was used for sample size determination of retailers from the population and Systematic random sampling from sample frame to distribute questionnaire. Purposive techniques for consumers and census for suppliers, union association, Union Consumer associations, AACA trade and industry staff, Sugar dependent factories for interview purpose were used. The data analysis was by descriptive along with quantitative information from tables and qualitative information from interview. Findings of the study showed that, in Supply chain of sugar, there is a communication gap between, retailers and suppliers hence the supply chain integration is not well built. The findings of the study also showed that the stock out of sugar product at retail center and failing retailers to fulfill customers' interest is due to the poor execution of SCM practices by the chain participants. Moreover, the findings of the study showed that level of information sharing and customer relationship are very determinant for the availability of product. Furthermore, the influence of SCM practices on availability of product was tested using inferential statistics, correlation and regression analysis and the findings showed that they have positive relationship between independent and dependent variables resulting independent variables 43.3% of variance product availability is due to supplier relationship, information sharing practices, quality of information sharing practices and customer relationships.

Key words: SCM, SCM practices, Availability of product

CHAPTER ONE

INTRODUCTION

1.1 *Background of the Study*

Supply chain management practices correctly applied in fast moving consumer goods (FMCG) can contribute greatly in maintaining the availability of these products at retail centers and in factories as well. As in Glad well (2010), the term FMCG (Fast Moving Consumer Goods) was coined by Neil H. Borden (1965) to represent products that are sold quickly and at relatively low cost. Fast Moving Consumer Goods are a category of widely available products with short shelf life. They are essential or non-essential and frequently purchased. Fast moving consumer goods are used up or replaced within a short period relatively to their perishable date or marketing purposes. Typical products range from food and nutrition goods as well as hygiene and cleaning items up to makeup and perfumes or even cell phones. These would include non-durable goods and other consumables. Such goods have a short shelf life either due to high consumer demand or because the product deteriorates rapidly and have high turnover rates. Such businesses have low margin but high volume businesses. Firms hold inventory (Stock) for two main reasons, to reduce costs like logistics costs and to improve customer service. The motivation for each differs as firms balance the problem of having too much inventory (which can lead to high costs) versus having too little inventory, which can lead to cost of lost sales (King and Phumpiu, 1996). Thus, it is unquestionable that companies should build an integrated and efficient system through which resources would flow in a seamless and instantaneous manner across the supply chain (Assefa, 2011). As described by Yeneneh, (2014) like any countries in the world, one can also find companies in Ethiopia, which are dealing with FMCG products. From international companies like Coca-Cola, Nestlé, Tiger Brand, etc. and from the domestic once such companies as Mama Diary, sugar industries, beer factories etc. can be mentioned as examples. In the FMCG segment, the role of efficient supply chain management is crucial for survival and success of a business in a turbulent world. Satisfying its consumers, and survive as well as thrive in a highly competitive market, is due to effective implementation of supply management practices which has no or little problems at any point of sale and distribution.

Like in the other world's countries, Ethiopia has its own sugar factories and produce sugar from sugar cane. (Hanna, 2016), Ethiopian Sugar production, is one of these largest agro-based processing industries in Ethiopia and plays a significant role in the socioeconomic development of the country. Ethiopia's domestic sugar consumption is considerably higher (1.26 times) than its

production. Therefore, the country imports about 152, 000 MT of sugar per year to satisfy domestic demand.

Sugar is primarily used as an ingredient in processed food and drink products, which accounts for the majority of Sugar consumption in developed countries. As such, this consumption is largely invisible to the end user, consumers of food and drinks, and the most significant group of consumers of Sugar, as a discrete product, are food and drinks manufacturers.

The different studies and approaches made in Ethiopia, done on fast moving commodity goods have been used to examine on the distribution of fast moving consumer goods in the case of Ambo mineral water by Yeneneh(2014), effects of supply chain management practices on customer satisfaction by Hanna,(2016).

Thus, the researcher did not find so far a hand full of studies that has specifically examined regarding the roles of SCM practices on the availability of fast moving consumer products (Sugar) which is currently a big issue and yet remain in dispute about its scarcity at retail Centre.

Therefore, the study was set to determine on evaluating the roles of SCM practices on the availability of fast moving consumer goods, sugar commodity, from suppliers up to retails centers at Bole sub city, Addis Ababa city Administration.

1.2 *Statement of the Problem*

Supply chain management practices correctly applied in fast moving consumer goods can contribute greatly in maintaining the availability of these products at retail centers and in factories as well.

Availability of the stock on shelves is the single largest success factor for retail business. Effective SCM is a powerful tool to achieve cost advantage and a more profitable outcome for all parties within and beyond any organization. In fast moving consumer goods, an effective SCM will contribute considerably to constant availability of FMCG products and Sugar in particular, which is important in our daily food consumption (Davis, 2008).

Despite effective supply chain management Practices play a significant role in making available those fast moving consumer goods to customers at the right time, place and quality, the availability of sugar commodity in Ethiopia, is currently out of stock at retail centers.

Although the sugar factories in Ethiopia produce, Sugar to the consumers, and additional imports of sugar commodity made, the access and availability of sugar at retail is not in the way that addressed the domestic demand.

Moreover, the Sugar scarcity continues in Ethiopia as nine regions and two administrations received 130,000 quintals for the September (2017/18) supply, which is a decrease of 390,000 quintals from

the previous supplies. Currently households are only allotted two kilos of sugar per month from the consumer associations. Previously that amount was five kilos. Currently the price of sugar escalates from 20 to 40 birr per kilo(The reporter, Sep 23, 2017).

Addis Ababa, which received 120,000 quintals of sugar in the previous quota, received only 46,000 quintal. From this quota, Bole sub city receives 13,000 quintals of sugar decreasing by halve from the previous allotted quota (Bole Sub City Trade and Industry). Furthermore, MOHA, which holds a bigger share of the Ethiopian soft drink industry market, stopped production as of September 8, 2017. The supply cut also dramatically affected the production of other candy, juice and biscuit factories (capital newsletter September 25, 2017). Sugar dependant businesses throughout the country experienced an inexplicable sugar shortage to a point where establishments had to run away customers seeking their products (Addis Fortune newsletter in its edition on September 28, 2017).

.In Ethiopia, though no literatures showing the exact contribution are available, the economic contribution of FMCGs is substantial. Then, like in the other economies, it requires use of sensitive supply chain.

However, to the extent of the researcher's literature review, no studies have focused on the availability of fast moving consumer goods specifically sugar commodity at retail centers in general in Addis Ababa City Administration, particularly in Bole sub city.

Therefore, the motive to undertake this research was to fill the research gaps that were not addressed by any one of the earlier studies. Moreover, this study was empirically attempt to evaluate the supply management system effectives and implementation practices in sugar commodity, which could be one of the reason for the short supply of sugar commodity.

1.3 *Research Questions*

This study attempted to answer the following basic research questions:

1. What practices of supply chain management of sugar look like in terms SCM Practices dimensions?
2. Does Supply Chain Management Practice play a significance role in the availability of sugar commodity?

1.4 *Objective of the Study*

1.4.1 General Objective of the study

The general objective of this study was to assess the role of SCM practices on availability of sugar commodity (product) with particular reference to Bole sub city Retailers.

1.4.2 Specific objectives

The specific objectives of the study are:

1. To investigate the existing practices of supply chain management of sugar from the SCM Practices dimensions.
2. To evaluate the relative importance of Supply Chain Management Practice on the availability of sugar commodity.

1.5 *Significance of the Study*

The output of the research will help all the members to have a better understanding on the role of SCM practices on the availability of sugar product and will serve as a guideline to all stakeholders and participants in the sugar supply chain in Ethiopia to establish effective SCM practices.

Additionally, the results of this study in general will provide relevant information to all concerned bodies about how well the supply chain is practiced in achieving the desired goal. Furthermore, It will give a clear image about the practices currently being exercised and will also analyze the strengths and weaknesses of the current operating systems, and identifies the challenges as well as suggest possible recommendations to improve or revise the existing performances of the supply chain practices on the availability of products.

Finally, increased efforts in research, knowledge advancement, and experience exchanges are few among the contributions individuals and organizations can do.

Therefore, because this study was designed to be detailed and specific, at least, the findings of the study would also serve as a stepping-stone for future researchers on the same or similar topics by suggesting areas that need further studies to conduct.

1.6 *Scope of the Study*

The researcher delimits the scope of the study in terms of geography and purposively only to Addis Ababa city Administration, Bole sub city. Of the ten sub cities, Bole sub city is by far more organized in information and data that the researcher wants for his study.

Moreover, the supply chain management practices cover many managerial aspects and it is not easy to include in one and single research. Fazila Said (2012) identified SCM practices as Supplier relationship, customer relationship and information sharing. Moreover, Imam B. (2014), in addition to the above SCM Practices, also identified that internal operation, lean practice and It and training. Therefore, the scope of study delimited to role of SCM practices on availability of product, sugar commodity. The dimensions of this study is also delimited to the SCM practices constructs of

strategic supplier relationship, level of information sharing, quality of information sharing, customers relationship among many elements of the SCM practices.

1.7 *Limitation of the Study*

The focus of this research was on supply chain management practice and availability of products in only one product sugar commodity. Moreover, this study was limited only to the outbound logistics of sugar commodity from suppliers and consumers of sugar commodity located in Bole sub city, Addis Ababa. Furthermore, methodology that were engaged to manipulate the thesis, data collection processes, equipment, time, access to literature particularly related to this topic, age of data, were some of the limitations that made challenge to manipulate this research thesis.

1.8 *Definitions of Terms*

- **SCM**: is the coordination of strategic and long-term cooperation in logistics networks (Windischer& Grote, 2003).
- **SCM practices:** The set of activities undertaken by an organization to promote effective management of its supply chain, (Willkister, 2013).
- **Availability of product:** is the measure of a product being available for sale to a shopper, in the place, he expects it and at the time, he wants to buy it (Chopra &Mendil, 2007).
- **FMCG** (Fast Moving Consumer Goods): are products that are sold quickly and at relatively low cost Neil H. Borden (1965)

1.9 *Organizations of the Study*

This project paper organized into five chapters: Chapter one contains the introduction part dealing with background of the study, the research problem, and objectives of the study, scope and significance, limitations and terms definitions of the study. The second chapter discusses the literature review about the subject matter and the empirical review as well. In chapter three, the research design, and methodologies were presented. Chapter four would present data collection, analysis, results, interpretation and discussion of the study. Finally, chapter five would present the major findings, conclusions and forwarded suggestion.

CHAPTER TWO

LITERATURE REVIEW

2.1. The Concept of Supply Chain Management

Various definitions have been used to explain the term SCM. Stadtler (2000) defines Supply Chain Management as "the task of integrating organizational units along a supply chain and coordination materials, information and financial flows in order to fulfill (ultimate) customer demands with the aim of improving competitiveness of a supply chain as a whole".

According to Quinn (1997), the supply chain includes all of those activities associated with moving goods from the raw-materials stage through to the end user. This includes sourcing and procurement, production scheduling, order processing, inventory management, transportation, warehousing and customer service.

By the Institute for Supply Management (ISM), "Supply Chain Management is design and management of seamless, value- added processes across organizational boundaries to meet the real needs of end customer." Supply chain management is the streamlining of a business' supply-side activities to maximize customer value and to gain a competitive advantage in the marketplace. Schonsleben (2004) defines also SCM as coordination of strategic and long-term cooperation in logistics networks (Windischer& Grote, 2003).Supply chain management (SCM) represents an effort by suppliers to develop and implement supply chains that are as efficient and economical as possible. Supply chains cover everything from production, to product development, to the information systems needed to direct these undertakings.

SCM also embodies the information systems, which are necessary to monitor all of those activities. SCM coordinates and integrates all of the supply chain activities and links all of the partners in the chain, including departments within an organization and external companies and information systems providers (Lummus&Vokurka, 1999 ;). A key point in SCM is that the entire process must be viewed as one system. This definition highlights the importance of managing boundaries between supply chain partners. Ganeshan and Harrison (1999) define supply chain as a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers. To improve performance, organizations have to adopt SCM approach and consider the supply chain as a whole. Several researchers claimed that SCM could result in better supply chain performance and bottom line results (Christopher, 1998; Bhasin, 2008; Agus, 2010).

A supply chain is a network that includes vendors of raw materials, plants that transform those materials into useful products, and distribution centers to get those products to customers. Known also as the value chain, it is the sequence, which involves producing and delivering of a product or service (Zailani&Rajagopal, 2005:380).

A supply chain is a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers" (Ganeshanand Harrison, 1995).

Within each organization, such as a manufacturer, the supply chain includes all functions involved in receiving and filling customer requests. These functions include, but they are not limited to, new product development, marketing, operations, distribution, finance, and customer service. A supply chain is dynamic and involves the constant flow of information, product, and funds between different stages.

As described by (Abdurezak M, Birhanu D, Matiwos E, 2014) Customer is an integral part of the supply chain. The primary purpose for the existence of any supply chain is to satisfy customer needs, in the process generating profits for itself. Supply chain activities begin with a customer order and end when a satisfied customer has paid for his/her purchase. The term supply chain conjures up images of product or supply moving from suppliers to manufacturers to distributors to retailers to customers along a chain. In supply chain management, there are a number of members ranging from supplier's supplier up to customers' customer.

SCM is a very important concept for the success of business in all parts of the world, with integration said to assist in reducing cost (Flynn, Huo& Zhao, 2010) and improving efficiency (Danese& Romano, 2011).

2.2. Supply chain management objectives

As in Meseret (2016), Supply chain objective is not only to improve profitability, customer response and ability to deliver value to the customers but also to improve the interconnection and interdependence among firms (Sukati et al, 2013). The basic objective of supply chain management is to create sourcing, making and delivery processes and logistics functions seamlessly across the supply chain as an effective competitive weapon (Li et al., 2005). Banchiyirgu (2016) the objective of SCM is to maximize the overall value generated minimize the cost, and effective and timely distribution of products needed by ultimate customers.

Moreover, supply chain management links the end customers, the channels of distribution, the production processes and the procurement activity in such a way that customers' service

expectations are exceeded and yet at a lower total cost than their competitors (Ibrahim and Hamid, 2014).

2.3. Supply chain management practices

Willkister(2013), explained that SCM practices are defined as the set of activities undertaken by an organization to promote effective management of its supply chain. Koh et al.,(2007); such as the approaches applied in integration, managing and coordination of supply, demand and relationships in order to satisfy clients in an effective way (Wong et al., 2005). As tangible activities/technologies that have a relevant role in the collaboration of a focal firm with its suppliers and/or clients (Vaart and Donk, 2008); and as the approach to involve suppliers in decision making, encouraging information sharing and looking for new ways to integrate upstream activities. Consequently, it involves developing customer contacts by customer feedback to integrate the downstream activities and delivering orders directly to customers (Chow et al., 2008). Fazila Said (2012) identified SCM practices as Supplier relationship, customer relationship and information sharing. Moreover, Imam B. (2014), in addition to the above SCM Practices, also identified that internal operation, lean practice and It and training

Furthermore, Supply chain practices also include technology, cost competitiveness, inventory management and external regulation (McMullan, 1996). All those have to be managed effectively to realize supply chain's strategic position, which allows competitive advantage. (Joseph, Namusarge&Biraori, 2014) conclude from their study that technology adoption is critical in determining effectiveness of the supply chain function in the public sugar sector.

In this study, SCM practice is conceptualized as a four-dimensional construct. The four- dimensions are supplier relationship, level of information sharing, quality of information sharing, and customers relationship.

2.3.1. Strategic Supplier Relationship (SR)

It is a long-term relationship between producers, processors, distributors and retailers (McNeil and Wilson 1997, Spekman et al., 1998; Zylbersztajn and Filho 2003). It is designed to raise the strategic, tactical and operational capabilities of individual supply chain member organizations to help them achieve significant ongoing benefits (Li et al., 2006; Noble 1997; Stuart 1997; Narasimhan, 1998; Monczka 1998). Kotabe et al. (2003) pointed out that by involving strategic suppliers extensively in SCM organizations could gain faster product development cycles, lower manufacturing costs and higher finished product quality. Strategic supplier partnerships highlight a direct, long-term relationship and encourage reciprocal plan and difficulty or problems solving

efforts (Gunasekaran, 2001). Such strategic partnerships are entered into to support shared benefits among the parties and ongoing participation in one of more key strategic areas such as technology, products and markets (Yoshino and Rangan, 1995). 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, advantage 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 importance of building and managing relationships among members of the supply chain was recognized by many authors such as Cooper and Gardner (1993), Lambert and Emmelhainz (1996), Barratt (2004), Sabath and Fontanella (2002), Awad and Nassar (2010). The reason is that SCM involves many independent organizations, thus, managing intra- and inter-organizational relationships is a crucial factor to obtain the supply chain efficiency.

Partners to build and maintain long-term relationships which means to extend the life of the contract between them. Mentzer et al (2000) argue that generally speaking, SCM is itself the management of close inter-firm relationships, thus understanding collaborating is crucial to develop successful supply chain relationships. Forming strategic alliances with supply chain partners such as suppliers, customers and intermediaries is considered a competitive advantage for a supply chain. Cooper et al (1997) argue that supporting of cooperation requires a small number of partners, but they should be the key partners.

Comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction (Noble,1997) and (Tan, 1998) Consider customer relationship management as an important component of SCM practices. As pointed out by Day (2000), committed relationships are the most sustainable advantage because of their inherent barriers to competition. The growth of mass customization and personalized service is leading to an era in which relationship management with customers is becoming crucial for corporate survival (Wines, 1996). Good relationships with supply chain members, including customers, are needed for successful implementation of SCM programs. Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers.

2.3.2. Information sharing practice

Information sharing plays an important role in inventory management (Sabbath, 2008). This enables chain partners to plan properly, avoid inventory bottlenecks in the chain and avoid safety stocks both for all the channel members (Chandra, 2000; Patel, 2001).Normally, when a buyer needs a

product; he places an order to a supplier. With information, chain partners are able to know when and how much to order and what to put in the inventory plan (Elvander, Sarpola and Mattson, 2007). In order to share information, a partnership is formed between the supplier and buyer in which the supplier takes care of the-orders and replenishing (Ahmed 2004).

To accomplish this, the supplier (retailer or distributor), gets regularly information on the inventory level and sales data of the buyer via the web or Electronic Data Interchange (EDI),(Homburg and Grozdanovic&Klarmann, M, 2007). Thus, when inventory drops below a certain level, orders generated automatically on behalf of the buyer. In this case, the supplier creates and manages the inventory plan. Continuous replenishment (CR) and vendor-managed systems used to share information that uses to manage inventory levels (Skjoett et al., 2003; Cooke, 1998; Bernstein et al., 2005).

Lin et al (2004) argue that information sharing enables the companies lower the total cost, achieve higher level of customer service and shorten the order cycle time (Li and Lin, 2006). Moreover, effective information sharing is considered as tool to cope with Bullwhip effect occurrence (Lee and Whang, 2000; Yu et al, 2001; Byrne and Heavy, 2006). In general, it revealed the following benefits of transparency achieved by information sharing:

Cost efficiency, improved forecasting, higher customer satisfaction, higher service levels, quicker response to the market needs, shorter lead times. Furthermore, Chu and Lee (2006) assert that information sharing enables the companies to use the popular supply chain practices as vendor managed inventory, click and mortar, drop shipping and vendor hubs, which allow the firms to maintain efficiency on keeping inventory. Zhou and Benton (2007) proved the same fact; they investigated the relationship between the supply chain practice implementation and information sharing. Examining the literature and current practices they found out that effective information sharing meaningfully enhances effective supply chain planning, just-in-time production and delivery practices (Namagembesheila, 2010).

2.3.3. Customers' relationship

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).

Ibrahim (2014) suggested that customer relationship: Comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction. someone consider customer relationship

management as an important component of SCM practices, as pointed out by them, committed relationships are the most sustainable advantage because of their inherent barriers to competition. The growth of mass customization and personalized service is leading to an era in which relationship management with customers is becoming crucial for corporate survival. Good relationships with supply chain members, including customers, are needed for successful implementation of SCM programs. Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers.

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).Customer relationship, Comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction. Customer relationship management is an important component of SCM practices. The growth of mass customization and personalized service is leading to an era in which relationship management with customers is becoming crucial for corporate survival Good relationships with supply chain members, including customers, are needed for successful implementation of SCM programs. Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers. (SuhongLia, Bhanu Ragu-Nathanb, T.S. Ragu-Nathanb, S. SubbaRaob, 2004) Supply chain management suggests that firms need to integrate with their suppliers and customers to achieve both financial and non- financial growth objectives .In today's competition, firms with a superior ability to provide services that customers perceive as valuable incur an important competitive advantage(Tan, 2001). Simatupan et al (2002) argue that collaboration between independent companies in a supply chain, such as raw-material suppliers, manufacturers, distributors, third-party logistics providers and retailers, is significant for achieving the flexibility to improve logistics processes. Lack of coordination among the SC partners can result in unbalanced operational performance, including higher inventory costs, longer delivery times, and higher transportation costs, higher levels of loss and damage, and low customer service.

Nobleand Tan et al, (1998) consider customer relationship management as an important component of SCM practices. Committed relationships are the most sustainable advantage because of their inherent barriers to competition. The growth of mass customization and personalized service is

leading to an era in which relationship management with customers is becoming crucial for corporate survival.

Lory silver man (2000), Customer responsiveness is giving customers what they contract to receive— nothing more, nothing less. Customer responsiveness defined as providing customers with their rightful needs at the right time. Therefore, understanding the changing needs of customers and performing a prompt fulfillment of them in an effective approach will provide a firm with sustaining competitive advantage. Indeed, one of the most important determinants of the firm's success in competitive markets is the firm's capability in providing its customers with proper responds to their needs (Alireza Chavosh, etal 2011). A rapid respond to customers' requests may position the firm as a first mover in the market and as a result enhances the performance of the firm in the market. Customer responsiveness is also an important factor that significantly and positively affects the firm's performance in export. In order to achieve superior customer responsiveness a firm must have the ability of doing a superior job over its rivals in identifying the right needs of its customers and fulfilling their satisfaction, which can eventually generate differentiation, based competitive advantage and ultimately enhances its export performance.

2.3.4. Level of information sharing

Level of information sharing: Information sharing has two aspects: quantity and quality. Both aspects are important for the practices of SCM and treated as indecent-dent constructs in the past SCM studies. Level (quantity aspect) of information sharing refers to the extent to which critical and proprietary information is communicated to one's supply chain partner. Shared information can vary from strategic to tactical in nature and from information about logistics activities to general market and customer information. Many researchers have suggested that the key to the seamless supply chain is making available undistorted and up-to-date marketing data at every node within the supply chain. By taking the data available and sharing, it with other parties within the supply chain, information, can be used as a source of competitive advantage. Lalonde, (1998) considers sharing of information as one of five building blocks that characterize a solid supply chain relationship. Ibrahim (2014) describe, information sharing has two aspects: quantity and quality. Both aspects are important for the practices of SCM and have been treated as independent constructs in the past SCM studies. Level (quantity aspect) of information sharing refers to the extent to which critical and proprietary information is communicated to one's supply chain partner [30]. Shared information can vary from strategic to tactical in nature and from information about logistics activities to general market and customer information [28]. Many researchers have suggested that the key to the seamless supply chain is making available undistorted and up-to-date marketing data

at every node within the supply chain. By taking the data available and sharing it with other parties within the supply chain, information can be used as a source of competitive advantage. Lee *et. al* considers sharing of information as one of five building blocks that characterize a solid supply chain relationship. Supply chain partners who exchange information regularly are able to work as a single entity. Together, they can understand the needs of the end customer better and hence can respond to market change quicker. Moreover, someone consider the effective use of relevant and timely information by all functional elements within the supply chain as a key competitive and distinguishing factor. The empirical findings of they reveal that simplified material flow, including streamlining and making highly visible all information flow throughout the chain, is the key to an integrated and effective supply chain. Includes such aspects as the accuracy, timeliness, adequacy, and credibility of information exchange.

2.4. Product availability: Meaning and Nature

On Shelf Availability (OSA), the probability that a product is in stock when a customer order arrives (Chopra and Meindl 2007, 77), is a key performance measure that affects profitability for both retailers and manufacturers (Fernie and Sparks, 2004; Aastrup and Kotzab, 2009).

Roland Berger Consultants (2003, p. 8) define availability of product as "A product not found in the desired form, flavor or size, not found in saleable condition, or not shelved in the expected location". Hereby, they distinguish between classic, dual placement and delisting out-of-stocks. Campo *et al.* (2004) and Sloot (2006) view stock-out from the temporal aspect, where it can be temporary or permanent. If the product is not shelved in the retail store on the designated or labeled place, and the customers suppose that it will be available relatively soon, this stock-out regarded as temporary. On the other hand, if the stock-out appears as a result of the retailer's deliberate decision to reduce the product assortment (wishing to cut costs, encourage the purchase of other product or limit cooperation with suppliers),it is qualified as permanent.

Availability of product on shelf is the measure of a product being available for sale to a shopper, in the place, he expects it and at the time, he wants to buy it. Availability of the stock on shelves is the single largest success factor for retail business. Fast Moving Consumer Goods (FMCG) represent non-durable products that leave production lines as fast as they leave supermarket shelves. In other words, goods that have a low shelf life and home stock levels due to the frequency of purchase by consumers. These products sold in high volumes and at an affordable price by guaranteeing low margins, which leads to a price close to the cost of production (Majumdar, 2007).

These goods often bought at supermarkets and considered convenience goods, such as toiletries, drinks and grocery items, etc. Keeping products on the shelves and available to customers is a vital part of the retail business. Increasing inventory or in-store labor is not the only way to drive down out-of-stocks: significant gains can achieved at much lower cost by improving the way on-shelf availability is measured and managed. Ensuring product is on the shelf is essential for any retailer, but even today it remains a major challenge. For example, it is common for a supermarket to miss 5% of sales through out-of-stocks. As well as hurting revenue, poor availability means dissatisfied customers, and poorer financial performance over the long term. Often, availability ensures because it is not understood yet. It is the outcome of a complex chain of events: buyers need to forecast and order accurately, suppliers need to deliver the right quantities at the right time; distribution needs to ensure the product reaches the stores, and the stores themselves need to get it onto the shelves. This cross-functional complexity means that when an out-of-stock occurs it can be unclear who or what has caused it—making the problem very difficult to fix.

(Thomas.W&Daniel, 2007), the *"OOS event"* refers to what an "out-of stock" is (i.e., how we know one when we see one). An OOS event occurs when, for some contiguous time, an item is not available for sale as intended. If the retailer intends an item to be for sale, but there is no physical presence of a salable unit on the shelf, then it redeemed to OOS. The OOS event begins when the final saleable unit of a SKU removed from the shelf and it ends when the presence of a saleable unit on the shelf is filled. Joachim C.F, Wolf gang Stozle (2013), indicated that, the causes of stock outs are specific to retailer, store category and item. Additionally, poor implementation of the new marketing regulation, project center of quarantine centers, and failure to control the black markets are some of the causes to stock out sugar at retail centers.

Considered as convenience or impulse goods, purchased on a daily basis or impulsively or when a need arises, without any effort, involvement or planning from the consumers (Brierley, 1995; Majumdar, 2007). They tend to represent a great part of the budget of consumers and thanks to the wide variety and choice; it is a very competitive market (Celenet al., 2005). In the transport sector, costs are of great importance especially since the type of transport is usually by road (Rodrigues & Potter, 2013). Hofmanet al. (2011) considers the FMCG sector the leader in SCM.

The work on supply chain management measurements/ practices and its influences on different perspectives of the organization and overall supply chain partners increasing and yields good backgrounds. In retail sector, it is common related to stock levels, that is, on-shelf availability (Trautrimset al., 2009). Therefore, by increasing stock levels, the level of customer service, manifested through product availability, increases as well.

2.5. Product availability determinants

(Chopra &Meindle, 2015) Product availability reflects a firm's ability to fill a customer order out of available inventory. A stock-out results, when a customer order arrives when product is not available. There are several ways to measure product availability. Some of the important measures include:

Product fill rate: is the fraction of product demand that is satisfied from product in inventory. Fill rate is equivalent to the probability that product demand is supplied from available inventory. Fill rate should be measured over specified amounts of demand rather than over time. Thus, it is more appropriate to measure fill rate over every million units of demand rather than every month.

Order fill rate is the fraction of orders that filled from available inventory. Order fill rate can measure over a specified number of orders rather than over time. In a multi product scenario, an order filled from inventory only if all products in the order supplied from the available inventory. Order fill rates tend to be lower than product fill rates because all products must be in stock for an order to be filled.

Cycle service level (CSL) is the fraction of replenishment cycles that end with all the customer demand being met. A replenishment cycle is the interval between two successive replenishment deliveries. The CSL is equal to the probability of not having a stock out in a replenishment cycle. CSL should be measured over a specified number of replenishment cycles. The distinction between product fill rate and order fill rate is usually not significant in a single-product situation. When a firm is selling multiple products, however, this difference may be significant. For example, if most orders include 10 or more products that are to be shipped, an out-of-stock situation of one product results in the order not being filled from stock. The firm in this case may have a poor order fill rate even though it has good product fill rates. Tracking order fill rates is important when customers place a high value on the entire order being filled at one time.

2.5.1. Road Infrastructure

Bad road to reach different districts in one country allocated away from the main regional roads contributes much on poor delivery of products to these areas. The situation becomes worse during rainy season; transportation cost goes up if the processor wishes to deliver the products to these areas, otherwise great scarcity of the products occurs. In addition to high transportation costs, poor infrastructure also limits the size of the market and blocks inter-regional trade between the districts, which might provide a viable opportunity for the processors to open up a new market segments.

2.5.2. Production planning and scheduling

Planning for supply and demand means that companies have to make predictions regarding future costumer demand. According to Lysons and Farrington, (2012) forecasting is the basis of all planning and decision-making. All forecasts are exposed to uncertainties, which can be related to weather, war or social and economic factors. Forecasts increase in uncertainty the longer the time horizon of the forecast is (Lysons& Farrington, 2012). Srinivasan (2012) argues that the only certain thing about a forecast is that it never comes true. As Juma (2009),described Due to not strategically and systematically production planning and scheduling they result in implementations like over stocking when the demand becomes low or shortages when the demand turns to be high. Any planning problem starts with a specification of customer demand that is to be met by the production planning and scheduling. In most contexts, future demand is at best only partially known, and often is not known at all. Consequently, one relies on forecast for the future demand. To extend that any forecast is inevitably inaccurate, one must decide how to account for or react to demand uncertainty. Forecast is one of the major weaknesses found in these industries.

2.5.3. Supply chain management coordination

SCM encompasses a set of interdependent companies that work closely together to manage the flow of goods and services along with the value-added chain of agricultural and food products, in order to realize superior customer value at the lowest possible costs (Wood, 2004) as well as the associated information flow (Byrne 2006). The supply chain includes not only the processor and the suppliers but also the transporters, warehouses, retailers, and even the customers themselves (Chopra and Meindl, 2008). Exploring seriously the potential of SCM concept, a firm may realize a significant revenue growth (Gun asekaran, et al. 2008). Simchi-Levi et al. (2003) have shown that using more supply chain strategies, the firm can save about 10 percent of its annual operation. Some processors products do not respond quickly towards market demand, the main reason of this is due to poor coordination in their supply chain and forecast. Information rarely flow from down to upstream or do not exist at all, processors continue to produce for stocking and distribution without matching with the market demand.

2.6. SUGAR CORPORTION

The present "Sugar Corporation" with a vision of executing sugar development activities at a large scale came into existence on October 2010 by the Council of Ministers Regulation No.192/2010 replacing the former Ethiopian Sugar Development Agency.

Currently, with the Regulation No. 916/2015 instituted to determine the authority and practice of FDRE Executive Bodies, the Corporation is operating under a Board of Management while it is organized under Ministry of Government Enterprises. Carrying out wide sugarcane plantation activities and creating large job opportunities. On the other hand, the Corporation, from the concluded GTP exposure, has learnt that it has a lot to do to increase the number of sugar factories as well as amount of sugar production and co-products. The Corporation, during the First GTP, has carried out various activities such as building various infrastructures as well as social institutions

Hence, the Government has concluded that the Corporation, to attain the mission it is expected during the Second GTP, has to make certain structural changes, which enable it, accomplish the goals of the Second GTP of the sector. Accordingly, the Corporation, with a new structure that is believed to efficiently conduct sugar development activities at a large scale in the nation, is now carrying out various activities.

2.6.1. Strategic Framework of Sugar Industry Sub Sector

Sugar development sector is one among other huge projects which enables industry take a leading role in the nation's economy. Ethiopia has huge human as well as natural resources which enable the nation to broaden this export oriented manufacturing industry sector and its productivity. The nation has suitable climate, wide and proved irrigable agricultural land (more than 500 thousand hectares) as well as abundant resource of water to use through canal schemes. Moreover, the Government, to ensure equitable share of the nation's resource among its peoples, has started broadening the sugar development sector which had been limited around WonjiShoa, Metehara and Fincha Sugar Factories for long years to Oromiya, Afar, Amhara, Tigray and Southern Nations, Nationalities and Peoples regional states.

Accordingly, various activities are being carried out to build; two sugar factories each with a capacity of crushing 12 thousand tons of cane (TCD) at TanaBeles Sugar Development Project in both Amhara and BenishangulGumuz regions and these two factories all together have 50 thousand hectares of sugarcane cultivation land.

Likewise, activities are being carried out at Omo-Kuraz Sugar Development Project of South Omo, Bench-Maji and Kaffa zones of Southern Nations, Nationalities and Peoples Regional State where four sugar factories are at different levels of construction owning 100 thousand hectares of sugarcane plantation land. Among them three are each with a crushing capacity of 12 thousand tons of cane a day while one with 24 thousand TCD. Omo-Kuraz Factory One is almost to start production in early 2017.

2.6.2. VISION MISSION AND VALUES OF SUGAR CORPORATION

Mission: Creating modern technology and capable human resource to develop the nation's potential to the sector, produce sugar, sugar bi-products and co-products, take remarkable foreign market share, and support the nation's economy beyond satisfying domestic demand.

Vision: Stand as one among ten leading countries of the world in sugar industry in 2023 based on a sustainable growth.

Core Values

Sustainable change and competitiveness, Virtuous work ethics, Productivity, Popularity, never stopping learning, encouraging creativity and best performance, Working in team spirit to unique feature; Environment protection to fundamental to development are some of the corporations core value.

2.6.3. Current Sugar distribution system

Current Sugar Distribution System

Currently the task of distributing sugar all over the country is managed by quota system set by the Ministry of Trade. And, the distribution system has three features:-

- **Sugar Distribution in Addis Ababa**

  Distribution of sugar in Addis Ababa is based on a quota set by Addis Ababa Trade Bureau to be distributed through shops of Consumers' Associations as well retail traders who obtain the product from the associations. And other service providers get sugar from Vegetables, Fruits and Associated Products Business Sector formerly known as Ethiopian Fruit and Vegetable Share Company or ETFRUIT

- **Sugar Distribution at Regions**

  Distribution in the regions is carried out by Industry Input Service Organization formerly known as Merchandize Wholesale and Import Enterprise in collaboration with trade bureaus of selected distribution centre towns of regions participating retail traders.

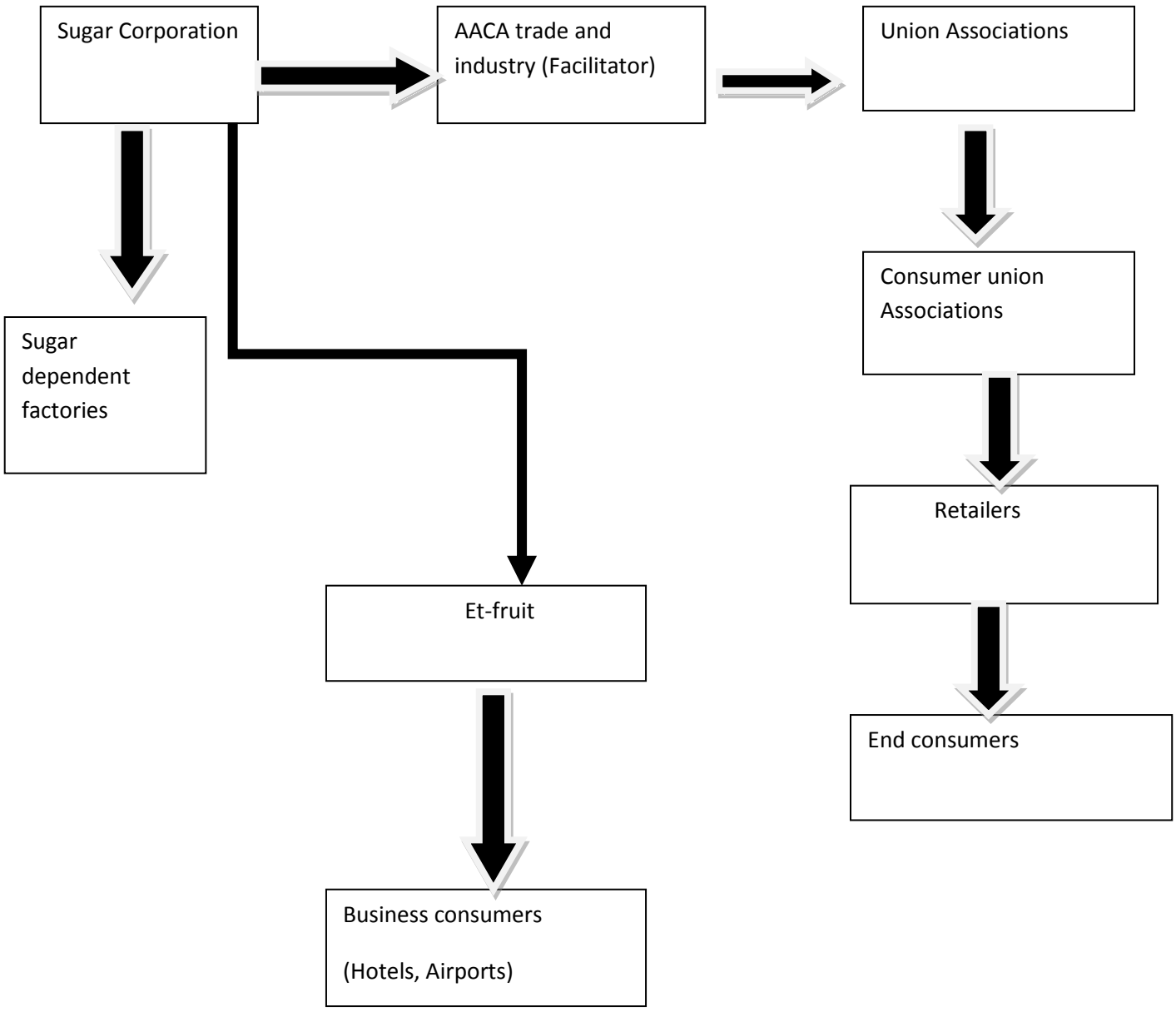
- **Sugar Distribution to Industries**

  Industries which use sugar as an input to their production get sugar directly from Sugar Corporation according to a quota set by Ministry of Trade and Sugar Corporation as per the survey conducted concerning each industry consumption.

  It is from the Corporation's warehouses here in the capital and at its sugar producing factories that all involved in the business of distributing sugar collect the sugar supply.

Source: Ethiopian Sugar Corporation.

2.6.4. Sugar distribution Channel of Sugar Corporation in Addis Ababa



Source: **(Ethiopian Sugar Corporation Marketing Department 2018)**

2.7. Review of Empirical Studies

Supply chain partners who manage the SCM practices regularly are able to work as a single entity. Together, they can understand the needs of the end customer better and hence can respond to market change quicker. In today's business environment where competition is burgeoning, companies are under intense pressure to reduce costs, expand into new market and develop new products. The end customer never visualizes the effect of good SCM practices. Growth and profitability of retail industry largely depends upon good SCM practices. Good SCM practices assures the smooth flow of products, lower inventory turnover, increase in average shelf life of products and enhance profitability for the members for value chain. SCM assures a business model of mass production, mass distribution and mass consumption through mass promotion.

According to Tan et al. (1998) and Claycomb et al. (1999), customer relationship comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction. (Noble 1997; Tan et al. 1998; Tan et al, 2002) consider customer relationship management as an important component of SCM practices.

Focusing on fast, reliable delivery and responsiveness to changing customer needs are important to achieve integration of supply chain (Narasimhan and Jayram, 1998). SCM measurements are needed to integrate the customer specification in design, to set the dimensions of quality, to control cost, and to give feedback for the control of process to the satisfaction of customers.

As cited by Tringo(2013), Customer linkage: is concerned with planning, implementing, and evaluating successful relationships between providers and receipts. It is about "sharing of product information with customers, fail to rejecting customer orders, interacting with customers to manage demand, having an order placing system, sharing order status with customers during order scheduling, and product delivery phase". Supplier linkage: is about involving "suppliers in new products during the design stage, in production planning and inventory management, developing a rapid response order processing system with suppliers, placing a supplier network that assures reliable delivery, and exchanging information with suppliers". Without collaboration, each partner in the supply chain individually tries to plan the quantity, demand and time of delivery to customers. These results, into a never ending cycle of inventory excesses or out of stocks when the demand exceeds the anticipated forecast (Bowers ox, et al. 2006). Somanet al. (2007) observed that producing large quantity of products on pure produce-to-stock basis is not a viable strategy because demand is uncertainty and products have limited shelf lives. Product management is influenced by the nature of demand including whether demand is derived or independent. Inventory levels are

affected by customer service expectations, demand uncertainty, and the flexibility of supply chain (Ballou, 2004).

According to Li, 2005 cited on Cheng Choon Ho quality of information sharing is the exchanged of information within the supply chain is accurate, timely, complete, adequate and credible in order to make the entire supply chain more competitive and resourceful

Despite effective and efficient supply chain can acts as a greatest assets to sustain the organized retailing for ready inflow of goods and services, from few related studies, the FMCGs sector is not effectively managed and not operating smoothly. (Addis, 2015), in Ethiopia in most of product, service-giving activities have major gaps concerning their performances. The 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 (Yohannes,2015). Thus, it is unquestionable that companies should build an integrated and efficient system through which resources would flow in a seamless and instantaneous manner across the supply chain (Assefa, 2011). As described by (Yeneneh, 2014) in like any countries in the world, one can also find companies in Ethiopia, which are dealing with FMCG products.

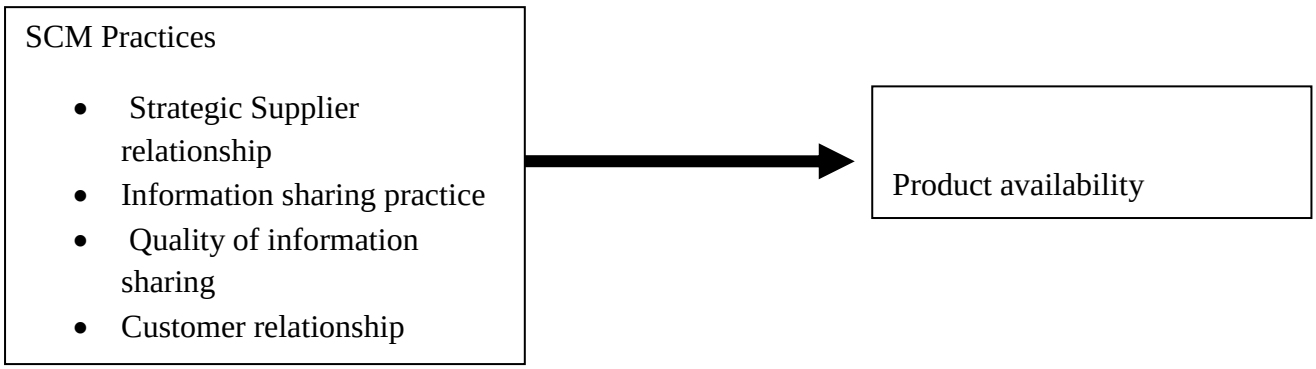
In today's consumer-driven business conditions, the out-of-stock represents serious issue for all market participants. In addition to costs, in stock-out situations, customers may be confronted with the loss of their time and energy (Roland Berger Consultants, 2003) which is particularly worrying bearing in mind that they place an emphasis on leisure time as well (Wlodarczyk, 2013). Out-of-stocks (OOS), a counterpart to OSA, occur when a consumer at a retail outlet arrives at the shelf and the specific product they are seeking is not there.

In retail sector with the increase of inventory levels, better customer service can be achieved (Wild, 2002). Higher number of products in stock in retail stores increases the possibility that the customer will find and buy the desired product (Ton & Raman, 2010). Positive impact of higher inventory levels on sale has been confirmed by the results of several studies (Dubelaar, Chow &Larson, 2001; Cachon&Terwiesch, 2006; Koschat 2008, Balakrishnan, Pangburn&Stavrulaki, 2008). In relation to this, the out-of-stock situation (OOS) can cause significant negative consequences, not only for retailers, but also for other entities in the supply chain.

The above-related articles indicated that effective implementation of supply chain management assures the delivery of product at the right time and place to respond the customer's order.

2.8. Conceptual Frame Work

The conceptual framework of the study, the role of SCM practices on availability of fast moving consumer goods is designed below.



Source: Own frame work (2018)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1.Research Setting

The research setting refers to the place where the data are collected. It can also be seen as the physical, social, and cultural site in the study. In this study the researcher's setting is in Addis Ababa city administration, bole sub city in particular reference for the study purpose and he tried to brief about the physical, social, and cultural aspects of Addis

Addis Ababa is the capital city of Ethiopia located at $9^0$1'48"N $38^0$44'24" E. It lies in the foothills of Ento'to Mountains and standing 7,726 feet above sea level. It is the third highest capital in the world. It is located in the geographic center of the country with a population of 3,627,934 as of 2007. Addis Ababa is the hub of all economic activities of the country. According to the Ethiopian official statistics, people in the city are engaged in trade and commerce, in manufacturing and industry and other activities. Addis Ababa has ten sub cities. Though the scarcity of sugar in all sub cities in Addis Ababa is similar, of the ten sub cities, the researcher's research setting is Bole Sub city. Bole sub city selected because this sub city has a well-organized records and documents that the researcher needs for his research works. Bole sub city is one of the ten sub cities of Addis Ababa and it is situated in the east part of Addis Ababa bounded from south by Akaki sub city, from west by kirkos and Nefsa silk sub cities, from north Yeka and from East by Oromiyaregion. At present Bole sub city is divided in 14 woredas and is populated with 328,900 (AACA integrated land information center). In bole sub city, there are twenty-two (22) union consumer associations, one union association, and four sugar dependent factories in Fourteen (14) woredas.

The study was done to assess the role of SCM practices on product availability of Sugar commodity from suppliers up to end customer.

3.2. Research Approaches

The research is concerned with evaluating the role of SCM practices on availability of sugar at retail centers accessed by consumers. The researcher performed his study in Bole sub city, Addis Ababa City Administration. To proceed intended research, the researcher preferred both a quantitative and a qualitative approach to investigate the existing problem. Mixed method is another step forward for utilizing the assets of both qualitative and quantitative research. Most of the data in this study was collected by closed ended questionnaire and the collected data were triangulated and validated by data collected from interview. According to Neuman (2006), the logic of triangulation

is based on the idea that looking at something from multiple points of view advances exactness. There is more insight to gain from the combination of both qualitative and quantitative research than from either of them. Their combined use provides an expanded understanding of research problems. Thus, the method of triangulation was preferred to undertake this study and the justification for the choice of triangulation method was presented.

3.3. Research design

Polit and Hungler (1995:155) described the research design as a blue print, or outline, for conducting the study in such a way, that maximum control will be exercised over factors that could interfere with the validity of the research results. The research design is the researcher's overall plan for obtaining answers to the research question guiding the study. Burns and Grove(2001:223) state that designing a study helps researchers to plan and implement the study in a way that will help them obtain the intended results thus increasing the chance of obtaining information that could be associated with the real situation.

The researcher used explanatory research design. The purpose of explanatory design is to uncover the research problem and new facts through observation and describe using the data obtained through questionnaires, interviews, and observations (checklists).

Yet, the researcher found it reasonable to use an explanatory research method as it is used to show connections and relationships between the variables, to suggest reasons for events and to make recommendations for change (Hart, 1998).

While statistical tests such as analysis of variance (ANOVA), chi-square, *t*-tests, Pearson's product moment correlation (*r*), and regression are examples of inferential statistics (Rubin &Babbie, 2008).

3.4. Population of the study and sampling techniques

3.4.1. Research Population and Sample size determination

Polit and Hungler (1999:43, 232) define a population as the totality of all subjects that conform to a set of specifications, comprising the entire group of persons that is of interest to the researcher and to whom the research results can be generalized. LoBiondo-Wood and Haber (1998:250) describe a sample as a portion or a subset of the research population selected to participate in a study, representing the research population.

The population of the studywas the retailers in Bole sub city, A.A.CA. According to the Bole sub-city trade and industry, the numbers of retailers for sugar commodity in this sub city are 1,219 retailers to retail sugar for consumers. The researcher lissted all the retailers of sugar commodity

enrolled for retiling purpose from bole sub city trade and industry,in Bole sub city. From the list of these names, anappropriate number of representatives selected systematically as a sample.Determining appropriate sample size was a very important issue because samples that were too large may wiste time, money and other resource. While samples that are too small may lead to inaccurate result. The researcher determined the sample size using (Yamane, 1973) formula:

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

Where n = number of sample size

N = number of population

e^2 = levelof precision

the target population is 1,219 and the researcher tolerate to acceptable a margin error of 5% so based on the formula given above, the sample size was determined:

$$n = \frac{1,219}{1+ 1,219(0.05)^2} = 301$$

The sample size of the study was determined to be 301, from 1,219 retailers using Yamane formula.

In addition, purposive sampling technique used to select twenty respondents from consumers and census was used who deal with supply chain of sugar product. These involved sugar product marketing department staff, AACA trade and industry, union association of Bole sub city, union consumer associations, and sugar dependent factories were the main target population for interview used.

3.5. Sampling techniques

A systematic random sampling technique is a plan for obtaining sample from a given population, which a probability-sampling technique used. In order to enhance generalization and validity of the study, taking adequate sample size and employing appropriate sampling techniques would be given special care and emphasis because taking the whole population for study is not viable, pricey and difficult. Therefore, it needs to take sample size out of the whole population of the study area (Kothari, 2004).After deciding the data collection methods, the researcher decided which data to collect and from whom. It is not possible to include all individual in sugar supply chain on this study. Study the whole population needs to much time and capital. However, taking care of sample selection both size and method, the study tries to avoid bias or lack of precision. Taking in to considerations of such things, the researcher relied on systematic random sampling techniques. On

this techniques the SCM members engaged in retailing listed, which is randomly ordered. The researcher then took every nth name from the list. The first respondent would be selected randomly like lottery method. Significantly, purposive sampling technique, which is a non-probability sampling technique, used for in depth interview for Consumers. More over census technique was used for Union Associations, Consumer Associations, Sugar dependent factories, sugar corporation marketing department, AACA trade industry, Bole sub city trade and industry for structured interview.

Table 3.1 sampling techniques used

SN°	Types of respondents.	Population size	Sample selected	Sampling Method	Response obtained	Response Rate
1	Sugar Supply chain members					
1.1	Retailer	1,219	301	Yamane Formula	301	100%
1.2	Sugar dependant factories	8	8	Census	4	50%
1.3	AACA trade and industry	8	6	Census	4	66.6%
1.4	Bole sub city trade & industry	6	4	Census	4	100%
1.5	Union Association	1	1	Census	1	100%
1.6	Consumer Association	22	22	Census	13	59%
1.7	Sugar department marketing Department	30	20	Census	5	25%
	TOTAL	1,294	362	-	332	91.7%

Source: Researcher Compilation, 2018

3.6. Data Sources and Collection Procedure

Polit and Hungler (1999:267) define data as "information obtained during the course of an investigation or study". In this study, questionnaires, structured interviews, and secondary data were used to obtain data relevant to the study's objectives and research questions.

The qualitative data, collected through open- ended questioners, interview and document is interpreted and analyzed in a triangulated way that can support the quantitative data collected through questionnaire.

3.6.1. Questionnaires

Polit and Hungler (1997:466)define a questionnaire as "a method of gathering information from respondents about attitudes, knowledge, beliefs and feelings". The questionnaire was designed to gather information about retailers' knowledge, attitudes and beliefs in the evaluation of role of SCM practices on availability of sugar product from each woredas of bole sub city.

The questionnaire was based on the literature review (see chapter 2) and other research instruments used in similar studies. Changes suggested by the researcher's advisor were implemented. The questionnaires were typed and translated into Amharic. An expert in English-Amharic translations edited the translation and certified that the same meanings were conveyed by specific items in the English and in the Amharic versions of the questionnaire

Accordingly, a close- ended questionnaire in a 5-point likert-scale was used to collect data from the sample respondents. The questionnaire had 5- rating scales ranging from 1- very low to 5- very high and some open ended questions were also used to collect data. Data gathered through questionnaires were simple and clear to analyses and it will allow for tabulation of responses and quantitatively analyzes certain factors.

3.6.2. Interviews

Interviewing as data-gathering method was included to obtain additional data, clarify vague statements, permit further exploration of research topics, and expand on the qualitative findings.

The researcher gathered reliable data and information from the sugar corporation-marketing department, the trade and industry of Addis Ababa City Administration, Bole sub city trade and industry, union association manager, Consumer associations, Sugar dependent factories and Consumers in the woredas in bole sub city.

3.6.3. Secondary Data

Secondary data rely on previous data collection and are thus not a first-hand source. Secondary data would also be collected from official documents and records relating to the case under study; brochures (optional) that have been approved and issued by sugar supply chain.

Many researchers recommend that secondary data should be the starting point of all research. (Ghauriand Gronhaug, 2005).

3.6.4. Data Collection Procedure

The data collected using questionnaire, first the respondents were communicated to get their consent. Once their consent was known, the prepared questionnaires were distributed to each participant by thank giving for participation and devoting their precious time for the research. The

questionnaires were collected by checking the completeness of the data. Finally, the activities accomplished by appreciating the respondents. The data that was collected using structured interview; first the interviewees were communicated and appointment was arranged to take the interview. The interviews were started by appreciating the interviewee for giving their precious time. When the respondents were ready, questions were forwarded accordingly. To collect secondary data, newspapers, books, research papers, articles and WebPages were used.

3.7. Method of Data Analysis

The collected data analyzed and interpreted by using both qualitative and quantitative techniques in terms of the study objective already stated or designed. The data collected by open -ended questions and interviews analyzed qualitatively. Closed ended questionnaires were analyzed quantitatively using descriptive statistics by using percentage, mean, frequency, Pearson correlation and regression analysis technique to show the effect of independent variables on the dependent variable by using SPSS (v 20) tool. The qualitative data collected through open-ended questioners, interview was interpreted and analyzed in a triangulated way that can support the quantitative data collected through questioners.

3.7.1. Correlation and Regression Analysis

Correlation test was performed to assess the strength of association between the dependent and independent variables. As data collected in this study is ordinal variables, the powerful method of examining the relationship between pairs of variables is by using Spearman's correlation. The correlation value coefficient (+ or "_") value ranges from -1.0 to +1.0. The closer _ is to +1 or -1, the more closely the two variables are related. The value of close to +1 implies there is strong positive linear relationship between the two variables while the value of close to -1 is a strong negative linear relationship between the two variables (Julie, 2005).

Ideally, the correlation coefficient value of ± 1 is said to be a perfect correlation. Assume correlation coefficient value lies between ± 0.5 and ± 1, then it is said to be a high degree of correlation and for the correlation coefficient value lies between ± 0.3 and ± 0.5, then it is said to be moderate degree of correlation. If correlation coefficient value lays between ± 0.1 and ± 0.3 then it is said weak degree of correlation (Julie, 2005).

The overall model of this study was the multiple linear regressions model (OLS) which is presented below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_i$$

Where:

Y = Product availability (dependent variables to be predicted).

$\alpha =$ The constant

β= Coefficient of the factors

X_1, X_2, X_3, X_4 =Inddependent variables

- X_1= Supplier and customer relationship
- X_2= Information sharing
- X_3= Responsiveness to customer
- X_4= Level of information sharing

$\boldsymbol{e_{i=}}$ Error terms or random factors which affect product availability of the selected company or change in Y are due to the random influence

3.8. Validity and reliability

3.8.1. Validity

To achieve validity, questionnaires included a variety of questions on the knowledge of respondents. Questions were based on information gathered during the literature review to ensure that they were representative. Content validity was further ensured by consistency in administering the questionnaires .All questionnaires were distributed to subjects by the researcher personally the questions were formulated in simple language for clarity and ease o understanding clear instructions were given to the subjects. All the subjects were completed the questionnaires in the presence of the researcher. This was done to prevent subjects from giving questionnaires to complete on their behalf.

3.8.2. Reliability

Reliability refers to the degree of consistency or accuracy with which an instrument measures the attribute it design. If a study and its results are reliable, it means that the same results would obtained if the study were to be replicated by other researchers using the same method.

As cited by Banchiyirgu (2016),Cronbach's alpha is generally, used as an instrument or measure of internal consistency or reliability of a given concept. It is an indication of how well a set of items measures the same concept. The constructs in the study should all measure the same thing, so they should be correlated with one another. Cronbach's alpha generally increases when the correlations between the items increase. For this reason, A pilot test survey was made on seven respondents which finally excluded from the population of the retailers and the Cronbach's alpha as shown below table 3.2 was obtained and the result obtained was all greater than 0.7 which is reliable and allowed the researcher proceed his study. The Crobach's Alpha coefficient varies between zero and one where zero indicates that there is no internal consistency and one indicates perfect correlation (Cronbach, 1951). As a rule of thumb, a reliability of Cronbach's Alpha 0.70 or higher is required (Nunnally, 1978; Churchill, 1979).

Table 3.2- Reliability statistics

N°	Questionnaire category	Cronbach's Alpha	N° of Items
1	Supplier relationship	0.804	5
2	Information sharing	0.776	3
3	Quality of information sharing	0.777	4
4	Customer relationship	0.736	4
5	Availability of product	0.788	11

Table-1 Source: own survey (2018)

3.9. Ethical considerations

Researchers need to exercise care that the rights of individuals and institutions are safeguarded(pilot&Hungler1999) Therefore, all information that collected from the respondents was treated with confidentiality without disclosure of the respondents' identity. Moreover, no information was modified or changed, hence information gotten was presented as collected and all the literatures collected for the purpose of this study was appreciated in the reference list.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1. Introduction

Marshall and Rossman(1999:150) describe data analysis as the process of bringing order, structure and meaning to the mass of collected data. It is described as messy, ambiguous and time-consuming, but also as a creative and fascinating process. Broadly speaking - while it does not proceed in linear fashion -it is the activity of making sense of, interpreting and theorizing data that signifies a search for general statements among categories of data (Schwandt, 2007:6). Therefore, one could infer that data analysis requires some sort or form of logic applied to research. This chapter describes the analysis of data followed by a discussion of the research findings. The findings relate to the research questions that guided the study. Data were analyzed to identify, describe and evaluate the current implementation of supply chain management practices of sugar commodity and to see the relationship between supply chain management practices and availability of sugar commodity in this setting. Data were obtained from self-administered questionnaires, completed by 301 retailers, a 100% response rate, structured interview.

Thus, to analyze the existing practices of supply chain management of sugar, from the SCM Practices dimensions, and the relative importance of SCM Practice on the availability of sugar commodity, the relationship with customers are the main point of analysis.

Table-4.3- Gender and relationship with Sugar Corporation (analysis 2018**)**

Gender	Frequency	Percent	Valid retailer	
			Frequency	Percent
Male	162	53.8	301	100.0
Female	139	46.2		
Total	301	100.0		

Source: own survey (2018)

In the above table 4.3.the gender of respondents 162 (53.8 %) male, 139(46.2%) female participants. The majority participants were males.

Table 4.4-educational level

Educational level	< grade 10	Grade10or12 complete	Certificate	College diploma	Degree holder
Frequency	50	139	65	40	7
%	16.6%	46.2%	21.6%	13.3%	2.3%

Source: own survey (2018)

In the above chart, that describes respondents' educational level: 50 (16.6%) were less than grade 10, 139 (46.2%) were 10-12 grade level, 65 (21.6%) were certificate level 40(13.3%) were college diploma and 7(2.3%) were at degree holder level in respectively. The Majority participants were grade 10-12). Majority respondents were qualifying in their education to exchange information by questionnaire.

4.2. Data interpretation for supply chain management practices

SCM practices are the set of activities undertaken by an organization to promote effective management of its supply chain. Koh et al.,(2007); such as the approaches applied in integration, managing and coordination of supply, demand and relationships in order to satisfy clients in an effective way (Wong et al., 2005).

The major purpose of buying the right things at the right time at the right price is ensured with swift flow of SCM operation while minimizing the order cycle and providing a lot of advantage. Moreover, it ensures in dealing with the aspect of stock outs so as to make it available the requisite merchandise and assortments as per the need of customers. This reflects that customers consider the retail store as worth of delivering their needed products.

Thatte(2007), identified supply chain management practices in form of strategic supplier partnership, customer relationship, and information sharing. Moreover, suggested that these three dimensions of SCM practices lead to supply chain responsiveness. Lalonde, (1998) identifies level of sharing of information as one of supply management practices that characterize a solid supply chain relationship among partners. Supply chain management practices correctly applied in fast moving consumer goods can contribute greatly in maintaining the availability of these products at retail centers and in factories as well.

In this study, the SCM practice dimensions, supplier relationship, information sharing, level of information sharing and customer relations was considered as independent variables, and analyzed using descriptive statistics to determine their impact on availability of product.

Table -4.5 Strategic suppliers' relationship

N°	Description		Level of agreement					Mean	Std. Deviation
			Strongly disagree	Disagree	Neutral	Agree	Strongly Agree		
1	Your supplier frequently evaluates the level of its relationship with you	N	86	147	33	22	13	2.1	.1
		%	28.6%	48.8%	11%	7.3%	4.3%		
2	Your retail centre regularly solve problems jointly with suppliers	N	86	167	24	22	2	1	0.8
		%	28.6%	55.5%	8%	7.3%	0.7%		
3	Your supplier evaluate formal and informal complaints from customers	N	109	150	22	17	3	1	.8
		%	36.2%	49.8%	7.3%	5.6%	1%		
4	Your supplier set a frequent follow-up of customers for service feed back	N	100	163	16	20	2	3	1
		%	33.25%	54.2%	5.3%	6.6%	0.7%		
5	Your retail centre has strong relationship with its suppliers	N	94	106	32	47	22	1	0.8
		%	31.2%	35.2%	10.6%	15.6%	7.3%		

Source: Own survey (2018)

In the above table 4.5 Description-1 showed that; 13(4.3%) strongly agree, 22(7.3%) agree, 33(11.0%) neutral, 147(48.8%) disagree and 86(28.6%) strongly disagree respectively. The majority of participants responded that 48.8% disagree that the suppliers do not aim to establish long lasting relationship with their customers. Similarly, the data collected from in interview concerning retailer supplier relationship indicated the idea of having a habit of establishing long lasting relationship is low.

Close supplier relationship allows retailers to be more responsive in fulfilling customers' demand and differentiate its product from competitors, sustain customer loyalty and dramatically extend the value it provides to its customer through improving customer satisfaction by proactively seeking customers' needs and requirements.

In the above table 4.5, Description-2 showed that; 86(28.6%) strongly disagree, 167(55.5%) disagree, 24(8%) neutral 22(7.3%) agree and 02 (0.7%) strongly agree, from the above data, majority of the participants responded that 55.5% disagree. Then the suppliers have no motive to

solve problems concerning the interest of consumers. Moreover, from the interview made with consumers and other supply chain members of sugar, they responded that no initiation is made with suppliers on how problem should be solved dealing with the customers.

In the above table 4.5, description-3 showed that; 109(36.2%) strongly disagree, 150(49.8%) disagree, 22(7.3%) neutral 17(5.6%) agree and 03(1.0%) strongly agree, the above data the majority participants responded that 49.8% disagree. The interview data from stakeholders and consumers showed that no continuous improvement programmer is being practiced.

In the above table 4.5, description-4 showed that; 100(33.2%) strongly disagree, 163(54.2%) disagree, 16(5.3%) neutral 20(5.3%) agree and 02(0.7%) strongly agree. From the above data, the majority participants responded that 54.2% disagree. The data obtained from interview also showed that the suppliers do not include their customers in planning and goal setting for having sugar to community at the right time and place.

In the above table 4.5, description-5 showed that; 22(7.3%) strongly agree, 47(15.6%) disagree, 32(10.6%) neutral 106(35.2%) disagree and 94(31.2%) strongly disagree. The majority participants responded that 35.2% disagree. This shows that there is no a strong relationship between suppliers and retailers.

Piere M. (2012), when suppliers insist on maintaining control of the supply chain or retailers and suppliers independently forecast demand instead of sharing real data, in this situation collaboration fails to deliver the promised results. Effective collaboration is challenging even under the best of circumstances. However, when retailers and suppliers align their goals and objectives, they tend to be willing to engage at strategic and tactical level to share their information more openly. This transparency in turn helps to reveal insufficiencies and poor tradeoffs among availability of inventory and waste in the end- to- end process, which leads to better decision making.

RemkoV.Hoek(2013) described also that Supplier relationship contribute to performance management and risk exposure reduction and added that there is a positive correlation between the presence of SR and an increase in market share, responsiveness to market changes, and shortening order fulfillment lead times.

Moreover, retailers' in coordination with other supply chain members (Alaei*et al.*, 2014) devote particular attention to inventory management, so as to achieve certain cost cuts, satisfy their customers, and offer them the right product at the right time at the right place.

Table -4.6 Information sharing practice

N°	Description		Level of agreement					Mean	Std. Deviation
			Strongly disagree	Disagree	Neutral	Agree	Strongly Agree		
1	Your supplier exchange information with you about the product	N	127	145	11	17	1	2	.8
		%	42.2%	48.2%	3.7%	5.6%	0.3%		
2	Your supplier has information from you in advance of changing needs	N	93	181	11	14	2	2	0..9
		%	30.9%	60.1%	3.7%	4.7%	0.7%		
3	Your supplier exchange information on planning for better execution	N	123	151	11	15	1	1.2	0.9
		%	40.9%	50.2%	3.7%	5.0%	0.3%		

Source**:** Own survey (2018)

In the above table 4.6-description-1showed that 127(42.2%) strongly disagree, 145(48.2%) disagree, 11(3.7%) neutral 17(5.6%) agree and 1(0.3%) strongly agree, the above data the majority participants responded that 48.2% strongly disagree. This clearly shows that customers do not have updated information on sugar product.

In the above table 4.6, description-2 showed that 127(42.2%) strongly disagree, 145(48.2%) disagree, 11(3.7%) neutral 17(5.6%) agree and 01(0.3%) strongly agree, the above data the majority participants responded that 48.2% strongly disagree. Data from interview also showed that retailers do not exchange accurate information with customer. From the interview, the data collected also showed that no exact information delivered.

In the above table 4.6-description-3 showed that 123(40.9%) strongly disagree, 151(50.2%) disagree, 11(3.7%) neutral 15(5%) agree and 01(0.3%) strongly agree. From the above data, the majority of the participants responded that 50.2% strongly disagree. The data also from interview show that information exchange with customer is not complete.

Lin et al (2004) argue that information sharing enables the companies lower the total cost, achieve higher level of customer service and shorten the order cycle time (Li and Lin, 2006). Moreover, effective information sharing is considered as tool to cope with Bullwhip effect occurrence (Lee and Whang, 2000; Yu et al, 2001; Byrne and Heavy, 2006). In general, it revealed benefits like transparency achieved by information sharing:

Cost efficiency, improved forecasting, higher customer satisfaction, higher service levels, quicker response to the market needs, shorter lead times.

Table-4.7 level of Information sharing practice

N°	Description		Level of agreement					Mean	Std. Deviation
			Strongly disagree	Disagree	Neutral	Agree	Strongly Agree		
1	Your retail centre's information exchange with your supplier is timely	N	155	98	23	11	14	2	1
		%	51.5%	32.6%	7.6%	3.7%	4.7%		
2	Your retail centre's information exchange with your supplier is accurate	N	171	91	14	13	12	1	0.8
		%	56.8%	30.2%	4.7%	4.3%	4%		
3	Your retail centre's information exchange with your supplier is complete	N	104	138	14	38	7	1	0.7
		%	34.6%	45.8%	4.7%	12.6%	2.3%		
4	Your retail centre's information exchange with your supplier is reliable	N	110	120	32	23	16	1.1	0.8
		%	36.6%	39.9%	10.6%	7.6%	5.4%		

Source: Own survey (2018)

In the above table 4.7description-1 showed that 11(3.7%) agree, 14(4.7%) strongly agree, 23(7.6%) neutral 155(51.5%) Strongly disagree and 98(32.6%) disagree, the above data the majority participants responded that 51.5% strongly disagree. The data showed that retail centers do not exchange information with its customer about the product availability.

In the above table 4.7, description-2, showed that 13(4.3%) strongly disagree, 12(4.0%) disagree, 14(4.7%) neutral 171(56.8%) agree and 91(30.2%) strongly agree, the above data the majority participants responded that 56.8% agree.

In the above table 4.7, description-3 showed that 104(34.6%) strongly disagree, 138(45.8%) disagree, 14(4.7%) neutral 38(12.6%) agree and 7(2.3%) strongly agree, the above data the majority participants responded that 45.8% disagree. The data obtained from interview show that there are no integrated networks of information sharing practices between suppliers and retailers which could help in satisfying customer demands.

In the above table 4.7description-4 showed that 104(34.6%) strongly disagree, 138(45.8%) disagree, 14(4.7%) neutral 38(12.6%) agree and 7(2.3%) strongly agree, the above data the majority participants responded that 45.8% disagree. The data obtained from the table showed that the level of information sharing is not reliable that can bring demand stabilization and the information shared is not relible all the members have.

(Mohammad M. Ali 2017)One of the most common blockages for information sharing discussed in the literature is the lack of availability of formal information systems.

Access to information enables channel members to plan how much to stock for a given period of time (Fasanghari, Roudsari and Kamal, 2008). In order for information sharing to take place, chain partners should have a collaborative potential (Shore and Venkatachalam, 2003). Product and delivery lead times are shortened making products available on time to customers (Tachizawa and Ginemez, 2005).It is considered as the most reliable "real time" tool to decrease uncertainty in the chain, which leads to the bullwhip effect (Lewis, 2003).

Table`4. 8 Customers relationship

N°	Description		Level of agreement					Mean	Std. Deviation
			Strongly disagree	Disagree	Neutral	Agree	Strongly Agree		
1	Your supplier fills customer order on time	N	110	166	12	12	1	1	0.8
		%	36.5%	55.1%	4%	4%	0.3%		
2	Your supplier has short order-to delivery cycle time	N	104	169	4	15	9		
		%	34.6%	56.1%	1.3%	5%	3%		
3	Your supplier has fast customer response time	N	7	8	10	126	150	4	0.8
		%	2.3%	2.7%	3.3%	41.9%	49.8%		
4	Customers' ability to seek assistance from your supplier is frequently facilitated	N	9	5	9	140	138	4	0.8
		%	3%	1.7%	3%	46.5%	45.8%		

Source: Own survey (2018)

In the above table4.8description-1 showed that 110(36.5%) strongly disagree, 166(55.1%) disagree, 12(4%) neutral 12(4%) agree and 1(0.3%) strongly agree. From the above data, the majority of participants responded that 55.1% strongly disagree. The data showed that the suppliers do not fill

customer order on time. From the interview, the data also showed that the suppliers do not fill customer's interest.

In the above table 4.8, description-2, showed that 104(34.6%) strongly disagree, 169(56.1%) disagree, 04(1.3%) neutral 15(5%) agree and 09(3%) strongly agree. From the above data, the majority of the participants responded that 56.1% strongly disagree. The data showed that, the suppliers do not have the habit of shortening order-to delivery cycle.

In the above table4.8, description-3 showed that 7(2.3%) strongly disagree, 8(2.7%) disagree, 10(3.3%) neutral 126(41.9%) agree and 150(49.8%) strongly agree, the above data the majority participants responded that 49.8% strongly agree. The data showed that higher assistance is given when Customers seek in the distribution of sugar.

In the above table 4.8,description-4,showed that 9(3%) strongly disagree, 5(1.7%) disagree, 9(3%) neutral 140(46.5%) agree and 138(45.8%) strongly agree. From the above data, the majority participants responded that 46.5% strongly disagree. The data showed that demand forecast attempts to estimate have true demand based on unscientific judgment. From the interview, the data showed also that the AACA trade and industry does not have checklists how much quintals of sugar needed for each woreda and how much to order. Rather they simply put an order to sugar corporation what they are ordered by consumer associations.

Sonja Petrovic et.al (2007) suggested that Close customer supplier relationship allows companies to be more responsive in fulfilling customers' demand and improving customer satisfaction by proactively seeking customers' needs and requirements. Relationships with customers and suppliers to improve customer satisfaction and synchronize supply chain activities with suppliers, leverage suppliers' capability to deliver products to customers. As Catalan and Kotzab (2003, p. 677) define responsiveness of a supply chain in a comparable way, as the ability to respond and adapt time-effectively based on the ability to 'read' and understand actual market signals.

Customer relations related to the company's ability to communicate to the delivery of appropriate products and services to customers locally and globally in the right time, right place, and appropriate of quantity and quality. Customer linkage especially sharing product information with customers, receiving customer orders, interact with customers to manage demand, after placing the order system, share the status of orders with customers on scheduling orders, and product delivery stage (Lee, *et al*, 2007).

Availability of product

Chopra &Meindle(2015) Product availability reflects a firm's ability to fill a customer order out of available inventory. Product availability in retail stores is considered mostly through the stock-out problem (Roland Berger Consultants, 2003). According to (Gruen&Corsten, 2007), stock-outs occur when the product is unavailable to customers for a certain period (from the moment the last unit is removed from the shelf to its replenishment). In this study, to check the availability of products at retail center, demand forecast implementation, replenishment time, order fill rate, shelf capacity are considered

Table -4.9 Availability of product

N°	Description		Level of agreement					Mean	Std. Deviation
			Strongly disagree	Disagree	Neutral	Agree	Strongly Agree		
1	Demand forecast attempts to estimate true demand based on unscientific judgment	N	9	3	7	132	150	4	0.7
		%	3%	1%	2.3%	44.9%	47.8%		
2	sugar supply to meet demand is poorly executed	N	9	3	3	147	136	4	0.9
		%	3%	1%	1%	48.8%	45.2%		
3	Sugar demand and quantity of sugar supplied is frequently inaccurate	N	9	3	3	147	136	4	0.9
		%	3%	1%	1%	48.8%	45.2%		
4	Sugar demand is high from the consumer	N	4	5	6	143	142	4	0.8
		%	1.3%	1.7%	2%	47.5%	47.2%		
5	Sugar delivery to consumers arrives late	N	2	9	11	135	144	4.2	0.9
		%	0.7%	3%	3.7%	44.9%	47.8%		
6	Monitoring of timing and delivery frequency of sugar is poor	N	93	181	11	14	2	1.9	0.8
		%	30.9%	60.1%	3.7%	4.7%	0.7%		
7	Inadequate shelf capacity to meet frequent peak demand needs.	N	123	151	11	15	1	2	0.7
		%	40.9%	50.2%	3.7%	5%	0.3		

Source**:** Own survey (2018)

In the above table 4.9 description-1, showed that 09(3%) strongly disagree, 03(1%) disagree, 7(2.3%) neutral 132(43.9%) agree and 150(49.8%) strongly agree. From the above data, the majority of participants responded that 49.8% strongly agree. The data showed that sugar supply to meet demand is poorly executed. From the interview, the data also showed that the participants recommend to urgently stakeholders intensify efforts by putting platforms to regulate the distribution of sugar.

In the above table 4.9 description-2 showed that 09(3%) strongly disagree, 3(1%) disagree, 3(1%) neutral 147(48.8%) agree and 136(45.2%) strongly agree, the above data the majority participants responded that 48.8% agree. The data showed form interview in the sugar demand and quantity of sugar supplied most of the time is inaccurate.

In the above table 4.9, description-3 showed that 9(3%) strongly disagree, 16(5.3%) disagree, 8(2.7%) neutral 127(42.2%) agree and 141(46.8%) strongly agree, the above data the majority participants responded that 46.8% strongly agree. Additionally, the interview from respondents showed that the chain is long and full of bureaucracy and could not satisfy customers demand on time, and many actors are involving there for rent seeking and corruption by hording, hiding and selling it in black markets for their benefit by neglecting their responsibility.

In the above table 4.9 description-4 showed that 4(1.3%) strongly disagree, 5(1.7%) disagree, 8(2%) neutral 143(47.5%) agree, 142(47.2%) strongly agree, the above data the majority participants responded that 47.5% agree the same to that 47.2% strongly agree. Data from interview and above table data the distribution of suppliers and retailers Sugar delivery chain did not satisfy the demand of the consumers.

In the above table 4.9, description-5 showed that, 2(0.7%) strongly disagree, 9(3%) disagree, 11(3.7%) neutral l35 (44.9%) agree and 141(47.8%) strongly agree. The above data sow the majority of participants responded that 46.8% strongly agree. The data from interview also showed that sugar delivery to consumers arrives too late.

In the above table 4.9, description-6 showed that, 2(0.7%) strongly disagree, 12(4%) disagree, 3(1%) neutral 144(47.8%) agree and 140(46.5%) strongly agree, the above data the majority participants responded that 47.8% agree. From the above tabulated quantitative data and the interview made showed that Monitoring of timing and delivery frequency of sugar is very poor

In the above table 4.9,description-7 showed that, 122(40.5%) strongly disagree, 147(48.8%) disagree, 13(4.3%) neutral 11(3.7%) agree and 8(2.7%) strongly agree. From the above data the majority participants responded that 48.8% disagree. Thus, the quantified above data and data from

interview showed that for the unavailability of sugar in store is not due to the insufficient capacity of store rather it is due to insufficient supply of sugar.

James D. B et.al (2004) described that producing to order still requires expertise forecasting, to be able to keep the right quantities of raw material on hand. Moreover, since forecasting customer demand can be challenging, companies often add inventory to protect against forecasts. Yet often companies are challenged by their inability to meet customer service expectations despite having high level of slow turning inventory. Such problems are the result of an underperforming supply chain often resulting from poor forecasting accuracy, ineffective planning process, and production capabilities that are slow to respond to changing market demand.

A key concern in the forecast is the short shelf life of perishable and seasonal products where substantial effort is required to keep product freshness and shelf availability (Eksoz, Mansouri, &Bourlakis, 2014).The uncertainty in the finished goods demand impacts all the layers as due dates of the finished goods requirements might change. Further, lead-time uncertainty can lead to problems when the planned lead-time is different from the actual lead-time and materials do not arrive at the right time. (Dolgui&Prodhon, 2007). Based on Ho and Ireland (1998), safety stocks should be used to cope with uncertainties in quantity and safety lead-time should be used to cope with lead time uncertainty

According to Lysons and Farrington, (2012) forecasting is the basis of all planning and decision-making. All forecasts are exposed to uncertainties, which can be related to weather, war or social and economic factors. Srinivasan,(2012). As Juma (2009), described Due to not strategically and systematically production planning and scheduling they result in implementations like over stocking when the demand becomes low or shortages or when the demand turns to be high.

4.5. Correlation Analysis

The variable that is supposed to be the cause is known as independent variable and the one, which is supposed to be the effect, is known as dependent variable. Thus, the variations in the dependent variables may be explained with the help of variations in the independent variables. When we study the variations in one dependent variable with the help of one independent variable, the study is known as bivariate analysis. Correlation analysis starts with only bivariate analysis as to start with we study the relationship between one dependent and one independent variable only. In case there exist a relationship between a pair of independent and dependent variables the values of both of them will vary to gather. This property of co-variation is also known as correlation.

Correlation could be either positive or negative. When with the increase the values of the independent variable the values of the dependent variable also increase, the relationship is said to be positive. For example, in a semi-arid area, higher percentage values of irrigation in districts will go with higher values of levels of agricultural productivity in terms of production per hectare. Similarly, migration and education levels in cities may also show positive relationship. However, if the values of the dependent variable decrease with the increase in the values of the independent variable the relationship is said to be negative. The distance between two places and movement of people between them may show a negative relationship. Likewise, index of industrial production and level of unemployment can also show negative relationship in an area over time. In case there is no relationship between the values of the two variables, they are said to be independent of each other.

Correlation between dependent and independent variable

The effective implementation of the dimensions of supply chain management enables organizations to be more responsive to their customers the right product on time(Bowersox et al. 1999). This idea shows when SCM practices are practiced correctly the responsiveness is higher i.e. SCM practices have positive impact on making product available to customers.

Table-4.10 Correlations analysis

		Customer supplier relationship	Information sharing	Quality information	Responsive customer	Product availability
Suppliers' relationship	Pearson Correlation	1	.365**	.163**	.229**	.165**
	Sig. (2-tailed)		.000	.005	.000	.004
Information Sharing	Pearson Correlation	.365**	1	.047	.244**	.291**
	Sig. (2-tailed)	.000		.417	.000	.000
Quality information	Pearson Correlation	.163**	.047	1	.387**	.239**
	Sig. (2-tailed)	.005	.417		.000	.000
Customer relationship	Pearson Correlation	.229**	.244**	.387**	1	.451**
	Sig. (2-tailed)	.000	.000	.000		.000
Product availability	Pearson Correlation	.165**	.291**	.239**	.451**	1
	Sig. (2-tailed)	.004	.000	.000	.000	
	N	301	301	301	301	301

**. Correlation is significant at the 0.01 level (2-tailed).

Source: own survey 2018

Table 4.10 result indicated that the Correlation matrix value between independent variables (Customer supplier relationship, information sharing, responsiveness to customer and quality information) and the dependent variable (product availability).

The spearman's correlation matrix result shows product availability and supplier relationship has a relationship ($r=.165^{**}$) and sig. value .004, product availability and information sharing relationship ($r=.291^{**}$) and sig. value .000, product availability and responsiveness to customer has a relationship ($r= .451^{**}$) and sig. value .000 and finally product availability has relationship ($r=.239^{**}$) and sig. value .000. This implies the product availability (dependent variable) have a positive and statistically significant relationship with supplier relationship, information sharing, r customer relationship and quality information (independent variables). That means an increase an independent variable will cause to increase the dependent variable (independent variable) or if the independent variable (supplier relationship, information sharing, responsiveness to customer and quality information) decreases the product availability will also decreased.

4.6 Mul*t*iple Regression Analysis

According to Julie (2005) multiple regression is not just one technique but a family of techniques that can be used to explore the relationship between one continuous dependent variable and a number of independent variables or predictors (usually continuous). Multiple regression is based on correlation, but allows a more sophisticated exploration of the interrelationship among a set of variables. Therefore, the researcher used to explore and predict between dependent variable (product availability) and independent variables such as supplier relationship, information sharing, customer relationship and quality of information sharing.

4.6.1 Testing assumptions of multiple linear regression

According to Julie (2005) before proceeding to multiple regressions analysis, first the researcher has to check the following assumptions such as sample size, outliers, normality, linearity, multi co linearity and singularity, and found they were not a problem for the researcher. Then the researcher proceeds to the regression analysis.

Test of Multi co linearity

According Julie (2005) multi co linearity is refers to the relationship among the independent variables. Multi co linearity exists when the independent variables are highly correlated (r=.9 and above).

Table- 4.11Co linearity Statistics

Model		Co linearity Statistics		
		B	Tolerance	VIF
1	(Constant)	2.607		
	Supplier's relationship	.041	.836	1.196
	Information sharing	.095	.833	1.200
	Quality of information	.282	.838	1.193
	Customer relationship	.458	.791	1.265

Source: Survey result, 2018

According to Julie (2005) to check multi co linearity effect, two things should be checked Tolerance and VIF from the coefficient table. If the value of Tolerance is very small (less than .10), it indicates that the multiple correlation with other variables is high, suggesting the possibility of multi co linearity. The second value given is the VIF (Variance inflation factor), which is just the inverse of the Tolerance value (1 divided by Tolerance). If VIF values shows above 10 would indicating multi co linearity.

Similarly, the researcher tested the normality and linearity of the variables using histogram and scatter plot and attached the result at the annex part. Therefore, multi co linearity, linearity and normality assumptions were fulfilled and they are not problems for this study. Then the researcher proceeds to the regression analysis. To carry out this the researcher used multiple regression analysis models below tables 4-12 to 4-14.

Table-4.12 model summary of multiple regression analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.658[a]	.433	.426	.31619

a. predictors: (constant), customer relationship, supplier relationship, quality information, information sharing practice

b. dependent variable: Product availability

Table 4.11 above indicates R, R Square, Adjusted R Square and standard error of the estimate. Further, it lists the independent variables that are entered in to the regression model. R (.658) is the correlation of independent variables with the dependent variable. The model summary, above shows the R Square value is 0.433. This tells us how much of the variance in the dependent variable (Product availability) are explained by the independent variables (as customer supplier relationship, information sharing, responsiveness to customer and quality information). This means that the model (independent variables) explains 43.3% of the variance in product availability (dependent variable). To assess the statistical significance of the result it is necessary to look in to table 4.11 ANOVA.

Table 4-13 ANOVA table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.627	4	5.657	56.581	.000[b]
	Residual	29.593	296	.100		
	Total	52.220	300			

a. Dependent Variable: product availability

b. Predictors: (Constant), customer relationship, supplier relationship, quality information, information sharing.

The ANOVA Table 4-13 above shows that p - value (sig.) is significant at 0.01 level of significance. This indicates a statistically there is significant contribution, as indicated by the Sig. value equal to .000. Therefore, the ANOVA table indicates that the model as a whole is significant at $p<0.01$).

The R^2 result indicates that 43.3% of the variance in product availability has been significantly explained by customer relationship, supplier relationship, quality information, information sharing**.** Accordingly, since the sign of 'B' coefficient for the independent variables is positive, therefore there is a positive relationship between the variables.

Table 4-14coefficients[a]

Model	Un standardized coefficients		standardized coefficients	T	sig.	co linearity statistics	
	b	std. error	beta			tolerance	vif
(constant)	2.607	.133		19.576	.000		
Supplier relationship	.041	.036	.154	2.136	.004	.836	1.196
Information sharing	.095	.030	.150	3.133	.002	.833	1.200
Quality of information	.282	.028	.483	10.100	.000	.838	1.193
Customer relationship	.458	.038	.588	11.959	.000	.791	1.265

a. dependent variable: Product availability

The regression function for independent variables and dependent variable can be derived from the above table as follows:

$Y = a + bX_1 + bX_2 + bX_3 + bX_4 \ldots$

Y= 2.607 + .041(Supplier and customer relationship) + .095(Information sharing) + .282(Responsiveness to customers) + 458(information sharing).

Where: Y is product availability and X_1, X_2, X_3 and X4 are supplier relationship, information sharing, customer relationship and quality information respectively.

The result of this study exhibited that all the independent variables have positive and significant effect on product availability in the studied company.

CHAPTER FIVE

Summary of Major findings, conclusions and recommendations

5.1. Summary of Major Findings

The majority of participants, 48.8% responded that the suppliers do not aim to establish long lasting relationship with their customers. 55.5% of respondents responded that the suppliers have no motive to solve problems concerning the interest of consumers and yet majority participants, 49.8% responded that continuous improvement programmer is being practiced at infancy level.

Furthermore, the majority participants, 35.2%, responded that there is no a strong relationship between suppliers and retailers.

Regarding information and level of information sharing practices, 48.2%, which are major respondents, responded that customers do not have updated information on sugar product. 48.2%, which are majority participants responded that retailers do not exchange accurate information with customers and exact information delivery is poor. Furthermore, majority of the participants, 50.2% responded that information exchange with customer is not complete. Generally, the findings show that timeliness, accuracy, completeness of retailers' information exchange with suppliers is poor. Retailers sharing updated information with suppliers about sugar supply, information exchange on planning, information sharing in advance of changing needs are poorly practiced.

Concerning customer relationship, the findings from the data analysis showed the majority of participants 55.1% responded that suppliers do not fill customer order on time and customer's interest. 56.1% that are majority of the participants responded that suppliers do not have the habit of shortening order-to delivery cycle. Yet, majority participants, 46.5% responded that demand forecast attempts to estimate have true demand based on unscientific judgment. To sum up, filling customer order on time, short order to delivery time, fulfilling facility by suppliers to retailers is poor and demand forecast in sugar commodity is executed based on unscientific judgment.

Failing to fulfill customers sugar demand and quantity of sugar supplied is commonly practiced activity in sugar supply chain. Moreover, findings from interview showed that hiding, creating bullwhip effect in sugar commodity by irresponsible stakeholders in the sugar supply chain play a significant role in scarcity of sugar at retail centers.

Concerning the availability of product, majority, 46.8% strongly agree. The data from interview also showed that sugar delivery to consumers arrives too late. From the data, majority participants responded that 47.8% that Monitoring of timing and delivery frequency of sugar is found executed

very poor. In addition, majority of participants, (48.8%) responded that the unavailability of sugar in store is not due to the insufficient capacity of store rather it is due to insufficient supply of sugar.

Generally, the findings of the study showed that late arrival of sugar to consumers, poor regulation of on time delivery of sugar to consumer is commonly practiced. However, inadequate shelf capacity to meet frequent peak demand needs of consumers is not the reason for stock outs of sugar at retail centers.

The relationship and contribution of SCM practices on availability of product was tested using inferential statistics, (correlation and regression analysis).

The findings from correlation matrix, showed that, product availability with supplier relationship has a relationship ($r=.165^{**}$) and sig. value .004, with information sharing relationship ($r=.291^{**}$) and sig. value .000, with customer relationship has a relationship ($r= .451^{**}$) and sig. value .000 and product availability and quality of information sharing has relationship ($r=.239^{**}$) and sig. value .000. This implies the product availability (dependent variable) have a positive and statistically significant relationship with supplier relationship, information sharing, customer relationship and quality information (independent variables). That means an increase an independent variable will cause to increase the dependent variable (independent variable) or if the independent variable (supplier relationship, information sharing, responsiveness to customer and quality information) decreases the product availability will also decreased.

The finding from regression analysis also showed that they have positive relationship between independent and dependent variables resulting independent variables 43.3% of variance product availability is due to supplier relationship, information sharing practices, quality of information sharing practices and customer relationships.

5.2. Conclusions

The purpose of the study was to evaluate the role of supply chain management practices on the availability of sugar commodity at retail centers and assess the current practices of the sugar supply chain by the members. To come up with conclusion, the research used different instruments to evaluate the existing practices of sugar supply chain and identify the main causes for stock out of sugar at retail centers.

- ☐ The supply chain management of sugar is not well built.
- ☐ The supply chain management practices are traditional in that members in the supply chain work independently.
- ☐ The level of coordination, information sharing, supplier relationship, order fulfilling on time are at infancy level, which in turn cause for scarcity of sugar. .

The researcher also found that, the supply chain of sugar not managed well, practice independently and lacks transparency, commonly observed in information gap, and poor planning and execution of the distribution accompanied by deep-rooted rent seeking among the supply chain members were.

From the findings, the researcher also addressed that the smooth flow of the sugar supply chain is interrupted by some irresponsible members and abuses the chain for their own sake by bending the laws of the sugar corporation

The main function of the supply chain department is to satisfy the logistical needs of the customers in sugar availability. To make that happen it is predictable to engage in a significant mutual understanding and communication between these whole sellers, retailer and customer units and the supply chain department, but the corporation has no information exactly how much quintals of sugar to supply and platforms whether the distributed sugar is correctly delivered or not.

The monitoring of availability of product for community, timing and delivery frequency of sugar was found very poor. This shows organizations do not have a monitoring of time format for customer order collection

5.3. Recommendations

To figure out on the major findings and conclusion of the study, the following recommendations are made.

The sugar supply chain is too long that suits to horde, hide the product and create bullwhip effect in the sugar supply chain. The corporation should establish endowments that directly distribute sugar to consumers.

From regression analysis, coefficient, result, quality of information sharing and customer relationships have large positive value regarded as determinants for the availability of product. Therefore the corporation should focus on these practices to secure the availability of sugar at retail centers.

The price of sugar is increasing from time to time at retail centers without the recognition of the corporation. Therefore, the corporation should undergo market intelligence to regulate the price.

There is no transparency between the society and the corporation, which in turn create breathing space to spread corruption in the supply chain. Therefore, the government should put platform to regulate the out let channel.

To measure the end consumers' satisfaction by sugar product, the corporation should arrange a regular discussion with the delegates from the society to address the problem.

Creating awareness to the workers of the corporation by arranging trainings, encouraging them by fulfilling incentives to serve their society should be done to minimize the sugar distribution problem and make every time accessible to the society.

5.4. Direction for future research

The concept of SCM practices is complex and involves a network of various parties in its effort in producing and delivering a product (goods and services) to the final consumer. These include suppliers, producers, customers and several other parties around. The SCM practice does not only limit to those practices mentioned in this study.

In addition, in this study, it only tried to assess the downstream of SCM practices of sugar supply chain. Yet, the assessment of the supply chain was limited to only one organization and this may not show the trends and practices of SCM practices of other organizations.

Therefore, future researches can expand the domain of SCM practices by considering the additional supply chain dimensions and supply chain parties. Moreover, future researches shall be done in the sugar supply chain from inbound up to outbound logistics so that it will create a better understanding and give full image about the current practices of supply chain of sugar product. Furthermore, the future researches shall be done with multiple organizations and with large number of respondents to enhance the research findings.

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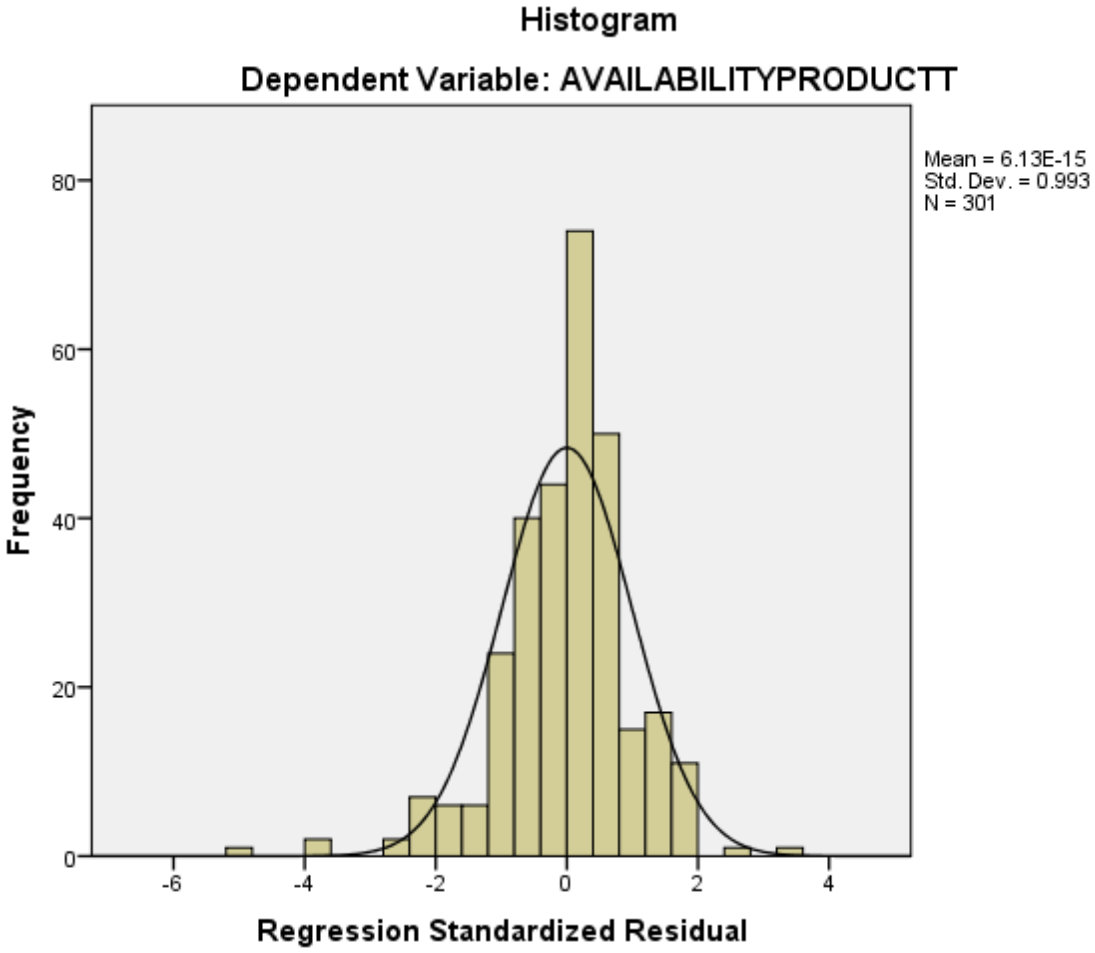
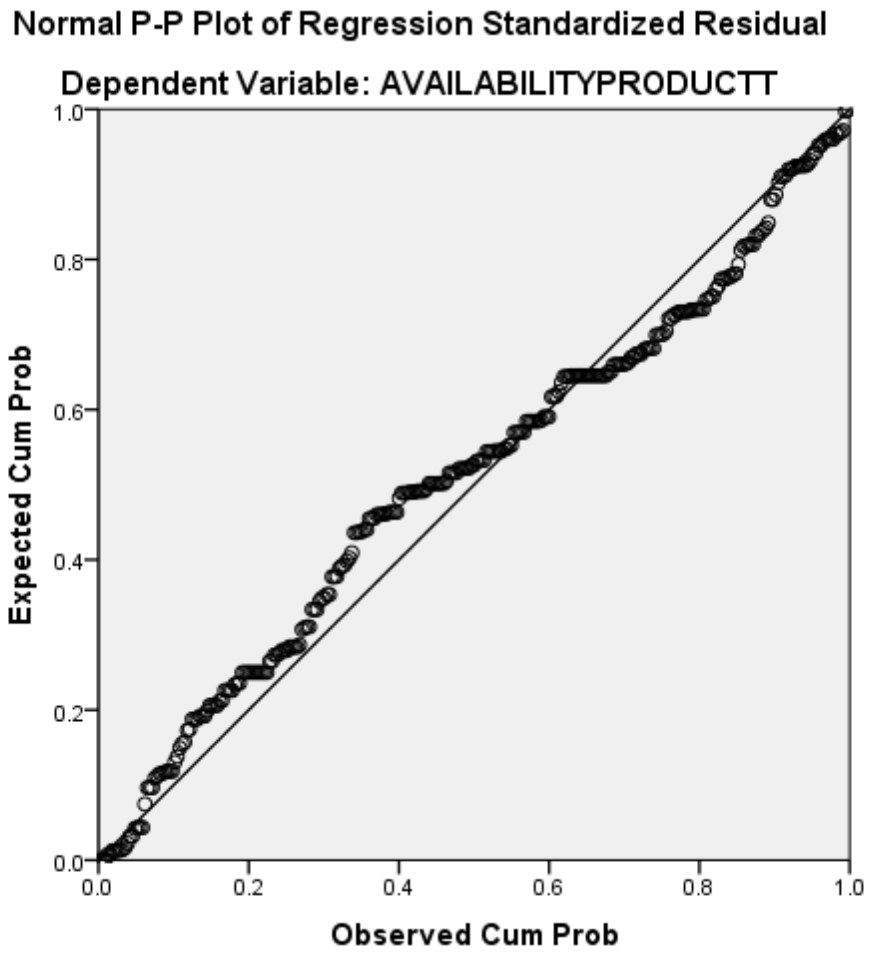
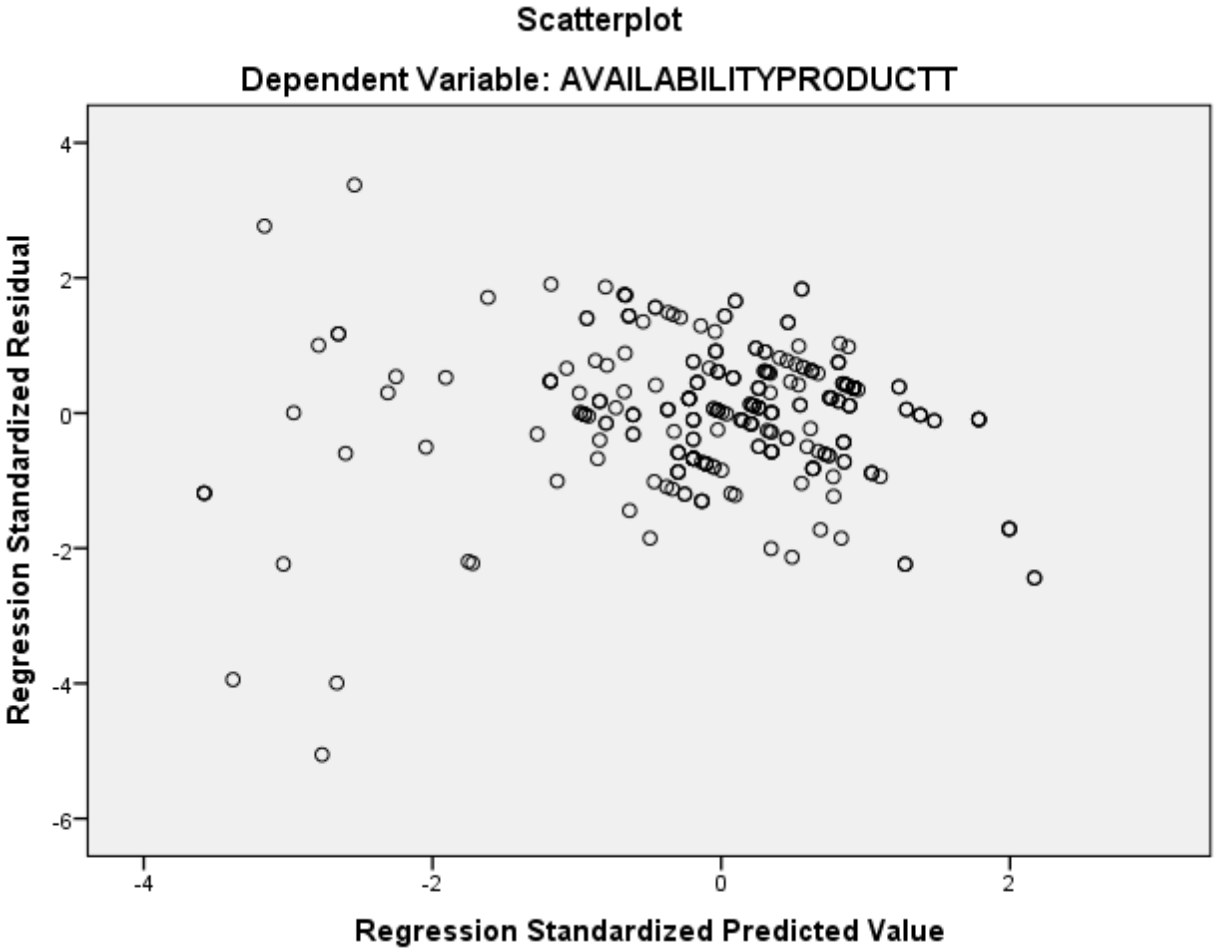
Annex

Normality




Normal P-P Plot of Regression Standardized Residual
Dependent Variable: AVAILABILITYPRODUCTT
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: AVAILABILITYPRODUCTT
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-4
-6
-4
-2
0
2

APPENDIX ONE

QUESTIONNAIRE (ENGLISH)
ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
SCHOOL OF COMMERCE
POST GRADUATE PROGRAM

QUESTIONNAIRE

This questionnaire is aimed at gathering data from Retailers on Evaluating supply chain management (SCM) practices in relation to the availability of sugar commodity at retail centers in Bole sub city, Addis Ababa city administration. The study is purely for academic purpose. Therefore, your genuine and timely response is appreciated for success of the study. Therefore, I kindly ask you to respond to each items of the question very carefully.

General Instructions

- There is no need of writing your name
- Please put a tick (√) marks in the appropriate box of your answer

Contact Address: If you have, any questions please contact me and I am available as per your convenience @Mobile: 09-13-53-56-14 or e-mail: *ashuraya30@gmail.com*

Thank you in advance for sacrificing your time to fill this questionnaire!

Part I: General information: Demographic Information

1. Your Sex:

Male ☐ Female ☐

2. Your relationship with Sugar Corporation

Customer ☐ Distributer ☐

Supplier ☐ Retailer ☐

3. Educational Qualification:

Under 10th grade ☐ College diploma ☐

Grade 10/12 completed ☐ First Degree ☐

Certificate ☐ Second Degree and above ☐

Part II: Instruments for supply chain management practices, operational performance and organizational performance

I- Supply chain management practices

Using the following rating scales under the columns '**tick'** only one number from the given below in the box after the variables on the left hand.

The number represent: **1- very low, 2- low, 3- average, 4- high, 5- very high**

Sr. No	Description of supply chain management practice construct	**Level of your agreement**				
		1	**2**	**3**	**4**	**5**
	Customer and supplier relation ship	Very low	Low	average	High	Very high
1	Your supplier frequently evaluates the level of its relationship with you					
2	Your retail centre regularly solve problems jointly with suppliers					
3	Your supplier evaluate formal and informal complaints from customers					
4	Your supplier set a frequent follow-up of customers for service feed back					
5	Your retail centre has strong relationship with its suppliers					
	Information sharing Practice	**X**	**X**	**X**	**X**	**X**
6	Your supplier exchange information with you about the product					
7	Your supplier has information from you in advance of changing needs					
8	Your supplier exchange information on planning for better execution					
	Level of Information Sharing	**X**	**X**	**X**	**X**	**X**
9	Your retail centre's information exchange with your supplier is timely					
10	Your retail centre's information exchange with sugar supplier is accurate					
11	Your retail centre's information exchange with sugar supplier is complete					
12	Your retail centre's information exchange with sugar supplier is reliable					
	Responsiveness to Customers	**X**	**X**	**X**	**X**	**X**
13	Your supplier fills customer order on time					
14	Your supplier has short order-to delivery cycle time					
15	Your supplier has fast customer response time					
16	Customers' ability to seek assistance from your supplier is frequently facilitated					

II- AVAILABILITY OF PRODUCT PROFILE

Using the following rating scales under the columns '**circle'** only one number from the given below in the box after the variables on the left hand.

The number represent: **1- very low, 2- low, 3- average, 4- high, 5- very high**

Sr. No	**Variable**	**Level of your agreement**				
		1	**2**	**3**	**4**	**5**
	Availability of product determinants	**Very low**	**low**	**averag**	**High**	**Very high**
1	Demand forecast attempts to estimate true demand based on unscientific judgment					
2	sugar supply to meet demand is poorly executed					
3	Sugar demand and quantity of sugar supplied is frequently inaccurate					
4	Some stakeholders in sugar supply chain participating hiding the product					
5	There is a practice of substituting sugar with other product during high demand and insufficient product					
6	Sugar demand is high from the consumers					
7	Sugar delivery to consumers arrives late					
8	Quantity of sugar delivered is too small to meet the ordered amount					
9	Monitoring on timing and delivery frequency of sugar is poor					
10	Inadequate shelf capacity to meet frequent peak demand needs.					
11	Inadequate quantity of sugar product in store observed frequently.					

APPENDIX TWO
QUESTIONNAIRE (AMHARIC)

አዲስ አበባ ዩኒቨርሲቲ
ቢዝነስና ኢኮኖሚክስ ፋኩልቲ
የንግድ ሥራ ትምህርት ቤት
የድህረ ምረቃ ፕሮግራም

የተከበራችሁ የዚህ ጥናት ተሳታፊዎች; :

ይህ መጠይቅ ተዘጋጀው በቦሌ ክፍለ ከተማ ውሥጥ ለሚገኙ የስኳርምርት ቸርቻሪዎችን ሲሆን የስኳር ምርት እጥረት ከግዜ ወደ ግዜ እየጨመረ ምመጣቱን ተከትሎ የስኳር ኮርፖሬሽኑ የምርት አቅርቦቱ ለተጠቃሚዎችን ለማድረስ የአቅርቦት ሰንሰለቱ የስኳር ምርት አቅርቦት ላይ ያለዉ ሚና፣ እንዲሁም የምርት ሰንሰለቱን እንዴት እየተተገበረ ስለመሆኑ ለመገምገም እና ለማጥናት የተዘጋጀ መጠይቅ ነው።

በመሆኑም ይህ ጥናት የተዘጋጀው ሙሉ ለሙሉ ለትምህርታዊ ጥናት ብቻ ስለሆነ የመጠይቁ ተሳታፊዎች ትክክለኛ የሆነ መረጃን በመስጠትና መጠይቁንም በቶሎ ሞልቶዉ በመመለስ እንድትተባበሩኝ እጠይቃለሁ።

ግዚዎትን ሰውተው ይህንን መጠይቅ ስለሞሉልኝ በቅድሚያ ከልብ አመሰግናለሁ።

አጠቃላይ መረጃዎች

- **መጠይቁን ለመሙላት ስም መጻፍ አያስፈልግም**
- **ለቀረቡትጥያቄዎችበተዘጋጀውቦታላይ የ (√)ምልክትበማደረግመልስዎትንመስጠትይቻላል።**

በመጠይቁላይጥያቄካለዎትበስልክቁጥር 09-13-53-56-14

ወይምበኢሜይልአድራሻ፡ ashuraya30@gmail.com**መጠየቅይችላሉ።**

ክፍልአንድ፡ አጠቃላይመረጃዎች

1. **ፆታ፡ ወንድ** ☐ **ሴት** ☐

2. **ከስኳር ኮረፖሬሽኑ ጋር ያለዎትን ችግንኙነት**

የድርጅቱን ምርት ደንበኛ (ገዥ) ☐ **አቅራቢ** ☐ **የድርጅቱ ሠራተኛ** ☐ **ቸርቻሪ** ☐

3. **የትምህርት ደረጃዎ**

ከ10ኛ ክፍል በታች ☐ 10ኛ **ወይም** 12ኛ **ያጠናቀቀ** ☐ **የምስክር ወረቀት** ☐

የኮሌጅ ዲፕሎማ ☐ **የመጀመሪያ ዲግሪ** ☐

ክፍልሁለት፡ የድርጅቱን የአቅርቦት ሰንሰለት መለኪያዎችን በተመለከተ ከዚህ በታች ለቀረቡት የአቅርቦት ሰንሰለት ሥራዎች ላይ ያለዎትን አስተያየት ከቀረቡት አማራጮች ውስጥ የመረጡትን የ (√)ምልክት በማድረግ መልስ ይስጡ፡፡

1 ማለት በጣም አልስማማም፣ 2 ማለት አልስማማም፣ 3 ማለት ምንም ማለት አልፈልግም፣ 4 ማለት እስማማለሁ፣ 5 ማለት በጣም እስማማለሁ ማለት ናቸው፡፡

(SUPPLY CHAIN MANAGEMENT PRACTICES)

ተ.ቁ	*ዝርዝርመ ለኪያ*	*የስምምነትደረጃ*				
		1	*2*	*3*	*4*	*5*
	(strategic suppliers relationship)	*X*	*X*	*X*	*X*	*X*
1	የስኳር ምርት አቅራቢዎ ከ ቸርቻሪዎች ጋር ስላላዉ የግኙነነት ደረጃ ይገመግማል ፡፡					
2	መደብርዎ ችግሮች ሲከሰቱ ከአቅራቢዎ ጋር በጋራ በመወያየት መፍትሔ ይፈልጋል፡፡					
3	የስኳር ምርት ቅራቢዎ ቅሬታዎን ተቀብሎ ያስተናግዳል ይገመግማል፡፡					
4	የስኳር ምርት አቅራቢዎ የደንበኞች ቅሬታ ተቀብሎ ያስተናግዳል፤ ለሚሰጠዉ አገልግሎት ክትትል ያደርጋል፡፡					
5	የስኳር ምርት አቅራቢዎ ከ ቸርቻሪዎች ጋር ያለዉ ግኙኝነት ጠንካራ ነዉ ፡፡					
ተ.ቁ	**የመረጃ ልዉዉጥን በተመለከተ** **(Information sharing practices)**	X	X	X	X	X
1	የስኳር ምርት አቅራቢዎ ስለሚያሰራጨዉ ምርት በተመለከተ መረጃዎችን ከደንበኞች ጋር ይለዋወጣል፡፡					
2	የስኳር ምርት አቅራቢዎ በተለያዩ ምክንያቶች በአቅርቦት ላይ ለዉጥ ሲኖር ለደንበኞቹ ያሳዉቃል፡፡					
3	የስኳር ምርት አቅራቢዎ የስራ እቅድን ለማዉጣት ያስችለዉ ዘንድ ከደንበኞች ጋር መረጃ ይለዋወጣል፡፡					

	የመረጃ ልዉዉጥ ጥራትን በተመለከተ (information quality)	X	X	X	X	X
1	የስኳር ምርት አቅራቢዎ ከደንበኞቹ(ከእርስዎ) ጋር ወቅታዊ የሆነ መረጃ ያገኛል፡፡					
2	የስኳር ምርት አትቅራቢዎ ከደንበኞቹ(ከእርስዎ) ጋር ትክክለኛ የሆነ መረጃ ያገኛል፡፡					
3	የስኳር ምርት አቅራቢዎ ከደንበኞቹ(ከእርስዎ) ጋር ሙሉ የሆነመረጃ ያገኛል፡፡					
4	የስኳር ምርት አቅራቢዎ ከደንበኞቹ (ከእርስዎ)ጋር አስተማማኝ የሆነ መረጃ ያገኛል፡፡					
ተ.ቁ	**ለደንበኞች ፈጣን ምላሽ በመስጠት** (customers Relationship)	X	X	X	X	X
1	የስኳር ምርት አቅራቢዎ የድንበኞች(የእርስዎ)ትእዛዝ ባጭር ግዜ ዉስጥ ያሟላል፡፡					
2	የስኳር ምርት አቅራቢዎ ባጭር ግዜ ዉስጥ ትእዛዝ ተቀብሎ ምርቱን ለደንበኞች(ለእርስዎ) ያቀርባል፡፡					
3	ባጠቃላይ የስኳር ምርት አቅራቢዎ ለደንበኞች(ለእርስዎ) ፈጣን ምላሽ በመስጠት የደንበኞች ፍላጎት ያማሟላል፡፡					
4	የስኳር ምርት አቅራቢዎ ደንበኞችን(እርስዎ) እንዲሟላላቸው የሚፈልጓቸው በሚሟላት ረገድ የተሸለ ነዉ፡፡					

Availability of products

ተ.ቁ	**የስኳር ምርት አቅርቦት ላይ በሚደረግ ትንበያ በተመለከተ**	X	X	X	X	X
1	የስኳር ምርት ፍላጎትን ለሚሟላት የሚደረግ የምርት ትንበያ አሠራር ግምታዊ ነው፡፡					
2	የሰኳር ምርት አቅርቦት ለሚሟላት የሚሰሩ ሥራዎች ደካማ ናቸው፡፡					
3	የስኳር ምርት አቅርቦት እና የሚመረተው የምርት መጠን አብዛኛውን ግዜ አይመጣጠንም፡፡					
4	የስኳር ምርት ተጠቃሚ ላይ በትክክል እንዳይደር ስበሰንሰለቱ ላይ የሚሳተፉአካላት ምርቱን በመደበቅ እጥረት እንዲኖ ርያደርጋሉ፡፡					
ተ.ቁ	**የስኳር ምርት ትንበያና ትእዛዝ መጣጣምን በተመለከተ** **Forcast and order accuracy**	X	X	X	X	X
1	የምርትን እጥረት ሲያጋጥም በሌላ ለመተካት ጥረት ያደርጋል፡፡					
2	የስኳር ምርት ፍላጎት በተጠቃሚዎች ዘንድ ከፍተኛ ነዉ፡፡					
3	የስኳር ምርት ዘግይቶ ይደርሳል፡፡					
ተ.ቁ	**የስኳር ምርት የምርት ሂደትን በተመለከተ**	X	X	X	X	X
1	የስኳር ምርት በታቀደለት ግዜ ይደርሳል፡፡					
2	የስኳር ምርትን ስርጭት በተፈለገው መጠን አይደርስም፡፡					
3	የስኳር ምርት ሥርጭት ላይ የሚደረግ ቁጥጥር አናሳ ነዉ፡፡					
	የስኳርን ምርት ማከማቻ መጋዘንን በተመለከተ					
1	ከፍተኛ የምርት ፍላጎት በሚኖርበት ግዜ ፍላጎትን ለሚሟላት ምርት የሚከማችበትን በቂመጋዘን የለም፡፡					
2	መጋዘን ላይ ብዙ ግዜ ተጠባባቂ ምርት ያለ መኖር ሁኔታ አለ፡፡					

Interview questions

1. What look like your supply chain system?
2. How do you manage your supply chain?
3. How do you see, your company's effort to maintain and develop existing and new customers?
4. How your company manages customers' complaints?
5. How do you see making your products accessible for your customers in both quantity and quality?
6. How do you see the extent of information sharing practice between your company and customers?
7. How successful do you think is your company in managing its supply chain in general?
8. What is your company's future plan about supply chain management?
9. How is the level of the cross-functional integration like information networking between departments, information integration in the corporation as a whole?