The Effect of Supply Chain Management Practices on Organization Performance in The Case of Ethiopian Agricultural Business Corporation-Agricultural Input Supply (EABC-AIS)

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SCHOOL OF COMMERCE

LOGISTICS AND SUPPLY CHAIN MANAGEMENT

GRADUATE PROGRAM

June, 2017

Addis Ababa, Ethiopia

The Effect of Supply Chain Management Practices on Organization Performance in The Case of Ethiopian Agricultural Business Corporation-Agricultural Input Supply (EABC-AIS)

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This thesis is submitted to Addis Ababa University School of Commerce Logistics and Supply Chain Graduate program in Partial Fulfillment of the Requirement for the Degree of Master of Arts in Logistics and Supply Chain Management.

June, 2017

Addis Ababa, Ethiopia

Declaration

I, the undersigned, declare that, this study **"The Effect of Supply Chain Management Practice on Organization Performance, In the case of Ethiopian Agricultural Business Corporation-Agricultural Input Supply (EABC-AIS)"** is my original work and has not been presented for a degree in any other university, and that all sources of materials used for the study have been duly acknowledged.

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This master thesis has been submitted for examination with my approval as thesis.

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Signature _____ Date_____

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SCHOOL OF COMMERCE
LOGISTICS AND SUPPLY CHAIN MANAGEMENT
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The Effect of Supply Chain Management Practices on Organization Performance in The Case of Ethiopian Agricultural Business Corporation-Agricultural Input Supply (EABC-AIS)

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Acknowledgment

First and foremost I would like to thank the almighty God for his gift and strength that enabled me to complete this research. Second, I would like to record a special note of thanks to my advisor Tariku Jebena (PhD), who generously devoted his time giving valuable suggestion and comments in reshaping and organizing the whole research. Without his effort, this research could not have been realized. I am highly indebted with EABC-AIS, for their unreserved support for successfulness of carrying out the data collection. My deep appreciation goes to Berhan Awoke (CEO of EABC-AIS), Abraham Zewdu and EmebetZewdu for their encouragement and support that rendered in entire endeavor of my work.

Finally, I would like to thank all individuals and institutions who helped me in many ways starting from the data collection to finishing this thesis. Above all, I am greatly indebted to my Mom and Dad their constant support, encouragement and prayers during my study. I hereby am dedicating my thesis to my daughters, Yadet and Obsinet.

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List of Acronyms and Abbreviations

AISE: Agricultural Input Supply Enterprise

AIS: Agricultural Input Supply

AETSSCO: Agricultural Equipment and Technical Services Share Company

AMS: Agricultural Mechanization Enterprise

ANOVA: Analysis of variance

CR : Customer relationship

CRM: Customer relationship management

EABC: Ethiopian Agricultural Business Corporation

EDI : Electronic data interchange

ESE : Ethiopian Seed Enterprise

ERP : Enterprise Resource planning

LiQ : Level of information quality

LiS: Level of information sharing

LSCM: Logistics and supply chain management

MOANR: Ministry of agriculture and natural resource

MRP: Materials requirement planning

MRP: Manufacturing resources planning

NGME: Natural Gum and Marketing Enterprise

OP : Organizational Performance

ROI: Return on Investment

SCM: Supply Chain Management

SPSS: Statistical Package for Social Science

SSP : Strategic supplier partnership

Abstract

The study intended to assess the effect of supply chain management practices on organizational performance in terms of market share, return on investment, growth of sales, total profit and overall competitive position of the Ethiopian Agricultural Business Corporation-Agricultural Input Supply. The study, mainly using questionnaire, empirically tested the set framework identifying the relationships among Supply Chain Management practices (strategic supplier partnership, customer relationship, information sharing & quality) as related to their effects on the company's organizational performance.

From the total population of 375, it was possible to secure data from sixty-three (63) employees. Questionnaires were used as the main data collection instrument and a pilot study was subsequently carried out to pretest questionnaires for validity and reliability. The validity of the instrument was checked and internal consistency of the instrument was measured using Cronbach Alpha and the result was 89.2%. Using carvalho's sample Size determination method, it shows that the sample is good representative of the population to be studied. Before making multiple linear regression, the study has undertaken several tests. The first test is normality test, the estimation result indicates that, the data set is found to have normally distributed. Secondly, multicollinearity test also conducted using Variance Inflation Factor to check the existence of correlation among the independent variables. The study found that there is no multicollinearity problem. Moreover, to check for serial correlation among the independent variables in the linear model, the study used Durbin-Watson estimation. The estimation result indicates that there is no serial correlation within the data set. Having made these preliminary checking tests, the study conducted multiple linear regression models to evaluate the effect of the four supply chain factors on the organizational performance of Ethiopian Agricultural Business Corporation-Agricultural Input Supply.

The overall result from the study indicates that effective supply chain management has tremendous effect on the organizational performance of Ethiopian Agricultural Business Corporation-Agricultural Input Supply. This effect is not however valid or true to all supply chain factors. Level information quality and customer relationship are found to have considerable impact in affecting organizational structure of Ethiopian Agricultural Business Corporation-Agricultural Input Supply. Conversely, Level of information sharing and strategic supplier partnership has relatively lower effect in shaping organizational performance of Ethiopian Agricultural Business Corporation-Agricultural Input Supply. Therefore, Ethiopian Agricultural Business Corporation-Agricultural Input Supply need to give due emphasis in strengthening its supply chain factors in order to enhance and boost its organizational performance, thereby to increase its market share, profit and maintain good competitive position.

***Key words**: - Supply chain Practices, Organizational Performance*

CHAPTER ONE
INTRODUCTION

The present EABS-AIS company was formed as a business organization in 1985. The organization as a government owned company has the purpose to purchase agricultural inputs from foreign and local markets to distribute at reasonable price to the farmers and commercial farms. It is mainly engaged in importation and distribution of fertilizers, agro-chemicals and veterinary medicines. To achieve its purpose, the company is re-organized under Ethiopia Agricultural Business Corporation, which is formed by merging the previously five government owned companies.

1.1 Background of the study

Effective and efficient supply chain management now has become a very valuable and important way to remain competitive in the market and to improve the organizational performance. It plays a very important role in staying competitive because the competition among the organizations is effected by the SCM.

The supply chain management consists of topics from manufacturing operation, purchasing, transportation, and physical distribution into a unified program. In addition to the departments within the organization, these partners include vendors, carriers, third-party companies, and information systems providers. Supply chain management consist a wide range of functional areas related activities such as inbound and outbound transportation, procurement, sourcing, and warehousing, and inventory control (Zigiaris,2000)

The focus of supply chain management is upon the management of relationships in order to achieve a more profitable outcome for all parties in the chain. In this regard, the source of competitive advantage is traced on, first the ability to achieve a differentiated remark in the eyes of customers and competitors in the market and secondly on through operating at lower cost with implementing sound supply chain management system. (Christopher, 2011)

Supply Chain Management practices are increasingly becoming an important feature in the attainment of competitive advantage in most service organizations in the global markets today. The number of competitors were increasing and expanding both locally and globally. To remain competitive, companies must seek new solutions to important Supply Chain Management issues such as modal analysis, supply chain management, load planning, and route planning and distribution network design. (Zigiaris, 2000)

The concept of supply chain management gained some grave popularity since as early as 1980s where during that time the world experienced the era of intensive competition in the global market to deliver products or services at a right place and at the right time. (Dawei, 2011)

Therefore effective management of supply chains were seen as a must strategy for the survival of any company for purpose of staying competitive in the local market as well as in the global market. This involves managing the marketing link to the supply chain and linking supply chain strategies to the overall company strategy.

Considering the importance of supply chain management, this paper focuses on the evaluating the effect of supply chain management practice on organizational performance of Ethiopian Agricultural Business corporation (EABC-AIS) in terms of increasing annual profit, reducing cost and enhancing organizational effectiveness. EABC-AIS is company that is partly state owned and serves as a sole distributor of fertilizers across the country. In doing so, it has wider supply chain network ranging from oversea supplier companies to local end user peasants.

There are several factors affecting supply chain activities in the case of EABC-AIS, these are Strategic supplier partnership, Customer relationship, Level of information sharing, Level of information quality, (EABC, 2016). Considering these fundamental SCM factors, this paper were interested to evaluate the effect of supply chain management practice in reducing organizational cost, boosting profit and amplifying organizational effectiveness in delivering service and widening the market share.

1.2 Statement of the problem

Previously many studies on supply chain management focused on manufacturing sector. This can be witnessed from studies by Mbuthia&Rotich, G. (2014), Kimechwa, V.K (2015) and Okello, J. O. & Were. S. (2014). These studies assert that supply chain management had profound impact in shaping organizational performance across the manufacturing industry.

However, the supply chain management with supplier firms has not been widely covered Collin. J 2002). Effective supply management system within a suppler firms like EABC-AIS, could play considerable role in organizational growth through widening profit margins and minimizing costs. Proper management of supply chain entails coordinated approach to all chains of activities up until delivery to customers. In this regard, EABC-AIS has implemented wide ranging supply chain activities that can further unleash organizational performance.

However, the majority of studies so far focused on evaluating the effectiveness of supply chain on the manufacturing and processing industry. Since the concept of Supply chain management were a recent initiative, it was not widely been studied across several industries. In this regard, we need to look the effectiveness of effective supply chain on different sectors so as to make sure that which sector need to get more attention in managing the supply system to get more profit and leverage the market.

Compellingly the supplier firms had their owned forward and backward linkage in order to deliver their services efficiently and effectively. Despite the fact that they were intermediaries between the producer and end user, they were still more fragile to both internal and external economic and market shocks (Christopher, 2011). Hence, these firms need to craft and implement sound supply chain management system so as to leverage the market and stay competitive in the industry.

Considering this fact, this paper focuses on evaluating the effect on effective supply chain with respect to profitability and cost of production and overall organizational effectiveness within the Ethiopian Agricultural Business Corporation, Agricultural Input Supply, which is primarily engaged in importing fertilizer and agricultural inputs to the whole country. The corporation was formed in 1985, with the intention to purchase agricultural inputs from foreign and local market to distribute at reasonable price to the farmers and commercial farms.

However, since its establishment the corporation has faced several problems from purchasing the fertilizer inputs through bid up until delivering the agricultural inputs to unions and farmers at grass root level. Since the company is integrated with interwoven supply chain system, it has been exposed to plenty of convoluted problems in managing the flow of input supply. In this regard, Ethiopian Agricultural Business Corporation (EABC-AIS) were exposed to the following supply chain management factors; these are :- Strategic supplier partnership, Customer relationship, Level of information sharing, Level of information quality.

Each of the above factors has put their own impact in the operation of EABC-AIS. To mention, firstly, the prevalence of well integrated IT operation has adversely affect EABC-AIS from instant order of materials from abroad and it also created poor management on product stock across different branch. Secondly, an environmental factor has also put great impact on EABC-AIS operation. The company was witnessed rising number of competitors firms across the market. These firms are able to deliver efficient and modern service than

EABC-AIS on the market. This were greatly endangered EABC-AIS future profitability. Thirdly, lack of value added process at EABC-AIS also crippled the company in playing its own role in setting their own business empire. So far, the company simply import materials and distribute to local users. Finally, the idea of smooth supply chain relationship was not also well practiced. The company were no consistent and trusted supplier abroad, the shipment and delivery of goods were also quite sluggish and enforcing the company to incur additional costs. The final delivery of these purchased goods to local users were also characterized to have many flaws in relation to lack of coordinated approach in managing the flow of delivery of goods to end customers.

Due to long chain of supply chain system, which stretches from fertilizer manufacturing firms abroad to end users which are local peasants, it would be exposed to both internal and external factors which might affect the effective operation of supply chain system at Ethiopian Agricultural Business Corporation (EABC-AIS). Consequently, the company is exposed to incur huge operational cost and declining customer reliability (EABC, 2016). To minimize the problem, the company were taken a lot of effort so as to adjust the potential outcome of ongoing supply chain management practice.

In light of these facts, this paper were closely evaluate and scrutinize the supply chain practiced by EABC-AIS, thereby; the paper were evaluated which part of supply chain factor need to get more attention to address the prevailing problem.

1.3 Research question

EABC-AIS has been practicing several supply chain activities from getting inputs from oversea until final delivery of products to local customers. This supply chain has huge impact in shaping organizational performance of EABC-AIS. This study paper is inspired with the following basic research questions

1) How supply chain management practices are affecting organizational performance of EABC-AIS?
2) Which supply chain factors are affecting more on the organizational performance of EABC-AIS?

1.4 Objective of the study

1.4.1 General Objective

The general objective of this study is to assess the effect of supply chain management practices on organizational performance of Ethiopian Agricultural Business Corporation -AIS.

1.4.2 Specific Objectives

The study has the following specific objectives:

1. To evaluate the effect of existing supply chain management practice on organizational performance in terms of market share, return on investment, growth of sale, profit margin, and competitive position
2. To assess each supply chain factors unilaterally in affecting organizational performance and evaluate these factors relative impact

1.5 Scope of the study

SCM encompasses vast areas of managerial practices. However, it is difficult and unmanageable to conduct the study in all areas that summarizes SCM in terms of time, finance, and research manageability. Therefore, the scope of this study is delimited to SCM practices and Organization performance of EABC-AIS in terms of topic.

Delimiting a research makes it convenient to focus on solving the problem reached. For the reason of manageability the research concentrates only with the areas that are essential to the problem and objectives of the research.

The subject scope of this study is also delimited to the company's point of reference towards strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing. In terms of organizational performance(which incorporate market share, return on investment, the growth of market share, the growth of sales, growth in return on investment, profit margin on sales and overall competitive position).

1.6 Significance of the study

The finding of the study had paramount importance for policy makers at Ethiopian Agricultural Business Corporation-Agricultural Input Supply (EABC-AIS) to understand what kind of supply chain management that they have been practicing, to understand its failures, and to foresee possible what kind of supply chain practice they need to adopt. The result of the study could serve as an integral part of the action plan in a way that would help Ethiopian Agricultural Business Corporation (EABC-AIS) to minimize its operating cost, and increase its profit leverage.

The study also gives analogies signal for other companies that are engaged in other industry to acquaint themselves with the importance of properly managing the supply chain. Above all, the paper gives practical supply chain management recommendations for EABC-AIS so as to circumvent its basic problems and create smooth and efficient supply system. This could considerably help policy makers to craft sound supply chain policies.

Furthermore, the study could help researchers and scholars to get some empirical idea about supply chain practice in Ethiopian companies and their bottlenecks. It also gives light on how a company could respond in a dynamically competitive business world. In general, it can improve the existing shortage of empirical works on the supply chain management inter alia.

1.7. Limitation of the Study

In doing this paper, several limitations are expected to happen. Among these, firstly, reluctance of respondents to reply within the fixed time period allocated. Second, some respondents gave their answer with negligence while some other believes that it is unimportant to fill the questionnaire. Thirdly, the issue of supply chain basically traces its framework on several organizational factors that reached all parts of the administrative system ranging from top executive to lower level managers. Finally, it would also be difficult to get integrated data from all subsidiary organization under EABC-AIS. There are four subsidiary companies under EABC-AIS; they are located in separate place with their own autonomous administration system. Hence, it would be cumbersome to get consistent and reliable data from all these sources.

1.8 Organization of the Paper

This project paper is organized into four chapters: Chapter one contains the introduction part dealing with background of the study, the research problem, and objectives of the study, significance of the study scope and limitation of the study. The second chapter discusses the literature review about the subject matter these comprise of theoretical and empirical literature review. In addition, the literature review will also put research gaps in relation to what has not been done with previous papers. This chapter also involves conceptual framework for the study (i.e., constructs). In chapter three the research methodology is presented, this will include, research design, sampling technique, data collection instrument & procedure, and data Analysis. Chapter four presents results and discussion of the study. Finally, chapter five presents the summary of major findings, conclusion and forwarded suggestions.

CHAPTER TWO
RELATED LITERATURE REVIEW

2.1 Introduction

The chapter provides information from publications on topics related to the research problem. It examines what various scholars and authors have documented about the concept of supply chain management practices. The chapter covers concept of supply chain management practices, organizational performance and effect of supply chain management practices on organizational performance

Unlike other organizational topics, Supply chain management has got recent popularity. The concept has started to get attention quite lately. Several authors have discussed on the importance and how to properly manage supply chain. Dawei Lu (2011) defined supply chain as follows: "From theoretical literature review, supply chain is defined as a group of interconnected participating companies that add value to a stream of transformed inputs from their source origin to the end products or services that are demanded by the designated end consumers."

Zigiaris. S (2000) widely described the concept of supply chain as Program that integrates topics from manufacturing operations, purchasing, transportation, and physical distribution into a unified program. Successful supply chain management, then, coordinates and integrates all of these activities into a seamless process. It embraces and links all of the partners in the chain. In addition to the departments within the organization, these partners include vendors, carriers, third party companies, and information systems providers.

Within the organization, the supply chain refers to a wide range of functional areas. These include Supply Chain Management-related activities such as inbound and outbound transportation, warehousing, and inventory control. Sourcing, procurement, and supply management fall under the supply-chain umbrella, too. Forecasting, production planning and scheduling, order processing, and customer service all are part of the process as well. Importantly, it also embodies the information systems so necessary to monitor all of these activities (Ibid).

A supply chain consists of all parties involved, directly or indirectly, in fulfilling a customer request. The supply chain includes not only the manufacturer and suppliers, but also transporters, warehouses, retailers, and even customers themselves. Within each organization, such as a manufacturer, the supply chain includes all functions involved in receiving and filling a customer request. These functions include, but are not limited to, new product

development, marketing, operations, distribution, finance, and customer service (Chopra.S& Meindl.P, 2007)

2.2 The Objective of a Supply Chain

The objective of every supply chain should be to maximize the overall value generated. The value a supply chain generates is the difference between what the final product is worth to the customer and the costs the supply chain incurs in filling the customer's request. For most commercial supply chains, value will be strongly correlated with supply chain profitability (also known as supply chain surplus), the difference between the revenue generated from the customer and the overall cost across the supply chain (Ibid)

2.3 Decision Phases in a Supply Chain

Chopra.S & Meindl P. (2007) discussed the fundamental supply chain decision phases. According to these authors, successful supply chain management requires many decisions relating to the flow of information, product, and funds. Each decision should be made to raise the supply chain surplus. These decisions fall into three categories or phases, depending on the frequency of each decision and the time frame during which a decision phase has an impact.

1. Supply Chain Strategy or Design: During this phase, given the marketing and pricing plans for a product, a company decides how to structure the supply chain over the next several years. It decides what the chain's configuration were, how resources were allocated, and what processes each stage were performed. Strategic decisions made by companies include whether to outsource or perform a supply chain function in-house, the location and capacities of production and warehousing facilities, the products to be manufactured or stored at various locations, the modes of transportation to be made available along different shipping legs, and the type of information system to be utilized.

2. ***Supply Chain Planning:*** For decisions made during this phase, the time frame considered is a quarter to a year. Therefore, the supply chain's configuration determined in the strategic phase is fixed. This configuration establishes constraints within which planning must be done. The goal of planning is to maximize the supply chain surplus that can be generated over the planning horizon given the constraints established during the strategic or design phase. Companies start the planning phase with a forecast for the coming year (or a comparable time frame) of demand in different markets. Planning includes making decisions regarding which markets were supplied from which locations, the subcontracting of manufacturing, the inventory policies to be followed, and the timing and size of marketing and price promotions.

3. ***Supply Chain Operation:*** The time horizon here is weekly or daily, and during this phase companies make decisions regarding individual customer orders. At the operational level, supply chain configuration is considered fixed, and planning policies are already defined. The goal of supply chain operations is to handle incoming customer orders in the best possible manner. During this phase, firms allocate inventory or production to individual orders, set a date that an order is to be filled, generate pick lists at warehouse, allocate an order to a particular shipping mode and shipment,

2.4 Supplies-Chain Principles

According to (Zigiaris, 2000) supply chain principles basically traced on the following seven fundamental principles

1. Segment customers based on service needs. Companies traditionally have grouped Customers by industry, product, or trade channel and then provided the same level of service to everyone within a segment. Effective supply-chain management, by contrast, groups customers by distinct service needs--regardless of industry--and then tailors services to those particular segments.

2. Customize the Supply Chain Management network. In designing their Supply Chain Management network, companies need to focus intensely on the service requirements and profitability of the customer segments identified. The conventional approach of creating a "monolithic" Supply Chain Management network runs counter to successful supply-chain management.

3. **Listen to signals of market demand and plan accordingly**. Sales and operations planning must span the entire chain to detect early warning signals of changing demand in ordering patterns, customer promotions, and so forth. This demand-intensive approach leads to more consistent forecasts and optimal resource allocation.

4. **Differentiate product closer to the customer.** Companies today no longer can afford to stockpile inventory to compensate for possible forecasting errors. Instead, they need to postpone product differentiation in the manufacturing process closer to actual consumer demand.

5. **Strategically manage the sources of supply**. By working closely with their key suppliers to reduce the overall costs of owning materials and services, supply-chain management leaders enhance margins both for themselves and their suppliers. Beating multiple suppliers over the head for the lowest price is out, Andersen advises. "Gain sharing" is in.

6. **Develop a supply-chain-wide technology strategy**. As one of the cornerstones of successful supply-chain management, information technology must support multiple levels of decision making. It also should afford a clear view of the flow of products, services, and information.

7. **Adopt channel-spanning performance measures**. Excellent supply-chain measurement systems do more than just monitor internal functions. They adopt measures that apply to every link in the supply chain. Importantly, these measurement systems embrace both service and financial metrics, such as each account's true profitability.

2.5 Dimensions of supply chain management

According to Li et.al (2006), effective supply chain management has become a potentially valuable way of securing competitive advantage and improving organizational performance since competition is no longer between organizations , but among supply chains. Thus, it is not enough to improve efficiencies within an organization, but their whole supply chain has to be made competitive and the understanding and practicing of SCM becoming an essential prerequisite for staying competitive in the global race and for enhancing profitability (Moberg et al., 2002 and Tan et al., 2002).

The following sub sections will discuss four dimensions of supply chain management activities in detail.

2.5.1 Strategic Supplier Partnership

Supplier relationship management is often referred to in the literature as strategic supplier partnership. Gunasekaran et al. (2001) assert that a strategic partnership emphasizes long-term relationship between trading partners and "promotes mutual planning and problem solving efforts". Strategic partnerships between organizations promote shared benefits and ongoing collaboration in key strategic areas like technology, products, and markets (Yoshino &Rangan, 1995). Strategic partnerships with suppliers facilitate organizations to work closely and effectively with a few suppliers rather than many suppliers that have been selected solely on the basis of cost (Ashish, 2007).

Supplier relationship management involves developing partnership relationships with key suppliers to reduce costs, innovate with new products and create value for both parties' bases on a mutual commitment to long term collaboration and shared success. Strategic supplier partnership is defined as "the long term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual

participating organizations to help them achieve significant ongoing benefits" (Li et al., 2006).

Thatte (2007) stated that strategic supplier partnership as the long-term relationship between the organization and its supplier. Gunasekaran et al (2001) asserted that a strategic partnership emphasizes long-term relationship between trading partners and promote mutual planning problem solving efforts. Strategic partnership between organizations promote shared benefits and ongoing collaboration in key strategic areas like technology, products, and market (Yoshino and Rangan, 1995; Thatte, 2007). Strategic partnerships with suppliers lead organization working closely and effectively with a few suppliers rather than many supplier that have been selected on the basis of cost efficient. Many advantage of consisting supplier early in the product-design process are that suppliers can offer cost effective design alternative, assist in selecting better components and technologies, and aid in designing assessment (Tan et al, 2002; Thatte, 2007).

Supplier relationship management has become a critical business process as a result of: competitive pressures; the need to achieve cost efficiency in order to be cost competitive; and, the need to achieve cost efficiency in order to be cost competitive; and, the need to develop closer relationships with key suppliers who can provide the expertise necessary to develop closer relationships with key suppliers who can provide the expertise necessary to develop innovative new products and successfully bring them to market (Lambert, 2008).

In supply chain management strategies, supplier relationship activities play an important role (Wisner, 2003). Long-term relationships refer to intention that the arrangement is not going to be temporary (Chen and Paulraj, 2004). Through close relationship supply chain partners are willing to share risks and reward, and maintain the relationship on long term basis (Landeros and Monczka, 1989; Cooper and Ellram, 1993; Stuart, 1993; Thatte, 2007). In supply chain management strategies, supplier relationship activities play an important role (Wisner, 2003). Long-term relationships refer to intention that the arrangement is not going to be temporary (Chen and Paulraj, 2004). Through close relationship supply chain partners are willing to share risks and reward, and maintain the relationship on long term basis (Landeros and Monczka, 1989; Cooper and Ellram, 1993; Stuart, 1993; Thatte, 2007). Toni and Nassimbeni (1999) identified that a long-term perspective between the buyer and supplier increase the intensity of firm-supplier integration. Firms that integrate with customers including: planning, implementing, and evaluating a successful relationship between the provider and recipient of both upstream and downstream of the supply chain. Therefore, customer relationship

management (CRM) is not only focused on inbound customer relationships but also on outbound customer relationships in SCM.

An effective supplier partnership can be a critical component of a leading edge supply chain (Noble, 1997). The main objective of strategic partnerships with suppliers is increasing the functional capability desired supplier (Rosenzweig, 2003). Therefore, strategically managed long-term relationship with supplier has positive impact on a firm's supplier performance (Cooper and Ellram, 1993).

Krause (1997) surveyed purchasing executive members of NAPM representing different industries to investigate outcomes of supplier development activities and whether companies were satisfied with the outcomes. The results showed that supplier performance had improved as a result of the supplier relationship management effort. Buyers reported that supplier management efforts with a single supplier had led to significant improvement in incoming defects, percent on time delivery, order cycle times and percent orders received complete. Further, buyers were generally satisfied with the outcomes from their supplier development efforts. Specifically, supplier management efforts had yielded reduced costs for the buyer's final product or service. Also, the results showed that buyers perceived an improvement in the continuity of the relationship with their suppliers after the supplier relationship effort than before (Sichinsambwe, 2011).

Strategic supplier partnerships and customer relationships are main components in the supply chain management practices (Li et al., 2005), leading to information sharing, which is one of the five pillars in achieving a solid supply chain relationship (Lalonde, 1998). However, a study made by Endalew, (2010) on the impact of supply chain management practices on competitive positioning of Ethiopian Textile firms figured out as strategic supplier partnership, customer relationship and information sharing were not influential in increasing competitive positioning of firms. This different result of the researcher may show as these independent variables may have varying results in different industries/businesses on the performance of an organization.

Similarly, as Hines (2004) mentioned, for commodity products, it is common to find an adversarial relationship mainly based on price between buyer and supplier. This type of relationship with suppliers does not allow for cost reduction in the supply chain. It may be beneficial to network the supplier, to develop partnerships and alliances that will benefit both partners. This could be based on production, personal, and or symbolic networking, that will turn on strategic alliances (Hines, 2004), allowing the information sharing, risk sharing,

obtaining mutual benefits and coordinating plans, permitting the improvement of the supply chain.

Moreover, strategic supplier partnership (itself) can improve supplier performance, reduce time to market, and increase the level of customer responsiveness and satisfaction (Li, Ragu-Nathanb, Ragu-Nathanb, and Rao, 2004).

2.5.2 Customer Relationship

Customer relations is 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).

Toni and Nassimbeni (1999) identified that a long-term perspective between the buyer and supplier increase the intensity of firm-supplier integration. Firms that integrate with customers including: planning, implementing, and evaluating a successful relationship between the provider and recipient of both upstream and downstream of the supply chain. Therefore, customer relationship management (CRM) is not only focused on inbound customer relationships but also on outbound customer relationships in SCM.

In the competitive business, better relationship management with customers is crucial for organization success (Wines, 1996). Good relationship with business partners, including key customers are important role to success of supply chain management practiced by organization (Moberg et al, 2002; Tathee, 2007). As pointed out by Day (2000), devoted relationships are the most sustainable advantage because of their essential barriers to competition. Focusing and maintaining the customer relationship will enable the organizations to be more responsive towards customers' needs and will result creating greater customer loyalty, repeat purchase and willing to pay premium prices for high quality product (Carr and Pearson, 1999).

As discussed in Niknia (2007), the main customer relationship goals are identifying new business opportunities, reduce missed opportunities, reducing customer defection, creating customer loyalty, improve customer service, improve organization appearance, reduce costs, and increase revenue. Most researchers consider customer relationship management as an importantcomponent of supply chain management practices. As pointed out by Day et al (2006),committed relationships are the most sustainable advantages because of their

inherentbarriers to competition since changes in technology and globalization of products andservices have resulted in more dynamic markets and greater uncertainty in customerdemands. Customers have greater access to new products that are emerging at a fasterpace (Cheung et al.,2010).

A firm's customer relationship practices can generate the organizational success in supply chain management practices efforts as well as its performance (Scott and Westbrook, 1991; Ellram, 1991; Turner, 1993).

2.5.3 Level of Information Sharing

Simatupang and Sridharan, (2002) defined information sharing as the access to private data between business partners thus enabling them to monitor the progress of products and orders as they pass through various processes in the supply chain. They identified some of element that comprise information sharing, consisting data acquisition, processing, storage, presentation, retrieval, and broadcasting of demand and forecast data, inventory status and location, order status, cost-related data, and performance status. They also add that information sharing pertaining to key performance metric and process data improves the supply chain visibility thus enabling effective decision making. Information shared in a supply chain is of use only if it is relevant, accurate, timely, and reliable (Simatupang and Sridharan, 2005;Tathee, 2007). Information sharing with business partners enables organizations making better decisions and making action on the basis of greater visibility (Davenport, et al, 2001; Tathee, 2007). Lumnus and Vokurka (1999, cited in Thatte, 2007) stated that in order to make the supply chain competitive, a necessary first step is to acquire a clear understanding of supply chain concepts and be willing to openly share information with supply chain partners.

According to Li et al (2005), shared information can vary from strategic to tactical in nature and could pertain to logistics, customer orders, forecasts, schedules, markets or more. Some of the elements that comprise information sharing include data acquisition, processing, storage, presentation, retrieval and broadcasting of demands and forecasting data, inventory status and locations, order status, cost related data, and performance status. Through information sharing the demand forecasting information flows upstream from the point of sales, while product availability information flows downstream in a systematic manner that can reduce the bullwhip effect and business risk.

Information sharing is an important aspect in achieving seamless integration in a supply chain (Lee, 2000). Cross functional integration and inter organizational integration require the

visibility of information across the supply chain. Weak information sharing between partners in a supply chain will result in poor coordination that will lead to many serious problems such as high inventory levels, inaccurate forecast, low utilization, and high production costs (Lee and Whang, 2000). Indeed, information sharing is highly considered as the way to reduce demand uncertainty (Lee, 2002).

2.5.4 Level of Information Quality

Information quality includes such aspects as the accuracy, timeliness, adequacy, and credibility of information exchanged (Monczka*et al*., 1998).It appears that there is a built inreluctance within organizations to give away more than minimal information (Berry etal.1994) since information disclosure is perceived as a loss of power. Given thesepredispositions, ensuring the quality of the shared information becomes a critical aspectof effective SCM (Feldmann and Muller, 2003).Based on Li *et al.* (2005), organization needs to review their information as a strategicasset and ensure that the information flows with minimum delay and distortion. Inaddition, Li *et al.* (2005) also notes that information shared must be accurate so that thebest SCM solution will be obtain. Effective use of relevant and timely information by allthe functional elements in the supply chain is considered as a competitive factor anddistinctive (Ahmadi, 2005).

The two closely related concepts, information sharing and information quality, contribute positively to customer satisfaction and partnership quality (Li, Ragu-Nathanb, Ragu-Nathanb, and Rao, 2004).

2.5.5 Organizational Performance

Organizational performance is defined as how a company achieving their market goals, and also its overall goals (Yamin, Gunasekruan, &Mavondo, 1999). Increase productivity by using lower cost on inventory management are the short term goals of supply chain management long term goals of supply chain are enhance profit (Tan, Kannan, &Hand field, supply chain management: Supplier performance and firm performance, 1998). Competitive advantage is also value a company provides to their customer which is other company enable to provide same value. Capabilities of company may give competitive advantage over the competitors (McGinnis &Vallopra, 1999; Porter, 1985).

Many studies have selected a combination of pertinent operational andfinancial measures to reflect overall organizational performance. For instance, Vereeckeand Muylle (2006) used

factor analysis to extract five components of performancerelated to delivery, cost, flexibility, procurement and quality.

According to Li et.al (2006), effective supply chain management has become a potentially valuable way of securing competitive advantage and improving organizational performance since competition is no longer between organizations , but among supply chains. Thus, it is not enough to improve efficiencies within an organization, but their whole supply chain has to be made competitive and the understanding and practicing of SCM becoming an essential prerequisite for staying competitive in the global race and for enhancing profitability (Moberg et al., 2002 and Tan et al., 2002).

Tracey *et al.,* (2005) measure performance through four separate dimensions including perceived value, customer loyalty, market performance and financial performance. Similarly, Tan *et al*., (2002) used six items for performance including product quality, customer service, competitive position, market share, average selling price and return on assets. Chen and Paulraj (2004a, b) used supplier performance and buyer performance to assess the financial performance of the buying firm. Vickery *et al.,* (2003) used customer service performance followed by financial performance as the performance constructs. Jin (2006) also assessed operational supply chain role performance via three levels of performance criteria: strategic, operational and financial.

Financial metrics have served as a tool for comparing organizations and evaluating an organization's behaviour over time (Holmberg, 2000). Anyorganizational initiative, including supply chain management, should ultimately lead to enhanced organizational performance. A number of prior studies have measured organizational performance using both financial and market criteria, including return on investment (ROI), market share, profit margin on sales, the growth of ROI, the growth of sales, the growth of market share, and overall competitive position (Vickery et al.,1999; Stock *et al.,* 2000; and Li *et al.,* 2006).

Market share, return on investment, the growth of market share, the growth of sales, growth in return on investment, profit margin on sales and overall competitive position are adapted as organizational performance measures in this study.

2.6 Empirical literature review

Mbuthia&Rotich, G. (2014), conducted a study on the impact of effects of supply chain management practices on competitive advantage in retail chain stores in Kenya. The study took four major pillar of supply chain management, these are; customer relationship, information sharing, postponement and strategic supplier partnership. The study was focused

on evaluating the dynamics between SCM and the company competitive advantage on Nakumatt Holding Limited. To conduct the study, the research used case study design, in this regard; the total population of the study was around 968 employees. The study used stratified random sampling technique, and took 10% of the entire population. As a result 100 respondents were taken for the study. To collect the information, questionnaire were used coupled with pilot study to verify the validity of the data. The analysis of the study was made using descriptive statistics. The study result indicate that out of the four alternative SCM programs only customer relationship and strategic supplier partnership considerably affect the company's competitive advantage. And it deduces that other factors are also responsible for the competitive advantages which are not captured by the model.

Kimechwa (2015) investigated Supply Chain Management practices on the performance of Banks in Kenya. The study took four components of Supply chain management, these are: outsourcing of goods & services, strategic supplier partnership, and globalization, information & communication technology. The study used self administer questionnaire procedure. The questionnaire were managed through drop and pick later technique. Using simple stratified sampling a total sample size of 33 respondents was selected. The data was evaluated using Chi-square, T-test. The results from the study indicate that outsourcing could only be important in cased where the banks use appropriate methods. ICT was found to have considerable impact in enhancing the performance of banks in Kenya since they have huge impact in shaping the mode of payment and transaction. Similarly, Strategic partnership and globalization has also great impact in affecting the performance the bank industry Since both factors have considerable influence in bringing knowledge spillover effect and creating competitive advantage in the banking industry. The study finally recommends two points; first, outsourcing should only be used in situation where it is believed that it can underpin the banking system. Second, ICT should have to be implemented in appropriate place of the banking sector so as to enhance efficiency of the banking system.

Okello& Were. S. (2014), conducted a study on Influence of supply chain management practices on performance of the Nairobi Securities Exchange's listed, food manufacturing company. The study initially alleges that Nairobi food manufacturing are performing poorly. Consequently, they are exposed to fierce foreign compete ion from foreign countries. This was due to the poor supply chain management practice implemented by these companies so as to improve their system. The study put four objectives, these are; first to evaluate how product

development shape the performance of food manufacturing. Secondly, to assess how inventory management affects performance of food manufacturing. Thirdly, to evaluate how lead time affects the performance of food manufacturing and finally to estimate how technology affects the performance of food manufacturing in Nairobi Kenya. The study employed descriptive survey research. The study used six food manufacturing as a sample, out of which 90 respondents were randomly selected. The study used simple random sampling and to collect the data questionnaire were used as principal tool. Out of these, 79 responded and both quantitative and qualitative techniques were used to analyses the data. Moreover, additional regression inferences were used like Analysis of Variance (ANOVA). The study concludes that SCM in Nairobi food manufacturing need to address issues such as negotiating contracts with external suppliers, Electronic procurement procedures, establishing close relation with suppliers and continuous tracking over the physical. Thus, the study deduce that, inventory management, product development, lead time, and technology.

Ibrahim S.B & Hamid A.A (2014) launched a study focused on Supply Chain Management Practices and Supply Chain Performance Effectiveness. In this regard, the study evaluates the effects of different dimensions of supply chain management practices (SCMP) on supply chain performance effectiveness (SCPE) of Sudanese manufacturing companies. For this specific study, 150 firms Sudanese companies were selected. However, 110 respond the questionnaires properly.

To collect the data self-administrated survey questionnaires were sent to the aforementioned companies. Hence, the data were primarily collected through questionnaires sent to supply chain managers or top-level executives. The study used factor analysis and Reliability Analysis using Cronbach's alpha as a diagnostic measure, which assesses the consistency of entire scale. The study result indicates that the practices of supplier's management have a significant positive effect on supply chain performance effectiveness.

2.7 Evidence on questionnaire methodology (Agree, strongly disagree)

This study used questionnaire method which requires respondents to rate their felling according to the degree of impact of supply chain factors. To do this cardinals ranking is used to measure respondents assumed effect on organizational performance, the study denote 1 as strongly disagree and 5 to represent strongly agree. Based on the ranking, the study made multiple regression estimations.

This methodology is basically traced on other study papers conducted in different countries. Mustefa M. (2014) has conducted a study to evaluate Supply Chain Management Practices and Firm Performance in Case of Awash Tannery Plc. This study has used a questionnaire by which respondents are requested to rate according to numerical ranking. Hence, the study denote 1 = strongly disagree up until 5=strongly agree. The researcher used multiple regression analysis to evaluate the effect of supply chain factors on organizational performance. Moreover, the study made other statistical inference like ANOVA and Correlation matrix and other statically estimation to evaluate the effect.

In Addition, another Study Conducted By Mollel.A (2015) which evaluates the Impact of Supply Chain Management Practices On organizational Performance In Food Processing Firms Of Dar Es Salaam, Tanzania shows that the study has used cardinal ranking of rating to evaluate customers response. In this regard, the study used the following framework, 1= not at all, and 5 denote to a very great extent. Using this questionnaire framework, the researcher collected relevant data from respondents. Finally, the researcher has made multiple linear regression using statistical packages to evaluate the effect of supply chain on organizational performance.

Considering these literatures, this thesis has used cardinal rating of respondents answer to evaluate the effect of supply chain on shaping organizational performance of EABC-AIS.

2.8 Identified Literature gap

From literature review the paper evaluated both theoretical and empirical literatures that deal about the relationship between effective supply management on organizational performance. From literature assessment, the study identified major gaps that have not been well addressed in the previous studies. This is firstly, previously supply chain management and organization performance has been widely been studied focusing mainly on manufacturing firms (Sillanpaa, 2015). Hence, supplier and distributor firms like EABC-AIS didn't get much attention in relation to the role of supply chain management plays on organizational performance.

Secondly, as indicated by (Drzymalski, 2014) many studies on supply chain management considers organizational performance in its general sense, without considering its sub components. Hence, this study considers sub components of organizational performance to evaluate their specific individual effect against supply chain factors U.

2.9 Summary of Literature

- From theoretical literature perspective, the study has assesses numerous book and articles that discuss the relationship between supply chain and organizational performance. These literatures indicate that supply chain has multi dimensional spectrum in the operation of a company ranging from buying inputs, until delivery to the end customer. In light of these, it holds significant impact in shaping organizational performance of companies.
- From empirical literature we found out that several studies have been carried out in different countries to evaluate the impact of supply chain management factors in affecting organizational performance. In this regard, all studies found out that supply chain factors considerably affect organizational performance across all industries.

2.10 Conceptual framework of the study

Suhong, Ragu-Nathan andRao (2006) confirmed that any organizational initiative, including supply chain management, should ultimately lead to enhanced organizational performance. Related to this concept, the study initially selected and develops four dimensions of SCM practice (strategic supplier partnership, customer relationship, level of information sharing and quality of sharing and tests the relationships between these SCM practices and organizational performance.

The study intended to evaluate the effect of the existing supply chain management practice on organizational performance in terms of market share, return on investment, growth of sales, total profit and overall competitive position of the EIBS-AIS (a newly restructured large pubic, merchandising enterprise).

The study set a framework identifying the relationships among SCM practices (strategic supplier partnership, customer relationship, and information sharing & quality) as related to their effects on organizational performance.

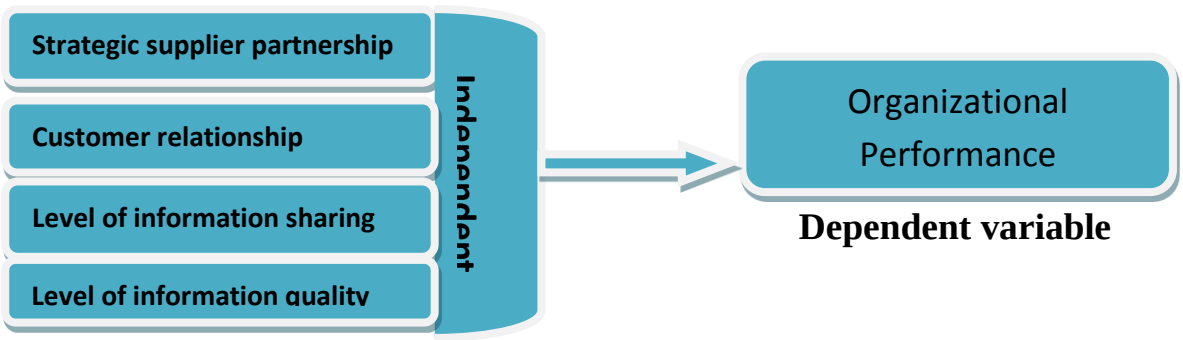


Figure 1: Conceptual Framework developed by the researcher

According to (Drzymalski, 2014), strategic supplier partnership, customer relationship, information sharing & quality has significant considerable impact in affecting organizational performance. Tracey *et al.,* (2005) indicated making strategic alliance with supplier firms can enhance organizational performance. Maintaining smoother customer relation has also a great leverage to boost organizational performance through attracting large number of customers and sales volume. Level of information and quality plays crucial role in amplifying organization performance. Companies that has timely, comprehensive and effective communication channel has better organizational performance than those other companies that has poor information flow and communication (Ibid)

2.11 Operational Definition

- Strategic supplier partnership:- The long-term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant on going benefits.
- Customer relationship:- 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.
- Level of information sharing: -The extent to which critical and proprietary information is communicated to one's supply chain partner.
- Quality of information sharing: - Refers to the accuracy, timeliness, adequacy, and credibility of information exchanged.
- Organizational performance: Organizational performance refers to how well an organization achieves its market-oriented goals as well as its financial goals.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 General Overview of the Study Area

The present EABS-AIS company was formed as a business organization in 1985. The organization as a government owned company has the purpose to purchase agricultural inputs from foreign and local markets to distribute at reasonable price to the farmers and commercial farms.

It is mainly engaged in importation and distribution of fertilizers, agro-chemicals and veterinary medicines. To achieve its purpose, the company is re-organized under Ethiopia Agricultural Business Corporation, which is formed by merging the previously five government owned companies namely Agricultural Input Supply Enterprise commonly called (AISCO), Agricultural Equipment and Technical Services Share Company (AETSSCO), Agricultural Mechanization Enterprise (AMS), Ethiopian Seed Enterprise (ESE) and Natural Gum and Marketing Enterprise (NGME). The corporation is established by Ministry of council proclamation number 368/2015 on 22 December 2015 with capital of Birr 2.4 billion (EABC, 2015).

3.2 Research Approach

The research approach that implemented for this study was largely quantitative research since it was concerned with variables related organizational performance which can be measured. . I order to supplement the data that was obtained from staff respondents from the four related departments, interview sessions were also made with the CEO and Procurement Head of the case company. So the paper has used mixed approach to gather the data.

According to (Malhortra and Peterson 2006) the quantitative approach usually involves collecting and converting data into numerical form so that statistical calculations can be made and conclusions drawn. The quantitative approach is especially useful for addressing specific questions about relatively well-defined phenomena (Ibid). It is often provides stronger empirical evidence than other research approaches (Carvalho 1984). Moreover, interview method has also relative advantage in identifying facts that needs closer look among the respondents (Bryman and Bell 2007). In this regard, it will be essential to find the hidden roles of supply chain factors in shipping organizational performance that are not explicitly stated in the questionnaire.

Therefore the researcher employed the mixed research approach in order to assess the effect of supply chain management on the performance of EABC-AIS.

3.3 Research Design

Research design has considerable importance in crafting and shaping the intended purpose of the research, this wills profoundly help the researcher to solicit and obtain the information that is required (Burns & Grove 2001). This study is an applied research which follows a regression research approach in order to address the aforementioned objectives. It is conducted on one selected area fertilizer importer company, EABC-AIS, in Addis Ababa, Ethiopia. In addition the study is also said to be associational in design because there is the intent to establish the relationship between dependent and independent variable of the study. The researcher selected the sample63 from the target population by using stratified sampling technique.

Correlational research aims to ascertain if there is a significant association between two variables (Reid, 1987). Hence, after the data were collected, the researcher analyzed the data by using correlation, particularly Durbin- Watson coefficient of correlation, and the multiple linear regression analysis technique to show the effect of independent variables on the dependent variable.

3.4 Unit of analysis

The units of analysis which were incorporated for this study are representative employees who were randomly selected using stratified random sampling technique from four relevant departments of the Ethiopian Agricultural Business Corporation (EABC)-AIS.

3.5 Variables of the study

3.5.1 The dependent variable

The dependent variable for the present study is organizational performance of EABC-AIS. This can be explained by the company's ability in terms of expanding market share, increasing Return on investment & sales, and profit margin on sales.

3.5.2 The Independent variables

The independent variables which incorporated in this study are: firstly, Strategic supplier partnership: this primarily contains the companies ability in making strategic partnership with companies, using criterion in selecting the suppliers providing information to the suppliers, involving key suppliers in the planning processes. Secondly, Customer relationship: this

contains frequent interaction with our customers, measuring and evaluating customer satisfaction, and determining the future customer expectations. Thirdly, Level of information sharing: this contains regularly inform trading partners of changing needs, sharing continuously proprietary information, sharing business knowledge of main business processes with trading partner. Lastly, Level of information quality: this contains timely exchange of Information, accurate information exchange between our trading partners, complete and adequate information exchange between trading partners.

3.6 Population and sample of the study

3.6.1 Population of the study

Polit and Hungler (1999) refer to the population (target population) as an aggregate of totality of all the objects; subjects of members that conform to as set of specification. The population for this study is employees of four relevant departments of the Ethiopian Agricultural Business Corporation (EABC)-AIS, which are Procurement Department, Finance Department, Marketing & Sales Department and Resource Management Department, which are located in Addis Ababa. Total number of employees of the case company is 375.

3.6.2 Sampling Design of the study

A sample is a subset of a population selected to participate in the study, it is a fraction of the whole, selected to participate in the research project (Brink 1996; Polit and Hungler; 1999). The sample size determination and the sampling techniques used in this thesis are described below.

a) Sample size determination

Appropriate sample size depends on various factors relating to the subject under investigation like: time, cost, degree of accuracy, the precision of the population, etc.

In order to pull out appropriate respondents for the study, this case study adopts sample size determination method as supported by Carvalho (1984) which is based on Table values as depicted below.

Table 1: Carvalho's Sample Size Determination

Population size	Small	Medium	Large
51-90	5	13	20
91-150	8	20	32
151-280	13	32	50
281-500*	20	50	80
501-1200	32	80	125
1201-3200	50	125	200
3201-10,000	80	200	315
10,001-35,000	125	315	500
35,001-150,000	200	500	800
***** Population of the case organization range			

Source: Carvalho J., (1984) 'Archival application of mathematical sampling techniques', *Records management quarterly*, 18(63).

The study employed this clustered sampling method. Thus, from the total population of 375, 70 questioners were distributed four each departments by using stratified random sampling method, from that it was possible to secure data from sixty-three 63 employees which is 90% of the questioners were responded, according to Carvalho's sample size determination the collected ranged on the 'medium'. In selecting each subject, however, the researcher had to take chance of availability of respondents.

b) Sampling Techniques

Even though supply chain management is necessary for both manufacturing and service companies, this study targeted on the Ethiopian Agricultural Business Corporation-Agricultural Input Supply (EABC)-AIS, which was practically, service oriented input intermediary company. Furthermore, the sampling units taken from company's management and employees on the basis of stratified random sampling technique. Purposive sampling is used to interview managers who are directly related to the topic under investigation.

3.7 Data source and types

The study collects primary data from employees of EABS-AIS headquarter office. The study took primary data in the form of questionnaire tool and interview to collect the necessary data. In addition, the study also reviewed some published documents provided by the company. This also helped the study to get some background information about the company.

3.8 Data Analysis Techniques

This study was conducted to evaluate the effect of supply chain management on organizational performance of a newly restructured large pubic enterprise, EABC-AIS. The study used closed-ended questionnaire to evaluate the effect. Both descriptive and inferential statistical techniques were used to analyze the empirical data. The data is analyzed using SPSS version 20. The data is analyzed with bar charts, and tables. ANOVA was also used to check on the existence of variations on the responses of subjects who were pooled from the four relevant departments of the company. In addition,Multiple Regression estimation was used to measure the relative strength of independent variables on dependent variable. The regression equation is:

OP=F(SSP+CR+LIS+LIQ)

Where, OP = Organizational Performance

SSP= Strategic Supplier Partnership

CR = Customer Relationship

LIS = Level of Information Sharing

LIQ= Level of Information Quality

3.9 Validity and Reliability

Validity calculates the extent to which the responses from the respondents reflect the same attributes. The questionnaires were validated before inauguration of data collection. Preliminary questionnaires were issued to 63 respondents to identify any difficulties that may affect the respondent's feedback. The validation exercise was aimed at identifying the unreliable questions, and to check its result.

Reliability: It is the degree to which an instrument measures the same way each time it is used under the same conditions with the same subjects. To make sure that the data collection methods were error free and to minimize the instruments' biases the researcher, when collecting the questionnaires, has tried to make sure that it is the respondents who have completed the questionnaires through having an informal conversation whenever possible.

Hence the researcher obtained reliability result which is calculated from SPSS, a cronbach's alpha of 0.892, which indicates a high level of internal consistency for our scale with this specific sample.

. **Reliability Statistics**

Cronbach's Alpha	N of Items
.892	5

The **Item-Total Statistics** table presents the "**Cronbach's Alpha if Item Deleted**" in the final column, as shown below. This column presents the value that Cronbach's alpha would be if that particular item was deleted from the scale. We can see that removal of any item would result in a lower Cronbach's alpha. Therefore, we would not want to remove these items.

Table 2 Reliability Test

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
strategic supplier partnership	22.3667	10.208	.670	.870
Customer relationship	21.8000	13.291	.574	.868
level of information sharing	21.8833	12.473	.645	.856
level of information quality	22.7167	12.937	.696	.853
Organizational Performance	22.1333	12.052	.926	.825

Source: Own computation using SPSS version 20 software

3.10 Normality Test

According to Bagozzi and Yi (1998), one of the first things that should be done in the evaluation of structural model is assessment of the adequacy of input data and statistical assumption underlying any estimation methods used in analysis. The estimation of parameters requires continuous data with normal distribution. A common test for normality is to run descriptive statistics to get skewness and kurtosis. According to (Hair, et al., 1998) skewness and kurtosis should be within the range of +2 to -2 when the data are normally distributed.

PauravShukla (2009) stated that skewness and kurtosis test, and the low difference between mean and median is the basic way to check the normality of the data. Accordingly positive skewness values suggest clustering of data on the low value (left hand side of the bell curve) and negative skewness values suggest that clustering of data points on the high values (right hand side of the bell curve). Positive kurtosis values suggest that the data points gathered in center with long thin tails. Kurtosis values below zero suggest the distribution of data point is relatively flat. (Shukla, 2009)

Normality analysis for 5 variables was conducted with SPSS 20. As a result, the skewness and kurtosis of all the 5 variables in the study were found within the range of +2 to -2. Therefore the input data are normally distributed.

Table 3 Normality Test

Constructs	Skewness	Kurtosis
Strategic Supplier Partnership	-0.428	0.818
Customer relationship	-0.145	-0.316
Level of information sharing	-0.349	0.630
Level of information Quality	-0.944	1.532
Organizational performance	-0.359	-0.123

Source: Own computation using SPSS version 20 software

3.11 Multicollinearity test:

Multicollinearity refers to the situation where explanatory variables are highly inter-correlated meaning that one can be linearly predicted from the others with a substantial degree of accuracy. We can detect multicollinearity problem through variance inflation factor. And also we can solve the problem of multicollinearity through transformation if there is happen (Gujirati, 1999).

Table 4: tests for multicollinearity problem

Variable	SSP	CR	LIS	LIQ	
VIF	2.50	1.96	1.20	1.49	Mean of VIF =1.79

Source: Own computation using SPSS version 20 software

From the table we can infer that since the mean inflation factor (1.79) is less than five, the model has no multicolliniarity problem.

3.12 Ethical consideration

Before the commencement of the study, ethical clearance obtained from Addis Ababa University. During data collection, study participants asked for consent and signed written agreements on consent forms. They were informed to interrupt the interview on desire. They given any information they need, verbally and in writing. Participation is also voluntarily and they can withdraw from the study at any time without explanation and without penalty. The anonymity of each participant is assured unless they need assistance in filling out the questionnaire. In such cases, confidentiality were assured and names were not used, instead codes (numbers) were assigned to depict the results and the questionnaires were kept locked or no personal details recorded related to the study.

CHAPTER FOUR
DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This part of the paper discusses the empirical results that were obtained mainly from subjects who responded to the questionnaire. Interview with CEO and Procurement Head of the case company are also complement the quantitative analysis. Based on the relevant of the quantitative discussion, the interview results that were obtained from the two officials will supplement the questionnaire data.

4.2 Demographic Profile of the Respondents

Overview of the demographic profile of the respondents is presented below

Table 5 : Demographic profile of respondent

Item		Count	Column N %
Broad area of specialization	Business Field	42	68.9%
	Science	2	3.3%
	Engineering	2	3.3%
	Information Science	15	24.6%
Education (Completed or Under Study)	Diploma	8	13.1%
	First Degree	50	82.0%
	Second Degree (MA or MSc)	3	4.9%
Years of service in the organization	Under 2 Years	1	1.7%
	2 to 5 Years	20	33.3%
	6 to 10 Years	18	30.0%
	Over 10 Years	21	35.0%
Department/work unit	Procurement	13	21.3%
	Finance	16	26.2%
	Marketing & Sales	20	32.8%
	Resource Management	12	19.7%

Source: Own computation using SPSS version 20 software

As shown in the above table, the respondents were asked about the age group they belong to and reported as follows. Out of 63 respondents who were included in the study, only 1

respondent (representing 1.6%) served the company below 2 years, while 20 (representing 31.7%) had 2 to 5 years of experience. The number of respondents whose experience were between 6 to 10 years, inclusive, were 18 (representing 28.6%), while those respondents who served the company more than 10 years were 21 (representing 33.3%). More than half of the subjects who responded the questionnaires have worked for more than six years. Therefore, respondents could give their comments and make comparisons regarding factors that affect effectiveness of SCM.

4.3 Summary Statistics and ANOVA

The following table explains descriptive statistics of the model variables. The study includes five variables. Out of these, four are independent and the rest one variable is dependent variables are included in the model.

Descriptive Statistics

Table 6: Summary statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Strategic supplier partnership	63	2.83	5.00	3.7741	.52297
Customer relationship	63	2.60	4.80	3.7937	.50454
Level of information sharing	63	2.00	4.20	3.4167	.47119
Level of information quality	63	2.00	5.00	3.5794	.69309
Organizational performance	63	2.67	5.00	3.8111	.44945
Valid N (listwise)	63				

Source: Own computation using SPSS version 20 software

From the above table we can see that, the study has a total observation (sample size) of 63. Out of the entire independent variables, level of information sharing and quality has got the minimum value in the data set, while strategic supplier partnership and organizational performance got the highest value in the data set. From the set of variables level of information quality has the highest standard deviation value while organizational performance has the lowest standard deviation in the data set.

The following table summarizes the estimated model. The table includes R-square value which explains the model power in explaining organizational performance and Durbin Watson estimation result.

Table 7: Model summary

Model Summary					
Model	R	R Square[b]	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.828[a]	. 686	.682	.46145	1.936
a. Predictors: Strategic supplier partnership, Customer relationship, Level of information sharing, Level of information quality.					
b. Dependent Variable: Organizational Performance.					

Source: Own computation using SPSS version 20 software

The above table shows summary of the model. In this regard, the model has R square value of 68%. This indicates that 68% percent of the variation in organizational performance of EAB-AIS is explained by explanatory variables (Strategic supplier partnership, Customer relationship, Level of information sharing, and Level of information quality). To check for serial correlation among the independent variables in classical linear model, the study used Durbin-Watson estimation. The result from Durbin Watson estimation shows that it is close to 1.93 which is less than 2. Hence, according to (Wooldridge, 2012) if Durbin-Watson estimation is less than 2, it indicates that the explanatory variables has less Serial Correlation among the explanatory variables and independent variables are exogenous. This helps the regression estimation not to make biased estimation based on spurious regression.

In addition, the study has made ANOVA analysis. The ANOVA table in multiple linear regressions gives as valuable information about the overall significance of the model.

Table 8 : ANOVA description

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	851.889	4	212.972	1000.178	.000[a]
	Residual	11.711	55	.213		
	Total	863.600[b]	59			
a. Predictors: Strategic supplier partnership, Customer relationship, Level of information sharing, Level of information quality.						
b. Dependent Variable: Organizational Performance						

Source: Own computation using SPSS version 20 software

From the table shown above p-value =0.000 <0.05, indicating that the null hypothesis (adding all the independent variables under investigation to the model has not significantly increased our ability to predict the dependent variable (Organizational Performance)) would be rejected. Based on ANOVA estimation result, all the explanatory variables are jointly significant since p-value is less than 0.005. As a result, all the explanatory variables included in the model can jointly explain variations in organizational performance at EABC-AIS.

4.4 Estimation Result

The following tables show estimation result of the study. The paper has used linear regression model. The regression is run using SPSS software package.

Table 9: Linear regression estimation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	Beta	Std. Error	Beta			Tolerance	VIF
Constant	2.066	.529	-	3.905	0.000	-	-
Strategic supplier partnership	.191	.080	.186	2.379	.021	.40	2.50
Customer relationship	.261	.063	.288	4.136	.000	.51	1.96
Level of information sharing	.219	.062	.194	3.567	.001	.83	1.20
Level of information quality	.350	.062	.343	5.641	.000	.67	1.49
a. Dependent Variable: Organizational Performance b. Linear Regression through the Origin							

Source: Own computation using SPSS version 20 software

The coefficients table shown above reveals the contribution of each independent variable to the multiple linear regression model and its statistical significance. The statistical significance of the test is found in the "Sig." column (p-value column). From these results we can see that strategic supplier partnership (p-value=0.021<0.05), customer relationship (p-value= 0.000<0.05), level of information sharing (p-value=0.001), and level of information quality (p-value= 0.000) add significant contribution to the model prediction (i.e, the variables, strategic supplier partnership, customer relationship, level of information sharing, and level of information quality had significant influence on organizational performance of EABC-AIS).

When we look at variance Inflation Factor (VIF) of the study all of them are less than 5. According to (Wooldridge, 2012), if the value of VIF < 5, the data among the explanatory

variables is considered to have low correlation among each other. The existence of high correlation among explanatory variables makes the regression estimation to be biased and the result tends to be spurious, this ultimately leads to make wrong conclusion. Therefore, in this study all the explanatory variables have VIF value of less than, this confirms that the data set is not correlated.

The coefficients of standardized estimation result indicate that, out of the four independent variables considered in the model, level of information quality has the highest beta coefficient, which is (.343), this confirms that it has higher level of sensitivity to affect EABC-AIS organizational performance. On the other hand, Strategic supplier partnership has relatively a lower beta coefficient value of (.186). This indicates that making Strategic partnership with suppliers has lower effect in changing organizational performance of EABC-AIC.

Similarly, customer relationship and level of information sharing has a beta coefficient value of (.288), and (.194) respectively. In this regard, both explanatory variables have considerable impact in affecting organizational performance of EABC-AIS.

4.5 Supply chain factors in the case of EABC-AIS (Source: Interview)

Based on the interview data collection, below are outlined the major issues and factors that affect the supply chain of the Company. The supply chain in the import of fertilizer is affected by different factors. The supply chain management factors with reference to EABC-AIS fertilizer import is assessed as follows.

Environmental factors: EABC-AIS supply chain is affected strongly by the environment for it deals with different stakeholders to run the business. It outsources different services namely quality inspection, clearing services and transportation.

Regarding government support, the company is given big support and priorities as it is a strategic importer of agricultural inputs, mainly fertilizer. The government gives priorities in getting foreign currency permit. Even the government interferes in transportation management, which actually results on its logistics. There is also a reduction in bank commission rate. At port of discharge the government gives priority for clearing and getting berth.

Talking about competition, the company has a competitive advantage in supplying agricultural inputs for present time**.** Even though it has stayed as the leading distributer of

chemical soil fertilizer, presently, EABC-AIS is facing serious competition on agrochemical veterinary medicine, and flower fertilizer businesses.

Information technology and supply chain communication: Information technology has a significant impact on the smoothes running of supply chain management of the company. EABC-AIS though it has not appropriate software tended to its business nature, it uses emails (internet in communicating with suppliers, Inspection Company clearing agent, but there is limitation in gathering relevant information from its branches and unions.

Besides, EABC-AIS scan the global market using internet and issues tenders floating on internet specifically to know suppliers' margins and select suppliers. The use of internet facilitates company's supply chain operation with suppliers and inspection clearing agents.

Electronic data interchange (EDI) is used for procurement (purchase orders, order status, and order following). EABC-AIS is limited in using internet communicate with its suppliers and stakeholders. Using other traditional communication tools make delays and leads to increase cost.

Import procedure of fertilizers (illustration for the international procurement): According to fertilizer procurement guideline, there are two committees one at EABC-AIS-EABC and the other in MOANR to be approved by state minster. Agricultural input supply receives the yearly demand of fertilizer to be imported from ministry of agriculture and natural resource (MOANR) that in turn collects from Regions. Collecting the annual need and specification of fertilizer EABC-AIS floats international bid that enable get reasonable price and good quality.

The winning suppliers made contract agreement with EABC-AIS EABC before the letter of credit is established. Once the contract is made between EABC-AIS-EABC and suppliers, EABC-AIS-EABC made other agreements with different stakeholders namely: transporters, Insurance company, Ethiopian shipping lines and logistics services Enterprise, Ethiopian conformity assessment Enterprise: commercial Bank of Ethiopia and regional Bureau, cooperative unions. To check the quality and quantity, EABC-AIS-EABC nominates inspection companies at port of loading and at port of discharge. This inspection company sends inspection report to EABC-AIS if the quality and quantity is as per requirement. This inspection report, together with the report of Ethiopian conformity of assessment enterprise, is used as a base to release payment to the suppliers.

Logistics: EABC-AIS have established a system and experience in managing the flow of goods through channels. At port of loading inspection is conducted and send samples to

Ethiopian conformity. There is also quality inspection at port of discharge. These enable EABC-AIS to get relatively better quality. In the supply of fertilizer different stakeholders play their role for the smooth operation of the logistics, maritime, insurance, transporters, banks and inspection companies involve in the logistics.

Transportation: As the fertilizer is imported from different counties and via different ports. For example the transportations fertilizers from Sudan port was affected during fasting season in Sudan. This usually leads to delay in delivering the fertilizer to farmers at the right time and place. Even the government interferes in transportation and logistics issues, which actually result in defects in its overall SCM.

CHAPTER FIVE

SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Summary of Major Findings

This study is intended to test if there is a relationship between SCM practices and organizational performance. Based on the results of the study the summary of major findings are as follows.

The study has a total observation (sample size) of 63. Strategic supplier partnership and organizational performance got the highest value in the data setand information quality has the highest standard deviation value while organizational performance has the lowest standard deviation in the data set. The model has R square value of 68%, this indicates that 68% percent of the variation in organizational performance of EAB-AIS is explained by explanatory variables. From the table F-test has p-value =0.000 <0.05, which indicates that all the explanatory variables included in the model are jointly significant since p-value is less than 0.005. From the above table strategic supplier partnership (p-value=0.021<0.05), customer relationship (p-value= 0.000<0.05), level of information sharing (p-value=0.001<0.05), and level of information quality (p-value= 0.000<0.05) ,this result shows all the independent variables are statistically significant, which means significant influence on organizational performance of EABC-AIS.

When we look at variance Inflation Factor (VIF) of the study variables all of them are less than 5, VIF measures the correlation among the independent variable .Out of the four independent variables level of information quality has the highest beta coefficient, which is (.343),this confirms that it has higher level of sensitivity to affect EABC-AIS organizational performance, strategic supplier partnership has relatively a lower beta coefficient value of (.186), this indicates that making Strategic partnership with suppliers has lower effect in changing organizational performance of EABC-AIS. Therefore, all the independent variables are found to have significant impact on organizational performance of EABC-AIS.

Interview Result

Interview result indicate that EABC-AIS activities are highly influenced by the surrounding environmental factors ,respondents confirmed among these: information technology, strategic partnership with government & customer , Transportation and Logistics has considerable effect in shaping organizational performance.

5.2 Conclusion

Finally, findings of this study, coupled with the relevant empirical study review and theories, conclusions were drawn, as put in this chapter.

Effective supply chain management (SCM) has become a potentially valuable way of securing competitive advantage through enhancing operational and improving organizational performances since competition is no longer between organizations, but among supply chains.

Suhong, Ragu-Nathan, Ragu-Nathan, and Rao (2006) confirmed that any organizational initiative, including supply chain management, should ultimately lead to enhanced organizational performance. Related to this concept, the study initially selected and develops four dimensions of SCM practice (strategic supplier partnership, customer relationship, level of information sharing, and quality of information sharing) and tests the relationships between these SCM practices and organizational performance.

EABC-AIS is engaged in importation and distribution of agricultural inputs material to local consumers. It is state owned and sole distributor of fertilizer across the country. In light of this, the company has wider supply chain system stretched from oversea factories to local peasants. Along this chain of activities, the company interacts with various governments' bodies, banks, factories, shipping companies, transistors, and consumers. Thus, the context of this merchandising agricultural input supplier case is unique. This may result company-specific results to the constructs, too.

Considering the above fact, this study paper is inspired to evaluate the effects EABC-AIS's supply chain activities on its organizational performance. Thus, the study, mainly using questionnaire, empirically tested the framework identifying the relationships among SCM practices (strategic supplier partnership, customer relationship, information sharing & quality) as related to their effects on the company's organizational performance.

This study was conducted to evaluate the effect of supply chain management on organizational performance of a newly restructured large pubic enterprise, EABC-AIS. The study used closed-ended questionnaire to evaluate the effect. The collected questionnaire analyzed using SPSS software package. Multiple regression estimation was conducted to assess the effects of all independent variables unilateral impact on the dependent variable which is organizational performance. In addition, the data is analyzed with bar charts, and tables. ANOVA was also used to check on the existence of variations on the responses of subjects who were pooled from the four relevant departments of the company.

- The study intended to evaluate the effect of the existing supply chain management practice on organizational performance in terms of market share, return on investment, growth of sales, total profit and overall competitive position of the EIBS-AIS. Related to this objective, thus, constants/independent factors like strategic supplier partnership, customer relationship, information sharing, and information quality were used to measure their effects or impacts on organizational performance of the Company.
- The present EIBS-AIS company is a public merchandising enterprise, which is mainly restructured to purchase agricultural inputs from foreign and local markets and to distribute at reasonable price to the farmers and commercial farms. In some instances, it also assembles agricultural machines.
- From the total population of 375, it was possible to secure data from sixty-three (63) employees, which is representative of the population.
- To see the effect of supply chain factors on organizational performance, the study has used multiple linear regressions. The estimation result indicated that all the four supply chain factors (strategic supplier partnership, customer relationship, information sharing, and information quality) have significant effect in affecting EABC-AIS organizational performance.
- The company has been engaged in importing agricultural input for more than four decades, hence it has established good strategic partnership with suppliers and influential stakeholders (source: Interview). Similarly, data obtained from questionnaires also indicated strategic partnership considerably affect organizational performance
- From estimation result it shows that, customer relationship has a positive and significant influence on organizational performance. Interview result also indicated that maintaining long term customer relationship has helped to enhance the company performance over the last two decades.
- The estimation result indicated that level of information quality has the largest coefficient of impact in affecting organizational performance of EABC-AIS. This has also been supported by interview from respondents at EABC-AIS. Most of the respondents ascertain that, the company has been engaged widely on availing information that is timely, complete, and adequate to its trading partners.

- Strategic supplier partnership at EABC-AIS has also significant impact in affecting organizational performance. However, the degree of impact on organizational performance is relatively lower compared with other factors.
- Another supply chain factor which is level of information sharing has considerable degree of impact in shaping organization performance. This is ascertained by the company's ability in providing regular information with its trading partners. This has helped the company to enhance its organizational performance.
- The overall result from the study indicates that effective supply chain management has tremendous effect on the organizational performance of EABC-AIS. All of the supply chain factors considered in this model is found to have statistically significant impact on the organizational performance of EABC-AIS. However, the degree of impact is not however similar to all supply chain factors considered in the model. level of information quality found to have highly responsive in affecting organizational performance. While Strategic supplier partnership has relatively lower impact in affecting organizational performance.

5.3 Recommendations

Considering the context of the case organization, review literature, findings/conclusions of the study and proof of tested practices, the following recommendation can be provided.

1. This thesis has addressed at least four SCM factors which may have direct and indirect impacts on the organizational performance of this case organization. Issues related to the SCM problems in this supplier firm include strategic supplier partnership, customer relationship, level of information sharing, and information quality, and the independent variable organizational performance. From proof of tested theories and practices, it is possible to indicate to the company to improve its supply chain planning and implementation particularly on issues of development of strategic supplier partnership and customer relationship. Choosing, making proper negotiation and follow up with important suppliers through: providing criteria for supplier selection, joint problem solving with suppliers, providing information to the suppliers for improving their products, involving key suppliers in the planning processes of the company and in the process of development new product will have tremendous impact on enhancing organizational structure of the company.

2. Because of a package of privileges and supports the company gets from the Government and its longer existence in this (agricultural input supply business), it could get a competitive advantage than any other business operating in the industry. But, it is clear that this competitive advantage will last for a limited period of time because of fast entrants in the industry. CEO of the company recognized this saying "Even though it has purchased the chemical fertilizer for more than four decades, it has not established strategic partnership neither with suppliers nor influential stakeholders". Procurement Head of the company also shared this statement saying the following "… the customers are not satisfied for there is no continuous supply of inputs at the right time. Hence, customers shifted to competitors as it was evident, especially, in the case of agro chemicals and veterinary medicine". A fast growing tool to enhance organization performance in today's business is forming strategic alliance with suppliers and customers. Thus, the company should act now to improve its SCM through closer discussion, information sharing, customer-supplier trust and mutual understanding in order to smooth out and improve its supply chain for lasting relationship and organizational performance.

3. As perceived and responded by 63 staffs who were pooled from the four relevant departments (Procurement, Marketing & Sales, Finance and Resource Management), not all the mentioned four constructs have equal impacts (magnitude) on the SCM and organizational performance of the EABC-AIS. Despite this fact, it was possible to learn that the management of the company recognized the need to give special focus on all of the SCM factors constructed for the study. Therefore, there will be possibility to improve the problems of SCM in this case company. However, since it was possible to observe differences between the responses of questionnaire respondents and executives in not a few number of SCM issues, this issue need to be clarified to reach at a holistic understanding and solution among the key participants on the role of supply chain at least within the organization.

4. Information sharing with the organization's trading partners on issues of changing demands, proprietary issues, operations, business processes (including the supply chain), planning and goal setting and issues that affect the organization's partners will have effects on the supply chain management of the EABC-AIS. Thus, not only the company shall work on improving these issues but also give the necessary care to enhance the quality of information sharing on the supply chain with customers and trading partners and the internal client as well. Level of information quality which encompass; timely exchange of information, accurate information, complete and adequate information exchange with trading partners has to be considered in improving the information development activities of EABC-AIS. Similarly, strengthening relationship with customers via: having frequent interaction with customers, measuring and evaluating customer satisfaction, regularly determining the future customer expectations, and evaluating periodically the importance of the relationship have greater impact in affecting organizational performance of EABC-AIS.

5. Most communications the company makes on supply chain and logistics are with overseas suppliers. The management of the company frankly expressed the problems the company faces with respect to logistics and transportation because of internal deficiencies and external influences. Such obstacles are the major causes for delays and additional costs the company incurs frequently. Regarding supply chain planning and development of planning tools, the company shall update itself with state-of-the-art communication and supply chain planning tools such as materials requirement planning (MRP), manufacturing resources planning (MRPI), and Enterprise Resource planning (ERP) so that it can integrate the resource planning activities in the company's grand strategies,

related and other activities. This supply chain integration is also possible to integrate the supply chain activities with its strategic partners and customers. Except the already installed electronic data interchange tool, EABC-AIS has not yet installed these tools in its overall supply chain management. Thus, the company shall improve and modernize the already set supply chain guideline incorporating detail guidelines and policies on issues of strategic supplier relationship, customer relationship, effective supply-related information sharing.

6. Finally, the management of the company shall recognize and work in how the mentioned independent constructs shall bring a positive result on overall performance of the organization. Moreover, these improvement activity results will ultimately and in turn enhance operational performance of EABC-AIS.

5.4 Future Research Direction

This study was conducted largely using the quantitative research method, descriptive survey and correlation, mainly because of suitability of (i.e., need to get large number of respondents) for the study; and availability and preference of respondents, as well. The researcher believes that better result could have been obtained by conducting in-depth interviews with various decision makers related to supply chain management practices. Thus, it is important to acknowledge limitations of the present study that may provide opportunities for future research. This study was conducted mainly through the questionnaire survey. But the deeper insights can be obtained by conducting in-depth interviews with various decision makers who have close relations with supply chain partners. The study did not use secondary data to validate respondents' response. So, generalization of these results is limited. Therefore, the future studies can take these limitations into account.

Moreover, improving the framework of this study by additional constructs and scaling up the study into companies across similar industries with larger sample size may bring about better conclusions and contribute to theory development in the context of the industry and the facts of merchandising businesses in Ethiopia.

REFERENCES

Ahmdi,H.(2005): Supply Chain Management. Tehran, Iran Industrial Research Center.

Ashis, A.T. (2007): Competitive advantage of a firm through supply chain responsiveness and scm practices (Doctoral dissertation) Retrieved from Dissertations and Thesis database (toledo1176401773).

Brink, HIL.(1996):Fundaments of research methodology for health care professional Kenwyn: Juta.

Carr A.S. and Pearson J.N.,(1999): Strategically managed buyer-seller relationship and performance outcomes', Journal of Operations Management, 17(5):497-519.

Chen,I.J. and Paulraj,A.(2004): Towards a theory of supply chain management: the construct and measurements. Journal of Operations Management,22(20:19150

Cooper M.C. and Ellram L.M. (1993) : Characteristic of supply Cain management and the implications for purchasing and logistics strategy. International Journal of Logistics Management,4(2):13-24.

Davenport,T.H.,Harris, J.G.,De Long,D.W.,and Jacobson,A.L.(2001). Data to Knowledge to Results: Building and Analytic Capability. California Management Review, 43(2), pp.117-139.

Dawei Lu(2011). Fundamentals of supply chain Management. Venus Publishing.

Donald,W.,and Lininger.C.(1975). The Sample Survey: Theory and Practice. New York McGraw-Hill.

EABC(2016)Ethiopian Agricultural Business Corporation Annual Report.

Feldmann M,Muller S. (2003). An incentive scheme for true information providing in supply chains. OMEGA; 31(2):63-73.

George Maina Mbuthia &Gladys Rotich(2014). Effects of Supply Chain Management Practices on Competitive Advantage In Retail Chain Store In Kenya, A case Study of Nakumatt Holding Limited. European Journal of Business Management.Vol.2

Gibaldi,J.,MLA Handbook for Writers of Research Papers,5th ed.N.YK:MLA.

Gunasekaran,A.,Patel,C.and Tirtirogl,E.(2001). Performance measures and metrics in a supply chain environment. International Journal of Operational &production Management,21(1-2), p.71-87.

Hines T. Supply Chain Strategies.(2004). Burlington, MA: Elsevier Butterworth-Heinemann.

IIkka Sillanpaa(2010).Supply chain Performance: Measurement In The Manu-Factoring Industry Single: Case Study Research To Develop Supply Chain Performance Measurement Framework.

Jared Omondi Okello&Susan Were (2014). Influence of Supply chain Management Practice on Performance of The Nairobi Securities Exchange's Listed, Food Manufacturing companies In Nairobi. International Journal of social sciences and Entrepreneurship.

Julie Drzymalski (2012). Supply Chain Frameworks for the Service Industry: A Review of the Literature European International Journal of Science and Technology.

Lambert,D.M.,(2008). Supply chain management; process, partnerships, performance Supply Chain Management Institute: Sarasota FI.

Lalonde BJ.(1998). Building a supply chain relationship. Supply Chain Management Review .p.2, 7-8.

Lee,H.L.(2004). The Triple-A Supply Chain. Harvard Business Review, 82(10), pp.102-112

Lee and Whang(2000). Information sharing in a supply chain. International Journal of Technology management, vol.20, no, 3/4, pp 373-387.

Lee,H.L.(2002). Aligning supply chain strategy with product uncertainties. California Management Review, vol.44, no.3, pp105.

Leddy JJ,Kolowski k,Donnelly Jp,Pendergast DR,Epstein LH,WillerB.A(2010).Prelimiary study of sub symptom threshold exercise training for refractory post concussion syndrome. Clinical Journal of sport Medicine.

Li Suhong,Bhanu Ragu-Nathan,T.S.Ragu-Nathan,S.Subba Rao,(2006). The Impact of supply chain management practices on competitive advantage and organizational performance. Omega 34, International Journal of Management Science, 34: 107-124.

McGinnis,M.A.,&Vallopra,R.M.(1999). Purchasing and supplier involvement in process improvement: a source of competitive advantages.

Moberg CR.Cutler BD,Gross A, Speh TW.(2002). Identifying antecedents of information exchange within supply chains. International Journal of physical Distribution and Logistics Management, 32(9):755-70.

Monczka,R.M.Petersen,K.J.Handfield,R.B.&Ragatz,G.L.(1998).Success factors in strategic supplier alliances: the buying company perspective. Decistion Science,Vol.29,no.3,pp.5553-5577.

Noble D.(1997). Purchasing and supplier management as a future competitive advantage.Logistic Focus,5(5): 23-27.

Polit,D.F.,Hungler,B.P.(1999). Nursing research: Principles and Methods 6th ed. Philadelphia: J.B.Lippincott.

Rosenzweig Eve D,Aleda V.Roth,James W.Dean Jr.(2003). The influence of an integration strategy on competitive capabilities and business performance: An exploratory study of consumer products manufacturers. Journal of Operation Management,21(10):437-456.

Scott,C.and Westbrook,R.(1991). "New Strategic tools for Supply Chain Management". International Journal of Physical Distribution and Logistics,21(1),pp.23-33.

Sekaran,U.(2003). Research Methods for business (4th ed.).Hoboken,NJ:John Wiley&Sons.

Sichinsambwe,Chanda M.(2011). Effectiveness and efficiency of knowledge transfer in supplier development: key antecedents and buyer-supplier outcomes (Doctoral Dissertation) Retrieved from Dissertation and Thesis database (esu1315200802)

SiddigBalal Ibrahim&Abdesalam Adam Hamid(2014): Supply chain Management Practices and Supply Chain Performance Effectiveness.International Journal of Science and Research(IJSR).Volume 3 Issue 8.

Simatupang,T.M.and Sridharan,R.(2005). The Collaboration index: a measure for supply chain collaboration. International Journal of Physical Distribution and Logistics management,35(1),p.44-62.

Sunil Chopra& peter Meindl(2007). Supply Chain Management Strategy, Planning, and Operation, 3rd Edition. Prentice hall.

Tan,K.C.,Lyman,G.B.,&Wisner,J.D.(2002). Supply chain management: a strategic Perspective.

Tan ,K.C.,Lyman,S.B., & Wisner,J.D.(2002), supply chain management: a strategic perspective, International Journal of Operations and Production Management,Vol.22,No.6,pp.614-631.

Tan K.C.(1998) Supply chain management: Supplier performance and firm performance International Journal of Purchasing and Materials Management Vol.34 No.3 pp.2-9

Thatte,A.A. 2007.Competitive advantage of a firm through supply chain responsiveness and SCM practices. Doctoral Dissertation, University of Toledo,Toledo,OH.

Vincent kiprop kimechwa (2015), Impact of Supply chain Management Practices on the Performance of Banks in Kenya: A case of Post bank: International Journal of Computer Applications Technology and Research.

Wines L. (1996). High order strategy for manufacturing. The Journal of Business Strategy, 17(4):32-3

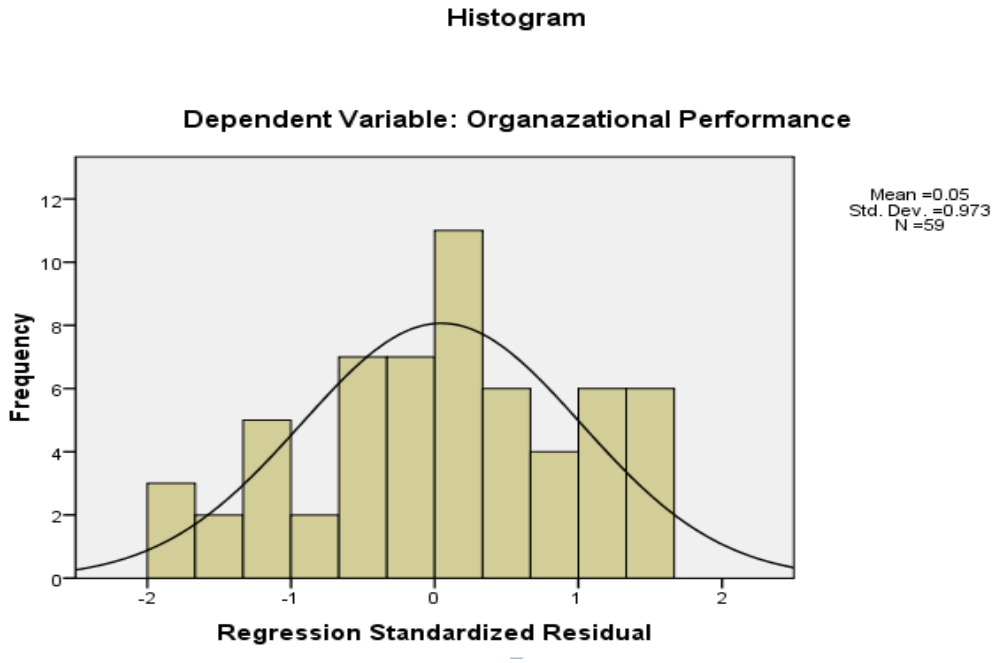
Yamin,S.,Gunasekruan,A.,& Mavondo,F.T.(1999).Relationship between generic strategy, competitive advantage and firm performance.

Zigiaris.,Sotiris(2000). Supply Chain Management, Report produced for the EC funded project, BPRHELLA, Publisher.

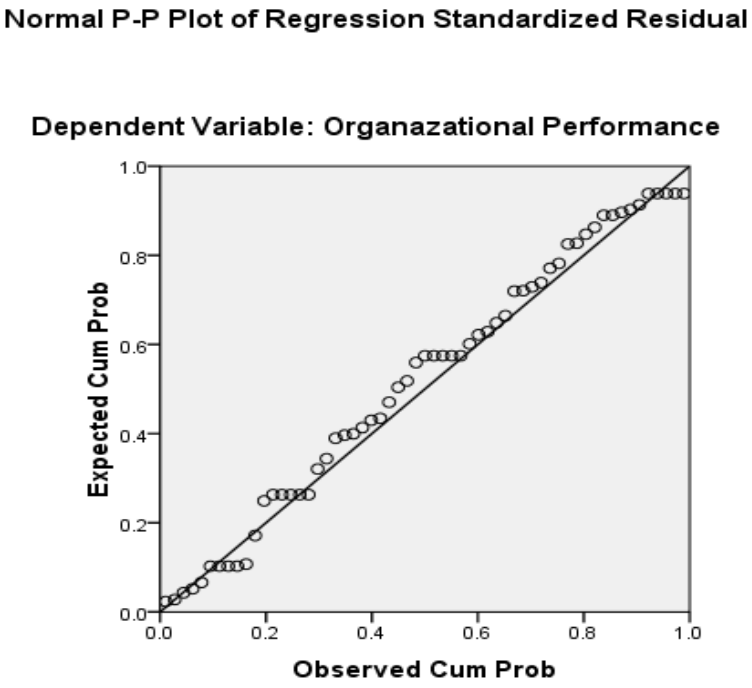
Zikmund,W.G.(2003). Business research methods,7th ed. Fort Worth: Dryden.

APPENDICES

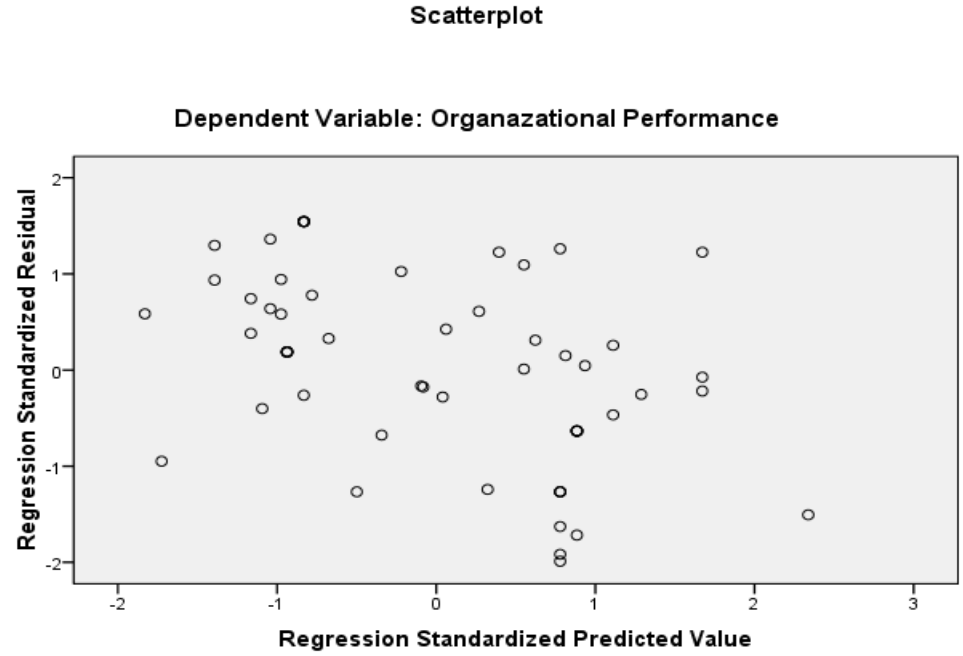
APPENDIX A



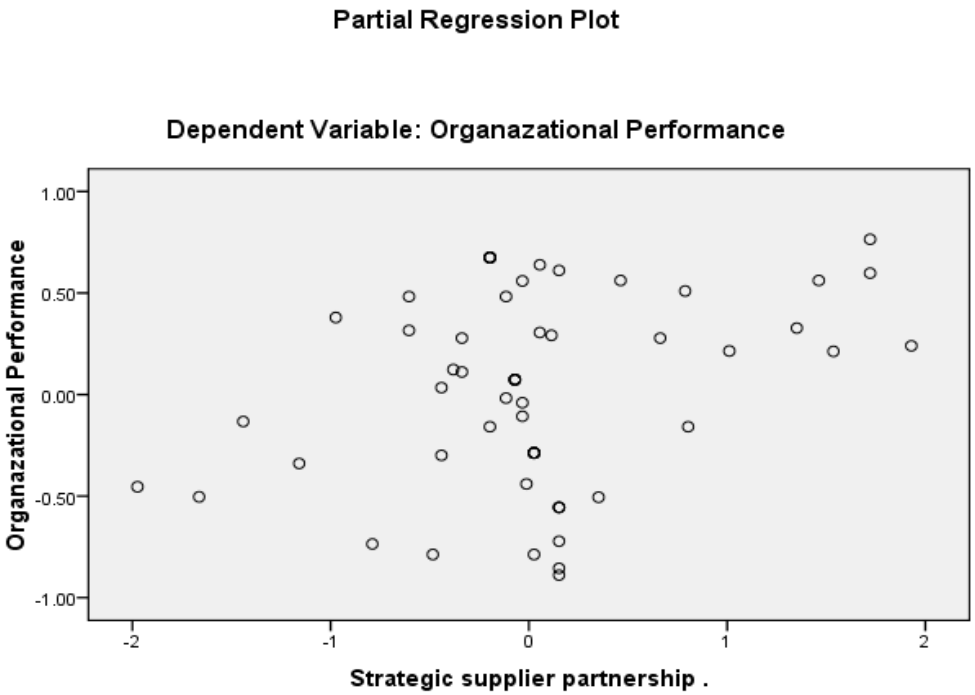
Appendix 1: Histogram for organizational performance



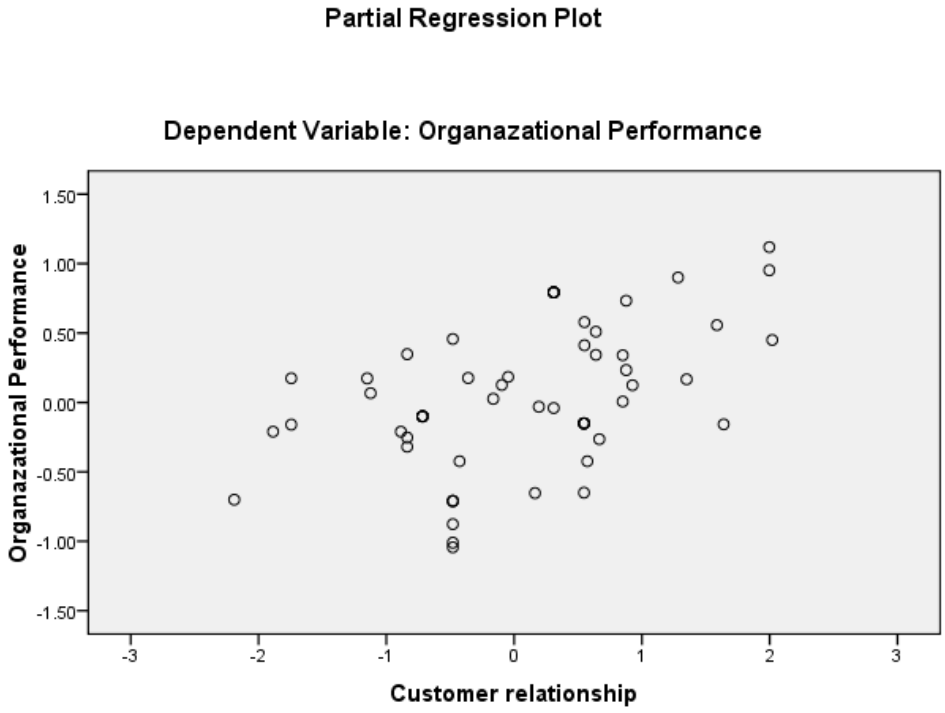
Appendix 2: Plot for regression standardized residual



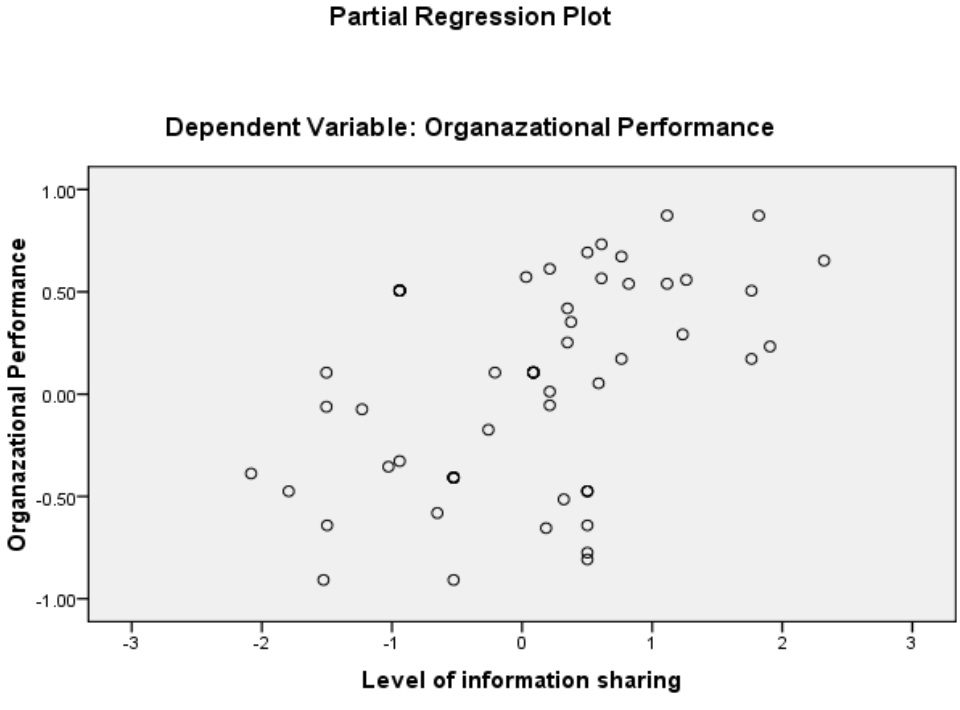
Appendix 3: Scatter plot for organizational performance



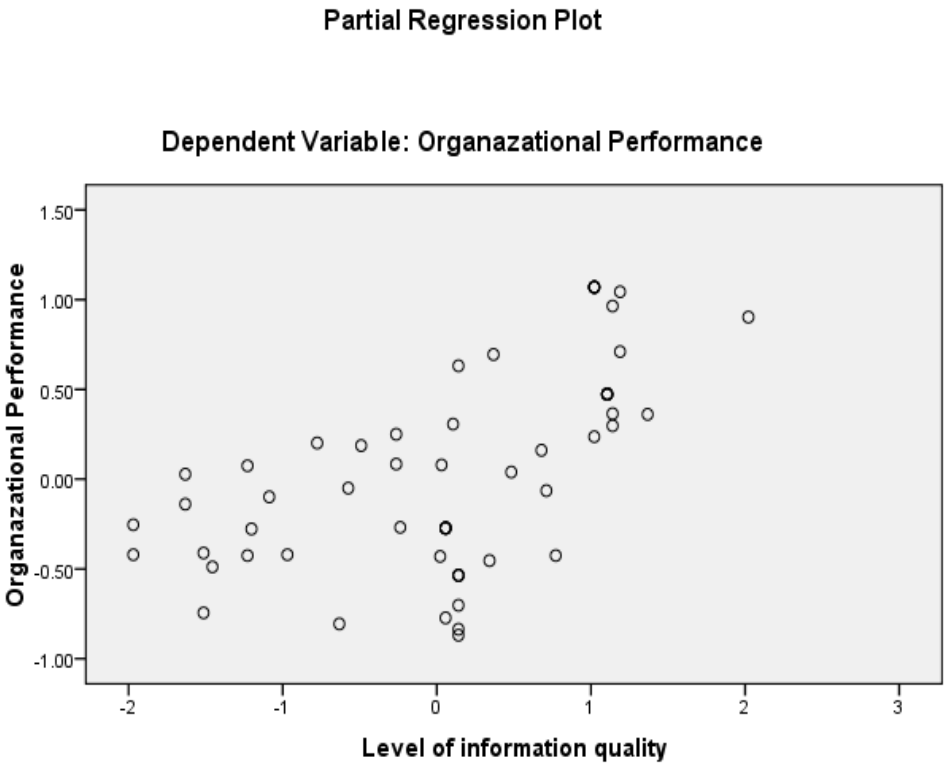
Appendix 4: Regression plot for strategic supplier partnership



Appendix 5: Regression plot for Customer Relationship



Appendix 6: Regression plot for level of information sharing



Appendix 7: Regression plot for level of information quality

Appendix B:

ADDIS ABABA UNIVERSITY
SCHOOL OF COMMERCE
OFFICE OF GRADUATE STUDIES
MA-LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Research Questionnaire:

This table is left blank for researcher's use only

Questionnaire Code				
Department				
Issuance Date				
Return date				

Dear Prospective Participant,

The survey you have received is interested in studying SCM practice on organizational performance.

By completing this survey, you agree that the information you provide may be used for research purposes.

General Instructions to Respond the Questionnaire:

Please carefully read the following notes for proper understanding of the items/questions of this data collection instrument.

Please recall that while the term 'organization' represents the industry you are working in; the term 'Corporation' represents Ethiopian Agricultural Business Corporation-AIC.

- The data obtained from this survey will be treated with the proper respect; the provided answers will be used anonymously!
- With regard to SCM practice and organizational performance of Ethiopian Agricultural Business Corporation, please circle the number that accurately reflects your firm's present conditions.

Should you require any further information, want feedback on the study or need to contact the researcher about any aspect of this study, please contact me using the following address—(LinaZewduArarso Mobile No. +251-911142138; Email linazewdu5@gmail.com; Postal Code 12270).

Thank you for scarifying your precious time in advance!

INTRODUCTION

Supply chain management is the sharing of responsibility and information across the entire industry from the supplier to the customers for the purpose of improving the long term performance and survival chances of the company.

PART I BACKGROUND INFORMATION

1. Please try to categorize your broad area of specialization and the corresponding education level below by circling on your choice.

2. Job title

CEO/President /Vice President ☐ Director ☐ Manager ☐

Other_____

3. years stayed at the organization:

Under 2 ☐ years 2–5 years ☐ 6–10 years ☐ over 10 years ☐

4. Your department/work unit _____

5. Sex_____

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

Section One: supply chain management practices

	I. **Strategic supplier partnership (SSP)**	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	We think quality is our best one criterion in selecting the suppliers.	1	2	3	4	5
2	We continuously solve problems by joint effort with the suppliers.	1	2	3	4	5
3	We have provided information to the suppliers for improving their products quality	1	2	3	4	5
4	We have made continuous focus on the improvement programs which is done in with the help of our main suppliers.	1	2	3	4	5
5	We involve our key suppliers in the planning processes and in goal-setting activities of our organization.	1	2	3	4	5
6	We regularly involve our main suppliers in the process of development new product.	1	2	3	4	5
	II. **Customer relationship (CR)**	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	We have frequent interaction with our customers to achieve reliability, the responsiveness, and improving some basic standards for our organization	1	2	3	4	5
2	We focus on measuring and evaluating customer satisfaction for our product	1	2	3	4	5
3	We are regularly determining the future customer expectations about our products.	1	2	3	4	5
4	We are facilitating our customers to get assistance about products from us.	1	2	3	4	5
5	We are evaluating periodically the importance of the relationship to our customers.	1	2	3	4	5
	III. **Level of information sharing (IS)**	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	We regularly inform to our trading partners before the changing needs and demand.	1	2	3	4	5
2	The trading partners of organization are sharing continuously proprietary information with us.	1	2	3	4	5
3	Our key trading partners make us informed about the issues which affect the operations of our business	1	2	3	4	5

4	Our key trading partners are sharing business knowledge of main business processes with us.	1	2	3	4	5
5	We with our key trading partners are exchanging information that helping us in the establishment of the business planning.	1	2	3	4	5
6	We and our trading partners keep each other informed about events or changes that may affect the other partners.	1	2	3	4	5
	IV. **Level of information quality (IQ)**	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	There is timely exchange of Information b/w us and our trading partners.	1	2	3	4	5
2	There is accurate information exchange b/w our trading partners.	1	2	3	4	5
3	There is complete information exchange b/w our trading partners.	1	2	3	4	5
4	There is adequate information exchange b/w our trading partners.	1	2	3	4	5
5	Information exchange between our trading partners and us is reliable.	1	2	3	4	5

Section two: Organizational performance indicators

		Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	Market share	1	2	3	4	5
2	Return on investment	1	2	3	4	5
3	The growth of sales	1	2	3	4	5
4	Growth in return on investment	1	2	3	4	5
5	Profit margin on sales	1	2	3	4	5
6	Overall competitive position	1	2	3	4	5

Please add any personal comments on the subject of supply chain management within your organization and how it can be improved in the future.

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Thank you very much!!

March 2017