ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

EFFECTS OF SUPPLY CHAIN MANAGEMENT STRATEGY ON ORGANIZATIONAL SALES PERFORMANCE; THE CASE OF EAST AFRICA BOTTLING S.C.

BY

KALKIDAN EBRAHIM

MAY, 2019

ADDIS ABABA, ETHIOPIA

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APPROVED BY BOARD OF EXAMINERS

Dean, Graduates Studies _____ Signature & Date _____

Advisor _____ Signature & Date_____

Internal Examiner _____ Signature & Date _____

External Examiner _____ Signature & Date _____

DECLARATION

I, Kalkidan Ebrahim hereby declare that this study entitled “Effects of Supply Chain Management Strategy on Organizational sales performance: The case of East Africa Bottling S.C.” is my own work. All information in this document has been obtained and presented in accordance with academic rules and ethical conduct.

Kalkidan Ebrahim	
Name	Signature
St. Mary’s University College, Addis Ababa	May 30/2019

ENDORSEMENT

This thesis, titled “Effects of Supply Chain Management Strategy on Organizational Sales Performance: The case of East Africa Bottling S.C. has been submitted to St‟ Mary University, School of Graduate Studies for MBA Program with my approval as a University advisor.

_____	_____	_____
Advisor	Signature	Date

St. Mary’s University College, Addis Ababa

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ACRONYMS

ANP- ANALYTICAL NETWORK PROCESS

ASC- AGILE SUPPLY CHAIN

GSCF- GLOBAL SUPPLY CHAIN FORUM

HSC- HYBRID SUPPLY CHAINS

ISS- INFORMATION SYSTEMS STRATEGY

LSC- LEAN SUPPLY CHAIN

SC- SUPPLY CHAIN

SCC - SUPPLY-CHAIN COUNCIL

SCM- SUPPLY CHAIN MANAGEMENT

SCOR -SUPPLY-CHAIN OPERATIONS REFERENCES

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ABSTRACT

The purpose of this study was to investigate the effects of supply chain management strategy on organizational sales performance the case of east Africa bottling S.C. Addis Ababa. The Data was collected through a structured questionnaire that was tailored with the help of literature and the questionnaire included 42 items, categorized into 2 parts, which are general information of respondents, general SCM Strategy, Supply chain performance and organizational performance. Survey was carried out at east Africa bottling S.C. Addis Ababa respondent employees. With the support of IBM SPSS statistics 20 software system: - Both explanatory and inferential, Regression and correlation are applied in order to come up with a better result. It examined variables such as SCM Strategy, Supply chain sales performance and organizational sales performance. The key findings from the study are; supply chain sales performance were reliability, responsiveness, flexibility, less production cost and have good asset management. SCM Strategy, Supply chain sales performance and organizational sales performance the company were practice supply chain management. Correlation between supply chain management strategy and supply chain sales performance were strong. And also moderate correlation between SCM strategy and organization sales performance. Whereas, researchers recommend that the current complex market organizations need to clear SCM Strategy enable the company to predict the future and to excel from the current sales performance. To assure coordinated management of activities as well as better efficiency of processes. Proper strategic supply chain framework can cope up with the changing market situations, customer demands and overcoming the various challenges. In order to foster organizational sales performance, it is also better for the organization to give due emphasis to Supply chain sales performance measures.

Keywords: Supply chain management, Supply Chain and Organizational sales performance,

CHAPTER ONE

INTRODUCTION

This chapter consists of the back ground of the study, the statement of the problem, objective of the study, the research questions, significance of the study, scope of the study, limitation of the study, definition of terms, and organization of the study.

1.1 Background of the Study

Due to the number of rival companies expanding both locally and globally, companies not only have to reestablish themselves to produce higher-quality products and services, to decrease wastes, and try to be able to respond to the market but also to handle their supply chain management efficiently. The goal of Supply Chain Management is to integrate both information and material flows seamlessly across the supply chain as an effective competitive weapon (Childhouse, 2003) The name is somewhat misleading as a supply chain is not a formal chain of businesses, but a network of businesses and relationships. The Global Supply Chain Forum consists of top executives of leading firms from a wide variety of industries, such as communications and technology, consumer packaged goods, fashion apparel, commodity merchandising, oil and petrochemicals, automotive manufacturing, athletic equipment, household plumbing and accessories, and consumer electronics. Member companies represent all possible locations across a supply chain: original suppliers, manufacturers of industrial products (business to business), manufacturers of consumer products, distributors, and retailers. Therefore, the views presented by the Global Supply Chain Forum represents combined knowledge and experiences from leading firms in the corresponding industry (Goldsby, et al, 2003).

Perhaps the most important wealth in new era is known as information age. To reduce response time and improve the flexibility, a completely new form of organization must be created. Nowadays, competition appears in various aspects such as the speed of product delivery or customer service, increase product quality and reduce the price of product or service. To this aim, organizations need to move faster in manufacturing, assembly, distribution and supply (Fathian et al, 2007). Since manufacturing companies to gain competitive advantage and

maintain its position need to supply chain, understanding the processes of supply chain can be useful (Lambert et al., 2005). Supply chain management and control procedures that can improve the organization, flexibility and the organizational units (Tsay and et al, 1999). A supply chain includes a series of three or more than three entities that directly upstream and downstream in the flow of goods, services, finance or information from a source to a customer (Mentzer, 2004). The Council of transportation management defined supply chain management as a systematic and strategic coordination of traditional business functions and tactics of tasks in a particular organization in order to improve long-term performance of individual organizations as well as the entire of supply chain (Lee et al., 2006).

Integration of key business processes from end user to suppliers of goods, services and information to customers and creating shareholder value (Lambert, 2005). A supply chain is not a chain of business activities for business-to-business communications, but a network of commercial activities and communications between them. Supply chain management creates opportunities to make a positive resonance in the integration and management within the company and between the companies. In this case, supply chain management is associated with the benefits of business processes and provides a new approach to the management of business operations and relationships with stakeholders in the supply chain. Supply chain management processes are complex activities that cause effectively manage to our supply chain. Lee et al (2006) used the strategic partnership processes, suppliers, customer relationship, sharing of intelligence, information-sharing and deferred to check the quality in their research. The framework of Lambert (2008) that describes the supply chain management has eight process customer relationship management, customer service management, demand management, order fulfillment, manufacturing flow management, supplier relationship management, product development and commercialization and returned management and each of these processes has sub process strategic and operational factors.

Therefore, in order to provide the empirical evidence for the research gap identified regarding its effect and relationships among supply chain management Strategies, supply chain performance and organizational performance of the case company.

1.2 Statement of the Problem

For the manufacturing companies, supply chain management practices play a major role on their performance given the nature of competition in the environment that they operate in both locally and internationally. Therefore a study on the level at which this sector has adopted the various supply chain management which have lately proved to be a source of competitive advantage on organizational performance is important. The concept of SCM has received increasing attention from academicians, consultants and business managers alike. Many organizations have begun to recognize that SCM is the key to building sustainable competitive edge. Despite this increased attention, the literature has not been able to offer much way of guidance to help the practice of SCM (Petrovic-Lazarevic, 2007).

Much of the current theoretical/Empirical research in SCM focuses on only downstream or upstream side of the supply chain or certain aspects/perspectives of SCM. Internationally studies such as those of (Clark and lee, 1996) focus on the downstream linkages between manufactures and retailers. A few recent studies have considered both upstream and downstream simultaneously (Tan, 2002) carried out a study that explored the relationship between supplier management practices, customer relationship practices and organization performance. Frohlich and Westbrook (2001) investigated the effects of supplier-customer integration on organization performance among many others. These studies are representative of efforts to address the diverse but interesting aspects of SCM strategy practices. However the lack of an integrated framework incorporating all the activities both upstream and downstream sides of the supply chain and linking such activities to both SCM strategy and organization performance does not help much in coming up with a framework of implementing previous results on SCM.

Even though researches more or less has been accomplished in the area of SCM strategy and firms Sales performance in the Ethiopian manufacturing companies (i.e. from perspectives of Manufacturing strategy, Outsourcing strategy, Channel Strategy, Customer service strategy, Asset network on Supply chain and organizational performances), though it cannot be concluded enough and still Scientific study is needed on such knowledge gap since the field is very wide to manage and this deficiency that the study seeks to fill. Furthermore, this research has been motivated by existing gaps in the case company, namely lack of adequate knowledge of

managers in supply chain management and the trend of managing supply chains from suppliers to customers being traditional, which is not more than just a buy and sale (Transactional) relationship. In addition to this, to find out the effectiveness and efficiency of the existing Supply chain system and to know the existing problems and hindering factors in the product manufacturing and distribution processes of the case company.

Determining whether SCM Strategy affect firm's Sales performance and assessing the relationship between supply chain management strategy and Sales performance of the company is necessary in order, to select and use the most efficient and effective Supply chain in which to place a product in to the hands of the customer is very important for such market leading manufacturer like East Africa Bottling S.C in case of Bottling S.C Addis Ababa branch. Therefore, paper aimed to contribute to the debate by testing the effect and relationship between SCM strategy and supply chain and organizational sales performance in the case company.

1.3 Research Question

Based on the research background, the researcher answered the following research questions in this study.

1. What are the current supply chain management strategy practices in east Africa Bottling S.C Addis Ababa?
2. How are the SCM practices managed by the firm sales performance?
3. To what extent the supply chain management strategy of Addis Ababa Bottling S.C is being accomplished?
4. How does supply chain management strategy influence the organizational sales performance of Addis Ababa Bottling S.C?

1.4 Objectives of the Study

1.4.1 General Objectives

The main objective of this study is to assess the effects of Supply Chain Management Strategy on organizational sales Performance of East Africa Bottling S.C Addis Ababa branch through identifying the relationships among SCM strategy and the organization sales performance.

1.4.2 Specific Objectives

The specific objectives of this research are:-

- To show the effects of SCM strategy on Supply chain sales performance of Addis Ababa Bottling S.C.;
- To show the effects of SCM strategy on organizational sales performance of Addis Ababa Bottling S.C.;
- To show the effects of SCM on customer satisfaction on sales performance of Addis Ababa Bottling S.C.;
- To contribute for reestablishment of current supply chain management practices by the manufacturing firm in East Africa Bottling S.C.

1.5. Significance of the Study

The investigation results are important to the academicians, researchers, policy makers, for business practitioners, and management units in the case company. More specifically, research endeavors are limited within East Africa Bottling S.C Addis Ababa. This study, which is undertaken in the area of the effects of supply chain management strategy on sales performance of east Africa bottling S.C Addis Ababa branch, were contribute to the development and effective implementation of supply chain management strategies by east Africa bottling Addis Ababa Company also underline the importance of sufficient and relevant information for planning and making successful decisions about a marketing strategy.

Other non-manufacturing institutions were also benefit from the findings of this study since it shed more light on the effect of supply chain management practices on organizational sales performance. The findings of this study were used as a reference point by other researchers for further research on the same field. They can also use the findings as a secondary source of information.

1.6 Scope of the study

SCM has vast areas of managerial practices; it is difficult and unmanageable to study the whole areas of it. Therefore, the scope of the study is delimited to specific on effects of SCM strategy practices and their impact on operational sales performance east Africa bottling S.C Addis

Ababa. To manage the research flow only east Africa bottling S.C branches located in Addis Ababa were subjects of the study.

The subject scope of this study is also delimited to the company's point of reference towards manufacturing strategy, customer relationship, channel strategy, outsourcing strategy and companies Assets network. In terms of organizational sales performance the study was delimited to operational and supply chain sales performance.

1.7 Limitation of the study

The quality of the output of this study was depending on the genuine data acquired from the selected representative samples. This implies that, the finding and the analysis of this paper was depending up on the quality of their response. So that, lack of willingness, for various reasons like suspect of miss use of the companies confidential information for non-academic purpose was limits the reliability of the research paper to achieve its objectives. Finally, the researcher as a member of employee in east Africa bottling S.C Addis Ababa branches, his personal perception, feeling for the company, leads to personal bias and may affect the research. But the researcher, as much as possible, tries to mitigate these biases in order to come up with valid conclusion.

1.8 Definition of Operational Terms

- **Supply chain management (SCM): -** a systematic and strategic coordination of business functions and tactics of tasks in a particular organization in order to improve long-term performance of individual organizations as well as the entire of supply chain.
- **Supply Chain (SC):** A group of interconnected participating companies that add value to a stream of transformed inputs from their source of origin to the end products or service that are demanded by the designated end consumers.
- **Operational performance: -** It refers to how well an organization provides accurate products and services, at reasonable price, at reasonable time and at a reasonable quantity.

- **Strategic supplier partnership: -** It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits
- **Customer relationship: -** It refers to 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: -** The extent to which to the accuracy, timeliness, adequacy, and credibility of information exchanged.

1.9 Organization of the Study

This study is organized into five chapters, Chapter one contains background of the study, statement of the problem, basic research questions, objective of the study, definition of terms, significance of the study, delimitation/scope of the study and limitation of the study. The second chapter deals with the literatures relevant to the study and conceptual frame work adapted from previous studies. Chapter three, the type and design of the research, the subjects/participants of the study, the sources of data, the data collection tools, the procedures of data collection, and the methods of data analysis used are described. Chapter four interprets and discusses the findings. Finally chapter five includes summary, conclusions and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 SCM Strategy (SCMS)

Supply chain management (SCM) is becoming increasingly important in today's global competition. As competition shifts from company vs. company to supply chain vs. supply chain, SCM becomes a significant strategic tool for firms to survive and create competitive advantages (Stalk and Hout, 1990; Quinn, 1997; Rich and Hines, 1997; Tan et al., 2002). Market leaders in the retail industry such as Wal-Mart and Dell constantly search for new ways to add value and push the boundaries of performance by realizing the importance of managing their supply chains (Cohen and Roussel, 2005). To compete at the supply chain level, companies must adopt an appropriate SCMS. Such strategy needs integration and coordination throughout the supply chain to enhance the performance of supply chain members (Green Jr. et al., 2008; Cohen and Roussel, 2005; Wisner, 2003).

Mason-Jones et al. (2000) argue that supply chains need to adopt a strategy that suits both their particular product and marketplace. Fisher (1997) suggests that the first step in developing the supply chain strategy is to consider the nature of the demand for an organization's product, proposing that these are either functional or innovative.

Functional products are like commodities; they are typically stable, fast moving consumer goods that are widely available and satisfy basic needs that do not change over time. As a result, functional products should have a very efficient low-cost supply chain. On the other hand, innovative products have short life cycles with volatile demand that is difficult to predict. They need a flexible and fast supply chain to deal with uncertainty in the demand. Since by definition SCM requires collaboration of all supply chain participants to satisfy final customers, an SCM strategy must be adopted. Implementation of such a strategy requires creating a greater level of trust throughout the supply chain, establishing more frequent contact with supply chain members, and increasing information sharing and communication among suppliers (Wisner, 2003). Porter (1990, p.41) argues that a "strategy guides the way a firm performs individual activities and organizes its entire value chain". For instance, if a firm has a low-cost strategy,

then the firm should optimize and coordinate the supply chain by having frequent and timely deliveries from suppliers to reduce the required level of inventory and achieve low cost. Porter (1990) argues that there are two types of generic strategies to achieve a competitive advantage: low-cost and differentiation strategies. A low-cost strategy enables a firm to design and produce a product more efficiently than its competitors. A differentiation strategy allows a firm to offer a variety of products to the customer with reliability and responsive services.

Fisher (1997) explains the need to match the appropriate supply chain management strategy to product characteristics, which illustrates only two extreme types of product characteristics: functional and innovative products. Fisher argues that functional products which are considered to have stable and predictable demand require an efficient process (efficient chains) to supply that product. On the other hand, innovative products which are considered to have unpredictable demand require a responsive supply chain. This match between product type and supply chain strategy results in a better profit margin for the organization as Fisher was able to calculate the profit based on the contribution margin and the stock out rate of functional and innovative products.

Vonderembse et al. (2006) discuss three types of supply chains that are necessary to match three types of products: standard, innovative, and hybrid. They demonstrate that standard products, which tend to be simple products with limited amounts of differentiation, should be produced by a lean supply chain (LSC). LSCs employ continuous improvement efforts and focus on eliminating wastes across the supply chain. On the other hand, innovative products which may employ new and complex technology require an agile supply chain (ASC). ASCs respond to rapidly changing global markets by being dynamic and flexible across organizations. Hybrid products, which are complex products, have many components and participating companies in the supply chain; therefore, a variety of supplier relationships may be needed, which they refer to hybrid supply chains (HSC). HSCs combine the capabilities of lean and agile supply chains to meet the needs of complex products.

Lee (2002) expands on Fisher's ideas but focusing on the "supply" side of the supply chain in determining the supply chain strategy. He suggests that there are uncertainties revolving around the supply side that determine the supply chain strategy. The supply side may be characterized by: stable supply processes and evolving supply processes. A stable supply process is one where

the manufacturing process and the underlying technology are mature and the supply base is well established. An evolving supply process is one where the manufacturing process and the underlying technology are still under early development and are rapidly changing. Although functional products tend to have more mature and stable supply chains; and innovative products tend to have more evolving supply chains, this is not always the case. Some functional products could be supplied by a rapidly changing process i.e. supply of hydroelectric power, which relies on rainfall in a region. Similarly, there are also innovative products with a stable supply process. Based on this, Lee (2002) was able to classify supply chain strategy into four types: efficient supply chains, risk-hedging supply chains, responsive supply chains, and agile supply chains. An efficient supply chain strategy aims at cutting cost and eliminating non-value activities. A risk-hedging supply chain strategy aims at pooling and sharing resources in a supply chain and it is quite common in retailing. A responsive supply chain strategy tends to focus on being flexible and responsive to changes in customers‟ demand. An agile supply chain strategy combines both risk-hedging and responsive supply chain strategies. In other words, it aims at being flexible and responsive to customers while pooling and sharing resources among suppliers.

Furthermore, Towereand Christopher (2002) suggest that there are three types of supply chain strategies: agile supply chains; lean supply chains; and hybrid supply chains. In their study, a case study was provided to show how a lean and agile supply chain can be successfully combined to have a lean/agile supply chain strategy which they refer to as “hybrid” or “leagile” supply chain. Naylor et al. (1999) uses the term “leagility” as an integration of lean and agile paradigms with the aid of a decoupling point in the supply chain. Thus, they provide a personal computer company as a case study to demonstrate how agility and leanness can be combined successfully within the supply chain to meet customers’ requirements.

Regardless of the type of supply chain strategy the organization decided to adopt (lean, agile, risk hedging, responsive, hybrid), the decision to adopt a supply strategy should be made at a corporate level (Towereand Christopher 2002). In this study, three types of supply chain strategies are considered, and they are as follows: lean supply chain; agile supply chain; hybrid supply chain (Huang et al., 2002; Wang et al., 2004; Vonderembse et al., 2006).

2.1.1 Lean Supply Chain (LSC)

A lean supply chain (LSC) refers to a supply chain that utilizes a strategy aimed at creating the most cost efficiency in the supply chain by reducing the inventory and focusing on improving the quality in the supply chain, thus eliminating waste (Huang et al., 2002; Wang et al., 2004; Vonderembse et al., 2006). Christopher (2000) argues that lean supply chains work well where demand is relatively stable and predictable, and variety is low.

Christopher and Towere(2000) suggest that an important lean supply chain attribute is the minimization of total lead-times in the supply chain since by definition excess time is waste and leanness calls for elimination of all wastes. Vitasek et al. (2005) define six attributes for lean supply chains:

1. demand management capability, which means doing a better job of managing demand signals by getting demand data from customers to suppliers,
2. waste and cost reduction, which means working together to modify policies, procedures, and practices that produce or encourages waste,
3. process and product standardization, which means determining the best way to manage a process then standardizing that process across the chain,
4. industry standards adoption which extends standards beyond a company's particular supply chain to the industry overall to reduce development costs for the original equipment manufacturers and allow for standardized processes in assembly,
5. Cultural change competency, which is considered as one of the obstacles to successfully applying lean supply chains and getting lean strategies accepted in the organization. Companies with cultural change competency view their employees as valued assets and emphasize lean and total quality management programs,
6. Cross-enterprise collaboration, which means that supply chain partners must work together to maximize the value stream to the customer. In lean supply chains, teams must work toward solutions that benefit all members of the supply chain.

In summary, a lean supply chain can be recognized as a strategy for managing the supply chain in an efficient way by eliminating waste and employing continuous improvement techniques across the chain.

2.1.2 Agile Supply Chain (ASC)

An agile supply chain (ASC) refers to a supply chain that utilizes a strategy aimed at being responsive and flexible to changing customer needs by responding quickly and effectively to rapidly changing dynamic and continually fragmenting markets (Christopher, 2000; Huang et al., 2002; Wang et al., 2004; Vonderembse et al., 2006).

Lin et al. (2006) suggest that ASC focuses on promoting adaptability, flexibility and has the ability to respond appropriately and react quickly and effectively to changes in the market. They developed a conceptual model of agile supply chain that consists of agility drivers and agility enablers which impact and determine the capability of an agile supply chain.

They identified four main capabilities of an agile supply chain:

1. Responsiveness, which is the ability to identify changes and respond quickly to them,
2. Competency, which is the ability to efficiently and effectively realize enterprise objectives,
3. Flexibility/adaptability, which is the ability to implement different processes and apply different facilities/equipment's to achieve the same goal, and
4. Quickness/speed, which is the ability to complete an activity as quickly as possible.

They also identified main attributes for measuring agility in the supply chain: collaborative relationships (strategy), process integration (foundation), information integration (infrastructure), and customer/marketing sensitivity (mechanism).

Christopher (2000) distinguishes four characteristics of an agile supply chain: market sensitivity, which means that the supply chain is capable of responding faster to customers, virtual supply chain, which means using IT to share data between manufacturers and suppliers, process integration, which means collaborative work between manufacturers and suppliers, joint product development, common system, and shared information, and network, which means linking all the suppliers together as one entity rather than stand-alone entities. Van Hoek et al. (2001) argue that there is a lack of insight into supply chain agility since the focus of researchers has been on manufacturing agility and not supply chain agility. Therefore, they developed a framework for supply chain agility and suggested specific dimensions/capabilities of supply chain agility based

upon an empirical study conducted in Europe. They came up with the same four dimensions identified by Christopher (2000). Agarwal et al. (2007) developed a model of variables for improving supply chain agility. Those variables are important for managers to formulate and build supply chain agility strategies. The variables are: delivery speed, data accuracy, new product introduction, centralized and collaborative planning, process integration, use of IT tools, lead-time reduction, service level improvement, cost minimization, customer satisfaction, quality improvement, uncertainty minimization, trust development, and minimization of resistance to change. Power et al., (2001) identified critical factors for managing an agile supply chain based on the result of an empirical study of Australian manufacturing firms. Some of those factors are related to the involvement of suppliers, focus on customers, and technology utilization that differentiates the "more agile" organizations from "less agile".

In summary, the notion of agility in supply chains can be recognized as a strategy for managing the supply chain when organizations need to respond quickly and effectively to rapid changes in customers‟ demand. Some of the attributes, characteristics, and capabilities of ASC have been identified in this literature.

2.1.3 Hybrid Supply Chain (HSC)

A hybrid supply chain (HSC) refers to a supply chain that utilizes an "assemble to order" strategy. It's a combination of a lean and agile supply chain in which the supply chain achieves mass customization by postponing product differentiation until final assembly (Huang et al., 2002; Wang et al., 2004; Vonderembse et al., 2006). Naylor et al. (1999) define a hybrid supply chain as "The combination of lean and agile paradigms with the supply chain strategy by positioning the decoupling point so that they best suit the need for responding to a volatile demand downstream yet providing level scheduling upstream from the marketplace". The point that separates part of the supply chain that responds directly to customers (being agile) from the part of the supply chain that uses strategic stocks to buffer against the variability in the demand (being lean) is referred to as "decoupling point". The aim of postponement is to increase the efficiency of the supply chain by moving product differentiation (at the decoupling point) closer to the end customer (Naylor et al., 1999). Towere and Christopher (2002) argue that processes are designed to be lean at the upstream of the decoupling point, and agile at the downstream of the decoupling point in a hybrid supply chain.

2.2 Information Systems Strategy (ISS)

The traditional domain of the information systems strategy (ISS) is to improve the efficiency and effectiveness of organizations (Bakos and Treacy, 1986). Earl (1989, p. 67) defines ISS as "The long-term, directional plan which decided what to do with IT". In his definition, the issue ISS deals with is the applications. In other words, it asks the question, what should we do with the technology (applications)? Barnes et al. (2003) suggest that ISS is concerned with what applications should be acquired and how they should be managed?

Earl (1989) argues that the ISS should originate from the business strategy. This means that IT should facilitate implementing the business strategy (whatever that business strategy is) and help achieve its goals. In another study, King (1978) argues that ISS should be derived from the business strategy. He argues that ISS cannot exist in a vacuum. Thus, organizations need to ensure that the development of an effective ISS does not occur in isolation from the business strategy; it must support and occur within the business strategy (Puckridge and Woosley, 2003). This implies that in order for organizations to develop an ISS, it should first consider its business strategy. Furthermore, Weill (1990) developed a framework to investigate the impact of originating an ISS from a business strategy on firm performance. The result of his empirical study suggests that investing in applications that support business strategy provide the firm with a competitive advantage.

A strategy at the business level (also referred to as strategic business unit "SBU") is concerned with the following question: How do we compete effectively in each of our chosen product-market segments? (Venkatraman, 1989). This suggest that if a company decided to compete in the market by offering the lowest price to achieve a competitive advantage, then its ISS should support its business strategy and focus more on being efficient to cut cost and therefore achieve the lowest price possible. Camillus and Lederer (1985) suggest that there should be a match between the design of the IS and the strategic management choices of the organization. Hence, if business strategy demands creativity, quick response and innovation, an ISS should adopt a flexible approach to help foster different managerial responses and attitudes; this is what Earl (1989) refers to as the "Opportunity-led" strategy. This opportunity-led strategy focuses on investing in specific applications that provide and create new opportunities for organizations which are necessary for developing the business. The ISS for those applications creates and

adopts new strategic opportunities. As a result, there is a need for particular applications that focus on being flexible. On the other hand, where efficiency is the heart of the business strategy, the ISS strategy should emphasize efficient execution of some practices (e.g. enable the organization to share quality information between entities) to support its business strategy. This is what Earl (1989) refers to as the "Infrastructure-led" strategy. This ISS helps the business deliver its goods and services in the sector e.g., banks and retail industries. The infrastructure for those industries, which is an IT-based infrastructure, becomes the platform for product development. At this point the business strategy and the ISS is the same thing. Here, the ISS is concerned with laying down telecommunications networks, rationalizing data standards, creating an appropriate hardware environment and developing a basic business systems foundation. The ISS focuses on developing efficient and updated basic systems. In other words, a company which depends on IS to deliver their products were not care that much if they do not have specific cutting edge systems. However, the focus of those companies is to obtain highly standardized and efficient systems to help them deliver their products/services and keep them in business. The ISS goal here is to invest in applications that helps improve the efficiency of day-to-day activities. So the question becomes, what are the types of business strategy that the ISS should support or be derived from?

Miles and Snow (1978) identified three different business organizational types which employ different strategies: defenders; prospectors and analyzers. Defenders are organizations which have narrow product-market domains. They always try to focus on improving the efficiency of their existing operations by developing a single core technology that is highly cost-efficient. Prospectors are organizations which continually search for market opportunities. They always focus on being innovative which creates uncertainty in the market. Analyzers are organizations which focus on improving their existing operations and also seek new market opportunities (innovative). In other words, they use a combination of defenders‟ and prospectors‟ business strategy. Venkatraman (1989) developed an important construct termed Strategic Orientation of Business Enterprise (STROBE).

He assumes that this construct is a multidimensional construct. Six important dimensions/attributes of (STROBE) are identified in his study: aggressiveness, analysis, defensiveness, futurity, pro-activeness, and riskiness. Sabherwal and Chan (2001) mapped the

six STROBE attributes to the business strategy types (defenders, prospectors, and analyzers). They also mapped four ISS attributes (operational support systems, market information systems, strategic support systems, and inter-organizational information systems) to the ISS types (IS for efficiency, IS for flexibility, and IS for comprehensiveness). They argue that there are three types of ISS (IS for efficiency, IS for flexibility, and IS for comprehensiveness) corresponding to the defenders‟, prospectors‟, and analyzers‟ business strategies, respectively. They found that, for defenders, an IS for efficiency strategy is oriented towards intra and inter-organizational efficiencies and long term decision making. An IS for flexibility strategy is focused on market flexibility and quick strategic decisions (suitable for the prospectors). Finally, an IS for comprehensiveness strategy enables comprehensive decisions and quick responses through knowledge of other organizations (suitable for the analyzers).

In summary, the ISS outlines the applications/technology needed to support an organization's goals. The ISS provides a clear understanding of the role of IS in organizations. Based on the above analysis, this study considers three types of ISS: IS for efficiency, IS for flexibility and IS for comprehensiveness.

2.2.1 IS for Efficiency

IS for efficiency is defined in this study as a strategy that is oriented toward operational support of intra and inter-organizational efficiencies. A good example of ISS for efficiency is investing in operational support systems (i.e. enterprise resource planning). This application helps in monitoring and controlling the day-to-day operations that are expected to facilitate operational efficiency (Sabherwal and Chan, 2001).

Moreover, Bakos and Treacy (1986) discuss how ISS helps organizations to be more efficient by improving the internal operational efficiency of a single firm, and the inter-organizational efficiencies through better coordination with customers and suppliers. For example, one might connect the production planning systems of a firm with the order entry system of suppliers to lower the amount of inventory in process and the turnaround time for new orders. Therefore, improving coordination and collaboration of information across suppliers was increase the information availability and process capability, which results in reducing the coordination cost and therefore result in being more efficient (Clemons et al., 1993).

2.2.2 IS for Flexibility

IS for flexibility is defined in this study as a strategy that is focused on market flexibility and quick strategic decision support (Sabherwal and Chan, 2001). For example, strategic decision support systems (SDSS) help organizations make strategic decisions quickly and effectively by enabling executives to analyze (threats, opportunities, strengths, and weaknesses), describe strategic situations, select alternative strategies, and monitor performances (Belardo et al., 1994).

Rockart and Morton (1984) provided a good example of how ISS can be used to achieve flexibility. When a distributor company decided to use IS to allow customers to enter their orders directly, customers started to order directly from the distributor company. Additionally, customers began to request new items that are not previously carried by the company. The company decided to use the order data proactively, by becoming closely involved with their customers and tracking and forecasting their preferences. As a result, IS was able to help the company to speed up the response time, introduce new products, and introduce potential new customers.

Porter and Millar (1985) argue that IS leads to flexibility and new product development. They provided an example of how planning for IS at the strategic level could lead to achieving flexibility. When General Electric (GE) decided to rebuild its Erie locomotive facility, they decided to use IS to help them in the design of motors. As a result, GE was able to design different types of motor frames without the need to use manual adjustments. This really helped GE to respond faster to the market. Another example of how IS lead to new product development is Western's Union link service. "Western Union's easy link service (a sophisticated high-speed data-communications network) allows personal computers, word processors, and other electronic devices to send messages to each other and to telex machines throughout the world. This service was not needed before; the spread of information technology caused a demand for it." (Porter and Millar, 1985 p. 158).

Furthermore, planning to use IS to select fewer suppliers, monitor their performance, or store information regarding complaints about the suppliers was help in coordinating decision making with suppliers through information sharing (Clemons et al., 1993). Hence, sharing information

with suppliers' was lead to increased flexibility and improves timeliness of production (Bakos and Brynjolfsson, 1993).

2.2.3 IS for Comprehensiveness

Allen and Boynton (1991) suggest that organizations need to face the challenges of both "low cost and efficient" and of "speed and flexibility". They argue that in order for organizations to meet the challenges of the market, organizations need to combine elements of both (low cost and flexibility) through a revamped IS architecture.

IS for comprehensiveness is defined in this study as a strategy that enables comprehensive decisions and quick responses (both efficiency and flexibility) (Sabherwal and Chan, 2001). Allen and Boynton (1991) argue that there are two extreme ways to achieve IS for both efficiency and flexibility: First, organizations must decentralize the IS applications so that IS becomes the responsibility of every level of operating management, and inter-link communications of those applications with suppliers. This is what they refer to in their study as "the low-road" solution, which results in companies achieving a low-cost production and being more efficient. Second, organizations must centralize IS applications by having common/standardized application systems that help achieve flexibility. This is what they refer to in their study as "the high-road" solution. The result of their study shows that companies must combine both solutions (the high and low-road solutions) to achieve IS for efficiency and flexibility in order for firms to meet the challenges of the market. A good example of an organization that takes elements of both solutions is Hewlett-Packard (HP). A manager of HP focuses on the ISS in order to achieve low cost and flexibility. "The company is an innovator and is organized with considerable decentralized responsibility throughout its manufacturing sites and sales and service offices. Following a low-road philosophy, IS decentralized and IS management is considered a critical part of every manager's responsibility. Yet the corporation has concluded that high-road needs exist for company-wide data and common systems in five key areas: Sales and service, procurement, quality, personnel, and accounting." *(*Allen and Boynton, 1991 p. 443).

Moreover, Zhang and Lado (2001) argue that ISS plays an important role in supporting organizational capabilities which convert inputs into outputs, by improving the operational

efficiency and flexibility. Weerakkody and Hinton (1999) provide case studies to illustrate how organizations should rethink their ISS and redesign their systems in line with business processes to improve the efficiency, effectiveness, and speed of product/service.

Sabherwal and Chan (2001) suggest that market information systems help organizations observe the market in order to respond very quickly to market changes. They argue that IS for comprehensiveness should help organizations understand and monitor the market (external analysis) to seek any opportunity (by making quick decisions), to introduce new products, and to help organizations maintain their position in the market. In other words, IS should assist in, first understanding the market, then making quick decisions to introduce new products and to maximize any opportunities for growth. McLaren et al. (2004) expand on this by arguing that ISS should support SCM to enable operational efficiency, flexibility, internal planning and analysis, and external planning and analysis. They refer to such IS in the supply chain as "enterprise or inter-organizational systems used to coordinate information between the manufacturers, suppliers, distributors, and other partners in the supply chain" to reduce costs and increase the responsiveness of their supply chain.

2.3 Supply Chain Management (SCM) Practices

SCM includes a set of approaches and practices that effectively integrate suppliers, manufacturers, distributors, and customers to improve the long-term performance of firms and their supply chains (Chopra and Meindl, 2001). These practices represent opportunities for organizations to differentiate themselves on the basis of superior performance in the context of demand forecasting, product availability, inventory management, and distribution (Zielke and Pohl, 1996). Thus, organizations that successfully implement SCM practices achieve superior supply chain performance. This, however, requires internal cross-functional integration within a firm and external integration with suppliers or customers (Narasimhan, 1997).

In this study, SCM practices are defined as a set of activities aimed at improving the performance of the supply chain (Li et al., 2005; Li et al., 2006; Wong et al., 2005; Zhou and Benton, 2007; Koh et al., 2007).

Tan et al. (2002) recognized six aspects of SCM practices through factor analysis addressing various aspects of supply and material management issues, ranging from a broad- based supply

chain integration to more specific just-in-time (JIT) capabilities. Zhou and Benton (2007) consider only three categories of supply chain practices: supply chain planning, JIT production, and delivery practices.

In the absence of consensus on a common set of SCM practices and, since the literature describes SCM practices from a variety of different perspectives with a common goal of improving supply chain performance and therefore improving organizational performance, this study intends to focus on the commonalities among these practices. They are as follows: strategic supplier partnerships, customer relationships, internal lean practices, postponement, information sharing, and information quality. This study considers the impact of aligning these SCM practices with the usage of IT in order to achieve a better supply chain management performance and ultimately better firm performance.

2.3.1 Strategic Supplier Partnership

Dyer et al. (1998) suggest that not all suppliers should be considered as strategic suppliers. They argue that, first suppliers should be analyzed strategically to determine which suppliers contribute to the core competence and competitive advantage of the buying firm. Only then should companies conduct a strategic supplier partnership with them. Sarkis and Talluri, (2002) propose an analytical network process (ANP) model to address the selection of strategic suppliers. The ANP model shows a graphical representation of analytical network hierarchy for strategic supplier selection. The model consists of a number of factors that determine how to select strategic suppliers. One of those factors is the strategic performance metric. Strategic performance metrics focus on considering the quality, cost, delivery speed, and flexibility of the suppliers in determining whether they are strategic suppliers.

Strategic supplier partnerships require a high degree of coordination between the organization and its suppliers; companies tend to have a long-term relationship with suppliers that create value to each party. In this study, a strategic supplier partnership is defined as the long term relationship between the organization and its suppliers which influences the strategic and operational capabilities of individual participating companies to help them achieve significant ongoing benefits (Li et al., 2005; Li et al., 2006; Monczka et al., 1998).

It is important to differentiate a strategic supplier partnership from a simple long-term partnership. A strategic supplier partnership is not only about buying goods and services from suppliers, but it is also about impacting the suppliers‟ systems and operational capabilities, adding value to the goods and services, and improving the performance of the whole supply chain (Monczka et al., 1998). In another empirical study on strategic supplier partnership, Stuart (1993) suggests that sharing of information, continuous improvement, and the joint problem-solving effort are the keys to a successful strategic partnership with suppliers.

2.3.2 Customer Relationship

Tan et al. (1998) suggest that customer relationship is an important element of SCM practices; it involves the downstream element of SCM. In their study, customer-relations practices include the following: evaluating customer complaints, following-up with customers for feedback, enhancing customer support, predicting key factors affecting customer relationships, predicting customers‟ future expectations, interacting with customers to set standards, and measuring customer satisfaction. Furthermore, the result of their survey suggests that firms that have strong customer relationships are confident in their ability to evaluate customer complaints and provide support to their customers.

Customer relationship is defined as 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 (Li et al., 2005; Li et al., 2006). According to Ulusoy (2003) customer satisfaction, customer services, and delivery performance are the elements of customer relationship. He suggests that meeting customers' requirements and expectations are broad indicators of customer satisfaction. Additionally, feedback from customers helps improve product design to meet customer expectations.

Vickery et al. (2003) emphasize the importance of establishing a close customer relationship as a major practice of supply chain integration to enable organizations to respond faster to customers. As the demand for customized products and personalized services increases, so does the need to have close relationships with customers (Wines, 1996). Furthermore, Tu et al. (2004) hypothesize that close customer contact were lead to higher levels of mass customization

capabilities. This suggests that close and continuous interaction with customers is essential for organizations to develop highly customized products.

2.3.3 Internal Lean Practices

Global challenges during the past two decades have forced manufacturing firms to adopt new approaches/concepts to sustain a competitive advantage. Among those approaches is the concept of internal lean practices (Shah and Ward, 2003). They reviewed the literature and identified a list of lean manufacturing practices: bottleneck removal (production smoothing), cellular manufacturing, competitive benchmarking, continuous-improvement programs, cross-functional work forces, cycle time reduction, focused factory production, lot sizing reduction, maintenance optimization, new process equipment/technologies, planning and scheduling strategies, preventive maintenance, process capability measurements, pull production, quality management programs, quick changeover techniques, reengineered production processes, safety improvement programs, self-directed work teams, and total quality management.

Just as manufacturing firms are required to change and adopt lean practices, so are the firm's suppliers. Li et al. (2005) suggest that if organizations do not attempt to eliminate waste from their internal supply chain, then the organization run the risk of losing customers. Hence, organizations must extend lean practices down through the supply chain in order for the company to gain the full effectiveness of the lean system (McIvor, 2001).

Internal lean practices are defined as the practices of eliminating waste (cost, time, etc.) in manufacturing systems, characterized by reduced set-up times, small lot sizes, and pull-production (Li et al., 2005, Li et al., 2006). Lean practices focus on eliminating waste. The former president of Toyota, Fujio Cho, defines waste as "anything other than the minimum amount of equipment, materials, parts, and workers (working time) which are essential to production". Furthermore, Fujio Cho identified seven types of waste to be eliminated from the supply chain: waste from overproduction, waste of waiting time, transportation waste, inventory waste, processing waste, waste of motion, and waste from production (Jacobs and Chase 2008).

2.3.4 Postponement

Postponement is defined as the practice of moving forward one or more operations or activities (making, sourcing, and delivering) to a much later point in the supply chain (Li et al., 2006; Li et al., 2005; Naylor et al., 1999; van Hoek et al., 1999; Beamon, 1998). Firms adopt postponement strategies to sustain competitive advantage. Hence, by keeping materials undifferentiated for as long as possible, companies such as Dell are able to increase their flexibility in responding to changes in customer demand and achieve cost-effectiveness in the supply chain by keeping undifferentiated inventories (van Hoek et al.,1999).

The literature has identified different types of postponement strategy. For instance, Pagh and Cooper (1998) distinguish between manufacturing, logistics, and full postponement. A manufacturing postponement strategy is one in which the final assembly of the product is often carried out by a third-party logistics service provider. A logistics postponement strategy is relevant when a distribution center supplies dealers with spare parts. A full postponement strategy is a combination of both (manufacturing and logistics postponement strategies). In another study, van Hoek (1999) identifies three types of postponement strategy: form, time, and place. A form postponement (manufacturing postponement) means that a company were delay manufacturing, assembly or even design activities, until customers‟ orders are received; this is what Mikkola and Skjøtt-Larsen (2004) refer to as modularization. Time and place postponement strategies which are referred to as (logistics strategy) suggest that goods are stored at central distribution points in the supply chain. Yang and Burns (2003) argue that the implementation of postponement strategies was often results in reconfiguration of the supply chain and often place the warehouse where the final assembly is processed. Waller et al. (2000) suggest that postponement can be extended further upstream in the supply chain to suppliers of raw materials or downstream in the supply chain to distributors and retailers. They argue that postponement decisions should be made with respect to SCM in market-oriented organizations. In other words, companies should consider their SCM capabilities, and coordinate appropriate changes in postponement among suppliers to achieve faster production and cost reduction.

2.3.5 Information Sharing

Li et al. (2005) emphasize the importance of information sharing to SCM practice. The main principle of SCM is sharing of information within supply chains (Moberg et al., 2002). By sharing information with members of the supply chain, an organization can respond more quickly to the customer's changing needs (Li and Lin, 2006).

Information sharing is defined as the extent to which critical and proprietary information is communicated to one's supply chain partner (Li et al., 2005; Li and Lin, 2006; Monczka et al., 1998; Li et al., 2006; Mohr and Spekman, 1994).

Mohr and Spekman (1994) suggest that information sharing and being knowledgeable about each other's business help partners maintain their relationship for a longer time. Thus, it was reduce uncertainties in the market if supply chain members have more information and knowledge about other members (Yu et al., 2001). Furthermore, Frazier et al. (1988) suggest that organizations should share and exchange information with their suppliers regarding production plans, core product, process design, schedules, and product development to create synergies between the organization and its suppliers. This synergy was increase the ability of supply chains to react effectively to sudden changes and uncertainties in the market (Lee, 2000).

2.3.6 Information Quality

As we noted earlier, sharing information is important for the functioning of the supply chain. However, sharing quality information between members of the supply chain is important as well. For instance, sharing information within the entire supply chain can create flexibility, but this requires accurate and timely information (Jarrel, 1998). Moberg et al. (2002) argue that accuracy, timeliness, and proper formatting of the information determine the quality of the information. They suggest that supply chain members emphasize the importance of having accurate, timely, and properly formatted information to fully realize the value of information exchange among them. Hence, managers may not even use information coming from their partners if the information has poor quality.

Information quality is defined as the extent to which information exchange is accurate, timely, complete, relevant, and credible (Li and Lin, 2006; Li et al. 2005; Monczka et al., 1998; Li et al.,

2006; Mohr and Spekman, 1994). Inaccurate and missing data wereadd costs to the supply chain and can drive poor performance. Chopra and Meindl (2001) argue that information must be accurate, accessible in a timely manner, and valuable when making supply chain decisions. Inaccurate and missing data were make it very difficult for managers to make good decisions as it were not provide the manager with a true picture of the situation of the supply chain. For example, Wal-Mart collects data in real time on what products are being purchased at each store of its stores and send these data back to the manufacturers to determine how much inventory to hold at each store and to decide when to ship new loads of products from the manufacturer. Chopra and Meindl (2001) provide many examples of how inaccurate and missing data results in an increase in materials inventory and adds costs to the supply chain. Furthermore, Vijayasarathy and Robey (1997) argue that the more accurate, timely and complete information is, the fewer misunderstandings and misinterpretations between trading partners occur and the better the coordination between them.

2.4 Information Technology Utilization

Porter and Millar (1985) argue that every value activity in the value chain requires usage of information in some way that differs from other activities. For example, a logistic activity utilizes IT for scheduling promises, transportation rates, and production plans to ensure timely and cost effective delivery. On the other hand, a company could use IT to enhance its ability to exploit internal activities as well as external activities i.e. coordinate their activities closely with suppliers and customers. Ward (1987) suggests that IS should be utilized to influence company growth, offset competitive threats, and enable business strategies to be implemented and sustained. Earl (1989) classifies IT usage in the supply chain as follows:

1. Technology that can improve the physical task of any activity e.g., computer controlled machine tools in assembly operations,
2. Technology that can physically connect or control activity linkages e.g., communications linkages between production and distribution centers,
3. Information systems that can support or manage the value activities e.g., inventory control systems, and
4. Information systems that can coordinate activities across linkages e.g., CAD-CAM systems for computer integrated manufacturing.

This implies that IT can be utilized in different ways and for different purposes. Benjamin et al. (1984) developed a strategic opportunities framework to utilize IT. The framework suggests that companies can effectively utilize IT to gain competitive advantage by either focusing on an internal set of manufacturing processes to improve operations, or by creating strategic external links with suppliers and customers. In another study, Kyobe (2004) argues that IT resources such as hardware and software can be strategically utilized to achieve competitive advantage. Companies might focus on utilizing IT for internal operations or for external relationships i.e., improving customer services and links with suppliers by sharing useful information and obtaining reductions in cost. Narasimhan and Kim (2001) propose measuring IT utilization using the following three sub-constructs: IS for value creation management (e.g., customer management systems, sales management systems, and inventory management systems), IS for logistic operations (e.g., automatic ordering systems, resource management systems, transportation management systems, and forecasting systems), and IS for infrastructural support (e.g., network plan/design systems, office information systems, and accounting information systems). McFarlan and McKenney (1983) developed a framework of information management with a „strategic grid" and suggested some forms of planning, organizing, and controlling information resources in each quadrant of the strategic grid. Hence, the strategic grid helps management to position a firm appropriately based on the strategic impact of IT. The IT strategic grid consists of four quadrants. In the first quadrant, IT can be seen as a support to activity planning in which IS can represent islands of specialist technology that are introduced to help innovate the manufacturing processes. In the second quadrant, IT can be seen as a factory in which IT can help in planning and controlling daily production. Quality and other operational controls are important in running the business. In the third quadrant, IT is considered as a turnaround mechanism. Here senior executives consider IT to be critical to the organization's growth i.e., a top IT executive is appointed to oversee this. Finally in the fourth quadrant, IT can be seen as truly strategic. In this case, the company were not function without IT i.e., new product development is computer based. From the previous discussion above, it is clear that the literature describes IT utilization from a variety of different perspectives. A firm may utilize information technology to assist in externally-focused strategic planning, to support its internal operations, and/or to build its information processing infrastructure (Narasimhan and Kim, 2001; Kim and Narasimhan, 2002; Benjamin et al., 1984; Kyobe, 2004; Boynton et al., 1994). This

study identifies different aspects of IT utilization relevant to organizations: strategic IT utilization which were referred to in this study as the external focus of IT i.e., suppliers and customers, operational IT utilization which were referred to as the internal focus of IT i.e., daily production, and infrastructural IT utilization i.e., the use of networks, servers, databases, platforms and other elements of IT that comprise organizational IT infrastructure.

2.4.1 External Focus on IT

The external focus on IT in this study is defined as the extent to which firms deploy IT applications for formulating and improving inter-organizational planning processes with respect to suppliers and customers (Benjamin et al., 1984). Earl (1989) suggests that one of the purposes of using IT strategically is to share responsibilities with suppliers; this may be achieved by setting up automatic orders with suppliers. Moreover, this could result in having long-term relationships with suppliers and selecting suppliers with the lowest cost or best services. An example of a strategic IT utilization is given in Earl (1989, p. 56) when "Ford had set up CAD links with their suppliers and reduced design costs, reduced the time taken in, and error rate of design and specification changes and improve parts stock and acquisition procedures. No doubt like the Japanese automakers, such links eventually were developed with only one or two key suppliers of each product to integrate suppliers into their computer integrated manufacturing so that both the automakers and the supplier share growth and performance improvements together." This example clearly shows that IT is creating strategic links between organizations and their key suppliers. As a result, companies can coordinate their actions closely with their suppliers.

In another study, Parsons (1983) argues that utilizing IT strategically may change the relationship between an industry and its suppliers. For example, the use of sophisticated quality control systems is forcing suppliers to become more quality conscious. Thus, utilizing IT strategically were also help in selecting and considering certain suppliers for a partnership. Additionally, Parsons argues that IT can also contribute to superior customer service by providing historical customer profiles, increasing the availability of spare parts, and by improving the responsiveness to customer needs.

Benjamin et al. (1984) provide five case studies as examples of how companies can strategically utilize IT to gain competitive advantage. Their examples focus externally on IT utilization in regards to the company's suppliers and customers. For instance, IT is utilized strategically "to have close interconnection between production facilities and key suppliers; to simplify ordering processes for customers; to improve customer's satisfaction through faster, high quality response time and improved productivity; and to facilitate the way they support their customers" (Benjamin et al., 1984 p. 4, 5, and 6). This clearly shows that companies are strategically utilizing IS to improve customer satisfaction through faster, high quality response time, reduced customer complaints, and increased customer loyalty by improving customer service.

2.4.2 Internal Focus on IT

The internal focus on IT refers to the extent to which firms deploy IT applications for monitoring and improving their internal processes (Benjamin et al., 1984; Boynton et al., 1994). Digital Equipment Corporation provided a good example of how to utilize IS to improve an internal set of manufacturing processes when it used an "expert system" to help improve key internal operations (Benjamin et al., 1984). Weerakkody and Hinton (1999) provide a case study to demonstrate the role of IT in enabling business process reengineering (BPR) programs. Hence, BPR plays an important part in providing quality product.

One way to improve internal processes is through postponement, which involves fundamental changes to a company's manufacturing processes and internal operations. Using IT is essential to support the implementation of postponement (Prats, 2003). The rational of postponement strategy is to delay some of the activities of production after the information about customers‟ demand is known (Yang and Burns, 2003). In this sense, companies may have to wait until exact information of customers‟ demand is available. Here IT plays an important role in postponement by enabling the sharing of customers‟ demand information in a timely manner without distortion. For example, electronic data interchange (EDI) and a point-of-sale system may improve the information flow between manufacturer and suppliers by reducing the data collection errors and moving data quickly. This weretransmit customers' demands and, therefore, enhance the value of postponement (Yang et al., 2004).

Another way to improve internal processes is through sharing information among all parts of the organization. For instance, successfully implementing an Enterprise Resource Planning (ERP) system may help companies gain competitive advantage by integrating business processes and optimizing the resources available. As organizations share and integrate information through ERP systems, they werehave more control over their operations by connecting and integrating all business processes so that workers use less time to perform tasks and have faster access to the information which improves the time and information for decision making (Zeng et al., 2003). In addition, ERP has also been credited with reducing manufacturing lead times (Goodpasture, 1995).

Suzaki (1987) identifies several approaches to internal process improvement i.e. developing quick setup, eliminating waste, and using lots sizes of one. According to Suzaki, the key that helps in implementing approaches to improve internal processes is having information and control systems that provide information on time, so firms can use it to facilitate further improvement in operations.

2.4.3 Infrastructural focus on IT

The infrastructural focus on IT refers to the extent to which firms use IT to facilitate organization-wide information sharing and data communication across data networks (Narasimhan and Kim., 2001; Kim and Narasimhan., 2002; Simchi-Levi et al 2003; Weill, 1993; McKay and Brockway, 1989). The IT infrastructure generally provides the foundation to enable present and future communication. This infrastructure usually includes: platforms technology, network and telecommunication technologies, key data, and core data-processing applications (Duncan, 1995). In another study, Simchi-Levi et al. (2003) suggest that IT infrastructure forms the basis for data collection, transactions, system access, and communication. They believe that IT infrastructure typically consists of four components: interface/presentation devices, communications, databases, and system architecture.

Narasimhan and Kim (2001) hypothesize that IT utilization for infrastructure support has a direct influence on using IT for value creation activities. In other words, they argue that the IT infrastructure provides the basis (foundation) for establishing strategic linkages with suppliers and customers. In the context of SCM, Rai et al. (2006) argue that data consistency (which is

defined as the degree to which common data definitions and consistency in stored data have been established across a focal firm's supply chain), and cross-functional application integration (which is defined as the degree of real-time communication of a focal firm's function-specific SCM applications with each other*)* are critical elements of IT infrastructure integration for SCM. The result of their study suggests that data quality and standards are facilitators in the process of supply chain integration.

Simchi-Levi et al. (2003) suggest that without communication and database capabilities, which they refer to as "IT infrastructure", critical organizational goals may not be achieved. Hence, the IT infrastructure is a critical factor in the success or failure of any system implementation. Furthermore, Weill (1993) suggests that IT infrastructure provides flexibility so that firms can handle different customers' needs without increasing cost.

2.5 Supply Chain Management (SCM) Performance

Different researchers have attempted to measure SCM performance in different ways. To assist firms in measuring the effectiveness of their supply chains, the Supply-Chain Council (SCC) developed the Supply-Chain Operations References (SCOR) model. The SCOR model provides a common process-oriented language for communicating among supply-chain partners in the following decision areas: planning, sourcing, making, and delivering (Lockamy and McCormack 2004)

In spite of the importance of measuring SCM performance, organizations often lack the insight for the development of effective performance measures and metrics for SCM performance (Gunasekaran et al., 2001). Furthermore, Holmberg (2000) noted a number of problems in measuring SCM performance. He argues that measuring the activities of SCM performance is fragmented within and across organizations. He briefly summarizes the measurement problems as follows: lack of connection between strategy and measurement, too much reliance on financial figures as the key performance indicators, too many isolated and incompatible measures, and use of a single-firm management style when measuring the supply chain.

In another study, Beamon (1999) presents a number of characteristics that are found to be valuable in measuring SCM performance: inclusiveness (measuring all related aspects), universality (allowing for comparison under various operating conditions), measurability (having

data which are measurable), and finally consistency (performance measures consistent with the organizations‟ goals). Based on the above guideline, Beamon (1999) argues that measuring SCM performance should include three types of performance measurement: resources measurement (generally efficient), output measurement (generally customer satisfaction), and finally flexibility (how well the system reacts to uncertainty). Each type is vital in measuring the SCM performance.

Although a growing body of literature has developed many different ways to measure performance for SCM (integration, customer service, cost effectiveness, inventory level, service level, throughput efficiency, suppliers' performance, time, assets, flexibility, information and material flow integration, and delivery performance), researchers point to the need for continued studies in this area (Beamon, 1999).

In this research, SCM performance werebe measured through: supply chain flexibility, supply chain integration, and customer responsiveness. Those three dimensions of SCM performance are intended to cover the three types of performance measurement suggested by Beamon (1999): supply chain flexibility (flexibility measures), supply chain integration (resources measure), and customer responsiveness (output measure).

2.5.1 Supply Chain flexibility

The need for flexibility originates from customers; since customers ask for variety, quality, competitive prices, and faster delivery. This has forced companies to make design changes quickly and respond faster to customer needs in order to sustain the company‟s competitive advantage. As a result, companies need to be flexible enough to react to changes in customers‟ demands (Aggarwal, 1997).

In this study, supply chain flexibility is defined as the ability of supply chain partners to effectively adapt or respond to changes that directly impact an organization's customer (Vickery et al., 1999; Kumar et al., 2006). Furthermore, Vickery et al. (1999, p.16) state that supply chain flexibility "should be examined from an integrative, customer-oriented perspective." They propose five dimensions to measure supply chain flexibility. Since the definition of supply chain flexibility in this study has a customer-oriented perspective, this research wereadopt the five dimensions that measure supply chain flexibility proposed by Vickery et al., (1999).

Vickery et al. (1999) propose that supply chain flexibility can be measured by the following five dimensions: product flexibility or the ability to customize product to meet specific customer demand, volume flexibility or the ability to adjust capacity to meet changes in customer quantities, new product flexibility or the ability to launch new revised products; distribution flexibility or the ability to provide widespread access to products, responsiveness flexibility or the ability to respond to target markets‟ needs.

2.5.2 Supply Chain Integration

Stock et al. (1998) suggest that there are two kinds of logistics integration: internal integration which reflects the extent to which logistics activities interact with other functions‟ areas, and external integration, which is known as "supply chain integration," that reflects the integration of logistics activities across firm boundaries to include suppliers and customers. This integration deals with sharing resources, risk, and knowledge between supply chain partners (Kim et al., 2006). Furthermore, Frohlich and Westbrook (2001) classified supply chain integration into two types. The first type of integration involves coordinating and integrating the forward physical flow of deliveries between suppliers, manufacturers, and customers. The second type of integration involves the backward coordination of information technologies and the flow of data from customers, to manufacturers, to suppliers.

In this study, supply chain integration is defined as the extent to which all the activities within an organization, suppliers, and customers are integrated together (Stevens, 1990; Stock et al., 1998; Stock et al., 2000; Narasimhan and Jayaram, 1998). Supply chain integration requires effective communication among all members of the supply chain, which means that information systems must be integrated too (Turner, 1993). Moreover, Lee (2000) suggests that there are three key dimensions that constitute supply chain integration and they are: information integration which refers to the sharing of information and knowledge among members of the supply chain i.e. demand information, inventory status, and capacity plans, coordination which refers to the redeployment of decision-making authority, work, and resources to the best-position in the supply chain i.e. letting other suppliers replenish their inventory, and finally organizational linkage which means tight organizational relationships with suppliers i.e. joint performance measures.

Supply chain integration can provide a firm with the opportunity to focus on its core competencies and particular areas of expertise (Simchi-Levi et al., 2003). It werealso lead to the amplification of key resources be enabling the sharing of special resources and technological knowledge between the firm and its supply chain partners (Vickery et al., 2003). Such integration werenot only help supply chains to reduce costs and be more efficient, but it werealso create value for the company, its supply chain partners, and its shareholders (Lee, 2000).

2.5.3 Customer Responsiveness

Williamson (1991) examined the role of the supplier's strategy in achieving customer responsiveness. Furthermore, Owens and Richmond (1995) suggest that achieving customer responsiveness not only involves a supplier strategy, but also includes the entire SCMS. They argue that the overall objectives of SCMS should be: to become increasingly responsive to customer needs, and to create value for the customer. As a result, the performance of SCM must be measured by its responsiveness to customers (Lee and Billington, 1992).

Customer responsiveness is directly linked to information, in which appropriate use of information is essential to achieve customer responsiveness. To support this argument, Daugherty et al. (1995) conducted an empirical study to explore the relationship between information availability and customer responsiveness. The result of their study suggest that information availability and customer responsiveness are positively related which resulted in improving firm performance.

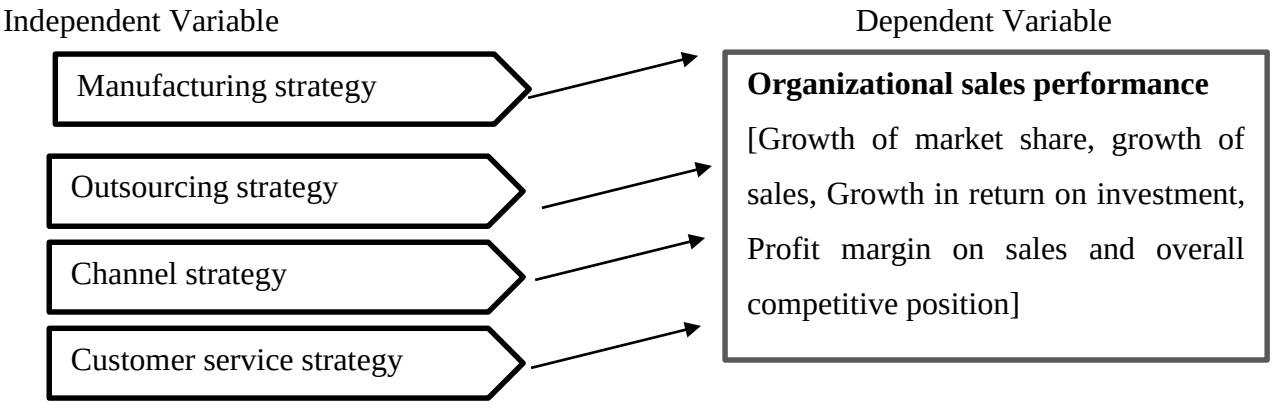
2.6 Firm Performance

The literature does not agree on a basic terminology and definition of firm performance (Venkatraman and Ramanujam, 1986). For instance, some researchers prefer to measure firm performance based on accounting data (financial indicators) such as ROI or return on assets (ROA) (Tan et al., 1999). Others argue that market or value measurement such as product quality and new product development are more appropriate than accounting-based measurements (Hax and Majluf, 1984). As a result, Yamin et al. (1999) developed a broader framework of firm performance that includes non-financial indicators in addition to financial performances.

In this study, firm performance refers to how well a firm achieves its market-oriented goals as well as its financial goals (Yamin et al., 1999). With regards to the financial goals, Yamin et al., (1999) posit performance measurements (they are the accounting-based measurements such as ROI, percentage in market share, rapid turnover of inventories, ROA, etc…). As previously mentioned, this definition is believed to have a comprehensive framework of firm performance and has been adopted in previous studies (Li et al., 2006) to measure the impact of SCM practices on firm performance. Li et al., (2006) measured firm performance through its market share, ROI, the growth of market share, the growth of sales, growth in return on investment, profit margin on sales, and overall competitive position.

Based on overall review of related literature and particularly from the work of (Sillanpää, 2010), (Klemencic, 2006), (Salazar, 2012) and (Mohammed, 2014) the following conceptual framework in which this specific study governed was developed:

Figure 2.1: Conceptual framework for the Study



Source :(Sillanpää, 2010),(Klemencic, 2006), (Salazar, 2012) and (Mohammed, 2014

2.7 Hypothesis

The researcher was to identify the effects of supply chain management strategy on organizational sales performance; the case of east Africa bottling S.C. based on the below hypotheses.

- Ho1: The current supply chain management strategy do not significant practices in east Africa Bottling S.C Addis Ababa.
- Ha1: The current supply chain management strategy significant practices in east Africa Bottling S.C Addis Ababa.

- Ho2: SCM practices do not significantly managed by the firm.
- Ha2: SCM practices significantly managed by the sales firm.
- Ho3: The supply chain management strategy of Addis Ababa Bottling S.C is being do not accomplished
- Ha3: The supply chain management strategy of Addis Ababa Bottling S.C is being accomplished
- Ho4: Supply chain management strategy do not significance effect on organizational sales performance of Addis Ababa Bottling S.C
- Ha4: Supply chain management strategy have a significance effect on organizational sales performance of Addis Ababa Bottling S.C

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

The main purpose of the research methodology is to explain how the research is accomplished, what knowledge is required, what information is needed and how information is collected. Research methodology consists of research Design, sample design-sampling technique, sample size, source and instruments of data collection, methods of data analysis, ethical issues, validity and reliability of the study.

3.1. Research Design

The study adopted Explanatory research design since the major focus of the research is the Effects of supply chain management strategy on organizational Performance in East Africa Bottling S.C. Addis Ababa.

Explanatory research designs are those types which are applied in order to measure and understand the casual relationships among two or more different groups. This studies are concerned to look for patterns, hypotheses or ideas that can be tested. The independent variable refers to the antecedent phenomenon, while the dependent variable relates to the consequent phenomenon. The research used quantitative method in order to gather the most appropriate data to answer the research question. Therefore, in order to accurately describe the effect & relationships between the independent variables and the dependent variable, Explanatory research studies were employed.

3.2. Sources of Data

The required data for the study were collected using both primary and secondary data collection methods. Primary data were collected from employees of the company by using a self-administered questionnaire that consist of closed ended questions. Different empirical studies used five point Likert scales for measuring effects of supply chain on firm performance (Sabry 2015, Koh et al 2007, and Benito 2010). Source of secondary data for this research were annual reports and journals as a stepping board for the research.

3.3. Data Gathering Tools/instruments

For the data collection purposes, two basic instruments namely, questionnaire and document analysis has been used.

Questionnaire: It is prepared based on the review of the related literature. Because the numbers of respondents are large, this tool is appropriate to gather the necessary data. The questionnaire carefully developed in a way that measure the impact of the proposed independent variables on the dependent variable. The type of questions, form, wording and sequences considered carefully.

Document Analysis: With this data gathering tools, reports, journals and relevant document has been reviewed and gathered from HR department and Marketing & sales. This data gathering tool is used to enrich the data which is obtained through questionnaire method.

3.4. Sample Design

3.4.1 Target Population

The target population is said to be a specified group of people or object for which questions can be asked or observed made to develop required data structures and informations. Therefore, for this study, the target populations were employees of East Africa Bottling S.C. Addis Ababa branch, particularly those 112 sales employees of the company.

3.4.2. Sampling Technique

For the purpose of this study, the researcher used probability sampling particularly stratified sampling technique since the total population of the study is large and heterogeneous in type stratified sampling technique was preferred. The target population for the study was classified into six strata based on the departments and section in the firm. Then the samples are selected from each stratum according to their proportion to the total population. Since the information required for the study needs different people who have knowledge and awareness about different supply chain management strategy/dimensions, performance and organizational performance of the firm, stratified sampling technique is used to have the right proportion of people from every concerned department or section. The departments considered as strata, from which data were

collected are: Manufacturing department, Technique Department, Marketing & Sales, Procurement & Store Management, Administration, Finance Departments are considered in the sample.

3.4.3. Sample Size

The target population of this study was 112 sales employees of the company; from these the researcher used and drawn sample for this study those who have educational back ground Diploma or above and these are 59.

The sample size is selected from the population used the Solvin's formula fitted in (Unan, 2012:52).

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

Where, N is the number of Population, n is sample size and e is the possible error term. Accordingly with estimate error term of 9%, it yields,

$$\text{n} = \frac{112}{1 + 112(.09)2}$$

n= 58.94, which the sample size was 59 employees

3.5. Methods of Data Analysis

The data collected through questionnaire were presented in table form and Explanatory statistics was employed. After making the necessary coding, to analyze the usable data collected from respondents Statistical Package for Social Sciences (SPSS) was used. Explanatory and inferential are applied in order to come up with a better result. Explanatory and Descriptive statistics is used to describe a set of data in terms of its frequency of occurrence, its central tendency, and its dispersion. Regression and correlation analysis were examined through employing inferential statistics.

3.6. Ethical Considerations

There are four ethical issues that need to be addressed in the process of undertaking a research: That are protection from harm, informed consent, right to privacy, and honesty with professional

colleagues. Therefore, the participants in this study was selected with full consent and informed to respond for questionnaires with confidence and understanding the purpose of the thesis; and the researcher was assure that as he will keep the information confidential and the data will used only for intended purpose.

3.7. Validity and Reliability

3.7.1. Assessing Reliability

Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure while reliability has to do with the accuracy and precision of a measurement procedure (A measuring instrument is reliable if it provides consistent results). As multiple items in all constructs were used, the internal consistency/reliabilities of SCM Strategy, Supply chain performance, and organizational performance were assessed with Cronbach‟s Alpha and the reliability values for all constructs are confirmed as greater than 0.7, which are considered ideal (Pallant 2005).

Table 1:- Reliability statics test

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Supply Chain Management Strategies			
Manufacturing strategy.	.746	.830	4
Outsourcing strategy.	.915	.925	9
Channel strategy	.940	.950	5
Customer service strategy.	.916	.937	4
Asset network.	.762	.781	4
Supply chain performance	1.026	1.048	22
Organizational sales performance	.868	.871	7
Cumulative Cronbach's Alpha	0.855	0.878	48

As per the above table the average reliability test result is .855 this implies that the variability of the data collected was reliable

3.8.2 Analysis of Validity

Malhotra (2010) mentioned about three types of validity in his study: content validity, predictive validity, and construct validity. This study addressed content validity, predictive validity and construct validity through the review of literature and adapting empirical instruments. Respondents might have different knowledge and experiences about supply chain management practices in their respective enterprises. Hence, there may be reactivity: a more general phenomenon in which people change their behavior when they are aware that they are being observed. In this case, respondents were well informed with the covering letter about the objectives of the research and the confidentiality of the information they provide (ethical issues).
According to Leedy et al (2010), the external validity of a research study is the extent to which its results apply to situations beyond the study itself, in other words, the extent to which the conclusions drawn can be generalized to other contexts. he three commonly used strategies that enhance the external validity of a research study i.e. a real life setting, a representative sample and replication in a different context were used to increase the external validity and the generalization of the results of the study.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This chapter presents the data analysis and result interpretation part of the research. In order to presents the findings of this research on effects of supply chain management strategy on organizational sales performance east Africa bottling S.C. Addis Ababa, the collected data using quantitative analysis was tabulated and analyzed using Explanatory and regression analysis statistical tools. To assess the relationship between supply chain management strategy and supply chain & firm's performance, Correlation and regression analysis were conducted for scale typed questionnaire. The collected data were presented and analyzed using SPSS (version 20) statistical software. The study used correlation analysis, specifically Pearson correlation to measure the degree of association between different variables under consideration and Regression Analysis was also used to test the effect of independent variable on dependent variable.

4.1 Demographic Characteristics of Respondents

A total of 59 questionnaires were distributed to employees and 50(84.75%) questionnaire were obtained. The remaining 9(15.25%) questionnaires were not collected due to unwillingness to provide information and some respondents were in absence of leave.

Table 2 – Profile of Respondents

		Frequency	Percent
Educational Qualification	College diploma	10	20.0
	First Degree	35	70.0
	Second Degree and above	5	10.0
	Total	50	84.75
Missing	System	9	15.25
Total		59	100.0
Job title	CEO/president /vice president	1	2.0
	Director	1	2.0
	Manager	1	2.0
	Sales	47	94.0
	Total	50	84.75
Missing	System	9	15.25
Total		59	100.0
Years of Service	Under 2 year	6	12.0
	2–5 years	27	54.0
	6–10 years	8	16.0
	over 10 years	9	18.0
	Total	50	84.75
Missing	System	9	15.25
Total		59	100.0

Source: Own survey result (SPSS Output, 2019)

The analysis of the respondents profile in terms of their Educational qualification, Job title and work experience in line with Table 2 is presented as follows. Educational Level: 35 respondents (70.0%) have 1st degrees, 5 respondents (10.0%) have 2nd Degree and the remaining 10 respondents (20.0%) are Diploma holders. Job Title: 1 respondents (2.0%) of them are CEO/president /vice president, 1 respondents (2.0%) of them are Directors of the company, 1 respondents (2.0%) are Managers of the company, and the rest 47 respondents (94.0%) are sales/marketing officers. According to the response, all the respondents are directly and indirectly involved in the supply chain practices of their firm and hence, their information can be considered as reliable and relevant for the study. Work Experience: From the total respondents, 6 respondents (12.0%) fall at a work experience of less than 2 years, 27 respondents (54.0%) fall at a work experience level of 2-5 years, 8 respondents (16.0%) are with 6-10 years' experience and the rest 9 respondents (18.0%) are at a work experience of more than 10 years.

4.2 Response on Supply Chain Management Strategy and Organizational Sales Performance

Table 3: Mean and St. Deviation of Responses on SCM Strategy of the firm

Supply Chain Management Strategy	Grand Mean	Std. Deviation	N
Manufacturing Strategy	4.0707	0.795	50
Outsourcing Strategy	1.2315	0.3905	50
Criteria to outsource	3.8681	0.7901	50
Channel strategy	4.0080	0.6525	50
Customer service strategy	3.9184	0.7692	50
Asset Network	4.2449	0.7375	50

Source: Own survey result (SPSS Output, 2019)

The research questionnaire designed using 5 point Likert scale to collect appropriate responses, in relation to this the respondents indicated the extent they agree with the statements by choosing: 5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree and 1-Strongly Disagree. Based on the response of the respondents Mean computed on the above table 3, a mean (M) score of 0-1.5 means that the respondents strongly disagreed, between 1.50 to 2.50 means they disagreed, 2.50 to 3.50 means the respondents were neutral, 3.50-4.50 means they agreed and a mean above 4.50 means the respondents strongly agreed. Based on the findings on table 3, Majority of Supply chain management Strategies (Manufacturing strategy, Channel Strategy, Customer service strategy, Asset network) scores greater than 3.5, which imply the respondents agreed to the fact that SCM practices are in their respective firms and There is a strategy that channels members managed, monitored and motivated, once they are selected respondents were replied neutral. In addition, on the out sourcing strategy respondents evaluated their choice using 1–Yes and 2-No, Based on the findings on Table 3, the mean score showed above one which means majority of the respondents believe the company has a little practice of out sourcing.

4.3 Responses on Dimensions of Supply chain of sales performance

Table 4 - Mean and St. Deviation of Responses on SC of sales performance of the firm

Supply Chain Sales Performance	Grand Mean	Std. Deviation	N
Reliability	4.2491	0.6498	50
Responsiveness	3.9636	0.6489	50
Flexibility	4.0303	0.7220	50
Cost	4.1919	0.5842	50
Asset management	3.5252	0.7497	50

Source: Own survey result (SPSS Output, 2019)

According to the responses of the respondents the 5 point Likert scale indicate the extent they agree with the statements that is: 5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree and 1-Strongly Disagree. Based on the findings on Table 4, it implies that majority of respondents agreed to the fact that the company supply chain of sales performance is moderately good and there is no knowledge sharing between business units. From this results, the researcher has concluded that the supply chain management Strategy of the Organizations Sales performance of east African bottling S.C. Addis Ababa branch were reliability, responsiveness, flexibility, less production cost and have good asset management.

4.4. Inferential Statistics for SCM Strategy and Firm Sales Performance

4.4.1 Correlation Analysis

Correlations are the measure of the linear relationship between two variables. A correlation coefficient has a value ranging from -1 to 1. Values that are closer to the absolute value of 1 indicate that there is a strong relationship between the variables being correlated whereas values closer to 0 indicates that there is little or no linear relationship. As described by (Pallant 2005), the correlation is a commonly used measure of the size of an effect: values of ± 0.1 represent a small effect, ± 0.3 is a medium effect and ± 0.5 is a large effect. In this section, correlation analysis conducted in the light of each research objectives and hypotheses developed. The relationship between supply chain management strategy and firm performance was investigated

using correlation analysis. This provided correlation Coefficients which indicate the strength and direction of relationship. The p-value also indicated the probability of this relationship's significance.

4.4.2 Correlation Analysis between SCM Strategy and Supply Chain Sales Performance

Table 5 Correlation matrix between constructs of SCM strategy and SCSP

Correlations		Manufacturing Strategy	Outsourcing Strategy	Channel Strategy	Customer Service Strategy	Asset Network	Supply Chain Sales Performance
Supply Chain Sales Performance	Pearson Correlation	.689**	.493**	.752**	.761**	.757**	1**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	50	50	50	50	50	50

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

Source: Own survey result (SPSS Output, 2019)

The SCM strategy such as ; - Manufacturing strategy, Outsourcing strategy, Channel Strategy, Customer service strategy and Asset network their relation with supply chain sales performance was computed in the above table. The result of correlation matrix between each strategy and SC sales performance are analyzed as follow:

As it is indicated in the above table, there is significant positive correlation between Manufacturing strategy and supply chain sales performance with a correlation coefficient of 0.689 (r=0.689) and significance is .000. Therefore, manufacturing strategy and supply chain sales performance are frankly correlated. Table 5, also depict that as there is moderate and positive relationship between Outsourcing strategy and supply chain sales performance with a Pearson correlation coefficient of 0.493 (r=0.493) and significance value is .000. This significance tells that there is genuine relationship between the two. Additionally Channel Strategy and supply chain sales performance are Correlated in high relationship (r=0.752) with level of significance at .000 Pearson correlation test indicated that there is significant positive correlation between Channel Strategy and SCSP.

In addition, the correlation test conducted on Customer service strategy and supply chain sales performance indicate that there is strong and positive relation between Customer service strategy and supply chain sales performance showing correlation coefficient of 0.761 (r=0.761) and

significance value less than 0.01. The correlation test between Asset Network and supply chain sales performance also revealed that strong and positive relation with correlation coefficient of 0.757 and significance value less than 0.01. From the above table 5, the SCM Strategies has strong relation with the better sales performance of SC in the case of East African bottling Addis Ababa branches.

4.4.3 Correlation Analysis between SCM Strategy and Organizational Sales Performance.

Table 6 Correlation Matrix between constructs SCM Strategy and Organization Sales performance

Correlations		Manufacturing Strategy	Outsourcing Strategy	Channel Strategy	Customer Service Strategy	Asset Network	Organizational Sales Performance
Organizational Sales Performance	Pearson Correlation	.727**	.669**	.871**	.959**	.891**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	50	50	50	50	50	50
**. Correlation is significant at the 0.01 level (2-tailed).							

Source: Own survey result (SPSS Output, 2019)

Based on the above table 6, the result of correlation matrix between each SCM Strategy and Organizational Sales performance are analyzed as follow: manufacturing strategy positively related to organizational Sales performance with a Pearson correlation coefficient of 0.727 (r=0.727) and significance value is 0.000. This significance tells that there is genuine and positive relationship between manufacturing and organizational Sales performance.

Table 6, also depict that as there is positive relationship between Outsourcing strategy and organizational performance with a Pearson correlation coefficient of 0.669 (r=0.669) however the significance value is 0.00. On the other hand the Pearson correlation test show that there is significant positive correlation between Channel Strategy and organizational performance with a Pearson correlation coefficient of 0.871(r=0.871) and significance value is less than 0.01. This significance tells that there is genuine relation of Channel Strategy and organizational Sales performance.

According to the above table 6, the correlation test conducted between Customer service strategy and organizational sales performance, clearly indicates that there is highly relation. The result of correlation coefficient showed 0.959 (r=.959) and significance value is 0.000. This indicates that there is genuine relation between them. The correlation test on Asset network and Organizational Performance also shown a positive and significant correlation with a Pearson correlation coefficient of 0.891 (r=0.891) and significance value is 0.000. In relation to this facts (Klemencic, 2006) also proved that the SCM Strategy has significant relation to improvement of the organizational sales performance.

4.5. Regression Analysis

Linear regressions were conducted to identify the relationship and to determine the most dominant variables that Competitive positioning. And also Regression analysis was used in order to estimate or predict the effect of independent variable on dependent variable. The significance level of 0.05 with 95% confidence interval was used.

This regression analysis is conducted to know by how much the independent variable explains the dependent variable. The regression was conducted between supply chain management practices (independent variable) and organizational Sales performance (dependent variable). The results of the regression analysis are presented as follows.

4.5.1 Common Assumption Test

The following are common assumption tests of linear regression done on this study.

4.5.1.1 Multi Collinearity Assumption Test

According to [Cochran,1977] stated that presence of multi collinearly can be detected by just looking at variance inflation factor [VIF] value of each explanatory variable .That is ,if VIF is more than 10 ,then, it signifies that there is interdependent among independent variable but all variables less than 10 it have no interdependence among variables .Or in other round Multi Collinearity occurs when independent variables in the regression model are more highly correlated with each other than with the dependent variable .Tolerance value and variation inflation factor [VIF] for each in dependent variables determines Multi Collinearity.

Multi Collinearity is problem and exists when tolerance is below 0.10 and average VIF is larger than 10. The multi collinearity test conducted showed that multi collinearity was not problem because tolerance value was not below 0.10 for each in dependent variable and variation inflation factor for each independent variable was not great than 10.

Table 7: Multi Collinearity Assumption Test

Model	Collinearity Statistics	
	Tolerance	VIF
Manufacturing Strategy	.826	1.329
Outsourcing Strategy	.843	1.133
Channel Strategy	.729	1.589
Customer Service Strategy	.922	1.216
Asset Network Strategy	.839	1.353
Reliability	.826	1.329
Responsiveness	.843	1.133
Flexibility	.729	1.589
Cost	.922	1.216
Asset management	.839	1.353

Dependent Variable: Organizational sales Performance

Source: Own survey result (SPSS Output, 2019)

The result in table 7 show that the collinearity between independent variables has no series problem since the value of tolerance for all independent variable is greater than 0.1 and all VIF is less than ten (VIF<10) (Pallant 2005).From the above table hence, we can conclude that there is the Multi collinearly assumption is fulfilled in the study.

4.5.2 Regression Analysis between SCM Strategy and Organizational sales Performance

Table 8: Model Summary [independent variables as predictors to Organizational sales Performance]

Model Summary

Multiple R	R Square	Adjusted R Square	Apparent Prediction Error
.881	.775	.747	.225

Dependent Variable: Organizational sales Performance
Predictors: (Constant), Manufacturing Strategy, Outsourcing Strategy, Channel Strategy, Customer Service Strategy, Asset Network , Reliability, Responsiveness, Flexibility, Cost Asset Mgt

Source: Own survey result (SPSS Output, 2019)

As shown in the table 8, there is causal relationship between SCM Strategy and Organizational sales Performance. The adjusted R Square is .747, which implies that SCM Strategy can account for 74.7% of the variation in Organizational sales Performance. Although there might be many factors that can explain the variable on Organizational sales Performance, nearly 88.1% of it is explained by SCM strategy. This means that the remaining 12.9% of the variation in Organizational sales Performance cannot be explained by those dimensions of SCM Strategy. The R^2 value of .775(77.5%) Implies relative contribution of SCM Strategy in interpreting the Organizational sales Performance of the firm, the remaining 22.5% of the changes in the change can be attributed to other factors.

Table 9: Model fit ANOVA

ANOVA	Sum of Squares	Df	Mean Square	F	Sig.
Regression	36.765	11	6.979	27.305	.000
Residual	22.235	37	.256		
Total	50.000	49			

Dependent Variable: Organizational sales Performance

Predictors: (Constant), Manufacturing Strategy, Outsourcing Strategy, Channel Strategy, Customer Service Strategy, Asset Network, Reliability, Responsiveness, Flexibility, Cost Asset Management.

Source: Own survey result (SPSS Output, 2019)

In linear regression analysis it is assumed that there is a leaner relation between the predictors and the dependent variable .This study measured the linearity by testing the goodness of fit of the model by Conducting ANOVA test.

The test hypotheses are:

HO: The model is not a good fit

Ha1: The model is a good fit

$\alpha = 0.05$

From the table 9 is ANOVA test, it is noticed that F value of 27.305 is significant at the 0.000 level. Therefore, from the result, it can concluded that the model is a good fit .Since, the P-value [SIG] 0.000 is less than $\alpha = 0.05$ this result indicates a linear between the dependent variables and the independent Variables .Therefore, as per the above table ANOVA result the model is appropriately. The other two SCM Strategy independent variables Manufacturing strategy and Channel Strategy are significant to predict dependent variable organizational sales performance. On the study conducted by (Gunjan Soni and Rambabu Kodali, 2011) It was also found that choice of SC Strategy effects on Organizational sales Performance.

Table 10: Coefficients

Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.807	.127		3.107	.002		
Manufacturing Strategy	.139	.073	.157	2.033	.001	.826	1.329
Outsourcing Strategy	.115	.070	.413	5.213	.000	.843	1.133
Channel Strategy	.123	.067	.142	2.113	.002	.729	1.589
Customer Service Strategy	.207	.076	.231	2.106	.001	.922	1.216
Asset Network Strategy	.132	.023	.147	3.023	.003	.839	1.353
Reliability	.265	.080	.313	6.113	.000	.826	1.329
Responsiveness	.223	.047	.242	2.733	.000	.843	1.133
Flexibility	.107	.056	.131	3.136	.002	.729	1.589
Cost	.149	.083	.137	2.143	.000	.922	1.216
Asset management	.125	.061	.312	4.223	.000	.839	1.353
a. Dependent Variable: Organizational sales Performance							

Source: Own survey result (SPSS Output, 2019)
Regression equation is stated as:

$Y=Bo+\beta 1x1+\beta 2x2+\beta 3x3+\ldots +\beta kX+ei$

Where:

- β0= point of intercept
- Y= Organizational sales Performance of east African bottling S.C
- Xk= Supply chain management practices in of east African bottling S.C
- Bk=slop of the line
- ei= error term

As per the above table 10 the explained regression equation is stated as:

- Organizational sales Performance = 0.807+ 0.139* MS+0.365 *OS+0.123*CS+.207 *CSS+.132*ANS+.265*R+.223*RS+.107*F+.149*C+.345*AM:
- Where MS= Manufacturing Strategy, CS= Channel Strategy, CSS= Customer Service Strategy, ANS= Asset Network Strategy, OS= Outsourcing Strategy, R= Reliability, RS= Responsiveness, F= Flexibility, C= Cost and AS= Asset management

Based on linear regression analysis, the table above reveals the Effect of each supply chain management, i.e. the Effect of Manufacturing Strategy, Channel Strategy, Customer Service Strategy, Asset Network Strategy, Outsourcing Strategy, Reliability, Responsiveness, Flexibility, Cost and Asset management on Organizational sales Performance of east African bottling S.C are 0.807, 0.139, 0.365, 0.123, .207, .132, .265, .223, .107, .149, .345, respectively. By examining this β weight of data analysis result and level of significant, the finding shows that Manufacturing Strategy, Channel Strategy, Customer Service Strategy, Asset Network Strategy, Outsourcing Strategy, Reliability, Responsiveness, Flexibility, Cost and Asset management have greater effect on Organizational sales Performance of east African bottling S.C. On the other hand outsourcing strategy and asset management not that much effect on Organizational sales Performance of east African bottling S.C. And this implies that the predicted change in the dependent variable for every unit increase in that particular predictor.

Generally, the main purpose of this study is to analysis the effect of supply chain management on Organizational sales Performance of east African bottling S.C. From the above data analysis,

Supply chain management practice which are, Manufacturing Strategy, Channel Strategy, Customer Service Strategy, Asset Network Strategy, Outsourcing Strategy, Reliability, Responsiveness, Flexibility, Cost and Asset management has effect on Organizational sales Performance at 5 % level of significance.

4.6 Hypothesis Testing

The purpose of the hypothesis was to analyze whether there was independent variables [Manufacturing Strategy, Channel Strategy, Customer Service Strategy, Asset Network Strategy, Outsourcing Strategy, Reliability, Responsiveness, Flexibility, Cost and Asset management] has a significant effect on dependent variables [Organizational sales Performance] .And one of the most commonly used methods in statically decision making is hypothesis testing .

The hypotheses test include two hypotheses : the null hypothesis [denoted by Ho] and the alternative hypothesis [donated by Ha] .The null hypothesis is the initial claim and is often specified using previous research or common knowledge .The alternative hypothesis is sometimes referred to as the research Hypothesis .

The decision making process for Hypothesis test can be based on the probability value [p-value] for the given test that is:

- If the p-value is less than or equal to a predetermined 0.05 level of significance ,then we reject the null hypothesis and claim support for the alternative hypothesis
- If the P- value is greater than 0.05 level of significance value, we fail to reject the null hypothesis and cannot claim support for the alternative hypothesis.

Bases on this the researcher developed four hypotheses to check the effect of supply chain management practices on Competitive positioning.

At the 5% significance level, determine if the model is useful for predicting the response bases on this Hypothesis analysis implemented:

Ho: independent variables do not have a significant Effect on Organizational sales Performance.

Ha: independent variables have a significant Effect on Organizational sales Performance

The Significance Level $\alpha = 0.05$ and Reject the null hypothesis if p-value ≤ 0.05.

The ANOVA table 10 shows that (Test Statistic and p-value), $F = 27.305$, p-value < 0.05 accepted hypothesis and p-value > 0.05 we rejected the null hypothesis.

At the $\alpha = 0.05$ level of significance, evidence to conclude that all independent variables are useful for predicting Organizational sales Performance; therefore the model us useful and accepted the alternative hypothesis; as per table 11 Beta result all variables are positive Beta value and with the independent variables Significance level less than 0.05 this implies that SCM has a significant effect on Organizational sales Performance and there is evidence to reject the null hypothesis and to accept the alternative hypothesis .

Table 11 Summary of Hypotheses Result

Type	Hypothesis	Result	Reason
Ho1	The current supply chain management strategy do not significant practices in east Africa Bottling S.C Addis Ababa.	Rejected	B=0.139,P<0.05
Ha1:	The current supply chain management strategy significant practices in east Africa Bottling S.C Addis Ababa.	Accepted	
Ho2:	SCM practices do not significantly managed by the firm.	Rejected	B=0.123,P<0.05
Ha2:	SCM practices significantly managed by the firm.	Accepted	
Ho3:	The supply chain management strategy of Addis Ababa Bottling S.C is being do not accomplished	Rejected	B=0.132, P<0.05
Ha3:	The supply chain management strategy of Addis Ababa Bottling S.C is being accomplished	Accepted	
Ho4:	Supply chain management strategy do not significance effect on organizational sales performance of Addis Ababa Bottling S.C	Rejected	B=0.107,P<0.05
Ha4:	Supply chain management strategy have a significance effect on organizational sales performance of Addis Ababa Bottling S.C	Accepted	

CHAPTER FIVE

SUMMARY, CONCLUSION ANDRECOMMENDATION

5.1 Summary of Major Findings

The main objective of this study was to assess the effects of supply chain management strategy on organizational Sales performance the case of east Africa bottling S.C. Addis Ababa. Based on the data analysis in the previous section, summary of the findings are presented as follows.

- Most of respondents' responses that supply chain sales performance of east African bottling Addis Ababa branches were reliability, responsiveness, flexibility, less production cost and have good asset management.
- The respondents agreed to the fact that their business sales performance of east African bottling Addis Ababa branches were increase market share, return on investment, and increase growth of market share, sales and Profit margin on sales and overall competitive position were good.
- The majority responses on the SCM Strategy, Supply chain performance and organizational sales performance mean scores greater than 3.5, which imply the respondents agreed to the fact that the company actually practice supply chain management.
- The respondents' replies on Supply chain and firm sales performance imply that majority of respondents agreed to the fact that the company supply chain Sales performance is moderately liquid and the current performance of the company is also good.
- The result from the study shows that there is significantly strong correlation between SCM Strategy and SC sales Performance with significance value less than 0.01 and SCM strategy has also contributed 77.5% for the variability of SC sales performance.
- The finding from correlation test between SCM and SC sales Performance show that there is significantly moderate correlation between SCM Strategy and organization sales Performance and significance value less than 0.01 and Regression analysis confirm that 95.0% of variability of organizational sales performance explained by SCM strategy.
- Concerning Supply chain sales performance and organizational sales performance from the study it can be concluded that Supply chain sales performance and organizational

sales performance has moderate and positive relation based on Pearson correlation coefficient and significance value is less than 0.001. Moreover, the regression result of SC performance and organizational performance indicates that SC sales performance can explain approximately 93.6% of organizational sales performance.

5.2 Conclusion

The main objective of the study was to assess the effects of supply chain management strategy on organizational sales performance the case of east Africa bottling S.C. Addis Ababa. The Data was collected through a structured questionnaire that was tailored with the help of literature. Survey was carried out at east Africa bottling S.C. Addis Ababa respondent employees. With the support of IBM SPSS statistics 20 software system: - Both explanatory and inferential, Regression and correlation are applied in order to come up with a better result. Based on the results of the study and the summary of findings the following conclusions are given.

- The company supply chain sales performance is moderately good and there is a good supply chain management practice and respondents confirmed that the company has a little practice of out sourcing. The knowledge of outsourcing activities are limited and the company has no organized body to manage SC of organization which is functioning by default.
- The correlation analysis showed that exist significant and positive relationship among and between independent variables and organizational sales performance. Therefore improvement and interrelation in all independent variables can increase organizational sales performance east Africa bottling S.C. and also increasing integration of supply chain management practices and to overcome and keep the factory organizational sales performance.
- Strategic supply chain relationship and organizational sales performance are significantly and positively related. So strategic supply chain relationship is one of the main predictor of the organizational sales performance east Africa bottling S.C. Addis Ababa.
- Supply chain sales performance of east African bottling Addis Ababa branch were reliability, responsiveness, flexibility, less production cost and have good asset management.
- Their business sales performance of east African bottling Addis Ababa branch were good

market share, return on investment, and increase growth of market share, sales and Profit margin on sales and overall competitive position were good.

- The SCM Strategy, Supply chain sales performance and organizational sales performance the company were practice supply chain management. There is strong correlation between SCM Strategy and SC sales Performance, moderate correlation between SCM Strategy and organization sales Performance.

5.3 Recommendation

Based on the study results and conclusions drawn above, some recommendations are proposed as a means of alleviating the problems found.

- The current complex market organizations need to include SCM strategically since SCM becoming a matter of survival in the current increasingly competitive market besides a clear SCM Strategy enable the company to predict the future and to excel from the current sales performance.
- The company needed to review the critical activities and processes needs to achieve the objectives and the organization needs to adapt to new solutions. In respect of the company needs to cut out non-core activities from within and practice outsourcing of non-core activities to outside service providers. This would assure coordinated management of activities as well as better efficiency of processes.
- Structured SCM contribute in managing operational effectiveness of supply chain and the use of it can contribute in achieving goals and are also effective tool for good decision making process, when they are designed properly. However proper strategic supply chain framework can cope up with the changing market situations, customer demands and overcoming the various challenges.
- In order to achieve advancement in marketing and financial performance in the long run through enhancing organizational sales performance, it is better for the organization to give due emphasis on SCM practices.
- In order to foster organizational sales performance, it is also better for the organization to give due emphasis to Supply chain sales performance measures.

REFERENCES

Agarwal, A., Shankar, R., & Tiwari, M.K. (2007). Modeling agility of supply chain. *Industrial Marketing Management*, 36 (4), pp. 443-457.

Allen, B. R., & Boynton, A. C. (1991). Information architecture: In search of efficient flexibility. *MIS Quarterly*, 15(4), pp.435–445.

Bakos, J. Y., & Treacy, M. E. (1986). Information technology and corporate strategy: A research perspective. *MIS Quarterly*, 10 (2), pp.107-119.

Beamon, B.M. (1999). Measuring supply chain performance. *International Journal of Operations and Production Management*, 19 (3), pp.275–292.

Belardo, S., Duchessi, P., & Coleman, J. R. (1994). A strategic decision support system at Orell Fussli. *Journal of Management Information Systems*, 10 (4), pp.135-157.

Benjamin, R.I., Rockart, J.F., Scott Morton, M.S., & Wyman, J. (1984). Information Technology: A Strategic Opportunity. *Sloan Management Review*, spring, pp.3-10.

Boynton, A.C., Zmud, R.W., & Jacobs, G.C. (1994). The Influence of IT Management Practice on IT Use in Large Organizations. *MIS Quarterly*, 18 (3), pp.299-318.

Camillus, J.C. and Lederer, A.L. (1985). Corporate strategy and design of computerized information systems. *Sloan Management Review*, 26 (3), pp.35-42.

Childhouse, P. T. (2003) *Simplified material flow holds the key to supply chain integration* OMEGA 2003; Vol. 31 pp. 17-27

Chopra, S., & Meindl, P. (2001). *Supply Chain Management: Strategy, Planning, & Operation*. NJ: Prentice-Hall. Inc.

Christopher, M., & Towill, D. R. (2000). Supply chain migration from lean & functional to agile & customized. *Supply Chain Management: An International Journal*, 5 (4) pp. 206-213.

Clark, T.H., & Stoddard, D.B. (1996). Interorganizational business process redesign: Merging technological and process innovation. *Journal of Management Information Systems*, 13 (2), pp.9-29.

Clemons, E. K., Reddi, S. P., & Row, M. C. (1993). The impact of information technology on the organization of economic activity: The "move to the middle" hypothesis. *Journal of Management Information Systems*, 10 (2), pp.9-35.

Cohen, S., & Roussel J. (2005). *Strategic Supply Chain Management: The Five Disciplines for Top Performance*. New York: McGraw-Hill.

Daugherty, P.J., Ellinger, A.E., & Rogers, D.S. (1995). Information accessibility: Customer responsiveness and enhanced performance. *International Journal of Physical Distribution and Logistics Management*, 25 (1), pp.4-17.

Duncan, N.B. (1995). Capturing flexibility of information technology infrastructure: a study of resource characteristics and their measure. *Journal of Management Information Systems*, 12 (2), pp. 37 – 57.

Earl, M. J. (1989). *Management Strategies for Information Technology*. New York: Prentice Hall.

Fathian, M.,Golchinpour, M., (2007), strategies of agility in the manufacturing, Tadbir magazine, Issue 175.

Fisher, M. L. (1997). What is the Right Supply Chain for Your Product? *Harvard Business Review*, 75 (2), pp.105-116.

Frazier, G.L., Spekman, R.E., & O'Neal C.R. (1988). Just-in- time exchange relationships in industrial markets. *Journal of Marketing*, 52(4), pp.52-67.

Frohlich, M.T., & Westbrook, R. (2001). Arcs of integration: an international study of supply chain strategies. *Journal of Operations Management*, 19 (2), pp.185-200.

Goldsby, T.J. & Garcia-Dastugue, S.J. (2003) *The manufacturing flow management process* The International Journal of Logistics Management, Vol. 14, No. 2, pp.33-52

Gunasekaran, A., Patel, C., &Tirtiroglu, E. (2001). Performance measures and metrics in a supply chain environment. *International Journal of Operations and Production Management*, 21, (1-2), pp.71-87.

Hax, A.C., & Majluf, N.S. (1984).The corporate strategic planning process. Interfaces, 14 (1), pp.47-60. 185

Holmberg, S. (2000). A systems perspective on supply chain measurements. *International Journal of Physical Distribution and Logistics Management*, 30 (10), pp.847-868.

Huang, S.H., Uppal, M., & Shi, J. (2002). A product driven approach to manufacturing supply chain selection. *Supply Chain Management: An International Journal*, 7 (2), pp.189-199.

Jacobs, F. R., & Chase, R. B. (2008). *Operations and Supply Management: The Core*. New York, NY: McGraw-Hill.

Julie Pallant (2005) SPSS Survival manual a step by step guide to data analysis using SPSS for Windows (Version 12), Allen &Unwin

Kim, D., Cavusgil, T.S., & Calantone, R.J. (2006). Information systems innovations and supply chain management: Channel relationships and firm performance. *Journal of Academy of Marketing Science*, 34(1), pp.40-54.

King, W. R. (1978). Strategic planning for management information systems. *MIS Quarterly*, 2 (1), pp.27-37

Koh, S.C., Demirbag, M., Bayraktar, E., Tatoglu, E., & Zaim, S. (2007). The impact of supply chain management practices on performance of SMEs. *Industrial Management and Data Systems*, 107 (1), pp.103-124. 187

Kothari W., (2004), Research Methodology, 2nd Edition, New age international publisher, India

Kumar, V., Fantazy, K., Kumar, U., & Boyle, T. A. (2006). Implementation and management framework for supply chain flexibility. *Journal of Enterprise Information Management*, 19 (3), pp.303-319.

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

Lee, H. L. (2002). Aligning supply chain strategies with product uncertainties. *California Management Review*, 44 (3), pp.105-119.

Lee, H.L. (2006). Creating value through supply chain integration. Supply Chain Management Review, 4 (4), pp.30-36.

Lin, C., Chiu, H., & Chu, P. (2006). Agility index in the supply chain. *International Journal of Production Economics*, 100 (2), pp.285-299.

Lockamy, A. and McCormack, K. (2004). Linking SCOR planning practices to supply chain performance. *International Journal of Operations and Production Management*, 24 (12), pp.1192-1218.

Malhotra, A., Gosain, S., and El Sawy, O. A. (2005)"Absorptive Capacity Configurations in Supply Chains: Gearing for Partner-Enabled Market Knowledge Creation," MIS Quarterly (29:1), pp. 145-187.

Mason-Jones, R., Naylor, B., & Towill, D. R. (2000). Lean, agile or leagile? Matching your supply chain to the marketplace. *International Journal of Production Research*, (38), pp. 4061-4070.

Mentzer, J. T. (2004). Fundamentals of supply chain management: Twelve drivers of competitive advantage. Sage Publications.

McFarlan, F.W., & McKenney, J. L. (1983) *Corporate Information Systems Management: The Issue Facing Senior Executive*. Dow Jones: Irwin.

McIvor, R. (2001). Lean supply: the design and cost reduction dimensions. *European Journal of Purchasing & Supply Management*, 7 pp.227-242.

McKay, D. T. & Brockway, D. W. (1989). Building I/T Infrastructure for the1990s. *Stage by Stage,* 9 (3), pp.1-11.

McLaren, T. S., Head M. M., and Yuan, Y. (2004). Using competitive strategy patterns to determine ideal supply chain management information systems capabilities. *International Journal of Internet and Enterprise Management*, 2(1), pp.45-61.

Miles, R. E., & Snow, C. C. (1978). *Organizational Strategy, Structure, and Process*. New York: McGraw-Hill.

Moberg, C. R., Cutler, B. D., Gross, A., & Speh, T.W. (2002). Identifying antecedents of information exchange within supply chains. *International Journal of Physical Distribution and Logistics Management*, 32 (9), pp.755-770. 190

Mohr, J., & Spekman, R. (1994). Characteristics of partnership success: partnership attributes, communication behavior and conflict resolution techniques. *Strategic Management Journal*, 15 (2), pp.135-152.

Monczka, R. M., Petersen, K. J., Handfield, R. B., & Ragatz, G. L. (1998). Success factors in strategic supplier alliances: The buying company perspective. *Decision Sciences*, 29 (3), pp.553-577.

Narasimhan, R. (1997). Strategic supply management: a total quality management imperative. *Advances in the Management of Organizational Quality*, 2, pp. 39-86.

Narasimhan, R., & Kim, S. W. (2001). Information system utilization strategy for supply chain integration. *Journal of Business Logistics*, 22 (2), pp.51-75. 191

Naylor, B. J., Naim, M. M. & Berry, D. (1999). Leagility: Integrating the lean & agile manufacturing paradigms in the total supply chain. *International Journal of Production Economics*, 62 (1-2), pp.107-118.

Owens, G., & Richmond, B. (1995). Best Practices in Retailing: How to Reinvent Your Supply Chain: What Works, What doesn‟t. *Chain Store Age*, 71 (11), pp.96-98.

Pagh, J.D., & Cooper, M.C., (1998). Supply chain postponement and speculation strategies: how to choose the right strategy. *Journal of Business Logistics*, 19 (2), pp.13-33.

Parsons, G.L. (1983). Information technology: a new competitive weapon. *Sloan Management Review*, 25 (1), pp.3-14. 192

Petrovic-Lazarevic, (2007) Supply Chain Management Practices and Supply Chain Performance in the Australian Manufacturing Industry. Australia, Monash University.

Porter, M. E. (1990). *The Competitive Advantage of Nations*. New York, NY: The Free Press. Power, D.J., Sohal, A., & Rahman, S.U. (2001). Critical success factors in agile supply chain management: an empirical study. *International Journal of Physical Distribution & Logistics Management*, 31(4), pp.247–65.

Prats, L. M., (2003). The adaptive Supply Chain: Postponement for Profitability, Oracle Corporation and Cap Gemini Ernst & Young. Retrieved December 2, 2008, from http://www.oracle.com/applications/postponement-for-profitability-brochure.pdf

Puckridge, D. S. & Woolsey, I. (2003). Information systems strategy for supply chains. In Gattorna, J. (Eds), *Gower Handbook of Supply Chain Management* (pp.406-425). Aldershot, England: Gower.

Quinn, F.J. (1997). Team up for supply chain success. *Logistics Management*, (36) pp.39-41. 193

Rai, A., Patnayakuni, R., & Seth, N. (2006). Firm performance impacts of digitally enabled supply chain integration capabilities. *MIS Quarterly*, 30 (2), pp.225-246.

Rich, N., & Hines, P. (1997). Supply chain management and time based competition: The role of the supplier association. *International Journal of Physical Distribution & Logistics Management*, 27 (3/4), pp.210-225.

Rockart, J. F. & Morton, M. S. (1984). Implications of changes in Information technology for Corporate Strategy. *Interfaces*, 14 (1) pp.84-95.

Sabherwal, R., & Chan, Y. E. (2001). Alignment between business & IS strategies: a study of prospectors, analyzers, & defenders. *Information Systems Research*, 12 (1), pp.11-33.

Sabry, A.,(2015), The Impact of Supply-Chain Management Capabilities on Business Performance in Egyptian Industrial Sector, International Journal of Business and Management; Vol. 10, No. 6, Canadian Center of Science and Education.

Sarkis, J., & Talluri, S. (2002). A model for strategic supplier selection. *Journal of Supply Chain Management*, 38 (1), pp.18-28.

Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2003). *Designing and Managing the Supply Chain: Concepts, Strategies, and Case studies*. Boston: Irwin/McGraw-Hill. 195

Stalk, G., & Hout, T. M. (1990). *Competing Against Time: How Time-based Competition is Reshaping Global Markets*. New York, NY: The Free Press.

Stevens, G. C. (1990). Successful supply-chain management. *Management Decision*, 28 (8), pp.25-30.

Stock, G.N., Greis, N.P, & Kasarda, J.D. (2000). Enterprise logistics and supply chain structure: the role of fit. *Journal of Operations Management*, 18 (5), pp.531-47.

Stuart, F.I., 1993. Supplier Partnerships: Influencing Factors and Strategic Benefits. *Journal of Supply Chain Management*, 29 (4), pp.21-29.

Swafford, P.M., Ghosh, S. and Murthy, N. (2006). The antecedents of supply chain agility of a firm: scale development and model testing. *Journal of Operations Management*, 24, pp.170-88.

Tan, K. C., Kannan, V.R., & Handfield, R. B. (1998). Supply chain management: supplier performance and firm performance. *International Journal of Purchasing and Materials Management*, 34 (3), pp.2-9.

Towill, D., & Christopher, M. (2002). The supply chain strategy conundrum: To be lean or agile or to be lean & agile? *International Journal of Logistics: Research & Applications*, 5 (3), pp.299-309.

Tsay, A. A., & Lovejoy, W. S. (1999). Quantity flexibility contracts and supply chain performance. Manufacturing & Service Operations Management, 1(2), 89-111.

Tu, Q., Vonderembse, M. A., Ragu-Nathan, T. S., &Ragu-Nathan, B. (2004). Measuring Modularity-Based Manufacturing Practices and Their Impact on Mass Customization Capability: A Customer-Driven Perspective. *Decision Sciences*, 35 (2), pp.147-168.

Turner, J.R. (1993). Integrated supply chain management: what's wrong with this picture? Industrial Engineering, 25 (12), pp.52-55.

Ulusoy, G. (2003). An assessment of supply chain and innovation management practices in the manufacturing industries in Turkey. International Journal of Production Economics, 86, pp.251-70.

Van Hoek, R.I., Harrison, A., & Christopher, M. (2001). Measuring agile capabilities in the supply chain. *International Journal of Operations & Production Management*, 21 (1-2), pp. 126-148.

Venkatraman, N. (1989). Strategic orientation of business enterprises: the construct, dimensionality, and measurement. *Management Science*, 35 (8), pp.942-962.

Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, 11, pp.801-814.

Vickery, S. K., Jayaram, J., Droge, C., & Calantone, R. (2003). The effects of an integrative supply chain strategy on customer service and financial performance: an analysis of direct versus indirect relationships. *Journal of Operations Management*, 21 (5), pp.523-539.

Vijayasarathy, L. R., & Robey, D. (1997). The effect of EDI on market channel relationships in retailing. *Information & Management*, 33 (2), pp.73-86. 199

Vitasek, K., Manrodt, K. B., & Abbott, J., (2005).What makes a lean supply chain? *Supply Chain Management Review*, 9 (7), pp.39-45.

Vonderembse, M. A., Uppal, M., Huang, S. H., & Dismukes, J. P. (2006). Designing supply chains: Towards theory development. *International Journal of Production Economics*, 100 (2), pp.223-238.

Waller, M. A., Dabholkar, P. A. & Gentry, J. J. (2000). Postponement, product customization, and market-oriented supply chain management. *Journal of Business Logistics*, 21 (2), pp.133-160.

Wang, G., Huang, S. H., & Dismukes, J. P. (2004). Product-driven supply chain selection using integrated multi-criteria decision-making methodology. *International Journal of Production Economics*, 91 (1), pp.1-15.

Ward, J.M. (1987). Integrating information systems into business strategies. *Long Range Planning*, 20 (3), pp.19-29.

Weerakkody, V. J. P. & Hinton, C. M. (1999). Exploiting information systems and technology through business process improvement. *Knowledge and Process Management*, 6 (1), pp.17-23.

Williamson, P. (1991). Supplier strategy and customer responsiveness managing the links. *Business Strategy Review*, 2 (2), pp.75-90.

Wisner, J.D. (2003). A structural equation model of supply chain management strategies and firm performance. *Journal of Business Logistics*, 24 (1), pp.1-26.

Wong, C.Y., Arlbjorn, J. S., & Johansen, J. (2005). Supply chain management practices in toy supply chains. *Supply Chain Management: An International Journal*, 10 (5), pp.367-378.

Yang, B., Burns, N.D. and Backhouse, C.J (2004). Postponement: A Review and Integrated Framework. *International Journal of Operations & Production Management*, 24 (5), pp.468-487.

Yu, Z., Yan, H., & Cheng, T. E. (2001). Benefits of information sharing with supply chain partnerships. *Industrial Management & Data Systems*, 101 (3), pp.114-121.

Zhang, M. J., & Lado, A. A. (2001). Information systems and competitive advantage: a competency-based view. *Technovation*, 21 (3), pp.147-156.

Zhou, H., & Benton, W.C. (2007). Supply chain practice and information sharing. *Journal of Operations Management*, 25 (6), pp.1348-1365.

Zielke, A., & Pohl, M. (1996). Virtual vertical integration: The key to success. *McKinsey Quarterly*, 3, pp.160-163.

ZIKMUND, W.G. (2003) Business Research Methods (7th ed). Mason: Thomson Southwestern.

APPENDEX 1
ST MARY'S UNIVERSTIY SCHOOL OF GRADUATE STUDIES
DEPARTEMENT OF GENERAL MBA

QUESTIONNAIRE

Dear respondents, the purpose of this questionnaire is to gather data on the effect of supply chain management strategy on the performance of east Africa bottling S.C. in order to fulfill the Colleges (ST Mary's university school of graduate studies) requirement set for awarding of a Master's Degree in General MBA. The study is purely for academic purpose and thus not affects you in any case. So, your genuine, frank and timely response is vital for successfulness of the study. Therefore, I kindly request you to respond to each items of the question very carefully.

General Instructions

1. There is no need of writing your name
2. Where answer options are available please tick (□) in the appropriate box for part I and part II.

Contact Address

If you have any query, please do not hesitate to contact me and I am available as per your convenience at (Mobile: 09-65-65-44-14 or e-mail: *kalkidan.ibrahim@gmail.com*)

Thank you for scarifying your precious time in advance!

PART I: Demographic Information

1. Educational Qualification:

Grade 12 completed □ Certificate □ College Diploma □

First Degree □ Second Degree and above □

2. Job title

CEO/President /Vice President □ Director □ Manager □ Other_____

3. Years stayed at the organization:

Under 2 year □ 2–5 years □ 6–10 years □ over 10 years □

4. Your department/work unit _____

Part II: Instruments for Supply chain management Strategy, Supply chain Performance and Organizational Performance

Section one: 1 Supply chain management Strategy

With regard to SCM Strategy of your firm, please `thick the appropriate box to indicate the extent to which you agree or disagree with each statement. The item scales are five-point Likert type scales with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 =agree, 5 = strongly agree, 6 = not applicable.

S.N	Manufacturing Strategy	1	2	3	4	5	6
1.1.	Manufacturing flexibility requirements are determined by a cross –functional team						
1.2.	Manufacturing capabilities are formally communicated internally						
1.3.	Manufacturing capabilities are formally communicated with key Customers						
1.4.	Manufacturing capabilities are formally communicated with key Suppliers						

What are the outsourcing strategies used by East Africa bottling S.C to outsource? Please state the extent to which criteria are used. Use the scale of:

1. Not at all 2. Small extent 3. Moderate extent 4. Great extent 5. Very great extent

Outsourcing Strategy		1	2	3	4	5
2.1.	The Organization’s Previously Cooperated members					
2.2	The organization with a Lower Costs					
2.3.	High Quality Services givers for the Organization					
2.4.	The organization’s Advanced Technology and Management Experience					
2.5	The organization concentrate on its core business and therefore achieve improved customer satisfaction					

2.6.	Our firm has formal sales performance goals relating					
2.7.	The organization to excel from the previous sales Performance					

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree, 6 = not applicable.							
3	Channel strategy	1	2	3	4	5	6
3.1.	Does your company has a strategy to select the distribution channel Members						
3.2.	Distribution channels" are located in such a way that they fulfill demand of customers at the right place and the right time when it is needed by the customers						
3.3.	There is a strategy that channels members managed, monitored and motivated, once they are selected						
3.4.	There is a feedback mechanism from the Distribution centers towards the company and from the company towards DCs						
3.5.	Do you think your DCs perform effectively according to the schedule and target of the company						

4	Customer service strategy.	1	2	3	4	5	6
4.1.	Our customer service strategy is executed well throughout the firm						
4.2.	Our firm has mechanisms in place for responding `to customer service issues prior to the customer being impacted						
4.3.	Our firm understands the external coordination Required to respond to various customer service events						
4.4.	Our firm does not have formal performance goals relating to CSM						
5	Asset Network						

5.1.	Our manufacturing plants are strategically located						
5.2.	Our distribution channels are strategically located						
5.3.	Supply chain management has been identified as a key area to develop in our business model						
5.4.	We have fully standardized processes in manufacturing						

Section Two: Supply Chain Sales Performance

With regard to supply chain performance of your firm, please thick the appropriate box to indicate the extent to which you agree or disagree with each statement. The item scales are five-point Likert type scales with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree, 6 = not applicable.

1	*Reliability*	1	2	3	4	5	6
1.1.	We are dependable and consistent in solving customers" complaints						
1.2.	We offer products that are highly reliable.						
1.3.	We offer products that are very durable.						
1.4	We offer high quality products to our customer						
2	*Responsiveness*						
2.1.	We deliver the kind of products needed.						
2.2.	We deliver customer order on time.						
2.3.	Time to solve customer complaints is short.						
2.4	We provide dependable delivery.						
3	*Flexibility*						
3.1.	We deliver product to market quickly.						
3.2.	We are first in the market in introducing new products.						
3.3.	We have fast product development.						
4.4	We have time-to-market lower than industry average						
4	*Cost*						
4.1.	We are able to offer prices as low or lower than our						

	competitors.						
4.2.	Our capacity utilization is very good.						
4.3.	We run operation with less Production cost.						
4.4	Our Inventory turnover is high.						
5	*Asset management*						
5.1.	Knowledge sharing between our business units is poor						
5.2.	Our organization is centrally managed						
5.3.	We have a centralized profit distribution						
5.4	Our manufacturing sites have a clear definition of roles						
5.5	It is important that our top management is fully located where our corporate HQ is						