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of management**



**FACULTY OF BUSINESS AND ECONOMICS MASTERS OF BUSINESS
ADMINISTRATION**

***The Impact of Supply Chain Management Strategy practices on the
Performance of Business Organization (Case study on Ambasel Trading
House P.L.C)***

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***Thesis submitted to College of Business and Economics of ADDIS
Ababa University in partial fulfillment of the requirements for Mas-
ter's Degree in Business Administration.***

February , 2023

Addis Ababa, Ethiopia

DECLARATION

I, Sendek Eyasu Alemu, registration number/I.D. Number GSE/9227/10, here by declare that this thesis is a result of my independent research work on the topic entitled by “The Impact of Supply Chain Management Strategy practices on the Performance of Business Organization, the case of Ambasel Trading House plc” in partial fulfillment of Masters Degree in Business Administration in management at Addis Ababa University College of Business and Economics. This work is original in nature that it has not been presented by any other person for an award of Degree/Master’s Degree in any other University/Institution and all references are duly acknowledged.

Confomition

The undersigned certifies that they have read and hereby recommend to Addis Ababa University college of Business and Economics to accept the Thesis submitted by Sendek Eyasu Alemu entitled “**The impact of Supply Chain Management strategy practices on the performance of Business organization**,” in partial fulfillment of the requirements for the award of a Master’s Degree in Business Administration.

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ABSTRACT

Supply chain management has become a valuable way of securing competitive advantage by continuously involving and engaging in SC strategy practices which resulted with continuous improvement on organizational performances since competition is no longer between organizations, but among supply chains. This study was conducted with an objective of assessing the impact of supply chain management strategy practices on the performance of business organizations and assessing the level of awareness and understanding of SCM concepts and practices in business organizations in Ethiopian context, specifically on business organizations like the case company. The research was conceptualized and developed on Seven construct of SCM strategy practices (CRM, SSP, QIS, LIS, ICT, LOG and TMT decisions) and examined the cause-effect relationships of SCM Strategy practices in the SC on organizational performance of business organizations in Ethiopian context. This research is descriptive in its type and the researcher employed both qualitative and quantitative (Mixed) methods to examine the research problems and to investigate the **cause-effect** relationships between known variables and utilized survey of self-administered questionnaires in which the collection of data from the respondents was carried out only once by using **purposive sampling technique** and quantitative data were analyzed using the statistical package for social sciences (SPSS) and E-views in some cases to arrive at the major findings. The relationships proposed in the framework and the hypotheses were tested and the data was analyzed using frequency, mean, Pearson correlation and the findings were sometimes presented by tables and the causal relations were analyzed using regression analysis. The test result revealed that there were strongly positive (direct) and statistically significant relationships between (CRM, SSP, LIS, ICT and TMT decision) and organizational performance in the case company. However, QIS and LOG exhibited negative and statistically insignificant relationship with performance. The study also assessed that there was an awareness and understanding that supply chain management practices influence/affect organizational performances of business organizations. Therefore, in order business companies to achieve their market share, profitability, return on investment and other performance objectives and goals in the long-run, its recommended for the organization to give due emphasis to the constructs of SCM Strategy and include SCM strategy as one of its performance improving management systems.

Key words: All the Seven constructs, supply chain management Strategy, supply chain performance and organizational performance.

ACKNOWLEDGEMENTS

First and foremost I would like to thank the almighty God who is the source of my existence and who helped me to deliver to this extent. Next, I would like to address my special gratitude and thanks to my advisor **Dr. Amare Abawa** not only for his support and guidance but also for his genuine and timely responses whenever I inquire his advisory support during this research study. His comments, suggestions, criticisms and useful advices have been valuable inputs that have improved my understanding of the research work and also improved the quality of my work. Also, I would like to address my thanks to all respondents for their honest responses and contributions for this research work.

LIST OF ACRONYMS/ABBREVIATIONS

<i>PLC</i>	<i>Private Limited Company</i>
<i>ATH</i>	<i>Ambasel Trading House</i>
<i>MT</i>	<i>Top Management Team</i>
<i>CMS</i>	<i>supply chain management strategy</i>
<i>FP</i>	<i>Financial performance</i>
<i>VIF</i>	<i>Variance Inflation Factor</i>
<i>GLS</i>	<i>Generalized Least Square</i>
<i>OP</i>	<i>Operational Performance</i>
<i>SSP</i>	<i>Strategic Supplier Partnership</i>
<i>CRM</i>	<i>Customer relationship management</i>
<i>LIS</i>	<i>Level of information sharing</i>
<i>QIS</i>	<i>Quality of information sharing</i>
<i>ICT</i>	<i>Information Communication Management</i>
<i>LOG</i>	<i>Logistics Management System</i>
<i>BP</i>	<i>Business Performance</i>
<i>CS</i>	<i>Concept of Strategy</i>
<i>SCC</i>	<i>Supply Chain Concept</i>
<i>SCE</i>	<i>Supply Chain Strategy</i>
<i>HRD</i>	<i>Human Resource and Development</i>

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CHAPTER ONE

1. INTRODUCTION

The first chapter started by giving a brief introduction on background of study followed by a brief of state ment of the problem. It also includes the purposes /objectives (general objectives and specific objectives), research question, scope and significance of the study and conceptual framework. It also introduces the concepts of strategy, supply chain, the case company profil and defines some operational terms.

1.1 Background of the study

The interest in the concept of supply chain management has steadily increased since the 1980s when organizations saw the benefits of collaborative relationships within and beyond their organizations (J.M. Mwilu, 2013) and Shereen N. (2021) had stated that one of the lessons from business experience that has been communicated accurately by literature in the past decades is the fact that producers have to align with suppliers, supplier's suppliers, customers and customer's customers to streamline operations, thus, resulting into supply chains becoming the dominant vehicle for competition.

Today's management has highlighted customer satisfaction as a key factor in corporate success and has stated that enhancing management relationships is critical to the company's success. The contemporary business environment is very different from past ones, and competitiveness is extremely important (Gilaninia et al., 2011) and New types of structural reforms, as well as competitive and exchange processes, result in a communication paradigm for long-term buyer-supplier partnerships (Seyedi, Moosavi, Heidari, 2009)". According to Bogale (2015), supply chain expansion attempts to increase profitability, customer response, and the ability to give value to customers, as well as improve connectivity and dependency among enterprises.

As competition intensifies in the 21st century business and markets become more international, the challenge associated with getting materials, supplies and products at the right price, at the right time, at the right place and at the right quality has become a major challenge for organizations regardless of their nature, size. Therefore, organizations have begun to realize that it is not enough to improve efficiencies within an organization, but their whole supply chain has to be made competitive. That is the main reason why today the new source of business competition lies outside the walls of organizations, and is that determined by how effectively companies link their operations with their supply chain partners such as suppliers, distributors, wholesalers, retailers and end customers. SCM offers a management philosophy to man-

age activities and integrate with downstream and upstream partners as well as firms' internal supply chain (Ross, 1998). so the objective of SCM is not only related to improving the performance of an individual company, but also of the whole supply chain (Mentzer et al., 2001). Every organization in highly competitive business environment whether big or small, profit oriented or not has a mission to achieve for the organization to meet goals and is organized to achieve their objective(s). Such organization's objectives can only be achieved through coordinated effort in developing effective supply chain management strategy. In addition to the above facts, in today's highly competitive global business environment, there is an increased focus on to create value and deliver it to their customers. Concurrent to the focus on customer value, the market place in which businesses operate today is widely recognized as being complex and turbulent (Christopher, 2000; Goldman et al., 1995).

Moreover, the market environment has become more dynamic and turbulent, companies need to adopt new supply chain strategies for them to remain competitive because SCM strategy is now moving away from traditional processes to agile capability of competitive bases of speed, flexibility, innovation, quality, and profitability through the integration of reconfigurable resources and best practices in a knowledge-rich environment to provide customer-driven products and services in a fast changing market environment (Yusuf et al., 2004). Therefore, modern supply chains had been expected to respond rapidly, effectively, and efficiently to customer demand and expectations based on their tastes and preferences so as to create competitive advantage in terms of increased quality, lower costs, reduced time to market, product innovation, product quality and delivery and with better market flexibilities, responsibilities and dynamism.

In the business environment creating better *supplier partnership* with both domestic and international suppliers, properly handling customers (customer relationship management) and being informed in all business matters and sharing of this information along with the SC members are crucial for the improvement of business performance. Moreover, maintaining the logistics system, the warehousing, the inbound and outbound logistics and transportation are also very important for the flow of the business process along Top Management Team (TMT) decision making capability and ability to averse risks whenever exist and the ability to overcome challenges, the mind flexibility, creativity and entrepreneur ability to come up with new business strategies are very important for the development and improvement of the business performance.

According to Towill and Christopher (2002), the end customer in the market place today is determined by the success or failure of supply chains. They further stated that getting the right

product, at the right price, at the right time to the customer is not only improved competitive success but also the key to survival (p 299). Tan et al. (2002), identify six aspects of supply chain management practice through factor analysis: *supply chain integration*, information sharing, supply chain characteristics, customer service management, *geographical proximity and JIT capability*. Whereas, according to Muhammad (2004) these variables refer to several activities or practices related to operational function of firms. They are used to measure the supply chain management adoption and its level of practices. Related practices are divided into six dimensions namely strategic supplier partnership, customer relations practices, information sharing, information quality, *lean system and postponement* and a number of other literatures show many different perspectives of supply chain management practices (Tan et al. 2002 and 2004; and Li, 2002 and 2005). These different writers' perspectives suggested a multi dimensionality of supply chain management that covers set of activities and processes from upstream, firm's internal operations to downstream of the supply chain.

Similarly, organizational performance refers to how well an organization achieves its market-oriented goals as well as its financial goals (Yamin *et al.*, 1999). The short-term objectives of SCM are primarily to sustain the business performance, while long-term objectives are to increase market share and profits for all members of the supply chain (Tan *et al.*, 1998). Li *et al.* (2006) stated that any organizational initiative, including supply chain management, should ultimately lead to enhanced organizational performance. Any initiative by the organization, including the supply chain management have impact on the performance of the organization. A number of previous researches are conducted to measure the company performance based on overall competitive position, sales, ROI, profit margins, increase in market share and increase in sales. The ultimate objective of any initiative taken by the organization including supply chain should be to enhance the performance of organization (Stock, *et al.*, 2000).

In relation to this research study, the researcher focuses on assessing the impact of supply chain management strategy on , *Ambasel Trading House plc, (ATH plc)* now onwards which is one of Import and Export, Wholesalers, distributor and Business Representatives in Ethiopia. ATH plc was one of the endowment organizations in the country like Binsho trading in Oromia, Guna trading house plc of Tigray and the likes which was established on November 1994 G.C under the commercial code of Ethiopia with the working capital of an amount 4.4 million birr to serve for the Amhara regional state citizens owned by the regional government. In 2010, its annual sales from import - export products showed progress evry 5years and reached 271 million-birr and continued in growth of annual sales for consecutive years in 2015, annual sales increased to 1.56 billion birr.

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The company records showed the higher relative annual sales in 2016, 2017 and 2018 with an annual sale of about 3 billion Birr every year. In 2019, the annual sales volume declines to 1.9 Billion Birr due to the expansion of the Covid-19 pandemic internationally and then the decline in annual sales continued through 2021 being about 2 billion Birr respectively because of the same reason i.e. the Covid19 pandemic expansion continued and national and international political crises were also hardly challenged the flow of businesses in the international market. Ambasel being a name behind the life of farmers and urban dwellers for more than two decades, is one of the subsidiary company under the umbrella Endeavors' by TIRET (its name changed to NIGAT) corporate.

The company also played a major role in import and distribution of agro-chemicals and for small holder farmers and mechanized agricultural sector and Supply of both imported and locally produced materials and inputs to the agricultural, industrial, transport and trade sectors; and *exports* (oil seeds, pulses, Arabica coffee, Meat, gum, agro-processed and sister companies' products in the international market in countries like China, America, Europe, Asia, Middle East, and Africa). The company's primary objective had been to create market opportunity to the public, generating income for the government in the form of tax, support funds for socio- economic development programs, provides foreign currency for the government, increases the productivity of the farm land, transforms agricultural technology through the usage of modern agricultural machines and inputs are some of the developmental activities that needs to be addressed by the company.

Therefore, since the case company has relationship with upper stream (suppliers) particularly for getting imported items like: technological materials, such as irrigation machines, water pumps, hoses, walking tractors, agricultural tools like sickles, machetes, fork and different machineries and agro-chemicals like herbicides, pesticides, fungicides, and insecticides from international suppliers and cements, edible oils, car tyres and reinforcement bars from domestic suppliers and supplies (exports) oil seeds, pulses, Arabica coffee, Meat, gum, agro-processed and sister companies' products in the international market destiny. It also has strong relation with downstream (customer) or in the supply of products for local organizations, distributors, wholesalers, retailers and end users. Supply chain management is therefore involved a design of a seamless value adding processes across boundaries of an organization so that it will be able to meet real need of the customer (Fawcett et al. 2007). Eventhough the design and implementation impose a lot of complex problems and challenges in the process of execution of supply chain management, the researcher was focused on the impacts of supplier partnership, customer relationship management, information sharing, logistics system and

TMT decision differently and examine how these major independent variables affect the performance of the business organization and will also be guided by research questions to measure and value the effect of these variables on the performance of the business company.

The researcher in this study believed that this paper would contribute to the debate by examining the causal relationships between the Seven constructs (independent variables) in the supply chain management practices and organizational performance and to indicate directions on how improvement of performance on SCM practice brings forth an increment to its market share, ROI, sales revenue & profitability or performance improvement as a whole.

1.2 Statement of the Problem

A business company's supply chain is an integral part of its approach to the market it serves and the supplier-customer relationships, partnerships, information, market communication, technology application, management decisions it serves for. According to Tan et al. (1998), nowadays the concept of SCM has received increasing attention from parts of people like academicians, managers, consultants, and business owners. Many organizations have begun to recognize that SCM is the key to building sustainable competitive edge for their products and/or services in an increasingly crowded marketplace and enhancing organizational and overall supply chain performance (Li et al., 2006). Therefore, the supply chain needed to respond to market requirements and do so in a way that supports the company's business strategy.

The business strategy that a company employs starts with the needs of the customers that the company serves or would serve. Depending on the needs of its customers, a company's supply chain must deliver the appropriate mix of responsiveness and efficiency. The importance of adopting supply chain management in the company was further explained by Choy (2002) where in his research at multinational manufacturers, has concluded by supply chain management practices contribute 50% to the profitability and performance of any organization. Therefore, organizations have to understand the concepts and the practices of SCM for the intention of achieving competitiveness as well as for increasing profits (Qayyum et al., 2013). A company whose supply chain allows it to more efficiently meet the needs of its customers would gain market share at the expense of other companies in that market and also would be more profitable. Supply chain management strategy also should consider the customer's behaviors, satisfaction, tastes and preference. Customers have different behaviors, some group of customers expect convenience, some may focus tightly on efficiency and might pay more attention to it, and some other groups might be very price sensitive /conscious. So the supply

chain needs to find every opportunity to reduce costs so that all these opportunities could be passed on to customers.

The supply chain management in order to be aligned with the business strategy of the business company, it should understand the markets that the company served, it should be able to define the strengths or core competencies of the company in serving the market and it also should be able to develop the needed supply chain capabilities to support the roles the company has chosen. However, most firms and public sector organizations in Ethiopia had been organized functionally, they hadn't had integrated flow of information and processes until recent years due to lack of awareness and understanding to use integrated system approach and even this time only few companies were applying fully integrated system to evaluate their level of procurement, production, information sharing and flows, logistics, market channels, market shares, market communications and distribution of orders. Moreover, the customer relations, supplier partnerships, information sharings, ICT applications, operation of the logistics system and TMT decision roles and other activities in the company have been managed in traditional way, they are not based on knowledge, facts, evidences and other techniques which help the SCM strategy improve business performance.

The researcher, also observed that there were no much researches to assess the impact of SCM practices in organizations which engage in import and export businesses, even the existing researches related to the supply chain managements were carried out in developed countries which have different economic, political, technology, social, legal and cultural status from Ethiopia. In Ethiopia the practice of managing the SC from supplier to the customer is traditional i.e., not more than just buy–sale/ transactional relationship. As a result, it might be difficult to directly apply and generalize that the same practices and collaboration as well as problems of SCM in Ethiopian context. Moreover, prior researches that had been done to assess the impact of SCM practices on organizational performances focused on manufacturing industries, pharmaceutical manufacturing and food and chemical processing's. For instance (J. Sutdueana, W. Joemsittiprasert and K. Jermstittiparsert., 2019):- Supply Chain Management and Organizational Performance: Exploring Green Marketing as Mediator tried to investigate the impact of the supply chain management and the organizational performance and the result of their study revealed that practices of the supply chain management impact the competitive advantage and organizational performance of the organization. It is expected that they will improve the competitive advantage through product innovation, time to market, delivery dependability, quality and price of the product; (Mehwish N., Iram T., Hassan S., & Zain I., 2019) have studied the 'Impact of Supply Chain Management Strategies and Practices in the

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Textile Retail Sector in Islamabad, Pakistan' and the findings showed that supply chain practices have an impact on retail supply chain performance statistically but, supply chain strategies do not have an impact on retail supply chain performance. However, supply chain strategies and practices are significantly related to each other; Musa J., (2020) also reviewed an article on the Effect of Supply Chain Management Practices on Operational Performances in Selected Wheat Flour Factories in Adama, Oromia Regional state, Ethiopia and *Mustefa, (2014)* conducted study on the supply chain management practices and firm performance in case of awash tannery P.L.C. in Ethiopia. However, most of the findings of these research work indicated that there were direct relationships between the major independent variables supplier partnership, customer relationships, information sharings and other variables in the supply chain and the dependent variables, the performance of the organizations.

In all of the cases, the above mentioned prior researches were evidences to show that most of the researches were conducted on manufacturing industries, pharmaceutical manufacturing and food and chemical processing's. Eventhough, its difficult to reseach on full conclusion, there had been research gaps to assess the impact of SCM on the performance of business organizations in coordination with the Six variables namely:- customer relationship management, strategic supplier partnership, quality and level of information sharing, information-communication technology, logistics management system and Top management team decision. Further more, even the existing SCM strategy practice do not have standard performance measurement and evaluation chriterion based on basically the four main perspectives such as: financial perspective (how to add value to customers and reduce operating and material costs); customer perspective (how to create value to customers); learning and growth perspective (how to change the need to meet customers future and present demands) and internal process perspective (how to iprove the present process to meet customer's present and future demands). The purpose of this study is therefore, to indicate ways to solve the above mentioned problems and to find out the effect of the causal relationships of these variables on the supply chain management practices in term of organizational success or performance. Moremore, it would help the researcher and other researchers better understand the scope of activities related to supply chain management that create what enhanced level of supply chain management practices in competitive business market place would bring forth. Therefore, since the effort to achieve generalization of the causal relationship between SCM practices and performance calls for empirical confirmation in diverse environments in comparison with other similar business organizations, hence the researcher in this study intends to test the frameworks, to assess the impacts of SCM practices on organizational performance and contribute to the de-

bate by testing the relationship between SCM strategy practice measurements and organizational performance in the case company.

1.3 Objective of the study

1.3.1 General Objective

The general objective of this study is to assess the role of supply chain management strategy practices on improving the performance of business organizations and to present an appropriate recommendations and implications on future studies for business organizations to improve their SCM strategy.

1.3.2 Specific Objectives

- ✓ To show and describe how customer relationship management with in the supply chain is being handld to help improve the success of business organization.
- ✓ To find out and describe how strategic supplier partnership with in the supply chain in the organization is related with the performance of business organizations.
- ✓ To assess and explore how the level and quality of information sharing in the supply chain is used in enhancing business success.
- ✓ To explore how the quality of information sharing in the supply chain had been utilized in enhancing business performance in the organization.
- ✓ To assess and explore the situation how effective use of information communication technology in the supply chain in the company helps to facilitate the success of business performance.
- ✓ To explain the impact of logistics management system in the supply chain strategy and to describe its role in improving the performance of the business organization.
- ✓ To find out and describe the impact of top management team decision about the SC system is related with the success of the business organizations and finally propose findings.

1.4 Research Questions

Starting from the problem by focusing on the study objectives above, this research study will seek to answer the following questions.

1. What relationship would exihabite between business performance and supply chain management strategy in business organizations if the customer relationship management is changed?
2. How do strategic supplier partnerships related with the supply chain management and the performance of business organizations?
3. What effect do quality of information sharing within the supply chain do have on the performance of business organization?

4. What is the effect of the ultimate change of level of information sharing within the supply chain on the performance of business organization?
5. What is the effect of using information communication technology in the supply chain as a facilitator on the success of business organization?
6. How does the logistics management system within the supply chain is related with the performance of business organizations?
7. How do the top management team decision on supply chain strategy implementation affects the performance of the business organization?

1.5. Hypotheses of the study

Prior research studies indicated that the various components of SCM practices (such as Customer relation management, supplier partnership management, quality and level of information sharing, information-communication technology, logistics and top management team decisions) have an impact on organizational performance. For example, the ability to build a close relationship with customers will bring companies in to a long lasting competitive edge (Bowersox et. al, 1999). Strategic partnership emphasizes direct relationship and long-term and encourages mutual planning and efforts to resolve problems (Li et al. 2006) Likewise ICT, LOG and TMT decisions have similar significant impacts on the performance of a business organization. As a result the researcher developed seven hypotheses (H₁, H₂, H₃, H₄, H₅, H₆ & H₇) and these hypotheses were introduced on the literature part to synchronize the cause-effect relationships of each independent variables with the dependent variable

1. *Hypothesis H1*: Adopting better quality customer relationship management in the supply chain is positively related with the performance of business organization.
2. *Hypothesis H2*: Improving Strategic supplier partnerships in the supply chain is positively related with the performance of business organization.
3. *Hypothesis H3*: Quality of information sharing with in the supply chain management have direct relationship with the performance of business organization.
4. *Hypothesis H4*: The level of information sharing with in the supply chain management have direct relationship with the performance of business organization.
5. *Hypothesis H5*: effective utilization of information communication technology in the supply chain facilitates the success of the business or positively related with the performance of the business organization.
6. *Hypothesis H6*: improving the logistics management system in the supply chain is positively related with business performance in an organization.
7. *Hypothesis H7*: TMT decision on supply chain implementation is positively related with performance improvement in business organizations.

1.6 Scope of the study

The study explained how the dependent variables: strategic supplier partnership, customer relationship management, information sharing, logistics management system and TMT decision affects the performance of an organization. The study was also focused and concentrated on business organizations in relation to using SCM as a strategy which is located in Ethiopia, Addis Ababa. For this specific case Ambasel Trading House plc was selected and the target populations were all experts, team leaders, senior expert and middle level managers working at ATH plc who have understandings and know the importance of supply chain management in improving the success and performance of business organizations.

1.7 Significance of the study

Business Organizations can make differences if they implement effective supply chain management strategies and have efficient leaders to effectively run the strategy. Hence, owners and leaders have to be aware of that supply chain management strategy must be properly handle to bring the intended purpose of their organization. Having the above in mind the study shall add valuable insights to the existing practices and based on the research findings the companies will improve their existing business performance and can able to continue in success. In addition, it is hoped that the study will provide important information and serve as secondary data for further research on the topic. The research will also be beneficial to know different types of business strategies and their impact on the performance of their business.

1.8. Limitation of the Study

The study was limited to the case company only, however the findings where supply chain management practices have big role to improve business performance might not be reliable or it might be hasty generalization on the matter, therefore the study should be extended to many similar business organizations to reach on more reliable findings(results). The model to measure the impact of SCM practice on organizational performance was developed based on the data obtained on the response of the respondents based on 5 point Likert scale, this results bias on the conclusion due respondent's limitations of understanding and awareness on SCM concept. Since there are no much prior researches assessing the impact of SCM practices on organizational performances in business companies, the researcher encountered lack of sufficient and relevant literature on this topic, this might led stastically insignificant findings.

1.9 Organization of the study

This research study will be organized in five chapters i.e. Chapter one will present the background of the study, statement of the problem, research questions, objectives, significance,

and scope of the study, the hypothesis of the study and definition of terms. Chapter two presents the literature review related to the topic under study. It further presents the theoretical concepts, empirical literature studies and the conceptual framework. Chapter three deals with the research methodologies, which include research approach, design, population, sample technique and sample size, data collection and instrument, data analysis method and research variables in the study. Chapter four discusses the empirical findings of the study that includes data presentation, analysis and interpretation. Based on the findings of the study, the fifth chapter presents summary, conclusion and recommendation of the study.

1.10 Definition of terms

Supply chain: is all inter-linked resources and activities needed to create and deliver products and services to customers or a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers.

Supply Chain Strategy: is a roadmap that helps companies get their products to customers with as little friction as possible and ensures that every phase of the supply chain is optimized, including the sourcing of materials, manufacturing, delivery, and logistics.

Supply Chain Management (SCM): is a network of relationships, with the goal to deliver superior value, i.e. the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole or management of upstream and downstream business relationships together with suppliers and customers.

Supplier partnership SP: The long-term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits.

Customer relationship Management CRM: 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 LIS: The extent to which critical and proprietary information is communicated to one's supply chain partner.

Quality of information sharing QIS: Refers to the accuracy, timeliness, adequacy, and credibility of information exchanged.

Logistics Management system (LMS): Logistics LOG is the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the organization and its marketing channels in such a way

that current and future profitability are maximized through the cost-effective fulfilment of orders or Logistics is essentially a planning orientation and framework that seeks to create a single plan for the flow of products and information through a business. Supply chain management builds upon this framework and seeks to achieve linkage and co-ordination between the processes of other entities in the pipeline, i.e. suppliers.

Demurrage is a charge applied to containers that are left at the port or rail yard longer than their allotted free time, or past the "Last Free Day"

Detention is a fee payable by a shipper for holding on to a container beyond the free allotted time after leaving the port/terminal to load or unload the container.

TMT: Top Management Team refers to the relatively small group of most influential executives at the apex of an organization who acts as information processing centers of organizations, whose characteristics, such as international experience and tenure, enable them to manage complexity and ambiguity in the international business environment.

ICT: Information and Communications Technology (ICT) is technology that is used to handle communications processes such as telecommunications, broadcast media, intelligent building management systems, audiovisual processing and transmission systems, and network-based control and monitoring functions.

CHAPTER TWO

LITERATURE REVIEW

2. Introduction

This chapter discusses the impact of Supply Chain Management strategy in Organizations including the business organization. It looks into the challenges, barriers and complexities in SCM implementation and performance, and then provides a summary of reviews on studies by other scholars on subjects related to Supply chain management strategies and come up with solutions for the problems. Research overviews on supplier partnership, customer relationship management, information sharing, the *logistics system management*, information communication technology and *top management team* decision impacts and other related concepts will be covered and knowledge gaps will be identified. The chapter also presents the Conceptual Framework that depicts the relationship between SCM strategy practices and organizational performance.

2.1. Theoretical review

A theoretical framework/review comprises the theories expressed by experts in the field into which the researcher plan to research, which the researcher draw upon to provide a theoretical coat hanger for data analysis and interpretation of results or is a structure that summarizes concepts and theories, which the researcher develop from previously tested and published knowledge which the researcher synthesize to help the researcher have a theoretical background, or basis for data analysis and interpretation of the meaning contained in the research data. Swanson (2013, p. 122) explicitly asserts, “The theoretical framework is the structure that can hold or support a theory of a research study”. This section provides the theoretical framework to describe the impacts of independent variables: supplier partnerships, customer relations, information sharing, information communication, logistics system and TMT decision in the supply chain management on the dependent variable, the performance of business organizations.

2.1.1 The Concept of Strategy

Strategic Management basically seeks to answer the question: How and why do some firms outperform others. Johnson and Scholes (Exploring Corporate Strategy) define strategy as: - “*Strategy is the direction and scope of an organization over the long-term: which achieves advantage for the organization through its configuration of resources within a challenging environment, to meet the needs of markets and to fulfill stakeholder expectations*”. Nickols, 2011, defined the concept of Strategy as, the determination of the long run goals and objec-

tives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals. The study of strategy involves how we go about identifying, establishing, and sustaining competitive advantage, it is the unifying theme that gives coherence and direction to the decisions of an organization. Mintzberg, (1994), argues that strategy emerges over time as intentions collide with and accommodate a changing reality. Thus, one might start with a perspective and conclude that it calls for a certain position, which is to be achieved by way of a carefully crafted plan, with the eventual outcome and strategy reflected in a pattern evident in decisions and actions over time. This pattern in decisions and actions defines what Mintzberg called "realized" or emergent strategy. Kenneth Andrews. "Strategy is creating situations for economic rents and finding ways to sustaining them" It seeks to locate the organization in the external environment. Lapierre writes of Strategy as "dreams in search of reality". Strategy as perspective in Michel Robert takes a perspective view of strategy in *Strategy Pure & Simple*, where he argues that the real issues are "strategic management" and "thinking strategically focusing on the market segments, the product and services, customers and Geographic areas. The Strategic Management Process is "The full set of commitments, decisions, and actions required for a firm to create value and earn above-average returns" Hitt, Hoskinson, & Ireland, (2004)

The concept of strategy operates on three levels of analysis, corporate strategy; where to compete, business strategy; how to compete and operation/ functional strategy, how to contribute. Supply chain strategy is therefore managing supply chain activities with an aim of creating value for the supply chain partners with a long term dimension.

2.1.2 Supply Chain Concept

A major concept in supply chain literature is the alignment of supply chain initiatives with the overall business strategy of a company. Porter (1996) differentiates between operational effectiveness and strategy. Porter noted that recent business trends have focused on improving operational effectiveness, which at a generic level involves performing the same activities better than competitors. Operational efficiencies alone would not give an organization lasting competitive edge but rather specific supply chain activities that are hard for competitor imitation matched with identified overall strategies. Potter (1996), "Operational effectiveness must be aligned within the context of a cohesive business strategy to drive lasting differentiation." Competition and changing customer needs are trends that require aligning to if a firm is to remain competitive. These trends were observed by various scholars: What is the right supply chain for your product? (Fisher, M. L. 1997), managing supply chain inventories: Pitfalls and

opportunities, (Lee and Billington 1992). Organizations are responding by adopting an inside out intergraded supply chain operation. There must be coordination, a fit across the activities for the members of the company to clearly understand the company's direction and be productive.

2.1.3 Supply Chain Environment

There are many strategic issues that confronts business today stemming from new rules of competition, globalization, economic meltdown and customer taking control of his/her needs with full knowledge of the market. As a result of these uncertainties, organizations today are faced with a number of challenges in the supply chain which include among others the ability to meet up with changes in demand variability, service improvements, lowering inbound costs, improving on time delivery, innovation and speed deliveries. As stated by Christopher (2016), ICT tools help to improve the efficiency and effectiveness of supply chain by means of customization and its adaptation in the business environment. The objective of SCM is to maximize value in the supply chain by delivering product faster in the market, minimize resource investment, reduce specific costs, and reduce specific response and cycle times and pushing new product design faster. SC is part of a value chain, a strategic collaborative long term partnership aimed at meeting market needs for mutual benefit of all in the supply chain. The fundamental changes in the environment of global competition and trends such as outsourcing require organizations to develop supply chain strategies that are aligned to “appropriate value propositions” and customer market segments and communications. Competition and changing customer needs are trends that require aligning if a firm is to remain in business. These trends were observed by various scholars, Increased globalization of demand and supply (Beasley 1993), Evermore demanding customers (Fontanella, 2000), Shortening products cycles (Bitran & Yanasse, 1982), Proliferation of products variety (Bramel and Simchi-Levi, 1997), Time based competition (Chandra and Fisher(1994), Demand driven business models (Collins et al., 2002). A supply chain strategy is defined, relative to its competitors’, the set of customer needs that it seeks to satisfy through its products and services (Chopra and Meindl, 2007: 22). Strategy involves decisions relating to the selection of suppliers, the location of facilities and the choice of distribution channels. A typical supply chain strategy should be aimed at achieving a smooth flow at minimum cost. Aligning the firm’s operations with market place requirements has not always been extended to the wider supply chain.

2.1.4 History of Supply Chain Management Strategy

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

According to (Dawe Lu,2011) Supply chain is defined as a group of inter- connected participating companies that add value to a stream of transformed inputs from their sources of origin to the end products or services that are demanded by designated end-consumer. Supply chain management is simply and ultimately the business management, whatever it may be in its specific context, which is perceived and enacted from the relevant Supply chain perspective (Dawe Lu, 2011). The objective of SCM is to maximize the overall value generated minimize the cost, and effective and timely distribution of products needed by ultimate customers. Supply chain profitability in abstract is one of the objectives, which means profit sharing among partner organizations. Profitability due to low cost to all partners creates value to customers. Value is created by means of same or higher quality in lesser costs as compared to competitor 's products. Supply chain responsiveness is another most sought supply chain objective. Responding to wide range of customers 'demand, short lead times and wide ranges of products in appropriate cost creates value to customers (Gupta & Sahay, 2007).

2.1.5 Level and design of SCM Strategy

5.1.5.1. evels of supply Chain Strategy

The best way to understand the various stages of supply chain management and their influence on one another is to take a look at the three levels of supply chain management: the strategic level, the tactical level, and the operational level which they are working together to manage all decisions that are required to deliver quality products to customers on time for the cheapest cost and greatest revenue. Each level of strategies would be highlighted one by one as follows:

1. **The strategic level:** - is the top level of supply chain management that is responsible for the long-term decisions of the business organization and which lays foundation for the entire supply chain process. The strategy involves keeping the track of current market trends and customer feedback to improve existing products or introduces new items to the product mix and pass decisions of which products or services will be offered by the organization. This level of supply chain management is crucial to develop an advantageous process that will tie in all levels of the organization to ensure that every decision being made accurately reflects the overall goals of the organization and will ensure that all parts of the supply chain are working together to deliver goods to customers and allow to make profits.

2. **Tactical Level:** - is involved with all of the short- and medium-term decisions of the supply chain. It takes care of the general and big-picture decisions, it's usually a level where the more specific processes are defined and manufacturing processes will be defined to ensure that a high- quality product can be made for the lowest cost possible. It a level where decisions play a substantial role in controlling costs and minimizing risks and focuses on customer demand and achieving the overall best end value. Decisions made at this level can include transportation, warehousing, and inventory logistics, notably whether these should be handled internally or outsourced and can be different based on factors such as location, costs of transportation, costs or land ownership.

3. **Operational level:** - encountered most commonly on the day to day processes, decision making, and planning occurs to keep the supply chain running. Even though the higher-level decisions are made with the intention of creating advantageous processes throughout the supply chain, operations managers must make hundreds of decisions every day to handle every unexpected thing that comes their way. Some of the aspects of operational-level management include daily and weekly forecasting for resource and capacity planning, monitoring logistics to ensure that enough inventory is available and that materials are available on-time for production. Other decisions include settling damages or losses with suppliers in the event that the manufacturing facility receives material deemed to be of poor quality, which would affect the overall quality of products being made.

2.1.5.2 Supply chain designs

Designing a supply chain system in the 21st century is greatly different from the historical notion of SC that was narrow and only focused on inventory policy, facility location and transport selection as observed by Ballou, (1993). Successful SCM requires a change from managing individual functions to integrating activities into SCM processes. M. Potter advises

that Management must select activities that must be coordinated and aligned to specific corporate strategy for sustainable competitiveness. Strategy aims at achieving an enterprise's mission and objective by reconciling its resources with opportunities and threats in the business environment (Smith et al., 1993). It aims to position/ fit the organization to effectively interact with its environment. The big issue therefore is what kind of strategy can supply chain executives implement to achieve competitive advantage in the supply chain? In order to stay ahead, remain competitive, in such a highly competitive global market, companies need to develop and deploy appropriately flexible SCM strategies. An effective supply chain would be integrating supply and demand through coordinated company efforts, it's the formation of a value chain network consisting of individual functional entities committed to the controlled sharing of business data and processes. Today; many organizations have become part of at least one supply chain. They have to perform equally well in order to achieve better performance. Some of the issues to consider when developing or managing a supply chain include integration, information technology, collaboration, customer and supplier relationships, partnerships, outsourcing and global issues as well as social and environmental issues (Borade and Nansod, 2007:112). Value is not inherent in products or services, but rather is perceived or experienced by the customer (Handfield, Monczka, Giunipero and Petterson, 2009:11). Supply chain performance improvement initiatives should be focused on matching supply to demand thereby driving down costs simultaneously with improving customer satisfaction. This invariably requires uncertainty within the supply chain to be reduced as much as practicable so as to facilitate a more predictable upstream demand (Mason-Jones et al., 2000). Inventory is minimized and efficiency throughout the supply chain is maximized to get the desired results. All upstream and downstream functions collaborate to make sure that the predicted demand numbers are met at the minimum cost possible.

In the context of strategy across all industries Porter reinforces his point that operational Effectiveness is not sufficient for differentiation from competitors. Management must select activities that must be coordinated and aligned to specific corporate strategy for sustainable competitiveness. Thus, when analyzing retail supply chains, it is important to consider not only which supply chain activities that companies employ, but also how those activities fit into the company's business strategy. Strategy or strategic management aims at achieving an enterprise's mission and objective by reconciling its resources with opportunities and threats in the business environment (Smith et al., 1993). It aims to position/ fit the organization to effectively interact with its environment. SCM is a critical aspect explaining the variables that play to position the organization appropriately.

2.1.6 Supply Chain Management practice

SCM practices have been defined as a set of activities undertaken in an organization to promote effective management of its supply chain and it has been defined by Tan et al. (2002) as a set of activities carried out in an organization to enhance effective supply chain management. Supply Chain Management procedures involve supply and material management challenges, operations, information technology and sharing (ICT), and customer service. (Donlon, 1996) describes the latest evolution of SCM practices, which include supplier partnership, outsourcing, cycle time compression, continuous process flow, and information technology sharing. (Tan et al, 1998) use purchasing, quality, and customer relations to represent SCM practices, in their empirical study.

(Alvarado and Kotzab,2001) include in their list of SCM practices concentration on core competencies, use of inter organizational systems and elimination of excess inventory levels by postponing customization toward the end of the supply chain. (Tan et al, 1998) identify six aspects of SCM practice through factor analysis: supply chain integration, information sharing, supply chain characteristics, customer service management, and geographical proximity and JIT capability. (Chen and Paulraj, 2004) use supplier base reduction, long-term relationship, communication, cross- functional teams and supplier involvement to measure buyer supplier relationships(Min and Mentzer,2004) identify the concept SCM as including agreed vision and goals, information sharing, risk and award sharing, cooperation, process integration, long-term relationship and agreed supply chain leadership.

(Langley et al.,2006) identified five characteristics of supply chain management Inventory visibility managing the flow and level of inventory is a central focus of supply chain management and major performance metric to gauge success , Pull systems Another important characteristic of effective inventory management is to attempt to pull it through the supply chain in response to demand as opposed to pushing out inventory in advance of demand, which tends to inflate inventory levels and lead to obsolete inventory and lower inventory turnover, Cost efficiency or lowering cost is an important objective of supply chain management this cost is to be considered at the end of supply chain which is called landed cost, Information Managing the flow of information is a key factor for both efficiency and effectiveness in the supply chain with the key characteristic of sharing information up and down the supply chain related to the flow and demand requirements. If information is shared, it can be potentially available on a real-time basis. Customer Service, among one of the supply chain characteristics, customer service is a very important attribute of successful supply chain. In the final analysis, success of today 's global

supply chain is the value that they add for their ultimate customers in terms of the supply chain 's landed cost/price and the related services that are provided. Customer service has three recognized levels from supply chain perspective, these are; reliability, on time delivery and accurately filled orders. According to him, reliability, on time delivery and accuracy of order fulfillment are the most three dimensions of customer service to be filled by supply chain members. Thus the literature portrays SCM practices from a variety of different perspectives with a common goal of ultimately improving organizational performance. In reviewing and consolidating the literature, Seven distinctive dimensions, including strategic supplier partnership, customer relationship management, level of information sharing, quality of information sharing, information-communication technology, logistics management system and top management team decision practices are selected for measuring SCM practice. The Seven constructs cover upstream (strategic supplier partnership) and downstream (customer relationship) sides of a supply chain, information flow across a supply chain (level of information sharing and quality of information sharing), effective connectivity in the supply chain (Logistics), the nature of informational access and exchange in the supply chain (ICT) and the decision making process and ability in the supply chain (TMT) which proposes SCM practices as a multidimensional concept.

2.1.7 Customer Relationship management (CRM)

Supplier and customer relationship is defined as a set of firms' activities in managing its relationships with customers and suppliers to improve customer satisfaction and synchronize supply chain activities with suppliers, leverage suppliers' capacity to deliver superior products to customers. This is due to the ultimate objective of SCM is to deliver products to the satisfaction of end customers (Tan, 2001) as cited by (Assefa Balda, 2011). The growth of mass customization & personalized service is leading to an era in which relationship management with customers is becoming crucial for corporate survival (Wines, 1996). The customer relationships include the complete range of practices that are employed for the purpose of managing customer complaints, building long term relationships with customers & improving customer satisfaction (Tan et al. 1998; Clay comb et al. 1999).

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

al, 1999). In supply chain management strategies, supplier relationship activities play an important role (Wisner, 2003). Long-term relationships refer to intention that the arrangement is not going to be temporary (Chen and Paulraj, 2004). Through close relationship supply chain partners are willing to share risks and reward, and maintain the relationship on long term basis (Landeros and Monczka, 1989; Cooper and Ellram, 1993; Stuart, 1993; Thatte, 2007). Toni and Nassimbeni (1999) identified that a long-term perspective between the buyer and supplier increase the intensity of firm-supplier integration. Firms that integrate with customers including: planning, implementing, and evaluating a successful relationship between the provider and recipient of both upstream and downstream of the supply chain. Therefore, customer relationship management (CRM) is not only focused on inbound customer relationships but also on outbound customer relationships in SCM. Customer relations related to the company's ability to communicate to the delivery of appropriate products and services to customers locally and globally in the right time, right place, and appropriate of quantity and quality. Customer linkage especially sharing product information with customers, receiving customer orders, interact with customers to manage demand, after placing the order system, share the status of orders with customers on scheduling orders, and product delivery stage (Lee, et al, 2007). Good relationships with supply chain members, including customers, are needed for successful implementation of SCM programs. Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers (Karimi and Rafiee, 2014).

For this research purpose, customer relationship is conceptualized from the literature review and practicability in Ethiopia as the way of building long term relation with customers through creating customer loyalty, reducing processing times, improving customer services, reducing price/cost and managing customer complaints.

Hypothesis H1: Adopting better quality customer relationship management in the supply chain is positively related with the performance of business organization.

2.1.8 Strategic Supplier Partnership

Defined as the long term relationship between the organization and its suppliers and designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits (Noble, 1997 and Sheridan, 1998). Such strategic partnerships are entered into to promote shared benefits among the parties and ongoing participation in one or more key strategic areas such as core raw materials, technology, products, and markets (Yoshino and Rangan, 1995).

Hypothesis H2: Improving Strategic supplier partnerships in the supply chain is positively related with the performance of business organization.

Strategic partnership emphasizes direct relationship and long-term and encourages mutual planning and efforts to resolve problems. Supplier and organizations can work together more closely and eliminate useless time and effort. Effective partnerships with suppliers can be critical factor to guide supply chain management (Li et al.2006). Sandikiglu and zehir (2010) also stated that in strategic supplier partnership, suppliers play more direct role in an organization's quality performance. Through close relationships, supply chain partners are more willing to share risks and reward and be able to maintain the relationship over a longer period of time (Lascelles and Dale, 1989; Landros and Moncza, 1989). Strategic partnerships with suppliers enable organizations to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Suppliers participating early in the product-design process can offer more cost effective design choices, help select the best components and technologies, and help in design assessment (Tan et al.2002). An effective supplier partnership can be a critical component of a leading edge supply chain (Noble, 1997). The main objective of strategic partnerships with suppliers is increasing the functional capability desired supplier (Rosen Zweig, 2003). Therefore, strategically managed long-term relationship with supplier has positive impact on a firm's supplier performance (Cooper and Ellram, 1993) will be proved or disproved with this study.

2.1.9. Information sharing in SCM

The sharing of information is central to all collaboration based on SCM. Apart from the type of information, i.e. what the information is about, the frequency of sharing and whether the information is processed or not, have shown to be important aspects for the success of the collaboration. Related to these statements, the importance and influence of means of communication have been investigated and discussed by several authors.

2.1.9.1 Quality of Information Sharing

While quality of information sharing is important, the significance of its impact on SCM depends on what information is shared, when and how it is shared, and with whom (Chizzo, 1998; Holmberg, 2000) it includes aspects as the accuracy, timeliness, adequacy, and credibility of information exchange. It appears that there is a built in reluctance within organizations to give away more than minimal information (Berry et al. 1994) since information disclosure is perceived as a loss of power. Given these predispositions, ensuring the quality of the shared information becomes a critical aspect of effective SCM (Feldmann and Muller, 2003). Based

on Li et al. (2005) organization needs to review their information as a strategic asset and ensure that the information flows with minimum delay and distortion. In addition, Li et al. (2005) also notes that information shared must be accurate so that the best SCM solution will be obtain. Effective use of relevant and timely information by all the functional elements in the supply chain is considered as a competitive factor and distinctive (Ahmadi, 2005). While information sharing is important, the significance of its impact on SCM depends on information by all functional elements within the supply chain as a key competitive and distinguishing factor. The empirical findings of Child house and Towill (2003) reveal that simplified material flow, including streamlining and making highly visible all information flow throughout the chain, is the key to an integrated and effective supply chain.

Hypothesis H₃: Quality of information sharing with in the supply chain management have direct relationship with the performance of business organization.

2.1.9.2 Level of Information Sharing

Information sharing refers to ability of enterprises to share knowledge and information with supply chain partners with effective and efficient manner. Information sharing in interactive system of supply chain includes information between direct partners and all network of supply chain. For effective and efficient use by partners is needed sharing information. LIS is defined by Li & Lin, (2006) as “the extent to which critical and proprietary information is communicated to one’s supply chain partner”. Shared information can vary from strategic to tactical in nature and from information about logistics to customer and general market information (Min & Mentzer, 2015). The correctly conveyed information act as a linkage between members of the supply chain and thus is used to coordinate all the activities with in supply chain smoothly. In a study done on Chinese economy, it was explored that information sharing have an insignificant impact on business performance due to rise in the practice of having informal ties which has steered to decrease the significance of information sharing on the performance of firms. (Liu, 2013). The level of information sharing is closely linked with accountability and efficiency (Rahmanseresht and Afsar, 2008). Furthermore, Alireza et al. (2011) stated integration and coordination across supply chain can be well provided through information sharing. Lalonde (1998) considers sharing of information as one of five building blocks that characterize a solid supply chain relationship. According to Stein and Sweat (1998), effective use of relevant and timely information by all the functional elements in the supply chain is considered as a competitive factor and distinctive (Ahmadi, 2005). Failures can occur in case of information delays, shortage or distortion across the supply chain (Power, 2005). In this study supply chain information sharing is associated with the amount of information shared

among supply chain partners in downstream and upstream side of the supply chain and also the information intensity. In this study, information sharing in supply chain is conceptualized as the extent of sharing business knowledge formally or informally with supply chain partners. Also it is associated with the amount of information shared among supply chain partners in downstream and upstream side of the supply chain and also the information intensity.

Hypothesis H₄: The level of information sharing with in the supply chain management have direct relationship with the performance of business organization.

2.1.10 Information-Communication Technology (ICT)

As explained on the introduction part, Supply chain management has emerged as a management discipline in the past couple of decades and has attracted attention from both practitioners and academics. According to Majchrzak, Markus and Wareham (2016), information and communication technology is a crucial part of the organization required for its development. Information and communication technology have become more pertinent for every organization to actualize its plan. Bloom, Garicano, Sadun and Van Reenen, (2014) define ICT as technologies that focus on communication and technologies that offer access to information. ICT is used in the organization to perform several tasks related to planning, the process of transactions and decision making. The development of global markets forces businesses to seek management approaches that can meet global demand efficiently and effectively by working with partners worldwide. The global competition has brought customers an unprecedented number of products and services and also set new expectation standards for firms to meet market requirements. Information technologies have increased information availability and, manufacturing flexibility, but doing so has increased management complexity (Mabert and Venkataramanan 1998). Facing these challenges, managers and researchers have realized that the collection of functional activities through which raw materials are converted into finished products for sale to customers should be systematically managed as a supply chain. Therefore, the SCM practice will be effective if it works in coordination with information-communication technology. According to Donnellan, Sheridan and Curry (2011), ICT is defined as an extension in the field of information technology which make use of telecommunications. In recent years, information technology has become an interchangeable name with ICT (Bloom et al., 2014). Kushwaha (2011) describes ICT as an information system tool necessary for the coordination and collaboration between organizations and markets to form a buyer-seller relationship. Furthermore, ICT is based on the use of internet, computer networks, mobile phones, as well as wireless network for information exchange, sharing and accessing timely information to enhance performanc and ICT focuses on communication tech-

nologies and applications to offer informational access and exchange in digital form for internal and external contact including the internet-enabled sphere and the mobile powered by wireless networks. Information technology is a term that encompasses all forms of technology utilized to create, capture, manipulate, communicate, exchange, present, and use information in its various forms (business data, voice conversations, still images, motion pictures, including those not yet conceived)” Jari S., Heikki K., (2006) Information (and communication) technology plays a central role in supply chain management in the following aspects. First, IT allows firms to increase the volume and complexity of information which needs to be communicated with their trading partners. Second, IT allows firms to provide real-time supply chain information, including inventory level, delivery status, and production planning and scheduling which enables firms to manage and control its supply chain activities. Third, IT also facilitates the alignment of forecasting and scheduling of operations between firms and suppliers, allowing better inter-firms coordination. As such, the problems in coordinating supply chain activities that often hindered by time and spatial distance can be reduced (Paulraj and Chen, 2007). If information flow managed properly, it is the key factor for both efficiency and effectiveness in the supply chain with the key characteristic of sharing information up and down the supply chain related to the flow and demand requirements. Inter-organizational information systems may be simple electronic data interchange (EDI) systems for exchanging data such as purchase orders, advice of delivery notices, and invoices, or may involve more complex transactions such as integrated cash management systems, shared technical databases, internet, intranet, and extranet (Min and Galle 1999). Electronic data interchange (EDI) is not just an electronic ordering system; it helps to integrate stocking, logistics, materials acquisition, shipping and other functions to create a more proactive and effective style of business management and customer responsiveness (Mische, 1992) and thereby improve competitive advantage (Calza and Passaro, 1997). It helps in sharing information about markets, materials requirements forecasts, inventory levels, production and delivery schedules (Webster, 1995). Given that the web is a flexible, interactive, and relatively efficient medium through which various business partners and consumers can communicate, the potential that it offers for improvement of efficiency in the channel functions is enormous (Griffith and Palmer, 1999). As innovations in technologies such as intranets and extranets are critical in integrating and coordinating cross-functional teams across organizational boundaries (Grover and Malhotra, 1997). Extranets connect enterprises to their partners and the internet links the enterprises to their customers and other agencies (Shaw, 2000). Intranets merge the advantages of internet with those of local area networks (Chellappa et al., 1996) to provide support for elec-

tronic connections between intra-organizational partners and electronic access to operational data. Intranets use web-based and internet technology to easily and inexpensively share data across a private network and they are capable of providing information in a way that is immediate, cost-effective, easy to use, rich in format, and versatile. In addition, ERP systems can be considered as an information technology infrastructure that is able to facilitate the flow of information between all supply chain processes in an organization (Martin, 1998). The ERP systems represent an optimum technology infrastructure that, when integrated properly with a process oriented business design, can effectively support supply chain management systems (Chen, 2001). The sharing of information among supply chain networks allows the supply chain drivers to work together with the goal of integrated and coordinated supply chains for effective supply chain management. Information also enhances the performance and reduces the risks of supply chains because it provides processes executed transactions and it creates opportunity for decision makers when they need it and, in the format, they need it. This is where IT comes into role and it consists of hardware and software applications. IT also plays an important role in integrating suppliers, manufactures, distributors and customers to satisfy the quantity and quality of products. Organizations can gather vital information along the entire supply chain and react quickly to any predictable market changes, thereby gaining competitive advantage by effectively utilizing SCM (Tummala & Schoenherr, 2008). Providing information availability and visibility, enabling a single point of contact for data, allowing decisions based on total supply chain information and enabling collaboration with partners are the objectives of IT in SCM (Simchi Levi et al., 2003). The functional roles of IT in SCM have been outlined as Transaction Execution, Collaboration, Coordination, and Decision Support (Auramo et al., 2005). IT systems such as data integrity, real time availability, visibility and processing capability of information and standardization of business process are expected to facilitate better matching of supply and demand between supply chain members and create an excellent backdrop for embarking on integration with external partners in the supply chain (Tarn et al., 2002).

Technological changes, especially in the development of information and communication technology (ICT) are part of the driving forces in many areas of our lives. ICT facilitates the coordination of activities related to added value creation along the supply chain. Regardless of the distance, it simultaneously provides the ability to react to changes, including the unwanted ones, always where it is necessary and needed. The supply chains' organizers are forced to use a large amount of data, which need to be analyzed and presented in a convenient form (such as tables, charts, diagrams, lists) before making any decision. Helpful tools in this area

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are the systems that support decision-making, which include: *Management Information Systems (MIS)*; a formalized method of sharing with the management the accurate and timely information that facilitates decision-making and enables effective implementation of planning, control and operational functions; provides information about the present, the past and the foreseeable future, as well as about the significant events outside and within the organization; *Executive Support Systems (ESS)* - intended for the strategic management level, aiming to assist poorly programmed decisions, which were taken at this level of company management (the system uses the latest achievements of computer science, especially advanced graphics packages and the latest forms of communication; *Expert Systems (ES)* - a program, or a set of computer programs supporting the use of knowledge and facilitating decision-making (they can support or replace human experts in a given field, may provide advice, recommendations and problem diagnoses in this area); *Virtual Reality Systems (VRS)* - an image of artificial reality created with information technology; a Multimedia creation of digital vision of objects, spaces and events; *Decision Support Systems (DSS)* - the basic feature of these systems is the use of knowledge and model bases to solve such decision-making tasks as: optimization calculation, problem diagnosis, trends analysis inference, diagnosis and verification of decision effectiveness. These systems, based on complex, contradictory and incomplete information help create knowledge; they provide grounds for effective decisions and improve the capacity to respond to disturbances, among others, those regarding the supply chain.

Hypothesis H₅: effective utilization of information communication technology in the supply chain facilitates the success of the business or positively related with the performance of the business organization.

2.1.11. Logistics System Management

Logistics with its history of development in the world of more than 5000 years, both in economics, military art and science, is the origin of supply chain management which has been known and become popular for several decades only. These two terms are highly interrelated. The most well-known logistics achievements in ancient time are the pyramids in Egypt and the Great Wall in China, to name a few. Logistics is the process that creates value by timing and positioning inventory, flow of goods/products from the supplier to the customer or user either in business processes or services; it is the combination of firm's orders management, its inventory, transportation policy, warehousing, materials handling, and packaging as integrated throughout a facility network. Integrated logistics serves to link and synchronize the overall supply chain as one giant continuous process and it is essential for effective supply chain con-

nectivity. Musau M. (2011) had cited that “At the heart of an organization are the operations that create and deliver the products. These operations take a variety of inputs and convert them into desired outputs. The inputs include raw materials, components, people, equipment, information, money and other resources. Operations include manufacturing, serving, transporting, selling, training among others with the outputs being goods and/or services. Logistics manages the flow of inputs from suppliers, the movement of materials through different operations within the organization, and the flow of materials out to customers (Wisner, 2003). A supply chain management strategy requires an end-to-end supply chain focus that supports integration of business processes such as purchasing, manufacturing, selling, and logistics throughout the chain for the purpose of providing optimum value to the ultimate customer/consumer (Cohen and Roussel, 2005; Wisner, 2003)”. While the purpose of logistical work has remained essentially the same over decades, the way the work is performed continues to change radically in parallel with technology development and management innovation. According to the 5 Right *conception logistics is the process of delivery the right product to the right place at the right time under the right condition and cost for the right customer* (Douglas et al. 1998). According to Martin Christopher (1998) logistics is a process of strategic management of purchasing, transporting, storing materials, spare parts and semi-finished products, products and proper information flow in a company and its distribution channels to optimize profit now and in the future through carrying out all the orders at lowest cost and as fast as possible.

According to David Simchi-Levi (2000) logistics system (network, chain) is a group of applied approaches linking suppliers, producers, warehouses, shopping outlets in an effective way for the purpose that goods and services are to be produced (delivered) and distributed in right quantity, right place, at right time in order to minimize cost in the whole system in response to the needs of customers in terms of their expected level of service. Logistics management, as has been defined by CLM (Council of Logistics Management), refers to the process of planning, implementing and controlling the efficient, effective flow and storage of goods, services and related information from the point of origin to the point of consumption for the purpose of conforming to the customer requirements and expectations. The executed processes associated with the physical flow of goods are supposed to provide customer service in a smooth (wise, without waste) and efficient ("doing the right things only") manner, in accordance with the "7R" principles: *the right product, the right quantity, the right quality, the right time, the right place, the right information and the right cost*. The efficiency and effectiveness of materials and goods physical flows are achieved by implementing all the man-

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agement functions, such as planning, organizing, motivating, controlling, coordinating, deciding. All kinds of functions performed during the physical flow of material goods include the area of: Real processes and Regulatory processes. Therefore, the essence of logistics is the flow of material goods and services from their place of origin to the final customer (consumer). The aim is to ensure the adequacy of place (moving goods to places where there is a demand for them) and time (maintaining the right stocks levels and proper distribution of goods/services). It includes the following activities: movement and transport, warehousing and storage, manipulation of materials, stocks control, fixing orders, demand forecasting, production planning, purchase, customer service at an appropriate professional level, warehouses and plants location, provision of spare parts and after-sales service, collection and disposal of waste. Like Demand Planners, Production Planners, and some other front-line roles in the logistics process, custom experts, Import/Export professionals are often unsung but well-compensated links in the strategic supply chain operation. It's a specialized skillset that often gets taken for granted. But companies who fail to hire strategically for this role can face major bottlenecks along their Supply Chains, which can lead to inventory shortfalls and other risks. So it's worth exploring what makes a good Import/Export specialist, and what companies should keep in mind when developing their strategies around these roles. Import/Export professionals are on the Logistics branch of the larger Supply Chain Management tree. That means they're focused on the nuts-and-bolts movement of raw materials and finished goods from one country to another country or from exporter to importer and the vis-versa. They specialize in getting goods across borders and are skilled at navigating this political and regulatory bottleneck in the Logistics process to make sure that things get where they need to go. They allow companies to expand into international markets more nimbly, gain the confidence to expand international supplier bases without opening itself up to risk and avoid bottlenecks and lower risk in the sourcing process that can lead to inventory shortfalls. So import/export Logistics represents the entire supply chain channel which includes streamlining of order handling, transportation, inventory management and handling, storage, packaging, and clearing of the import/export goods. Efficient import/export logistics management by the entity can give them a competitive advantage through better order handling and reduced product cycles. On the other hand, poor logistics management often leads to increased logistics cost and poor service. The import-export process starts by deciding the *ocean freight forwarder* and the mode of shipping once the product has been cleared for dispatch. Selecting an efficient freight forwarder/export logistics company/agent and *clearing and forwarding (C&F) agent* will ease the logistics process to a great extent and will organize the product to be transported through

the shipment of the exporter's choice, handle *customs clearance*, and ensure the completion of the final delivery at the point of destination. However, once the shipment reaches the importer's port, demurrage charges apply to a ship owner when he fails to load or unload the containers within the stipulated number of free days allowed (decided by the Port Authority). Demurrage charges are usually calculated on a per-day basis. This charge will keep on accruing until the loading or unloading is not completed within the free time frame calculated as:

$$\text{Demurrage cost} = DR * DE * n \text{ (in USD at the port)}$$

where *DR* – Demurrage Rate, *DE* – Days Extended and the numbers of days

And keeping the container at the warehouse and exceeding the decided time limit will incur *detention cost*. This penalty is paid to the owner of the container by the importer as compensation since the container could have been used for another shipping consignment. The difference between these two terms is that demurrage occurs for loaded containers that are not released from the yard while detention occurs for the containers that are not returned to the owner.

Generally, if we systematize all the functions of logistics within the supply chain management that need to be developed for the rational management of production resources, we can single out the following functions such as:- Warehouse design and management: the supply chain management part logistics that covers several tasks from the design of storage facilities to the requirements for storage of products and ending with the introduction of various automation solutions (for example, for machinery intended for transporting goods within warehouses); The formation of packages; packaging, tracking, and accounting - all of these tasks allow for end-to-end control of goods on the way to the customer/distributor; Transportation of products: includes work with cargo carriers and vehicles listed in the company's fleet: planning their routes, calculating fuel costs, etc.; Working with customs: when an enterprise plans international delivery of goods, it is very important that during their transportation the goods fully comply with customs requirements and contain all the necessary documentation; Working with intermediaries: Intermediaries in logistics are all third-party, non-company resources directly involved in the implementation of supply chains. In turn, finding intermediaries with the most acceptable ratio of quality to cost of services, as well as establishing long-term, reliable relations with them are also included in the list of tasks for efficient function of logistics management and Working with written off and returned goods: there is also such a thing as “reverse logistics”, which establishes the rules and routes for transporting the returned/discarded goods, as well as ways to dispose of them.

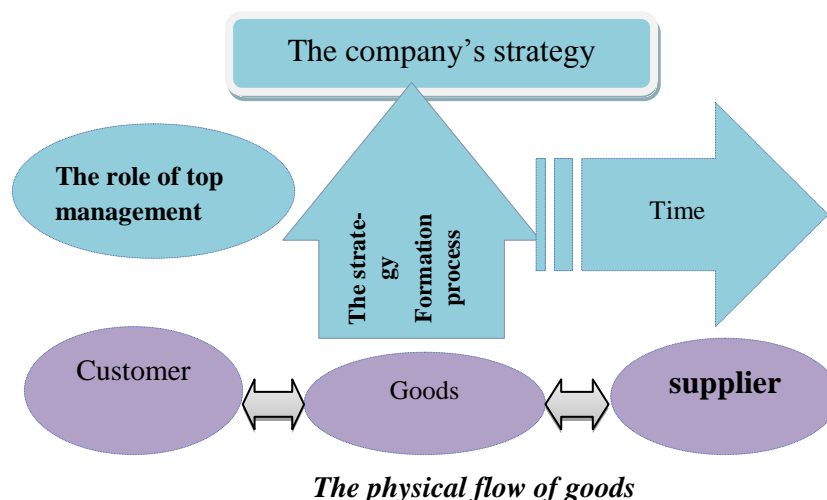
Hypothesis H₆: improving the logistics management system in the supply chain is positively related with business performance in an organization.

2.1.12 The role of top management team

Top managers have the responsibilities of determining all aspects related to their organizations such as strategy and performance of the employees (Murray, 1989). Therefore, top managers are essential to organizations and their characteristics are crucial in organizational culture formation and implementation. Top managers should be aware of that responsibilities and their roles significantly influence the success of the organizations (Kotter, 2012), for organizations to attain success, leaders should be a powerful influence to unit all stakeholders of an organization shared values and vision.

Top management should be understood here as a function rather than individuals, which has decisive impact on a company's supply chain performance. From a SCM viewpoint, its role is to influence and link the physical flow of products with the overall strategic content in the company, incorporate in the strategy formation process (e.g. Mintzberg et al., 1998) that links the physical flow of goods with the company's content strategy. According to Mintzberg's understanding of the strategy formation process, top management is involved in the strategy formation over time, which means that top management has a dynamic role rather than a static one. The physical flow of goods and the content strategy constantly changes and as will be argued below, one of the most important tasks for successful companies is, therefore, to continuously develop SCM practices and secure a sustainable competitive advantage vis-à-vis competitors over time. The arrow in the strategy formation process also indicates that top management has to consider emergent events coming from the physical flow of goods, as well as deliberate planning issues based on the strategy content.

Figure 1. The role of top management and the strategy formation process



Source: Resource Based view of firms by Porter, 1996

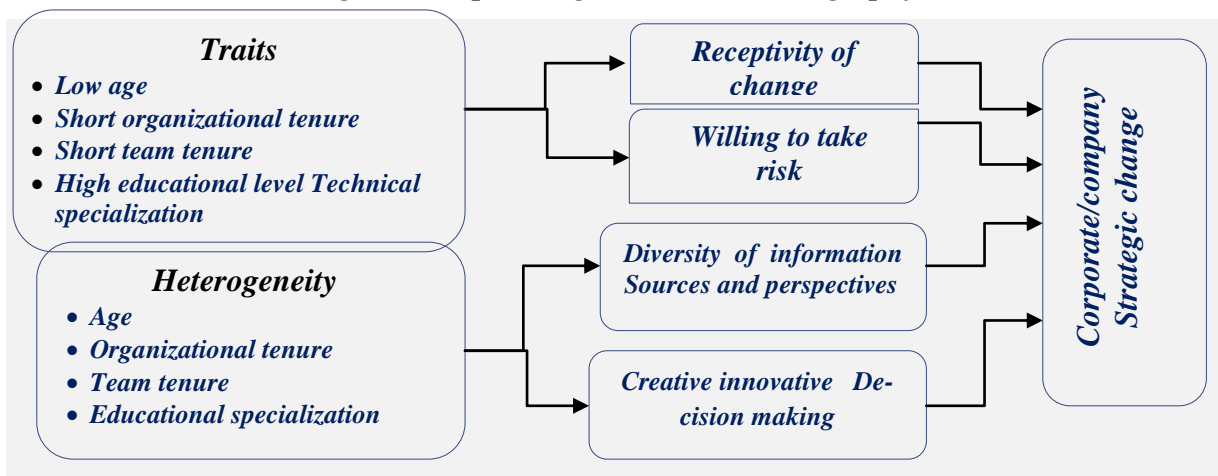
The company's strategy and organization is designed to suit and exploit the company's supply chain so that a competitive position on the market can be achieved, and thus the physical flow of goods becomes the starting point for top management's work. In practice, this means e.g. the following: First, Top management Team should have a clear view of their company's position in the supply chain and understands how to exploit this position. Actions are taken to support this position, e.g. investments in warehouses, IT systems, human resource, logistics, customer relation perspective, learning and training, knowledge processing and financial perspectives etc. Second, external relationships with suppliers and customers as well as internal ones within their own organization are coordinated so that the physical flow of goods is facilitated. E.g. the type of relationship that is considered the most suitable must therefore be judged from time to time and Finally, Top management team should have a clear customer focus where the company's efforts must be synchronized with the customer's requirements.

2.1.5.1. Factors that affect TMT Characteristics

Top management team characteristics refer to unique personal traits ascribed to members of the TMTs that are either inborn or acquired, noticeable or perceived. They are predictors of the worth of the TMTs in carrying out their tasks and managing their organizations (Mkalama, 2014). Previous scholars have grouped top management team characteristics into three categories namely, demographic characteristics, cognitive characteristics and psychological characteristics (Kasomi, 2015). As the Some previous strategic management scholars have linked demographic diversity in TMTs to effective functioning of the teams as it results in variety of ideas that is good for creativity and perfection of decisions made by the teams (Pegels, Song, & Yang, 2000; Boone & Hendriks, 2009). The cognitive underpinning of TMTs' decisions has the potential to unearth how TMTs sway the strategic management process in their organizations and the resultant effect on organizational performance (Bromiley & Rau, 2016) and to explore the TMTs' abilities to select information for processing while problem solving look into their capacities to use the information to arrive at suitable solutions (Anderson, 1990; Simons, 1995; Starbuck; 2009). This will hence result in more insightful decisions and greater capability to solve prevailing problems leading to superior organizational performance (Campbell, Coff & Kryscynski, 2012). TMT psychological characteristics also have the potential to significantly affect organizational performance (Cameron, Dutton, & Quinn, 2003; Luthans & Youssef, 2007). Some of these scholars have argued that inquiry into the influence of TMT psychological characteristics on organizational performance should start by examining the process by which traits affect behaviors and outcomes, and their impact on situational

factors (Barrick, Mount & Judge, 2001). As the strategic decision-making process is by its very nature ambiguous, complex, and unstructured, the perceptions and interpretations of a top management team members critically influence strategic decisions (Dutton & Duncan, 1987). The characteristics of a team expected to be proactive in initiating strategic change include receptivity to change, willingness to take risk, diversity in information sources and perspectives, and creativity and innovativeness in decision making. *Receptivity* to change suggests an openness to pursuing different business approaches, essential to strategic change. Willingness to take risk is important because changing firm strategy involves risk: established ways of conducting business are abandoned in favor of making commitments to strategic directions for which the payoffs are not guaranteed. Novelty, and therefore change, result from a creative, innovative decision-making style. Finally, diversity in information sources and perspectives suggests differentiation in an organization's beliefs that structure in turn leads to a perception of the feasibility of change and a momentum toward change (Dutton & Duncan, 1987).

Figure 2. Top management team Demography



Source: *The Academic Journal of management Mar (1992)*

As depicted on Figure 2, the team's demographic composition is a key indicator of these four tendencies. Specifically, certain demographic traits suggest receptivity to change and willingness to take risks, while demographic heterogeneity indicates diversity of information source and perspectives and creativity and innovativeness in decision making. As indicated on the above table, when team's traits are at low age, short organizational tenure, short team tenure, high educational level and technical specialization, they will be highly receptive to changes and willing to take risks and while the teams' heterogeneities are: age, organizational tenure, team tenure and educational specialization, they will be characterized or subjected by diversi-

ty of information sources and perspectives and highly creative, innovative and decision making. These all leads to company or corporate strategic changes.

Hypothesis H₇: TMT decision on supply chain implementation is positively related with performance improvement in business organizations.

2.1.13 Organizational performance

Organizational performance refers to how well an organization achieves its market oriented goals as well as its financial goals. The short term objectives of SCM are primarily to increase service quality, customer relationship and reduce inventory and cycle time, while long term objectives are to increase market share and profits for all members of the supply chain. Companies have used the financial metrics to measure the performance of the organization (Holmberg, 2000) and and evaluating an organization's behavior over time. Any organizational initiative, including supply chain management should ultimately lead to enhanced organizational performance. A number of prior studies have measured organizational performance using both financial and market criteria, including return on investment (ROI), market share, profit margin on sales, the growth of ROI, the growth of sales, the growth of market share, and overall competitive position (Karim and Rafiee,2014). In line with the above literature, the same items and including competitive advantage price/ cost, quality, delivery and time to market as dimensions of competitive advantage to measure will be adopted to measure over all organizational performance. The ultimate objective of any initiative taken by the organization including supply chain should be to enhance the performance of organization (Stock, et al., 2000). In addition, organizational performance has many forms which depend on whom and what the measurement is intended for. According to Richard et al. (2009) firm performance has three indicators i.e., financial related (profits, return on investment, return on assets, etc.), market related performance (sales, market share, etc.), return to shareholders (total shareholder return, economic value added, etc.). On the other hand, Mahapatro (2010) describes firm performance as the capacity of a business entity to achieve its long term objectives through efficient managerial practice, good corporate governance and a continual re-dedication on cost. In this study, because the case organization is a – profit making business organization which is engaging in import and export businesses, we will measure performance in terms of financial and operational goal attainments. Specifically, performance is measured in-terms of level of quality of services, information sharing, communication channel, customer relation integration and coordination, quick response to special demand requests, improved customer service, affordability of prices, better accuracy in costing, lead time reduction, in-

ventory replenishment, product return, and sales level among others. On the other hand, the measures of non-financial criteria are innovation performance and market share (Demirbag et al. 2006), quality improvement, innovativeness and resource planning (York and Miree, 2004).

Organizational performance is also being studied from the perspective of SCM organizational performance which includes increased sales, organization-wide coordination and supply chain integration (Koh et al. 2007; Petrovic-Lazarevic, Sohal & Baihaiqi, 2007). Operational organizational performance dimensions may also include innovation and R&D performance (Pra-jogo & Sohal, 2003; Singh & Smith, 2004). Many empirical studies have examined the relationship between supply chain management (SCM) and organizational performance (Zacharia et al. 2009; Chong et al. 2010; Lee et al. 2011; Wong & Wong, 2011). The relevant items adapted to measure organizational performance includes higher sales, higher accuracy in costing, and improved coordination between departments, improved coordination with suppliers, and improved coordination with customers (Koh et al., 2007). In line with the above literature, the same items will be adopted to measure organizational performance in this study. Market share, return on investment, the growth of market share, the growth of sales, growth in return on investment, and profit margin on sales adapted as organizational performance measures in this study.

2.2 Empirical Review

Certain previous researchers have devoted deal of attention to the relationship of supply chain management practices and certain aspects of organizational performance from different perspective/dimensions of overall supply chain. Some of these research findings from different researchers are discussed as follow.

Yabibal Abate (2020) reviewed an article conducted to investigate the “Effect of Supply Chain Management Practices on Organizational Performance with the Mediating Role of Inventory Management: The Case of Ethiopian Pharmaceutical Supply Agency” at *Debre Tabor University, D/Tabor, Ethiopia*. After intensive investigation of prior literature, they identified *Strategic Supplier Relationship, Customer Service Level, Quality of Information Sharing, Internal Lean Practice and, Postponement Strategy* as important practice of supply chain management. For the study data was collected from a random sample of 201 out of 398 public health facilitators that are under Bahir Dar branch. The findings of the study showed that among supply chain management practices identified, Strategic Supplier Partnership, Customer Service Level, Quality of Information Sharing and Postponement Strategy were found

to be the most significant determinants of the performance of the case organization and Inventory management practice was found to be a significant mediator of the relationship between supply chain management practices and firm performance. Internal Lean Practice was not found as a significant determinant of organizational performance. (Li et al, 2006) conducted study on the impact of supply chain management practice on competitive advantage and organizational performance by collecting data from 190 organizations by developing five dimensions of SCM practice (*strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing and postponement strategy*) and the research test the relationships between SCM practice competitive advantage and organizational performance and the result indicate that higher levels of SCM practices can lead to enhanced competitive advantage and improved organizational performance and competitive advantage can have a direct and positive impact on organizational performance and from the five dimensions developed postponement have not be a strong indicator or SCM practice compared to the other four dimension. However, Li do not include the impact of logistics management system and top management team decision in his study but in this study the impact of these variables is going to be investigated whether they should be considered as major factors that affect supply chain management of the business organization or not. (Mustefa, 2014) conduct study on the supply chain management practices and firm performance in case of awash tannery P.L.C. in Ethiopia. The research conceptualizes and develops five dimensions of SCM practice (*strategic supplier partnership, customer relationship, level of information sharing quality, quality of information sharing and internal lean practice*) and it tests the relationship between SCM practices operational performance and organizational performance and the research found out that there is strong relationship between SCM practices operational performance and organizational performance and shows that SCM practice have an influence both on operational performance and organizational performance and it finds out that operational performance has also an influence on organizational performance. (Mwilu, 2013) also conduct a study on supply chain management practices and performance among public research institutions in Kenya. One of the objectives of this study was to determine the impact of SCM practice on the performance of research institutions in Kenya and to evaluate the challenges faced by public research institutions in Kenya. And to evaluate the challenges faced by public research institutions in Kenya while adopting SCM. By developing seven dimensions of SCM practices from these the research finds out that three variables namely logistics lean suppliers and information technology were found to have strong statistically

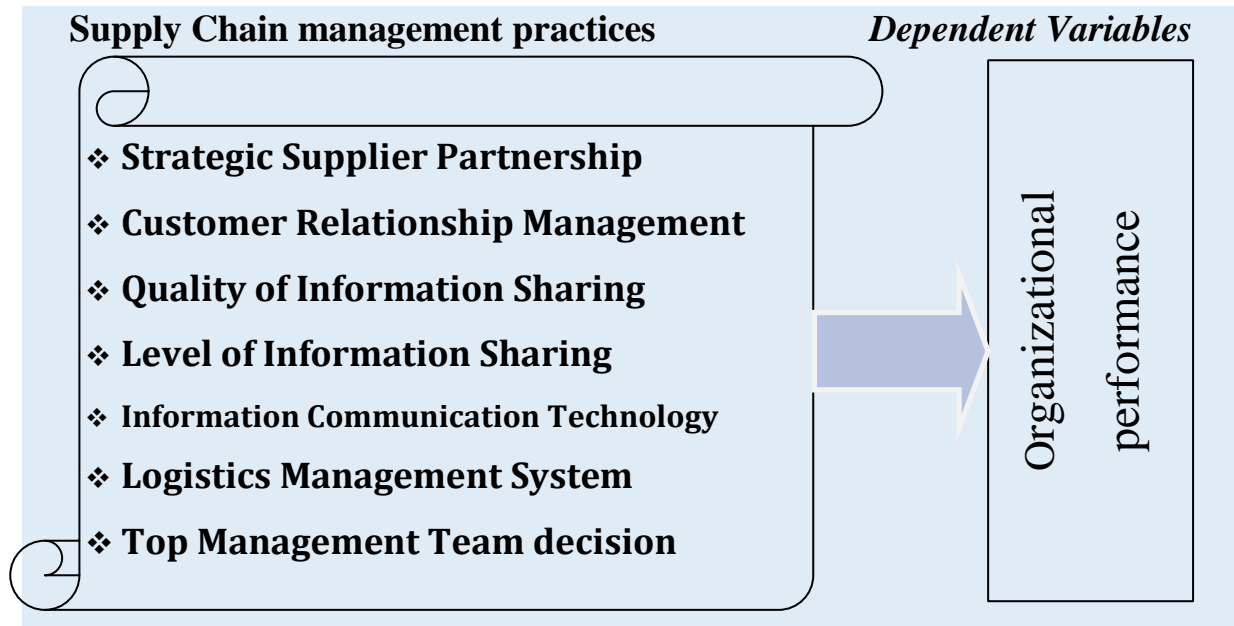
significant relationships with performance. The other three variables namely green supply chain practices, long term supplier relationships and out sourcing were found to have weak relationships which were not statistically significant.

In General, as it can be seen from the above literatures to assess the impact of supply chain management on organization performance there is no single measurement (dimension). Despite the increase of empirical research in the last few years' important differences in research design undermine comparability lack of consensus about the definition and dimension of the SCM strategy. Use of different units of analysis and different approaches to assess the impact of supply chain management strategy on the performance of business organizations, in this research, the researcher is going to investigate more variables on the business process that is the logistics management system, the impact of information communication technology and the role of top management team decision will be assessed in the study.

2.3 Conceptual Framework

The various elements discussed under this heading include supply chain management strategy practices and their relationships with (Strategic supplier integration, Customer relationship management, customer partnership management, Level and quality of information sharing, impacts of communication and technology management, top management team decision and Logistics management system) and organizational performance (financial and operational performances): As the diagrammatical expression of the conceptual framework indicates commonly known SCM practices namely: strategic supplier partnership, customer relationship, level and quality of information sharing. In this research, the researcher includes the impact of *logistics management system and top management team decision* on the performances of the business and will try to analyze what impact SCM strategy practices will have on organizational performance. On the other extreme, literatures indicate that SCM is not an easy going management system; it has many challenges especially bullwhip effects and uncertainties associated with strategic planning and implementation as well as achievements of goals and objectives have major impacts.

The conceptual framework is was diagrammed on the next page



CHAPTER THREE

3. RESEARCH METHODOLOG

3.1 Introduction

This research was conducted to examine the impact of implementing supply chain management on organizational performance in the case company and this is the part that describes the methodology which was used in this study: the choice of particular research approach, the research design, the target population and sample size determination, the data sources and types, the data collection procedures, the ethical considerations, the data analysis and presentation techniques along with an appropriate justification on the validity and reliability of the research.

3.1.1 Research Approach

For such researches which require much explanations, the researcher plans to use both quantitative and qualitative (Mixed) approaches were preferable to provide an inclusive examination of the research problems where one was not better than the other, all of these approaches depend on how the researcher wants to do the research of study (Creswell, 2005). Creswell (2005) asserted that quantitative research is a type of educational research in which the researcher decides what to study, asks specific, narrow questions, and collects numeric (numbered) data from participants, analyzes these numeric figures using statistics, and conducts the inquiry in an unbiased, objective manner. Variables can be defined as attributes or characteristics of individuals, groups, or sub-groups of individuals (Creswell, 2009).

Quantitative approach is one in which the investigator primarily uses post positive claims for developing knowledge i.e. cause and effect relationship between known variables of interest or it employs strategies of inquiry such as experiments and surveys, and collect data on predetermined instruments that yield statistics data (Creswell, 2009). Therefore, in terms of approach, this research employed mixed approach while conducting the study.

Finally, the researcher in this study would find the existing facts, practices and phenomena as it is and interpret the result.

3.1.2 Research Design

This study was conducted to investigate the impact of SCM strategy practices on organizational performance based on fundamental theories, principles and management philosophies that were supposed to be effective parameters just to evaluate the actual impact on the case

company and tried to come with certain conclusions about the impact of SCM practices on similar business companies. Therefore, the researcher preferred to use descriptive research type, which helped to use both qualitative and quantitative data analysis. Accordingly, the case company's existing SCM practices and the challenges was evaluated. That means the purpose of this research was to find out the underlying facts and /or actual circumstances existing within the case company with regard to SCM practices and describing the facts and to discuss the relationship between SCM and Organizational performance.

The researcher also used the survey design method to assess the relationship between SCM strategy practices and organizational performance of the case company. In the survey, independent and dependent variables were measured at the same point in time by using a single questionnaire. The structured survey questionnaires were issued to 9 (Nine) different departments' the questions were have been used to collect information from staff members' team leaders, senior experts and experts working at head office and Addis Ababa branch office staffs of the case company. In addition, the study also had been associational in design because the main objective of the research was to clearly identify, describe and establish the relationship between dependent and independent variables.

3.1.2 Target Population and Sample

3.1.2.1 Data Sources and Types

Both primary and secondary data was used to perform the study. Primary data was collected from respondents by distributing questionnaires to employees at head offices Addis Ababa, ATH plc) and from branch offices of the case company through questionnaires. Secondary data were gathered from documentation and records, annual reports, department data and appropriate website and other documents.

3.1.2.2. Sampling Techniques

The population included internal auditors, internal audit team leaders, internal audit experts from the head office finance department, team leaders, senior experts and experts (officers) from supply and sales sector, export sector, logistics and development sector and electronics departments, human resource and development department and the department managers and sector manager's questionnaires were distributed for each department while necessary. Census was used in this study and employee's data were collected from human resource department and number of employees included in the sample were determined by sample determination method. The sampling method that was employed in this study was *Purposive sampling* because Purposive sampling is a non-probability sampling approach that conforms to certain

criteria. There are two types of purposive sampling, *quota sampling and judgment sampling*. From this point view the researcher selected judgment sampling because the respondents were specific who were having long years of experience and team leader, senior expert and expert or officer staffs who have better understanding on the concept of supply chain management strategies and other strategies that could play roles in improving performances of business outcomes in a business organization rather than other employees or subordinate employees. However, department managers and sector managers had been consulted while further investigation needed i.e. sometimes some respondents considered for this study failed to provide the necessary information on some critical issues that need the top managers' involvement, since such strategy change and implementation decisions had been made by top level managers, so important and relevant information was extracted from them in such cases instead of middle level managers and operational managers.

3.1.2.3. Target population

The populations of the study were have been those employees who work in the case company and who have at least college diploma and above. This was because to get employees who have better awareness and understandings of organizational knowledge.

Sample size determination for a study, from a population had been shown in many books e.g. Cochran (1977), Mark (2005) and Singh and Chaudhury (1985). The aim of the calculation was to determine an adequate sample size which can estimate results for the whole population with a good precision. To strategically determine a representative sample size from the target population, different strategies were used according to the necessity of the research work. Use of various formulae for determination of required sample sizes under different situations was one of the most important strategies. For instance Cochran (1977) developed a formula to calculate a representative sample size while the target for proportions as:

$$n_0 = \frac{z^2 pq}{e^2} \text{ this is to estimate sample size when the population is infinite}$$

$$\text{And } n = \frac{n_0}{1 + (n_0 - 1)/N} \text{ where the population is known (finite)}$$

where, n_0 is the sample size, z is the selected critical value of the desired confidence level (usually 1.96 at 95% confidence level), p is the estimated proportion of an attribute that is present in the population (usually 0.5), $q = 1 - p$ (1-0.5) and e is the desired level of precision (error term)

$$\text{so we can estimate sample size as } n_0 = \frac{(1.96)^2 0.5 \cdot 0.5}{(0.05)^2} = 384.16 \approx 385$$

The same way, Malhortra and Peterson (2006) and Zikmund (2003) stated that, the larger the sampling size of a research, the more accurate the data generated. However, due to time and financial limitations and the nature of the population, sample determination method developed by **Carvalho (1984)** was preferred to be used by the researcher as a method to determine a sample size.

Table 2.1: Carvalho's sample size determination

S. No	Population size	Small sample size	Medium sample size	large sample size
1	51-90	5	13	20
2	91-160	8	20	32
3	151-280	13	32	50
4	281-500	20	50	80
5	501-1200	32	80	125
6	1201-3200	50	125	200
7	3201 - 10000	80	200	315
8	10001-35000	125	315	500
9	35001-150000	200	500	800

Source: Carvalho's (1984)

According to the human resource data of the company, the total numbers of employees in the company are 482 (435 permanent employees and 47 contract employees). Even though, the calculation result gave an estimated number of sample size of 385, only an estimated number of 350 employees had been considered as target population and the rest 35 employees were not fit for the desired purpose due to education level, distance of work asites and further, they were not directly involving in the supply chain activities. As indicated table 3.1, the potential population size (350) laid in the interval between 281-500 and the largest sample size in this interval was 80. Therefore, 80 employees were considered as sample size of the study as per Carvalho's sample determination method.

3.1.3. Data Collection Procedures

There were two sources of data namely, primary and secondary source. According to Biggam (2008), primary data is the information that the researcher finds out by himself/herself regarding a specific topic. In this research primary sources of data were used for entire analyses, and data were collected through questionnaires from the selected sample of respondents/ employees of the company. A total of 80 questionnaires were distributed to respondents and responses were utilized in the data analyses and also data was collected directly through questionnaires and managed to identify the impact of supply chain management strategy practices on organizational performance in case of ATH plc and then measure the impacts and in-

fluences of each independent variable mentioned earlier on the existing performance (dependent variable) of the case company. Since the research is descriptive type of research, the researcher administers attitude and opinion questionnaires of organizational practices that enabled us to identify and describe the variability in different phenomena. In contrast, explanatory or analytical research enabled the researcher to examine and explain relationships between variables, in particular cause-and-effect relationships and since the research was compared with the findings of prior researches conducted by other researchers, most of the questionnaires were adopted and some were adapted from different related prior researches. The type of questionnaire chosen was dictated how sure one could be that the respondent was the person whom the researcher wish to answer the questions and thus the reliability of responses. Primary data was collected from team leaders, senior experts and experts or officer staffs through close ended questionnaires in a 5 point Likert scales from the sample respondents. The questionnaires had had 5 rating scales ranging from 1- significantly decreased to 5 significantly increased for performance case and from 1- strongly disagree to 5- strongly agree for independent variables based on the nature of questions and Seven open ended questions were also used to collect data. This measurement were expected to bring a reliable result after the collection of the data.

3.1.4. Data Analysis and Presentation

Both quantitative and qualitative data analyses methods were used. After data were collected, proper tools and techniques had been used for analysis and interpretation of data. In order to reach conclusions based on the findings and results of the study, descriptive analysis was used to summarize the data. These methods used numerical and/or Graphical method of analyses for recognizing patterns in the data, while the numerical methods of analysis was acknowledged for giving precise measures. In the analysis of descriptive statistics, either correlation and linear regression analyses or verbal explanations were performed. The reasons for using this procedure was to make it easier for the reader to compare and understand the findings.

3.1.4.1 Data Analysis

The collected data was analyzed and interpreted by using both qualitative and quantitative techniques. The data collected from responses of open ended questions was analyzed qualitatively using either inductive or deductive approaches and data collected through responses of closed ended questionnaires were analyzed quantitatively by using mean, frequency, Pearson correlation and regression analysis techniques to show the effect of independent variables on the dependent variable by using SPSS (V₂₃) tool. The questionnaires were administered, and

the mass of raw data collected was systematically organized in a manner that facilitated analysis. All data collected was checked for consistency of responses and cleaned before encoded into computer file. The data was analyzed using statistical methods and the results were displayed using tables, charts and graphs. Descriptive statistics mainly frequencies, percentages, and mean were used to summarize the responses.

The data were used to analyze the objective statements set in each independent and dependent variable(s) to measure their impact on the supply chain management using Statistics Package for Social Sciences (SPSS-V23). The form of the Multiple regression equation shall be formulated as follows:-

$$\text{Model (Performance)} = \beta_0 + \beta_1\text{SSP} + \beta_2\text{CRM} + \beta_3\text{LIS} + \beta_4\text{QIS} + \beta_5\text{LOG} + \beta_6\text{ICT} + \beta_7\text{TMT} + \varepsilon_1$$

Where; LIS = Level of information Sharing; QIS = Quality of Information Sharing; LOG= Logistics system Management; ICT= Information-communication Technology; TMT = Top Management Team, β_0 & β_{01} = the constant terms of the model₁ & model₂ ε_1 is residual of the model and $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7$ & β_{11} are coefficients of the Linear Regression equation of model₁ and model₂.

3.1.4.2 Quantitative Data Analysis

Quantitative data refers to all such data and can be a product of all research strategies. It can range from simple counts such as the frequency of occurrences to more complex data such as test scores, prices or rental costs. Since the simple tables or diagrams that show the frequency of occurrence and the statistical indices that enables comparisons, through establishing statistical relationships between variables need to be analyzed and interpreted to be useful. Quantitative analysis techniques assist us in this process and descriptive analysis used for the presentation of data after data were collected. The data obtained through the questionnaires was first checked for completeness. The questionnaires should find correctly filled and fit for analysis and coded. All the data entered into statistical package for social sciences (SPSS) and analyzed using descriptive statistics before analyses are started. The descriptive statistics used include mean and frequency to analyze the general information to investigate the supply chain management practice and Pearson correlation and regression model analyses were used to assess the impact of supply chain management practice on the case company's performance. Results of the findings were then be presented and interpreted using tables, graphs, and charts.

3.1.4.2 Qualitative Data Analysis

Qualitative data refers to all data that has been collected through questionnaires such as non-numeric data, or data that have not been quantified and can be the product of the research

strategies. It can range from short list of responses to open ended questions and can be analyzed using qualitative method, it allows us to develop theories. This may use inductive or deductive approaches. The reasons for using this procedure are to make it easier for the reader to compare and understand the findings. The data collected by open ended questionnaires were analyzed qualitatively by synthesizing the data.

3.1.5 Validity and reliability

3.1.5.1 Validity

Validity is often defined as the extent to which an instrument measures what it asserts to measure (Blumberg et al., 2005). Validity of a research instrument assesses the extent to which the instrument measures what it is designed to measure (Robson, 2011). It is the degree to which the results are truthful. So that it requires research instrument (questionnaire) to correctly measure the concepts under the study (Pallant 2011). It encompasses the entire experimental concept, and establishes whether the results obtained meet all of the requirements of the scientific research method. Validity also refers to the extent to which the researcher gains access to their participants' knowledge and experience, and is able to infer a meaning that the participant intended from the language that will be used by this person. The high level of validity that is possible in relation to non-standardized (qualitative) interviews that are conducted carefully will be made clear by: The flexible and responsive interaction which is possible between interviewer and respondent(s) allows meanings to be probed, topics to be covered from a variety of angles and questions made clear to respondents.

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

3.1.5.2 Reliability

The reliability refers to a measurement that supplies consistent results with equal values (Blumberg et al., 2005). It measures consistency, precision, repeatability, and trustworthiness of a research (Chakrabarty, 2013). Reliability refers to the extent to which the same answers can be obtained using the same instruments more than one time. In simple terms, if the re-

search is associated with high levels of reliability, then other researchers need to be able to generate the same results, using the same research methods under similar conditions. It is noted that “reliability problems crop up in many forms. Reliability is a concern every time a single observer is the source of data, because we have no certain guard against the impact of that observer’s subjectivity” (Babbie, 2010, p.158). According to Wilson (2010) reliability issues are most of the time closely associated with subjectivity and once a researcher adopts a subjective approach towards the study, then the level of reliability of the work is going to be compromised. As multiple items in all constructs would be used in this study, the internal consistency reliability of SCM practices and organizational performance will be assessed with Cronbach’s alpha and the reliability value for all constructs were all greater than 0.70 which is in the range of considerable acceptance. The coefficient of reliability falls between 0 and 1, with perfect reliability equaling 1, and no reliability equaling 0. The test-retest and alternate forms are usually calculated reliability by using statistical tests of correlation (Traub & Rowley, 1991). For high-stakes settings (e.g., licensure examination) reliability should be greater than 0.9, whereas for less important situations values of 0.8 or 0.7 may be acceptable. The general rule is that reliability greater than 0.8 are considered as high (Downing, 2004). Summary for the level of reliability of SCM Strategy practices and organizational performance can be seen and explained/analyzed based on the levels indicated on the table below.

Table 2.2 Variables level of reliability Alpha Score ranges

Variables	Cronbach’s Alpha Score	Level of Reliability
Independent variables	0.0 – 0.20	Less reliable
	>0.20 – 0.40	Rather reliable
Dependent Variables	>0.40 – 0.60	Quite Reliable
	>0.60 – 0.80	Reliable
	>0.80 – 1.00	Highly/very reliable

Source: Source: Hair et. al, (2003)

Table 2.3 Reliability test results

Variables	Cronbach's Alpha	Reliability
Performance of Organization	.942	High reliability
Customer Relation Management	.904	High reliability
Strategic Supplier Partnership	.889	High reliability
Quality of Information Sharing	.963	High reliability
Level of Information Sharing	.959	High reliability
Information Communication Technology	.936	High reliability
Logistics Management System	.979	High reliability
Top Management Team	.975	High reliability

Source: Research data (2022)

As indicated on the table all the Cronbach’s alpha value had been obtained using sensitivity analysis and results were higher than 0.7 (the acceptance level) and Cronbach’s alpha score

Cronbach's reliability greater than 0.8 are considered as high (Downing, 2004), as shown on the table the Cronach's aplpha scores for all independent variables were above Ninty which indicates very high reliability or strong relationships.

3.1.6 Ethical Consideration

Ethical concerns will emerge as we plan in researches, seek access to organizations and to individuals, collect, analyses and report our data. In the context of research, ethics refers to the appropriateness of the researcher's behavior in relation to the rights of those who become the subject of the research work, or are affected by it. Blumberg et al. (2005:92) define ethics as the 'moral principles, norms or standards of behavior that guide moral choices about the researcher's behavior and relationships with others'. Research ethics therefore relates to questions about how the researcher formulates and clarifies his/her research topic, design his/her research and gain access, collect data, process and store his/her data, analyses data and write up the research findings in a moral and responsible way and it has to be both methodologically sound and morally defensible to all those who are involved. So researches in business organizations/companies will be found to be very boring. In the country where the importance of research is still unidentified, the researcher expects to suffer a lot to convince the importance of this research to improve business. Even in some managers and employees were not quite positive to handle questionnaires. Some respondents even do not have awareness and understandings about supply chain management strategy concepts and its importance. However, research questionnaires were distributed to and collected from respondents ethically and in patience with the necessary information and the process will continue till the researcher concluded everything that he/she needs from respondents. All information that are collected from the respondents were treated confidentiality without disclosure of the respondents' personality. Moreover, no information will be modified or changed, hence information gotten will be present as collected and all the literatures collected for the purpose of this study will be appreciated in the reference list.

CHAPTER FOUR

4. DATA ANALYSIS AND INTERPRETATION OF RESULTS

The study sought to assess the impact of supply chain Management strategy on the performance of the case company. The data was collected through closed ended questionnaires that were developed in five scale ranging from five to one where 1 strongly disagree ,2 disagree ,3 neutral,4 agree and 5 strongly agree and open ended questions from 80 of the company employees ranging from department Managers to key staff officers/experts engaging in various functions in almost 9 different departments based on their level of engagements with in the supply chain practicing process or its implementation as business strategy. So, in this chapter the data that were collected to examine the relationship between SCM practice i.e. the independent variables and organizational performance are interpreted and analyzed using SPSS (version 20). Since the researcher used the Carvalho's(1984) sample size determination principle to determine the sample size and got Eighty (80) target population out of the total sample population, 90(Ninety) questionnaires were distributed to respondents to achieve the target population, as a result Eighty(80) were returned with responses and all responses were found valid and used for the analysis. Thus, based on the responses obtained from the respondents data presentation and analysis were made as follows.

4.1.1 Response rate

The study was targeted to assess the impact of supply chain management on the performance of business organization, 90 questionnaires were distributed to collect data from expert/officers to department managers to reach on conclusion on the where abouts relations between dependent and independent variables. The response rate was displayed in the table below:-

Table 4.1 Response rate

Description	No of Questionnaires Distributed to target population respondents	No Questionnaires collected from target population respondents	Percentage
Respondents	90	80	88.89

Source: research Data(2022)

As shown on the table 4.1, 90 questionnaires were distributed to all target population in planning to collected data from the targeted population and the number of Questionnaires collected from target population was 80 which was determined as sample size, the possible response rate from respondents were 88.89%.

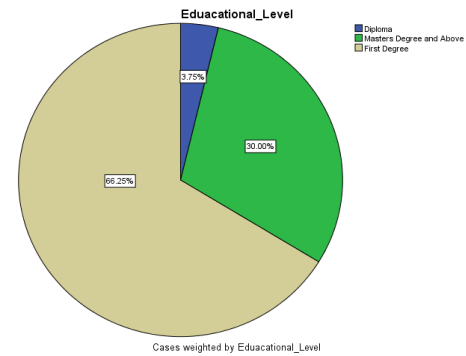
4.1 Educational Background Assessment

Based on the questionnaires distributed to assess the education level of respondents, responses obtained had been illustrated in percent proportions on both table 4.1. and the pie chart as shown below.

Table 4.2 Educational level assessment

		Educational Level			
		Fre- quency	Per- cent	Valid Per- cent	Cumulative Percent
Valid	Diploma	3	3.8	3.8	3.8
	Masters Degree and Above	24	30.0	30.0	33.8
	First Degree	53	66.3	66.3	100.0
	Total	80	100.0	100.0	

Source: Research Data, 2022



Pie chart 1

The education qualification is one of the criteria from whom to collect data about the research topic under study because the respondents understanding and knowledge hardly affects the result of the research. So the above table 4.2 and the pie charts shows that based on the data collected from the responses, 3.8% of the respondents are Diploma holders with big experiences, 66.3% of the respondents are First Degree holders and 30% of them are Mastre Degree and above in their education level. So the researcher believes that these respondents have the desired knowledge and understating about supply chain management practices and strategies i.e. about the relationship between the independent varialbes and the dependent variable (organizational performance)

4.2 Respondents Expereince Assessment

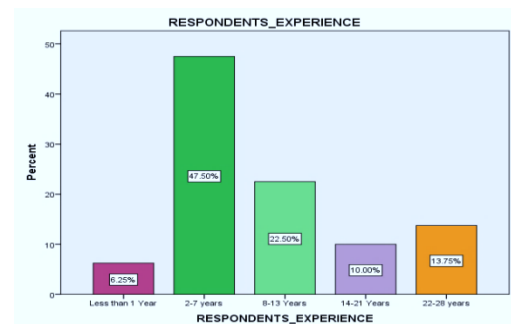
As experience is also one of the factors that affect the understanding level and knowledge of therespondents, its had been assessed by the data collected from the respondents and presented in the following way in the table 4.3 and pie chart below:

Table 4.3. Assessment of experience of respondents

		Respondents Experience			
		Fre- quency	Percent	Valid Per- cent	Cumula- tive Per- cent
Valid	Less than 1 Year	5	6.3	6.3	6.3
	2-7 years	38	47.5	47.5	53.8
	8-13 Years	18	22.5	22.5	76.3
	14-21 Years	8	10.0	10.0	86.3
	22-28 years	11	13.8	13.8	100.0
	Total	80	100.0	100.0	

Source: Research Data, 2022

**Bar graph 1. Experience of re-
spondents**



Graph 1 Respondent experience

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As indicated both on the table 4.3 and the bar chart, the percentages employees with their respective experience gained working in the company: 5 employees (6.3%) the total population considered for the study have less than 1 year experience, 10% of the employees have 14-21 years of experience, 13.75% (11 of 80 respondents) have 22-28 Years of experience, 22.50% of the employees (18 of 80) have 8-13 Years of experience and 47.5% of the employees (38 in number) have 2-7 Years of experience. So the researcher believes the longer one engaged in a certain job, the higher is the knowledge and understanding gained on the nature of the job, as indicated on the table, some of the employees have long years of experience and have full package of knowledge and understanding about the company's supply chain strategy in both the import and export sector of the business.

4.3 Department Assessment

As a business company, the organization has different departments which plays major role in facilitates the business process, the different departmental compositions that play part in the supply chain management of the company are listed below on table 4.4.

Table 4.4 Assessment of respondent's department

Respondents' Department					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Law	2	2.5	2.5	2.5
	HRD	3	3.8	3.8	6.3
	R & D	4	5.0	5.0	11.3
	planning and support	5	6.3	6.3	17.5
	Export	6	7.5	7.5	25.0
	Electronics and ICT	11	13.8	13.8	38.8
	Logistics	12	15.0	15.0	53.8
	Finance	17	21.3	21.3	75.0
	Import	20	25.0	25.0	100.0
	Total	80	100.0	100.0	

Source: Research Data, 2022

As indicated on the table 4.4, the company is constructed from 9 departments, however, the main contributing departments are Import about 25%, Finance 21.3%, logistics 15% and export the 4th high contributor in the companies incomes. The company is not wisely using the Human Resource and Development and Research and Development departments which normally very useful in any organizations. Research and Development is especially the back bone for companies or organizations engaged in businesses. However, the law, planning and support, electronics and Information and Technology departments were also large contributor for the success of the company, for instance, the ICT(Data Administrator) department had been playing major role in facilitating the companies business flow on international level and planning and support department was also very important in for company in designing its future plan by analyzing

based on its past experiences and performance, it plans and modifies its action to achieve the desired mission, vision, objective and goals.

4.4 Employees Position Assessment

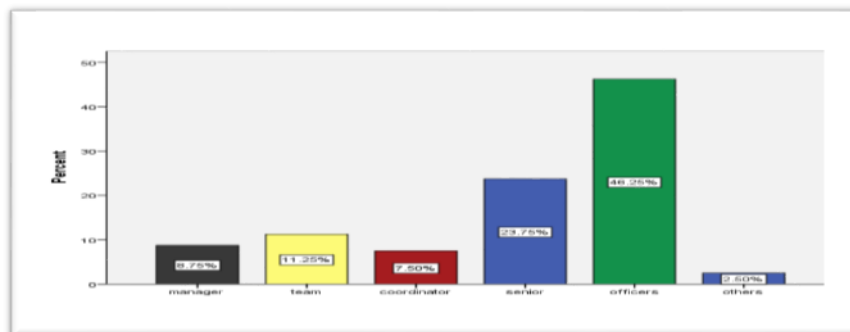
As shown below, the organization constructed from different departments which plays major role in facilitating the business process, the different departmental compositions that play part in the supply chain management of the company are led by individuals at different levels as shown on table 4.5. and bar chart.

Table 4.5 Respondent's Position assessment

Respondents Position					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Department managers/division heads	7	8.8	8.8	8.8
	Team Leaders	9	11.3	11.3	20.0
	Sales Coordinators	6	7.5	7.5	27.5
	Senior officer	19	23.8	23.8	51.3
	Experts/ officers	37	46.3	46.3	97.5
	others	2	2.5	2.5	100.0
	Total	80	100.0	100.0	

Source: Research data collected from respondents, 2022

Bar graph 2. Employee position Assessment



Source: research data (2022)

In this study, the researcher collected data through questionnaires distributed to employees at different positions and hence 8.75% of the respondents from which data was collected are department managers /Division Heads who have better understanding and knowledge about the supply chain management of the company. 11.25% and 7.5% of the respondents are team leaders and sales coordinators respectively who have better access to know about the supply chain and the management style because of their immediate contact with the managers. However, the majority of the respondents are senior officers and Experts/officers which possess 23.75% and 46.25% respectively. These groups have better understanding and knowledge about the technical operation and practice of the supply chain in the company.

4.5 Description Analysis and Discussion of Variable Relationships.

This part is the most important part of the study in which we measure the performance of the companies supply chain on each independent variables and the dependent variable and relationships discussed based on the data collected from respondents. Here we sought to intensively went through each variable whether the desired specific objectives were met, research questions were answered or resolved and hypotheses were valid.

4.5.1 Customer Relationship Management

As Supplier and customer relationship is a set of firms' activities in managing its relationships with customers and suppliers to improve customer satisfaction and synchronize supply chain activities with suppliers, leverage suppliers' capacity to deliver superior products to customers, that is due to the ultimate objective of SCM is to deliver products to the satisfaction of end customers (Tan, 2001). Customer relationship: comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction (Claycomb et al. 1999, Tan et al. 1998). Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers (Magretta, 1998).

Table 4.6. Measuring the level of customer relation management on SCM practice and effects

Customer relationship management: In assessing the reliability of the specific objectives set upon the objective section of the study, here are the Nine statements to collect data from respondents to measure the output, questionnaires were distributed for more than Eighty(80) respondents and the mean and standard deviation values were shown.	N	Mean	Std dev
The company frequently measures and evaluates the level of customer satisfaction and take suggestions about the service.	80	3.56	0.898
The company frequently interact with customers to set reliability, responsiveness, and other standards for the company	80	3.61	0.907
The Company frequently checks and make surveys about future customer expectations and demands.	80	3.64	0.860
The company encourages customers' ability to seek assistance from us and helps to facilitate the flow customer's business and supports their progress.	80	3.65	0.943
The company signs long term contract agreement with reliable customers	80	3.58	0.925
The company periodically evaluates the importance of its relationship with the customers and made adjustment on its relationships with customers every time.	80	3.71	860
The company facilitates situations for two-party panel discussions with	80	3.61	0.907

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customers on how to differentiate trade items from its competitors to improve market shares of both parties			
The company helps its customers to achieve their financial and non-financial growth objectives and goals.	80	3.70	0.892
The company helps reliable customers to gain sustainable competitive advantages against their inherent barrier competitions by creating customer loyalty, reducing processing times, improving customer services, reducing prices and managing customer complaints.	80	3.59	0.910

Source: the research data (2022)

Descriptive analysis: is used to summarize the the nature and characteristics of the respondents response in relation to the effect of customer relation management on the case company's supply chain practice to know the level of respondents perception how this variable further affects the operational and financial performances of the company. In this case, each item was analyzed by comparing the "mean" and "standard deviation" score of each variable and of each statements set to measure the objectives, answer the research questions and check whether the hypotheses are valid. According to Zaidaton & Bagheri (2009) the mean score below 3.39 was considered as low, the mean score from 3.40 up to 3.79 was considered as moderate and mean score above 3.8 was considers as high as illustrated below.

Table 4.7. Comparison based on the mean score of five point Likert scale instrument

Mean Score	Effect Description
<3.39	Low effect
3.40 -3.79	Moderate effect
>3.80	High effect

Source: Zaidatol & Bagheri (2009)

Note That: the concept in this table would be used in the description of all variables.

As shown on the above table, the SPSS (V23) calculation result showed that the mean score to know how the company measures and evaluates the level of customer satisfaction and take suggestions about the service was 3.38 the mean score to measure how the company frequently interact with customers to set reliability, responsiveness, and other standards was 3.19, the mean score to measure how the Company frequently checks and make surveys about future customer expectations and demands, and how it encouraged customers' ability to seek assistance from the company and helps to facilitate the flow customer's business and supports their progress were found to be 3.20 and 3.34 respectively.

The mean score result showed that the company's capacity to sign long term contract agreement with reliable customers in a year basis was found 3.28 and the nature how the company periodically evaluates the importance of its relationship with the customers and made adjustment on its relationships with customers every time was found 3.31; the mean and Std deviation to measure

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the readiness of the company to facilitate situations for two-party panel discussions with on how to differentiates trade items from its competitors to improve market shares of both parties was found to be 3.38 and 1.011, the same way, (the mean, standard deviations) to measure to what level the company helps its customers to achieve their financial and non-financial growth objectives and goals and in what way the company helps reliable customers to gain sustainable competitive advantages against their inherent barrier competitions by creating customer loyalty, reducing processing times, improving customer services, reducing prices and managing customer complaints had been found (3.26, 1.028) and (3.23, 1.125) respectively. Hence, as shown on the description, since the results of the *SPSS* (V_{23}) calculation for all of the statements set to measure the effect of customer relation management found were laid BELOW 3.39, then the tests results based on measuring objective statements had shown *Low* effect on SCM practices and needs an improvement on performance of the business processings of the case company.

4.5.2 Strategic supplier partnership

Strategic partnership emphasizes direct relationship and long-term and encourages mutual planning and efforts to resolve problems. Supplier and organizations can work together more closely and eliminate useless time and effort. Effective partnerships with suppliers can be critical factor to guide supply chain management (Li et al.2006). Sandikiglu and zehir (2010) also stated that in strategic supplier partnership, suppliers play more direct role in an organization's quality performance and help to select the best components and technologies, and help in design assessment. In short, an effective supplier partnership can be a critical component of a leading edge supply chain (Karim and Rafiee, 2014).

Table 4.8. strategic supplier partnership level of Agreement Assessment and frequency distribution table

Strategic supplier partnership: In assessing the reliability of the specific objectives set upon the objective section of the study, here are eight statements to collect data from respondents to measure the output, questionnaires were distributed to more than Eighty (80) respondents and the mean and standard deviation values were shown on the table.	N	Mean	Std dev
The company's policy uses quality products as first criterion in selecting suppliers.	80	3.51	1.006
When problems are encountered, the management has the habit of sharing effort with suppliers to solve the problems.	80	3.55	0.884
The company frequently supports suppliers to improve their product quality	80	3.65	0.813
The company's policy encourages key suppliers to be included in continuous improvement programs.	80	3.58	0.958
Key suppliers are considered in planning and goal-setting activities of each	80	3.58	0.968

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physical year.			
Key international suppliers involve in delivering new products to the company	80	3.54	0.913
The company helps suppliers to deliver the right product at the right time and place and strives to establish long term partnership with its suppliers	80	3.60	0.894
Your company certifies its suppliers for quality, speed of delivery, reasonable price and role for cost reduction during shipments for import and exports.	80	3.59	0.882
Source: research data processed (2022)			

As shown on table 4.8, the SPSS (V23) calculation result showed that the mean and std. deviation scores of the responses on how the company's policy of *quality first criterion* in selecting suppliers were 3.51 and 1.006, where as the mean and std. deviation scores on the managements' habit of sharing effort with suppliers to solve problems when encountered were 3.55 and 0.884 when problems are encountered, the same way, the mean and std. deviation scores to measure how long the company frequently support suppliers to improve their product quality had been the same 3.65 and 0.813. Silmilarly, the mean and std. deviation scores to measure to how much company's policy encourage key suppliers to be included in continuous improvement programs were 3.58 and 0.952, the mean and std. deviation scores to evaluate whether the company considers key suppliers in the planning and goal-setting activities of each physical year were found to be 3.58 and 0.868 respectively. The nean and std. deviation scores how much the company helps key international suppliers to involve in delivering new products were 3.54 and 0.913; the mean and std. deviation scores to measure how much the company helps suppliers to deliver the right product at the right time and place and strives to establish long term partnership with its suppliers had been 3.60 and 0.894 and the mean and std. deviation scores that company certifies its suppliers for quality, speed of delivery, reasonable price and role for cost reduction during shipments for import and exports was 3.58 and 0.882. Therefore, as shown on the description, the results of the *SPSS (V₂₃)* calculation for all of the statements set to measure the effect of strategic supplier partnership found to have moderate effect, mean values (*laid between 3.40 and 3.79*) which results a moderate effect of SCM practices on performance.

4.5.3 Information sharing in SCM

A lot of different types of information can be shared among the members of a supply chain. Since this thesis is about quality and Level of information sharing connected to this area. Lee and Whang (2000) list a number of possible information types to be shared i.e. the frequency of sharing, the degree of data processing and means of communication in supply chains.

4.5.3.1 Quality of information sharing

Apart from the type of information, i.e. what the information is about, the frequency of sharing and whether the information is processed or not, have shown to be important aspects for the success of the collaboration. Quality of information sharing is therefore one important aspect because the significance of its effect on SCM depends on what information is shared, when and how it is shared, and with whom (Chizzo, 1998; Holmberg, 2000). It includes aspects such as the accuracy, timeliness, adequacy, completeness and credibility of information exchange. Since information disclosure is perceived as a loss of power, it appears that there is a built in reluctance within organizations to give away more than minimal information (Berry et al. 1994). This is therefore, to go through the qualitative and quantitative analyses of the details and to describe the actual data output obtained from the responses of the respondents based on the mean and standard deviations illustrated in the table below:

Table 4.9: Respondents' level of Agreement assessment mean and std, deviation table on Quality of information sharing

Quality of information sharing:	N	Mean	Std dev
In assessing to what extent does each respondent show an agreement about each objectives statements designed to measure the extent the company uses them in the supply chain as indicated in this table to achieve the specific objectives, answer research questions and check validity of hypotheses related to information sharing and responses were stated as followings:			
Information exchange between our companies' trading partners and our company is accurate.	80	3.56	1.017
Information exchange between our companies' trading partners and our company is reliable.	80	3.46	1.030
Information exchange between our companies' trading partners and our company is adequate.	80	3.56	0.939
Information exchange between our company and our trade partners is complete.	80	3.50	1.067
Our company and its trading partners exchange information that helps the establishment of business planning.	80	3.53	0.941
There is timely and quick information exchange between our company and our trade partners.	80	3.46	0.993
The supply chain members (the company and its partners) are aware that quality of information is a critical aspect of effective SCM and considers it as a strategic asset, and further ensures the flow of information with minimum delay and distortion.	80	3.54	1.030

Source: Research data collected from Respondents (2022)

As based on the data obtained through the questionnaires distributed to respondents, the mean and std. deviation scores of (3.56, 1.017) were agreed that information exchange between the company and its trading partners were accurate, the mean and std. deviations scores of (3.46, 1.030) were agreed that information exchange among the two parties was reliable, the mean and std. deviations scores of (3.56, 0.939) were agreed that information exchange among the two parties was adequate, the mean and std. deviations scores of (3.50, 1.067) were agreed that in-

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formation exchange among the two parties was complete; a mean and std. deviation scores of (3.53, 0.941) were agreed that the two parties exchange information that helps the establishment of business planning; a mean and standard deviation scores (3.46, 0.993) of the respondents were agreed that information exchange was timely and quick between the two parties; the mean and standard deviation scores (3.54, 1.030) of the respondents were agreed that the supply chain members (the company and its partners) are aware that quality of information is a critical aspect of effective SCM and considers it as a strategic asset, and further ensures the flow of information with minimum delay and distortion. Therefore, these findings indicated that the company performance on quality of information sharing in the supply chain management practice was almost at moderate effect as proposed by Zaidatol and Bagheri(2009) i.e. mean value laid in the interval (3.40-3.79) had a moderate effect. So as there are situations that required much effort to be improved, the company needs to exert much effort to improve its information sharing and exchange policies.

4.5.3.2 Level of information sharing:

Information sharing refers to ability of enterprises to share knowledge and information with supply chain partners with effective and efficient manner. Information sharing in interactive system of supply chain includes information between direct partners and all network of supply chain. The level of information sharing is closely linked with accountability and efficiency (Rahmanseresht and Afsar, 2008). Furthermore, Alireza et al. (2011) stated integration and coordination across supply chain can be well provided through information sharing. chain relationship. According to Stein and Sweat (1999) effective use of relevant and timely information by all the functional elements in the supply chain is considered as a competitive factor and distinctive (Ahmadi, 2005). Failures can occur in case of information delays, shortage or distortion across the supply chain (Power, 2005). 8). Therefore under this scenario, the under tabular illustrations help us to understand the level how information sharing is sharing timely, how information is flowing formally and informally, when, how, to whom to share and frequently interaction with customers to set reliability and responsive was the sharing of information had been taken place with in the supply chain of the company.

Table 4.10: Respondents' level of Agreement assessment on Level of information sharing

Level of information sharing:	N	Mean	Std dev
<i>In assessing to what extent does each respondent show an agreement about each objectives statements designed to measure the extent the company uses them in the supply chain as indicated in this table to achieve the specific objectives, to answer research questions and to check validity of hypotheses related to the level of information sharing</i>			

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<i>and responses were stated as followings:</i>			
Your company's trading partners keep your company fully informed about issues that affect the business flow and exchange information that helps establishment of business planning.	80	3.60	1.014
Our company's trade partners share business ideas and information about the core business processes with our company's management	80	3.59	1.002
Our company and its trading partners keep informed with each other about events or changes that may affect our partnership and information exchange between these trade partners is timely.	80	3.48	1.043
The company's top management team is aware of the significant aspects of information and has the knowledge when, how and to whom to share information.	80	3.43	1.065
The two parties frequently share important and valuable information (formally and informally) that helps both parties in the business process	80	3.64	1.009
The company frequently interact with customers to set reliability, responsiveness, and others	80	3.56	0.979

Source: Research data (2022)

As the data collected from respondents revealed, the mean and std. deviation scores (3.60 and 1.014) of the respondents showed an agreement that the two parties (the company and its partners) keep fully informed about issues that affect the business flow and exchange information that helps establishment of business planning while the mean and std deviations of (3.59 and 1.002) were agreed that the two parties share business ideas and information about the core business processes with our company's management. The data output also showed that the mean and std. deviation of scores of (3.48, 1.043) of the respondents believed that the company and its trading partners keep informed with each other about events or changes that may affect their partnerships and information exchange between these trade partners is timely; the mean and std. deviation scores (3.43 and 1.065) were agreed that the company's top management team is aware of the significant aspects of information and has the knowledge when, how and to whom to share information; the mean std. deviation scores of (3.64 and 1.009) the two parties frequently share important and valuable information (formally and informally) that helps both parties in the business process, and the mean and std. deviation scores of (3.56 and 0.979) of the respondents were agreed that the company frequently interact with customers to set reliability, responsiveness, and others. Therefore, these findings indicated that the company's performance on the level of information sharing in the supply chain management practice was almost at moderate effect as proposed by Zaidatol and Bagheri(2009) i.e. mean values laid in the interval (3.40-3.79) had a moderate effect. So as there are situations that required much effort to be improved, the company needs to exert much effort to improve its information sharing level and exchange policies as seen in the case of quality information shaing.

4.5.4 Information communication technology (ICT)

As defined on the literature part, Information technology is a term that encompasses all forms of technology utilized to create, capture, manipulate, communicate, exchange, present, and use information in its various forms (business data, voice conversations, still images, motion pictures, including those not yet conceived)” Jari S., Heikki K., (2006). The sharing of information among supply chain networks allows the supply chain drivers to work together with the goal of integrated and coordinated supply chains for effective supply chain management. Information also enhances the performance and reduces the risks of supply chains because it provides processes executed transactions and it creates opportunity for decision makers when they need it and, in the format, they need it. So the data collected through questionnaires based on objective statements listed on the following table and responses from respondents were coded as shown on the frequency distribution and min, max, mean and standard deviation the tables below.

Table 4.11. Respondents' level of Agreement assessment in mean and std. deviation scores on ICT

ICT: in assessing the level of agreements of respondents on each objective statements designed to measure to what extent the company practiced in the supply chain as indicated in this table to achieve the specific objectives, answer research questions and check validity of hypotheses, response were stated as following:	N	Mean	Std dev
The company's ICT(data administrator group) facilitates supplier integration by improving information exchange with major suppliers	80	3.60	0.936
The company's ICT helps to improve the purchase ordering system and stabilize the procurement processes through networks with major suppliers and retailers.	80	3.64	0.889
The company's ICT helps to improve the purchase ordering system and stabilize the procurement processes through networks with major suppliers and retailers.	80	3.64	0.931
The ICT helps to improve the timely sharing of information across the supply chain members and strengthening coordination and flow of information among partners.	80	3.70	0.863
The company's ICT helps to perform sales/credit sales through systems and monitor financial statements with major suppliers and retailers through networks systems.	80	3.65	0.901
ICT improves data system integration and application among internal functions of the company.	80	3.66	0.871
Adoption of ICT helps to have strong and integrated inventory and finance system	80	3.76	0.875
The company's ICT team works to improve customer's integration and helps the company connected/linked with customers, helps it to make effective communication with major customers and establish quick ordering system.	80	3.54	0.954
The ICT group helps the company's society to easily adapt newly invented technologies and systems while the company needs to apply them.	80	3.58	0.911

Source: Research Data collected from Respondents, 2022

As indicated on the table 4.12, the mean score to measure whether the company's ICT(data administrator group) facilitates supplier integration by improving information exchange with major suppliers was (3.60), the mean score to evaluate the company's ICT ability to improve the purchase ordering system and stabilize the procurement processes through networks with major

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suppliers and retailers was (3.64), the mean to measure the ICT groups' efficiency to integrate information and facilitate free sharing of accurate information among members of the supply chain was (3.64), the ICT helps to improve the timely sharing of information across the supply chain members and strengthening coordination and flow of information among partners (mean score 3.70), the ICT department the company to help to perform sales/credit sales through systems and monitor financial statements with major suppliers and retailers through networks systems (mean score 3.65), ICT helps to improve data system integration and application among internal functions of the company (mean score 3.66), adoption of ICT helps to have strong and integrated inventory and finance system (mean score 3.76), the company's ICT team works to improve customer's integration and helps the company to be connected/linked with customers, helps to make effective communication with major customers and establish quick ordering system (mean score 3.54) and the supply chain members (the company and its partners) are aware that quality of information is a critical aspect of effective SCM and considers it as a strategic asset, and further ensures the flow of information with minimum delay and distortion (mean score 3.58). Therefore, these findings indicate that the company performance in information and communication technology in the supply chain practiced at moderate level almost in all cases, as a result the company needs to exert much effort to improve its ICT department to a higher level performance.

4.5.5. Logistics management system

The essence of logistics is the flow of material goods and services from their place of origin to the final customer (consumer). The aim is to ensure the adequacy of place (moving goods to places where there is a demand for them) and time (maintaining the right stocks levels and proper distribution of goods/services). The efficiency and effectiveness of materials and goods physical flows are achieved by implementing all the management functions, such as planning, organizing, motivating, controlling, coordinating, deciding. The aim is to ensure the adequacy of place (moving goods to places where there is a demand for them) and time (maintaining the right stocks levels and proper distribution of goods/services).

Table 4.12. Respondents level of Agreement assessment on logistics management system

Logistics management system: in assessing to what extent does each respondent show an agreement about each objectives statements designed to measure the extent the company uses them in the supply chain as indicated in this table to achieve the specific objectives, answer research questions and check validity of hypotheses, response were stated as followings:	N	Mean	Std dev
The company's order management, inventory, transportation policy, warehousing, materials handling, and packaging are integrated throughout a facility network	80	3.65	0.913

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The company's logistics performs well on the right conceptions i.e. delivery of the right product to the right place at the right time under the right condition and cost for the right customer	80	3.68	0.883
The logistics management achieved efficiency and effectiveness of materials and goods physical flow by implementing all the management functions, such as planning, organizing, motivating, controlling, coordinating and deciding	80	3.71	0.830
The SCM logistics plays role in maintaining the right stock levels and proper distribution of goods/services	80	3.71	0.874
Logistics department effectively controls the shipment processes and communicates with international suppliers during import-export of goods	80	3.69	0.851
The company's logistics effectively controls the transit and custom clearance processes	80	3.74	0.807
The company effectively works with suppliers to reduce demurrage and retention costs during shipments.	80	3.70	0.863

Source: Research data (2022)

As shown on table 4.10, the SPSS (V23) calculation result showed that the mean and std. deviation scores of the responses were 3.65 and 0.913 respectively showed that the company's logistics management system is efficient in integrating the inventory, order management, transportation, warehousing, materials handling, and packaging throughout the network, where as the mean and standard deviations of responses on the objective questions on the company's logistics performance on the right conceptions i.e. delivery of the right product to the right place at the right time under the right condition and cost for the right customer were 3.68 and 0.883, in the same way, the mean and standard deviations on how the logistics management achieved efficiency and effectiveness on materials and goods physical flow by implementing all the management functions, such as planning, organizing, motivating, controlling, coordinating and deciding were found to be. 3.71 and 0.830, in the same scenario, the mean and std. deviations of responses how the logistics plays role in maintaining the right stock levels and proper distribution of goods/services were 3.71 and 0.874, and the mean and std. deviations 3.69 and 0.851 of the responses indicated that the Logistics department effectively controls the shipment processes and communicates with international suppliers during import-export of goods. Similarly, the mean and std. deviation scores of responses on how effective is the logistics in controlling the transit and custom clearance processes was found to be 3.74 and 0.807; the mean and std. deviation scores on how efficient the logistics was in communicating with suppliers to reduce demurrage and detention cost were 3.70 and 0.863. Therefore, as shown on the description, the results of the SPSS (V₂₀) calculation for all of the statements set to measure the effect of logistics management found to have moderate effect (which laid between 3.4 and 3.79) on SCM practices in case of logistics management system which also needs much effort to gain success.

4.5.6. Top management team decision role

Top managers have the responsibilities of determining all aspects related to their organizations such as strategy and performance of the employees (Murray, 1989). Therefore, top managers are essential to organizations and their characteristics are crucial in organizational culture formation and implementation. Top managers should be aware of that responsibilities and their roles significantly influence the success of the organizations (Kotter, 2012), for organizations to attain success, leaders should be a powerful influence to unit all stakeholders of an organization shared values and vision. Therefore, to continuously develop SCM practices and secure a sustainable competitive advantage vis-à-vis competitors over time.

Table 4.13: Respondents' level of Agreement assessment mean and std, deviation table on Top Management Team

TMT: in assessing to what extent does each respondent show an agreement about each objectives statements designed to measure the extent the company TMT used them in the supply chain practice. As indicated in this table to achieve the specific objectives, answer research questions and check validity of hypotheses related to the TMT decision making processes and responses were stated as followings:	N	Mean	Std dev
The TMT plays role for existing systems of company to be integrated with those of our key strategic partners and the strategic plans had been developed using a participatory approach	80	3.43	1.028
The company's TMT is highly utilized human capital and adequate mix of human skills to implement the strategic plan and motivated to perform the plan.	80	3.63	0.877
The TMT of the company evaluated and monitored outputs of the strategy implementation and measured it at all levels and corrective actions instituted for each negative deviations identified.	80	3.51	0.941
The management reviewed the overall performances of the company periodically, do alignments to prevailing internal and external environmental factors and promotes work climate that facilitates good strategy executions.	80	3.59	0.924
The TMT encouraged knowledge sharing during strategy execution and facilitate the adoption of best practices and business processes that drive continuous strategy execution.	80	3.56	0.898
The TMT of the company plays role to influence and link the physical flow of products and checks its performance the overall strategic content in the company, and also incorporate the strategy formation process	80	3.49	0.941
Top management is involved in the strategy formation over time and has a dynamic role, monitor the physical flow of goods and the constant changes of the content strategy	80	3.59	0.867
The TMT decides on how the external relationships with suppliers and customers as well as internal ones within own company are coordinated so that the physical flow of goods is facilitated.	80	3.65	0.797
Our company top management team has a clear customer focus to ensure where the company's efforts must be synchronized with the customer's requirements	80	3.36	0.971
TMT decides the characteristics of a team to be proactive in initiating strategic changes including receptivity to change, willingness to take risk, diversity in infor-	80	3.50	0.914

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mation sources and perspectives, and creativity and innovativeness in decision making.			
The TMT adequately resolves issues and roadblocks on the company and remove any barriers that keep the team from completing their tasks.	80	3.49	0.928
The TMT plays significant role in managing the budget, planning and setting goals for employees, and conducts performance evaluation of employees.	80	3.46	0.927
The TMT exerts sufficient effort in supporting employees with training and development activities, and monitoring team performance to ensure objectives are met.	80	3.53	0.914

Source: Research data (2022).

As observed on the above table, the mean score of 3.43 were agreed that the TMT plays role for existing systems of the company to be integrated with those of our key strategic partners and the strategic plans had been developed using a participatory approach, a mean score of 3.63 were agreed that the company's TMT highly utilized human capital and adequate mix of human skills to implement the strategic plan and motivated to perform the plan, a mean score of 3.51 agreed that the TMT of the company evaluated and monitored outputs of the strategy implementation and measured it at all levels and corrective actions instituted for each negative deviations identified, a mean score of 3.59 were also agreed that the management reviewed the overall performances of the company periodically, do alignments to prevailing internal and external environmental factors and promotes work climate that facilitates good strategy executions, a mean score of 3.56 were Agreed that the TMT encouraged knowledge sharing during strategy execution and facilitate the adoption of best practices and business processes that drive continuous strategy execution, 3.49 were agreed that the TMT of the company plays role to influence and link the physical flow of products and checks its performance the overall strategic content in the company, and also incorporate the strategy formation process, the mean score of 3.59 were agreed that TMT is involved in the strategy formation over time and has a dynamic role, monitor the physical flow of goods and the constant changes of the content strategy, 3.65 were agreed that the TMT decides on how the external relationships with suppliers and customers as well as internal ones within own company are coordinated so that the physical flow of goods is facilitated, and the mean score of 3.36 were agreed that the top management team has a clear customer focus to ensure where the company's efforts must be synchronized with the customer's requirements.

As seen on the table, a mean score of 3.50 were agreed that TMT decides the characteristics of a team to be proactive in initiating strategic changes including receptivity to change, willingness to take risk, diversity in information sources and perspectives, and creativity and innovativeness in decision making, the mean score 3.49 of the respondents were agreed that the TMT adequately resolve issues and roadblocks on the company and remove any barrier that keep the team from completing their tasks, 3.46 agreed that the TMT plays significant role in managing

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the budget, planning and setting goals for employees, and conducts performance evaluation of employees and a mean score 3.53 of respondents were agreed that the TMT exerts sufficient effort in supporting employees with training and development activities, and monitoring team performance to ensure objectives are met.

Therefore, these findings indicated that the company's TMT decision making role in the supply chain management practice had been low in effect in having clear customer focus to ensure where the company's efforts should be synchronized with the customer's requirements as proposed by Zaidatol and Bagheri(2009) i.e. mean value laid less than 3.39 shows low effect, but in all other cases the TMT's decision had had moderate effect since mean values laying in the interval (3.40-3.79) show a moderate effect and values above 3.8 have high effect. So there are situations that required much effort to be improved, as a result the company's TMT needs to exert much effort to improve the overall performances of the company.

Table 4.14.01: Respondents' level of Agreement assessment on average effects of the SCM practices

		<i>Descriptive Statistics</i>		
		N	Mean	Std. Deviation
<i>CRM</i>	Customer Relation Management	80	3.26	1.064
<i>SSP</i>	Strategic Supplier Partnership	80	3.60	.894
<i>QIS</i>	Quality of Information Sharing	80	3.24	1.082
<i>LIS</i>	Level of information sharing	80	3.58	.991
<i>ICT</i>	Information-Communication Technology	80	3.41	.977
<i>LOG</i>	Logistics management system	80	3.57	.911
<i>TMT</i>	Top Management Team Decision	80	3.44	.926
<i>PER</i>	Performance of the organization	80	3.41	.977

Source: Research Data processed in (2022)

As the data analysis on the average effects of the SCM practices revealed, the mean scores (3.26) of respondents were agreed that the company practices Customer relation management on a low level while the mean score of (3.60) were agreed that the company practices Strategic supplier partnership at moderate level; the mean scores of (3.24) of the respondents believed that the company practiced quality of information sharing in the supply chain management at low level; the mean (3.58) were agreed that the company's overall operation performance of the SCM in practicing level of information sharing had been at moderate level; the mean score of (3.41) believed that the company practiced in using information communication technology was at moderate level; the mean scores (3.57) were agreed that the company scales up its international and national competition on its supply chain practice using logistics management system at moderate level; the mean of (3.44) believed the company's top management team with in these challenging situations maintained its employment capacity and its overall performance at moderate level and the mean score (3.43) of the respondents believed that the performance in overall completion positions in the business was promising and competent at moderate level.

4.5.7 Organizational Performance

Organizational performance refers to how well an organization achieves its market oriented goals as well as its financial goals. The short term objectives of SCM are primarily to increase service quality, customer relationship and reduce inventory and cycle time, while long term objectives are to increase market share, making profits for all members of the supply chain, to bring global impact, to reduce unemployment and to improve the over all competition in the business.

Table 4.14: Respondents' level of Agreement assessment table on Performance of Organization

Organizational Performance: How well the organization achieves its business objectives and goals as well as its financial and operational performance goals in the seven years of operation in the business?	N	Mean	Std.dev
Market share growth.	80	3.68	0.965
Return on investment	80	3.65	0.858
Sale volume (revenue) growth	80	3.48	0.981
Growth in overall operation	80	3.48	0.913
Growth of Profit margin on sales.	80	3.46	0.954
International and national role and impact in the business	80	3.64	0.846
Employment capacity, information and technology application aware ness.	80	3.60	0.877
Overall competition position in the business	80	3.70	0.863

Source: Research Data (2022)

As the data collected from respondents revealed, the mean scores (3.39) of respondents were agreed that the company had had moderate level market share growth due market strategy adjustments while the mean of (3.65) were agreed that return on investment also showed moderate level improvement. The data output also showed that the mean scores of (3.48) of the respondents believed that the company's sales volume had been showing a slight improvement; the mean (3.54) were agreed that the company's over all operation had shown only slight improvement due to global and national challenging situations but still at competent level; the mean score of (3.46) of the respondents beleieved that its profit margin growth had been affected by the above measure problems and had gain relatively high growth on its profit margin; the mean scores of (3.64) of the respondents were agreed that the company scales up its international and national competition levels; the mean of (3.60) of the respondents believed that the company with in these challenging situations had made improvements on maintaining its employment capacity and its awareness to use information and technology applications and the mean and standard deviations of respondents who beleieved the overall completion position in the busisness had been so promising had been 3.70. The over all performance of the company in supply chain management practice was almost at moderate effect as proposed by Zaidatol and Bagheri(2009) i.e. mean values laid in the interval (3.40-3.79) had a moderate effect except in

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the situation In market share growth which showed lower effect. As shown on the introductory part the company's sale volume had showed large progress since 2016. It had had a sales volume in 2016, 2017 and 2018 had been 3.32 Billion, 3.35 Billion and 3.16 Billion respectively but in 2019 its sales volume drops 1.9 Billion due the Covid19 pandemic expansion that businesses were collapsed, In 2019, the annual sales volume declines to 1.9 Billion Birr due to the expansion of the Covid19 pandemic internationally and then the decline in annual sales continued in 2020 and 2021 being 1.39 and 1.86 billion Birr respectively because of the same reason i.e. the Covid-19 pandemic expansion continued and national and international political crises were also hardly challenged the flow of businesses in the international market. So there are situations that required much effort to be improved the company needs to exert much effort to improve its performance in all aspects.

4.6. Correlation Analyses of independent variables against the dependent variable

4.6.1 Correlation analyses

Correlation coefficients in linear relationships between variables (independent vs dependent) is used to measure the strength of the linear relationship between the two variables. Most of the times a correlation coefficient greater than zero shows positive relationship, a correlation coefficient less than zero shows negative relationship, correlation coefficient one shows perfect relationship and zero shows no relationship. However, as described by both Pallant (2005) and Andy (2006), 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. Therefore, in this data analysis, the researcher used the Bivariate Correlations procedure which helps to compute the pairwise associations for a set of variables for determining the strength and direction of the association between independent and dependent variable. Based on these facts, analyses was done based on the SPSS(V₂₃) output of the data shown on the tables below, the Pearson correlation matrix between each independent variables and the dependent variable (performance of organization) would be explained as follows:

Table 4.15: Correlation Coefficients between independent and dependent variable(s)

Correlations^a										
<i>The correlation matrix table that reveals an illustration of Pearson correlation coefficients at 2-tailed significant 0.01 level which indicated how much each independent variables are correlated to the dependent variable (performance), and also it shows the direction of correlation.</i>										
			<i>CRM</i>	<i>SSP</i>	<i>QIS</i>	<i>LIS</i>	<i>ICT</i>	<i>LOG</i>	<i>TMT</i>	<i>PER</i>
Customer Relation Management	Pearson Correlation		1.000							
	Sig. (2-tailed)		.							
	N		0							
Strategic Supplier Partnership	Pearson Correlation		.590*	1.000						

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	Sig. (2-tailed)	.000	.						
	N	80	0						
Quality of Information Sharing	Pearson Correlation	.413*	.582*	1.000					
	Sig. (2-tailed)	.000	.000	.					
	N	80	80	0					
Level of Information Sharing	Pearson Correlation	.281*	.440*	.756*	1.000				
	Sig. (2-tailed)	.012	.000	.000	.				
	N	80	80	80	0				
Information Communication Technology	Pearson Correlation	.452*	.651*	.753*	.637*	1.000			
	Sig. (2-tailed)	.000	.000	.000	.000	.			
	N	80	80	80	80	0			
Logistics Management System	Pearson Correlation	.762*	.434*	.453*	.382*	.613*	1.000		
	Sig. (2-tailed)	.000	.000	.000	.001	.000	.		
	N	80	80	80	80	80	0		
Top Management Team Decision	Pearson Correlation	.497*	.705*	.682*	.530*	.831*	.443*	1.000	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	
	N	80	80	80	80	80	80	0	
Performance of Organization	Pearson Correlation	.728*	.712*	.684*	.720*	.703*	.772*	.733*	1.000
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	
	N	80	80	80	80	80	80	80	80

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

Source: Research data SPSS output, 2022

As shown on table 4.15-1, customer relation management is positively related to organizational performance with Pearson correlation coefficient ($r = 0.728$) and significant value ($p = 0.000$), the magnitude of correlation between customer relation management and performance was 72.8% which is an indication of high (strong) association between them. Since correlation coefficient extends from '-1 to 1', as the coefficient approaches one from both sides (± 1), then the relationship between CRM and OP becomes stronger on either sides; the correlation between strategic supplier partnership and performance was also positive with Pearson correlation value ($r = 0.712$) and significant value ($p = 0.000$), so the strength of the relationships between SSP and performance had been 71.20% which was strong; Quality of information sharing was also positively related with performance with Pearson correlation value of ($r = 0.684$ or 68.40%) which is moderate or medium level of association or strength and its significant coefficient value was ($p = 0.000$); Level of information sharing has positive relation with performance of an organization with Pearson correlation coefficient ($r = 0.720$ or 72%) which is strongly correlated with performance again and its significant coefficient was also zero ($p = 0.000$); Information Communication Technology (ICT) was positively related with performance with Pearson correlation coefficient ($r = 0.703$ or 70.3%) and sign. Coefficient ($p = 0.000$) which means an improvement on the ICT service in the case company improves its business performance and its weakness is also the weakness of the company's performance; logistics management system was also positively correlated to performance with correlation coefficient ($r = 0.772$) or 77.20% strong correlation between the two variables and its significant Value was ($p = 0.000$); Top management team decision was also positively related to performance with Pearson correlation

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value ($r = 0.733$) or there had been 73.30% high correlation between top management team decision and performance of an organization with significant Coefficient of ($p = 0.000$) which shows the sign of statistical significance in the relationships of the two variables.

4.7. Regression Analyses:

Regression Analyses is concerned with the study of the dependence of one variable, or more other variables, the explanatory variables, with a view to estimating and/or predicting the (population) mean or average value of the former in terms of the known or fixed (in repeated sampling) values of the latter. Since we have more than two independent variables, we use multiple regression model for analysis as proposed on the data analysis part. According to Uma Sekaran (2009), multiple regression analysis is a multivariate technique that is used very often in business researches. Multiple regression analysis provides a means of objectivity assessing the degree and character of the relationships between the independent variables and the dependent variable and the relative importance of each of the independent variables in the prediction in the dependent variable would have been indicated by the regression coefficients. Moreover, when the independent variables regressed against the dependent variable to explain in it, the individual regression coefficients indicate how much an increase of one unit in an independent variables would affect the dependent variable. Assuming all other independent variables remain unchanged, individual correlation between the independent variables and the dependent variable collapsed into multiple correlation coefficients (R^2) which would explain the amount of variance in the dependent variable by the predictor.

As indicated on the data analysis part, the data were used to analyze the objective statements set in each independent variables and the dependent variable to measure their impact on the supply chain management using Statistics Package for Social Sciences (SPSS-V23) and the form of the model Multiple regression equation was formulated as follows:

$$\text{Performance} = \beta_0 + \beta_1 \text{SSP} + \beta_2 \text{CRM} + \beta_3 \text{LIS} + \beta_4 \text{QIS} + \beta_5 \text{LOG} + \beta_6 \text{ICT} + \beta_7 \text{TMT}$$

Management; LIS = Level of information Sharing; QIS = Quality of Information Sharing; LOG= Logistics system Management; ICT= Information-communication Technology; TMT = Top Management Team, β_0 is the constant term of the model and $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6,$ and $\beta_7,$ are coefficients of the multiple Regression equation and the independent variables.

4.7.1 Tests for the Multiple Linear Regression Model Assumptions

In order to make the data ready for analysis and to get reliable results from the research, the model stated previously was tested for five multiple linear regression model assumptions.

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Among them the major ones are: test for Heteroscedasticity, autocorrelation, multicollinearity, normality and constant variable. Accordingly, the following sub-section presents the tests made.

4.7.1.1. Zero mean ($E(\varepsilon) = 0$) or constant variable Assumption test

The first assumption states that the average value of the errors should be zero. This assumption could never be violated if the regression equation contains a constant (Brooks, 2014) i.e. the positive effects of the independent and the dependent variables will be cancelled with each other. In the study, the data analysis for the regression model equation included a constant term ($\beta_0 = -0.284$).

4.7.1.2 Homoscedasticity $\text{Var}(U_t) = \sigma^2 < \infty$

This assumption states that the variance of error terms is similar across the values of the independent variables. A plot of standardized residuals versus predicted values can show whether points are equally distributed across all values of the independent variables or when it occurs a situation of constant variance, it's called Homoscedasticity. Homoscedasticity refers to whether these residuals are equally distributed, or whether they tend to bunch together at some values, and at other values, spread far apart. In other words, Homoscedasticity means the relationship under investigation is the same for the entire range of the dependent variable (Garson, 2012). Lack of homoscedasticity is shown by higher errors (residuals) for some portions of the range compared to others. However, when the distribute of the errors is different, varying depending on the value of one or more of the independent variables, the error terms are heteroskedastic (Brooks 2008). Heteroscedasticity is a systematic pattern in the errors where the variances of the errors are not constant. When biased standard errors are occurred, they are causes for more serious problems associated with heteroscedasticity. Since the standard error is central to conducting significance tests and calculating confidence intervals, biased standard errors lead to incorrect conclusions about the significance of the regression coefficients. To test for the presence/absence of heteroscedasticity, white test was used in this study. In this test, if the p-value is very small, less than 0.05, it is an indicator for the presence of heteroscedasticity (Gujarati, 2004). A white' test has been made, to ensure that this assumption is no longer violated. The hypothesis for the heteroscedasticity test was formulated as follow;

- ❖ H_0 : There is no heteroscedasticity problem in the model.
- ❖ H_a : There is heteroscedasticity problem in the model. **Decision Rules:** Reject H_0 if P value is less than significant level 0.05. Otherwise, do not reject H_0

Table 4.7.1. Heteroskedasticity Test: White			Prob. values
F-statistic	0.214589	Prob. F(7,72)	0.9810
Obs*R-squared	1.634920	Prob. Chi-Square(7)	0.9773
Scaled explained SS	8.721494	Prob. Chi-Square(7)	0.2733

Source: Research data analysis (2022), using Eviews 8

Table 4.7.2 Heteroscedasticity Test: ARCH's test

F-statistic	0.953485	Prob. F(1,77)	0.3319
Obs*R-squared	0.966286	Prob. Chi-Square(1)	0.3256

Source: Research data analysis (2022), using *Eviews 8*

As shown on table 4.7.1. Above, presents three test parameters were used to check weather heteroscedasticity was present or not, the p-values from the white test were found 0.981. 0.9773 and 0.2733 a for the F-statistics, χ^2 test statistics and Scaled explained SS respectively from the ARCH p-values for F-statistic and OBs*R-squared were found 0.3319 and 0.3256 respectively. This Eviews-8 analysis result in both tests indicated there were no evidence for the presence of heteroscedasticity since all the p-values were greater than 0.05. Therefore, H_0 should not be rejected and we can conclude that heteroscedascity was not a serious problem in this model.

4.7.1.3 Autocorrelation

Authocorrelation or serial correltion refers to the degree of correlation of the same variables between two successive time intervals , it measure how the lagged portion of the value of the variable is related to the original version of it in time series or it's a situation of no autocorrelation between the disturbances. According to (Brooks 2014), the errors should be uncorrelated with one another. If the errors are not uncorrelated with one another it is an indicator for the presence of autocorrelation or serial correlation and its value ranges from -1 to 1 where a value between -1 and 0 is negative autocorrelation and the value between 0 and 1 is positive autocorrelation. Brooks also stated that the presence or absence of autocorrelation can be detected either by Durbin-Watson (DW) or Breusch-Godfrey (BG) tests. For simplicity, the researcher used the DW test as its easier to detect the problem using *Eviews 8*. The value of DW test statistic 'd' varies between 0 and 4 and the outcome of the Durbin-Watson test also ranges from 0 to 4. An outcome closely around 2 means a very low level of autocorrelation. An outcome closer to 0 suggests a stronger positive autocorrelation, and an outcome closer to 4 suggests a stronger negative autocorrelation. Decision and value analysis indicate that values between 0 and ' d_L ' positive autocorrelation Rejecte H_0 ; values between ' d_L ' and ' d_u ' inconclusive region; ' d_u ' and ' $4-d_u$ ' no evidence of autocorrelation, do not Reject H_0 ; values between ' $4-d_u$ ' and ' $4-d_L$ ' inconclusive and ' $4-d_L$ ' and 4 means negativee auto-correlation while closer to 4 means a negative autocorrelation, Reject H_0 , where d_u is the lower critical value and d_u the upper critical value of DW statstic. A rule of thumb is also sometimes used to conclude that there is no first order temporal autocorrelation if the DW statistic is between 1.5 and 2.5. A DW statistic below 1.5 indicates positive first order autocorrelation. A DW statistic of greater than 2.5 indicates negative

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first order autocorrelation King M.L (1983). The hypotheses for autocorrelation test were formulated as follows:

- Ho: There is no autocorrelation problem.
- Ha: There is autocorrelation problem.

Decision Rule: Reject H0 and accept Ha if P-values is less than significant level 0.05. Accept H0 and reject H1 if $\alpha > 0.05$.

Table 4.7.3 Breusch-Godfrey Serial Correlation LM Test: Autocorrelation test			p-values
F-statistic	1.018296	Prob. F(7,65)	0.4269
obs*R-squared	7.906014	Prob. Chi-Square(7)	0.3410

Source: Research data analysis (2022), using Eviews-8

Test Equation:				
Dependent Variable: Performance ²				
Method: Least Squares				
Date: 09/12/22 Time: 13:26				
Sample: 1 80				
Included observations: 80				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.121384	0.028487	4.261008	0.0001
Customer Relation Management	-0.056130	0.020094	-2.793333	0.0067
Information-Communication Technology	-0.060711	0.020537	-2.956218	0.0042
Level of Information Sharing	0.051582	0.020321	2.538309	0.0133
Quality of Information Sharing	0.018264	0.015322	1.192026	0.2372
Strategic Supplier Partnership	-0.039228	0.016693	-2.349913	0.0215
Top Management Team	0.017442	0.022601	0.771719	0.4428
R-squared	0.460428	Mean dependent var	0.032901	
Adjusted R-squared	0.407969	S.D. dependent var	0.077401	
S.E. of regression	0.059555	Akaike info criterion	-2.709181	
Sum squared resid	0.255373	Schwarz criterion	-2.470979	
Log likelihood	116.3673	Hannan-Quinn criter.	-2.613679	
F-statistic	8.777002	Durbin-Watson stat	1.955242	
Prob(F-statistic)	0.000000			

As seen on table 4.7.2, F-statistic and x^2 values were have been taken to evaluate the presence or absence of autocorrelation in the model, as seen from the Breusch-Godfrey Serial Correlation LM Test analysis result, the p-values for both the F-statistics and Obs*R-squared had been 0.4269 and 0.3410 respectively and are greater than the ($\alpha = 0.05$) level which indicated that the is no evidence of autocorrelation in the model. The DW test also show that there was no evidence of autocorrelation with its value is 2.013284 is nealy 2 Hence we do not reject the null-hypothesis means there was no autocorrelation problem in the model.

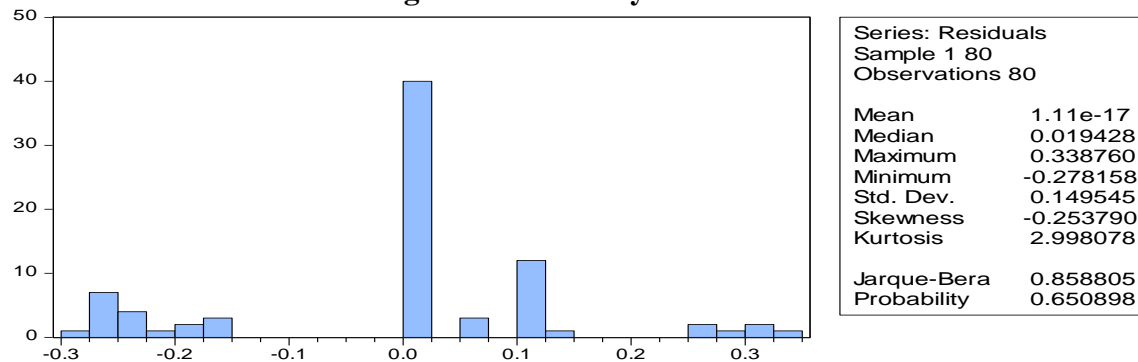
4.7.1.4 Normality test using Eviews

One of the most commonly applied tests for normality is the Bera–Jarque (here after BJ) test. BJ uses the property of a normally distributed random variable that the entire distribution is characterized by the first two moments – the mean and the variance. Normality test is determined whether the error term is normally distributed Brooks (2014). A normal distribution has skew-

ness zero and a coefficient of kurtosis 3. Jarque-Bera formalizes this by testing the residuals for normality and testing whether the coefficient of skewedness and kurtosis are zero and 3 respectively. However, it is possible to define a coefficient of excess kurtosis, equal to the coefficient of kurtosis minus 3. If the probability of BJ value is greater than 0.05, it's an indicator for the presence of normality (Brooks 2014). The hypothesis for the normality test was formulated as follow:

- H_0 : Error term is normally distributed
- H_1 : Error term is not normally distributed $\alpha = 0.05$ where the decision Rules are: Reject H_0 if P value of **J-B** less than significant level 0.05. Otherwise, do not reject H_0 .

Figure .3 Normality test result



Source: *Research data analysis (2022), Using Eviews8*

As shown on figure 4.7.3. above the data analysis using Eviews8 software revealed that the measure of skewness is -0.25379 which is nearly zero (0) and the measure of Kurtosis was 2.99805 which had been nearly Three (3) which satisfies the first criteria, then to check whether the data is normally distributed or not we need to examine the Jarque-Bera probability which needs to be less than 0.05 to reject the null hypothesis, but unfortunately the J-B – statistic value was obtained 0.650898 which greater than 0.05. thus we don't need to reject the null hypothesis implies the error terms are normally distributed.

According to (Creswell, 2009), in multiple regression models, high correlation between the predictor variables leads to unreliable estimates of the regression coefficients with the consequence of strange results when determining the extent to which individual independent variables influence the dependent variable that is because multi-collinearity is a phenomenon whereby high correlation exists between the independent variables and it leads to increased standard error of estimates of the beta coefficients, meaning decreased reliability and often confusing and misleading results.

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Table 4.16: multicollinearity test of variables

Coefficients ^a		Collinearity Statistics	
Model		Tolerance	VIF
1	Customer Relation Management	.101	9.943
	Strategic Supplier Partnership	.206	4.862
	Quality of Information Sharing	.168	5.955
	Level of Information Sharing	.111	9.009
	Information Communication Technology	.108	9.254
	Logistics Management System	.120	8.355
	Top Management Team	.103	9.751

Source: Research data (2022), Using SPSS

a. Dependent Variable: Performance of Organization

Variance Inflation Factors

Date: 09/16/22 Time: 23:29

Sample: 1 80

Included observations: 80

Variables	Coefficient	Uncentered	Centered
	Variance	VIF	VIF
Customer Relation Management	0.004108	104.5550	9.943006
Strategic Supplier Partnership	0.002844	84.62231	4.861936
Quality of Information Sharing	0.002380	59.94610	5.955172
Level of Information Sharing	0.004295	127.7892	9.009138
Information Communication Technology	0.004538	123.6144	9.254200
Logistics Management System	0.004712	138.6836	8.355431
Top Management Team	0.005326	145.9352	9.751221
Constant	0.009041	19.56468	NA

Source: Research data processed in (2022), Using Eview-8

Multi-collinearity test was conducted to assess whether high correlation existed between the independent variables in the study. According to (Newbert, 2008) a tolerance threshold value of below 0.2 indicates that collinearity is not present. As shown on table 4.16, the tolerance values of independent variables are below 0.2 except in the case of Strategic Supplier Partnership shown on SPSS analysis result (Tol. = 0.206), this indicates that the presence of multicollinearity but was not a big problem. However, there is upper limit for variable Inflation Factor (VIF) as measurement of multi-collinearity between the predictor variables but the common rule of thumb suggests that VIFs of 10 or higher points shows the existence of severe multi-collinearity that can affect the results of the study. As shown on the Table, both the SPSS and Eviews analysis results were the same and the VIFs of all variables were less than 10 that confirm multicollinearity could not be serious problem to affect the correlation and regression analyses results.

4.7.1 Regression Model Summary between the Seven constructs and performance (General model)

Table 4.17: Model summary table

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Durbin-Watson
1	.982 ^a	.965	.961	.192	.965	281.035	7	72	1.955242

Source: Data processed from SPSS (2022)

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As shown on table 17, R (the correlation between the observed and predicted values of dependent variable) was obtained .982 where as R-Square (the coefficient of determination) which shows the proportion of variance in the dependent variable (performance) that could be predicted from the independent variables (*CRM, SSP, QIS, LIS, ICT, LOG and TMT*) was found be .965. The R-squared value indicates that 96.5% of the variance in performance could be explained (predicted) from the variables CRM, SSP, QIS, LIS, ICT, LOG and TMT or in other words, the power of the independent variables (*CRM, SSP, QIS, LIS, ICT, LOG and TMT*) to explain the variability of the dependent variable (performance of the organization) was **96.5%**. However, **3.5%** of the variations on the dependent variable were explained by other variables or factors found out side the model. So the analysis from regression output indicates that there had been causal relationships between variables of the supply chain management practices in the company and they were have significant impact/effect on the performance of the company. However, this is an overall measure of the strength of association, and does not reflect the extent to which any particular independent variable is associated with the dependent variable. As a result, if any failure on the relation between the independent variables and the dependent variable happens, that will be checked by analysing the relationships of individual independent variables against with the dependent variable (correlation analysis).

Table 18 Anova output

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	72.726	7	10.389	281.035	.000 ^b
	Residual	2.662	72	.037		
	Total	75.388	79			
<i>a. Dependent Variable: Performance of Organization</i>						
<i>b. Predictors: (Constant), Top Management Team, Logistics Management System, Strategic Supplier Partnership, Information Communication Technology, Level of Information Sharing, Customer Relation Management, Quality of Information Sharing</i>						
<i>Source: Data processed from SPSS (2022)</i>						

As demonstrated on the above AVOVA test result of the regression analysis, the significant value ($p = 0.000$) indicates that the regression relationship between the independent variables and the dependent variable was significant in predicting the effect of supply chain management strategy practices on the performance of the organization in the company. Since the F-value ($F = 281.035$) greater than the 5% critical value of F at (DF of numerator = 7 when DF of denominator = 79) is between critical vales of 2.17 and 2.11(statistical table), the overall regression model is significant with a GOOD fitness.

Table 19: Coefficients of Regression output

Coefficients ^a								
Model		Unstd'ized Coeffi.		Std. Coeff.	t	Sig.	95% Conf. Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.284	.095		-2.988	.004	-.474	-.095

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Customer Relation Management	.170	.064	.185	2.654	.010	.042	.298
Strategic Supplier Partnership	.201	.053	.184	3.765	.000	.094	.307
Quality Information Sharing	-.065	.049	-.072	-1.338	.185	-.163	.032
Level Information Sharing	.176	.066	.178	2.685	.009	.045	.307
Information-Communication Technology	.199	.067	.199	2.958	.004	.065	.334
Logistics Management System	-.051	.069	-.048	-.746	.458	-.188	.086
Top Management Team	.438	.073	.415	5.997	.000	.292	.583

a. Dependent Variable: PER

Source: Data processed from SPSS (2022)

Discussions of regression Coefficients and model equation

As shown on the above table, the β -values of both the constant term and all the independent variables under 95% confidence interval for β exactly laid between the expected lower bound and upper bound limits of β , which determined the significancy of the coefficients. Based on the data, the resulting regression equation had been modeled as follows:

$$\text{Performance} = - 0.284 - 0.170\text{CRM} + 0.201\text{SSP} - 0.065\text{QIS} + 0.176\text{LIS} + 0.199\text{ICT} - 0.044\text{LOG} + 0.438\text{TMT}$$

Where; LIS = Level of information Sharing; QIS = Quality of Information Sharing; LOG= Logistics system Management; ICT= Information-communication Technology; TMT = Top Management Team, SCM = Supply Chain Management practices β_0 = the constant term of the model and $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ and β_7 are coefficients of the Linear Regression equation. Therefore, based on the model equation generated from the regression output, explanations on the research questions on how each independent variable was related and the causal relationships with the dependent variable were presented as follows:-

❖ *What relationship would exhibit between business performance and supply chain management strategy in business organizations if the customer relationship management is improved/changed?*

As seen from the output, *Customer Relation Management* in the supply chain management practice has positive relation with performance with ($\beta = 0.170$) and statically significant at (t-value = 2.654 and p-value = 0.01); That is an implication that customer relation management is positively related with performance and the hypothesis was accepted. Another implication was that based on the model formulated from the analysis result of the data, keeping other variables constant, a one unit improvement on CRM improves the performance by 0.0.17 units.

How do strategic supplier partnerships with in the supply chain management related with the performance of business organizations?

The regression analysis result and the model equations show that Strategic supplier partnership in the SCM practice has *positive relation* with ($\beta = 0.201$) and statically significant at (t-value = 3.765 and P-value = 0.000) and the hypothesis was accepted and this would have an interpretation that if all other variables remain (constant) or unchanged, then every one unit improve-

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ment on strategic supplier partnership level improves the performance of the business by 0.201 units.

What is the effect of the ultimate change of quality of information sharing within the supply chain on the performance of business organization?

Eventhough, both the regression analysis result and the model equations similarly show that *Quality of information sharing* in the SCM practice was shown to have negative relation with performance with ($\beta = - 0.065$), its quite difficult to conclude that this negative relation would be consistent since the coefficients are not stastically significant at (t-value = -1.338 and p-value = 0.185). on the other way of the interpretation, keeping all other varaibles and other factors constant, every one unit improvement on the quality of information sharing affects the performance by 0.065 units to the inverse direction and the vis-versa and the hypothesis is rejected due the above reasons. *This kind of failure to crosspond with the existing fact occurred due to inaccuracy, untimeliness, inaducacy, incompleteness and non-credibility of information sharing and deviant behavior of the respondents openion in responding questions.*

What is the effect of the ultimate change of level of information sharing within the supply chain on the performance of business organization?

As seen from the regression equation, the regression coefficients *Level of Iinformation sharing* was positively (directly) related with performance which was against the hypothesis proposed as positive/direct relationships between level of information sharing and performance. Which means that for every One Unit improvement in level of information sharing keeping other variables constant, there will be a 0.5unit increase (improvement) of performance or the vis-versa, which supports the general facts/truth and answers the research questions. Thus its t-value (t = 2.685) and significant Value (p = 0.009) shows that level of information sharing was stastically significant and the researchers decided to accept the hypothesis.

What is the effect of using information communication technology in the supply chain as a facilitator on the success of business organization?

The regression analysis result and the model equations showed *Information communication technology* signifies positive (direct) relationship with performance with ($\beta = 0.199$) i.e. a one unit improvement on its practice in the SCM has an adverse effect to increase organizational performance by 0.199 units keeping all other variables changed and It has been statistically significant at (t-value = 2.958 and p-value = 0.004) at 95% confidence level which results an acceptance of the hypothesis.

How does the logistics management system within the supply chain is related with the performance of business organizations?

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With Similar explanations, the regression analysis result and the model equations showed that Logistics management system in the SCM practice also had negative relationship with performance of the business with ($\beta = -0.051$) but not statistically significant at (t-value = -0.746 less than ± 2.5) and (p-value = 0.458 > 0.05) which means assuming all other variables constant, improving the logistics system by one unit discourages the performance of the organization by 0.051 unit but its difficult to precisely conclude on its relation with performance since its not statistically significant. However the analysis has enough statistical evidence to reject the hypothesis.

How do the top management team decision on supply chain strategy implementation affects the performance of the business organization?

The regression output of the data also confirmed that an improved top management team decision in implementing the SCM strategy of the company was positively related to business performance with ($\beta = 0.438$) and statistically significant at (t-value = 5.997 and p-value = 0.000) which means assuming all other variables constant at the given 95% confidence level, a one unit improvement on TMT decision ability would have brought a 0.438 unit improvement on performance and the hypothesis accepted. So any poor decision by the TMT would bring an adverse poor performance effect on the company.

Table 20. Summary of the Test Results for the Study Hypotheses

	Hypotheses	t-value	p-value	Decision	Conclusions
H_1	Establishing better customer relationship management in the supply chain is positively related with the performance of business organization.	2.654	.010	Accepted	Establishing better customer relationship mgt in the supply chain is positively related with the performance of business organization and statistically significant at the given t and p values and meet objectives and answers research questions.
H_2	Adopting better Strategic supplier partnership in the supply chain is positively related with the performance of business organization.	3.765	.000	Accepted	Adopting better Strategic supplier partnership in the supply chain is positively related with the performance of business organization and statistically significant with the indicated t & p Values
H_3	Quality of information sharing with in the supply chain management have direct relationship with the performance of business organization.	1.338	.185	Rejected	Quality of information sharing with in the supply chain management have invrse relationship with the performance but its certain to fully conclude the relation is negative due to its not statistically insignificant.

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H_4	The level of information sharing with in the supply chain management have direct relationship with the performance of business organization.	2.685	.009	Accepted	The result revealed that level of information sharing with in the supply chain management has <i>positive/direct_relationship</i> with the performance and statistically significant t and p values.
H_5	Effective utilization of information communication technology in the supply chain facilitates the success of the business or positively related with the performance of the business organization.	2.958	.004	Accepted	Effective utilization of information communication technology in the supply chain facilitates the success of the business or positively related with the performance of the business organization and statistically significant.
H_6	Improving the logistics system in the supply chain is positively related with business performance of an organization.	-.746	.458	Rejected	According to the result, Improving the logistics management system in the supply chain is negatively related with business performance in an organization but since its not statistically significant, its difficult to conclude the relation is correct, it needs further study.
H_7	TMT decision on supply chain strategy implementation has positive contribution for performance improvement in business organizations.	5.997	.000	Accepted	TMT decision on supply chain strategy implementation has positive contribution for performance improvement in business organizations.

Source: Data from SPSS output(2022)

Discussion of test Results and Hypotheses

As Shown on the above table 20, Hypothesis one: Establishing better customer relationship management in the supply chain is significantly related with the performance of business organization had been accepted since its t-value had been found above the range (-2.5 and 2.5) which was a rejection area in an alternative hypothesis. Similar results had been observed when Nzeyimana A. & Njenga G. (2022). Supply Chain Management Practices and Performance of Public Institutions in Rwanda, conducted research on Rwandan Biomedical center: had failed to reject the null hypothesis” There is no significant relationship between customer relationship and performance of Rwanda Biomedical Centre” with P value of 0.00 which is less than 0.05 and hence conclude that customer relationship has no significance relation with performance of Rwanda Biomedical Centre. However, most research results including this research revealed

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that customer relation management in the SCM practice were positively related and were have direct effect on the performance of organization. For instance, *Asha.A(2015)* while studied the impact of supply chain management practices on organizational performance in food processing firms of Dare Salaam, Tanzania investigated that there had been positive relationship between customer relationship management in SCM practice and organizational performance in Tanzanian food processing firms, the test was conducted using Spearman's correlation coefficient and *Elsabeth Endashew (2016)* also depicted that there were strong positive relationship between customer relation (CR) and organizational performance using Pearson correlation coefficient. Tests results also revealed that Quality of information sharing and logistics management system had shown negative relation with performance but they were not statistically significant at ($\beta = -0.065$ $t = -1.338$ and $p = 0.185$) and ($\beta = -0.051$, $t = -0.746$ and $p = -0.458$) respectively. However, this result was not consistent with the results obtained by *Ambreen(2014)* on his research article entitled 'Information Sharing and Strategic Supplier Partnership in Supply Chain Management: A Study on Pharmaceutical Companies of Pakistan' which had been obtained positive relationship and direct effect between information sharing quality and performance. Therefore, the reason might be due to respondent's bias on deciding each objective statements because in the company quality of information sharing lacks reliability, accuracy, reality and timeliness and tiresome bureaucracies while informing decisions on prices, ones the the customer bought products from the company and other problems led the respondents to bias. So quality of information sharing in our company needs so much improvement while compared with other competitors. In addition, the respondents response may be influenced by a variety of factors related to the research question(s) and objectives. In particular, the characteristics of the respondents from whom we collect data; respondents' answers being contaminated or distorted.

Hypotheses (H_3 and H_6): H_3 : Quality of information sharing with in the supply chain management have direct relationship with the performance of business organization had not been supported, hypothesis is rejected. The test result revealed that quality of information sharing with in the SCM of the company was indicated inversely related with the performance of the company with t-value ($t = -1.338$) and significant value ($p = 0.185$) and were not statistically significant and H_6 : improving the logistics management system in the supply chain is positively related with business performance in an organization had also not been supported (rejected) and similarly not statistically significant with t-value ($t = -0.746$) and significant value ($p = 0.458$) but related negatively with performance with β - value ($\beta = -0.051$), eventhough, these two variables seems to have negative relationship with performance, its difficult to fully conclude unless

they are statistically significant. So the relationships between these two variables with performance of business organizations need further investigation in future researches.

Hypotheses (H_1 , H_2 , H_4 , H_6 and H_7): The hypothesis (H_1) that states establishing better customer relationship management (CRM) in the supply chain is positively related with the performance of business organization had been accepted based on the data analysis result with t-value ($t = 2.654$) and significant value ($p = 0.010$) which had been statistically significant. As pointed by (Karimi and Rafiee, 2014) close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers. Therefore, it is possible to conclude that maintaining customer relation helps to improve performance and competitiveness; (H_2), adopting better Strategic supplier partnership (SSP) in the supply chain is positively related with the performance of business organization had been obviously supported with evidences from the data analysis result that it was accepted and statistically significant with t-value ($t = 3.765$) and p-value ($p = 0.000$) and the hypothesis is accepted. So the results were consistent with theoretical and factual backgrounds, for instance in case of SSP, Li et.al (2006) describe, effective partnerships with suppliers can be critical factor to guide effective operational performance of organizations in the supply chain, this theory had been supported by test result and by other reseacher's results. The hypotheses (H_4): Level of information sharing with in the supply chain management have direct relationship with the performance of business organization had been checked by pearson correlation coefficients, t-value($t = 2.685$) and significant value ($p = 0.009$) and was accepted. Hypothesis (H_5): effective utilization of information communication technology in the supply chain facilitates the success of the business or positively related with the performance of the business organizations supported had been too with t-value ($t = 2.958$) and significant value ($p = 0.004$) and statistically significant, hence the hypothesis is accepted. Hypothesis (H_7): improving the ability to make valuable decisions by the top management team in the supply chain is positively related with business performance in an organization was seen supported by regression coefficients and Pearson correlation coefficients with t-value ($t = 5.997$) and significant value ($p = 0.000$) indicated that the hypothesis is accepted and statistically significant. Thus the hypothesis formulated to assess the role of the top management team decision in the supply chain is positively related with business performance in an organization was also supported that the hypothesis was acceptable with 't' and 'p' values mentioned above which had shown statistically significant.

Chapter Five

5. Summary of Major Findings, Recommendations and Conclusions.

5.1 Summary of Major Findings

The study was guided by the general objective to assess the impact of supply chain management strategy practices on the performance of business organizations and to present an appropriate recommendations and implications on future studies that may help business organizations to improve their SCM strategies in Ethiopian context, specifically the case company (ATH) and to improve its performance based on seven specific objectives with research questions. The researcher reviewed seven independent variables which the company practices in the supply chain scheme that have direct effect on the performance of the organization and summary the major findings from the data analyses presented as follows:

On the concern of the objective statements set to measure the effect of each independent variables on the performance of the organization, the mean score results indicated that they have moderate effect with mean scores between 3.43 and 3.70 of the respondents were agreed that weaknesses in coordinations of customer relation management, strategic supplier partnership, quality and level of information sharing, ICT, logistics and top management team decision led the performance to show moderate level of improvement.

Unlike other researchers' result which obtained positive relationship between quality of information sharing and performance, from the data analysis result of this research, the relationship was obtained negative with ($\beta = -0.065$) and was not statistically significant with t-value ($t = -1.338$) and p-value ($p = 0.185$) which is against the fact that states "**Quality of information sharing** is one important aspect because the significance of its effect on SCM depends on what information is shared, when and how it is shared, and with whom (Chizzo, 1998; Holmberg, 2000) including aspects such as the *accuracy, timeliness, adequacy, completeness and credibility of information exchange and information disclosure is perceived as a loss of power. This kind of failure to correspond with the existing fact occurred due to inaccuracy, untimeliness, inadequacy, incompleteness and non-credibility of information sharing and deviant behavior of the respondents opinion in responding questions.* Similarly, other researchers' findings which obtained positive relationship between **logistics management system** practices in the supply chain and performance, the data analysis result from this research shows that they have negative relationship with ($\beta = -0.051$) and statistically insignificant at ($t = -0.746$ and $p = 0.188$) at the given confidence level, which means even though it is certain to conclude due to its statistical insignificance, the analysis result indicates for every one unit improvement on the quality of information sharing, there will be 0.051 unit inefficiency on performance which con-

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tradicts with the actual fact. *Such results might happened due data inaccuracy because respondents might consider all of their knowledge and observations they saw in their compant, things such as deliance goods transfer from supplier to customers, failure of combination on the firm's order management, inventory backlogs, transport policy, warehousing problems and failure to practice the "5 Rs" or the "7 Rs"*.

Therefore, the company needs to make an adjustment (amendment) on its quality of information sharing and as well as its logistics system amangement in order to improve performance. As a result future researchers need to conduct subsequent researches on the relationship of these two variables with performance in business organizations in order to reach on consistent result with the theory and will hopefully investigate the problem with more better way and effort. The effects strategic supplier paratnership and level of information sharing practices in the supply chain on performance was met the objective at moderate level and the relations were positive and the effects were direct, the analyses results were statistically significat and supported the hypotheses. So the results were consistent with other reseacher's results. Effective utilization of information communication technology in the supply chain management practice is positively related with performance and have direct effect on performance and had been supported by the analysis result that it was statistically significant, the hypothesis was accepted.

Regarding to the TMT's role in the supply chain strategy formation in the company, responses from respondents showed that there were limitations in certain points such as the role of integrating the existing systems of company key strategic partners and using participatory approach; ability to utiliz human capital and adequate mix of human skills, encouraged knowledge sharing during strategy execution and facilitate the adoption of best practices; in involving strategy formation over time and monitoring the physical flow of goods. However, hypotheses (H₇), TMT decision on supply chain strategy implementation has positive contribution for performance improvement in business organizations had been supported and was consisitent with previous research results when analyzed based on this specific research results because the result shows it has positive contribution with β - value ($\beta = 0.438$) which shows positive relation between the two variables (TMT decision in the SCM practice and performance of organization) and tatistically significant with t-value ($t = 5.997$) and significant value ($p = 0.000$).

5.2. Conclusion

According to the data analysis results of this research, quality of information sharing and logistics management system had been found statistically insignificant with t-values of ($t = -1.338$) and ($t = 0.746$) and p-values of ($p = 0.185$) and ($p = 0.458$) respectively. The negative values on

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their β -values ($\beta_3 = -0.065$) and ($\beta_6 = -0.051$) also show that these variables have negative (inverse) effect on organizational performance which means failed to support the hypotheses statistically and had been rejected. The reason might be due to the effect of some other variables outside the model which needs further research to be identified, so that the result will be consistent with other most research results and there might be other several reasons behind the lack of evidence to support this hypothesis, i.e. research was limited to only few objective statements to measure the independent variable, an increase in number of constructs (Seven constructs) and did not take into account other factors, lack of literature, economic conditions, limited scope of research, supply chain practice in the business sector is a relatively at infant stage in developing countries like Ethiopia.

Additional reasons might be that SCM is a wide and complex concept, as a result its practice may be influenced by various cross-functional, conceptual and compositional factors like the nature of the business complexity (import-export), the type of business, the size of the organization, the nature of administration, the composition of human capital, the demographic, psychological and cognitive characteristics of employees, the nature of horizontal and vertical integrations in the organizational structure and other additional factors which were not intensively analyzed inside the model.

Five independent variables namely: customer relation management, Strategic supplier partnership, level of information sharing, information-communication technology and top management team decision had been highly correlated, exhibit positive relationships and direct effect on performance of the organization. The data analyses result also confirmed that the effects of these variables were also statistically significant with the dependent variable (performance).

The overall supply chain management practice in the company had been found moderate in most of the cases in affecting the performance in most cases keeping in mind that there are respondents bias (the analyses result confirmed this situation) and the company's performance is also at moderate level. In average most of the respondents were agreed that the company's way on the business arena in the current situation is on promising track, even though the effect of Covid-19 pandemic expansion, internal socio-political crises and the international energy crises in the global foreign policy (the sky-high natural gas and oil prices) were have been challenging and remain uncertain for how long the challenge would continue.

5.3 Recommendations.

First, the data analysis of supply chain management strategy of the responses obtained from respondents, almost all of variables except quality of information sharing and logistics system

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management, we can conclude that all had been supportive and statistically significant, but the company had no organized body or department to manage the SC. Even SCM was not given due attention as one of the management systems in the company in the current complex market competition. Therefore, it is recommended for the company to include SCM as one of its main strategies to quality improvement, continuous involvement and customer satisfaction measurement systems such as QMS, KAIZEN, ERP, BSC and the likes.

Second, even though quality of information sharing hadn't been statistically significant in its proposed positive relationship with performance of the organization, companies have to foster means to provide and receive adequate, reliable, adequate, complete and timely information to trading partners by utilizing modern ICT, giving due focus to the supply side information and logistics should play major role on creating situations for ease of transactions. *Third*, even though TMT is statistically significant in this specific case, but according to feedbacks from respondents, the TMT should carry responsibilities for backlogs on the performance of the company and pointed out that most of the responses even to other variables had been affected due to problems on the HRD department. They reason out that the HRD is baseless in most of its activities (decisions) especially in promotions and recruitments. For instance employee promotions in the company was seen unfair and most of the time the HRD considers educational background, work experience and position of the work experience during restructuring, then after they defuse the normal structure and some employees occupy positions that they never deserve, they are further obstacles for jobs that others could do well. As a result, it is advisable to consider these criteria consistently and demographic characteristics, psychological characteristics and cognitive educational background, organizational culture, functional background should also be considered. In relation to promotion and recruitments, the TMT needs to seriously see details to avoid complaints.

Forth, the company had problems in marketing flexibilities, speed and market channel communications, its moving behind its competitors in market dynamism and flexibility, so it needs to improve its customer relation management, strategic supplier partnership, quality and level of information sharing to both internal and external customers, it also should have standard measurements for its ICT application ability and the logistics management system should be improved and TMT have to be highly concerned and coordinated in the decision making process. As explained earlier, the unexpected analyses results were arose from such factors that could adversely affect the the SCM strategy practice and the performance of the company as a whole.

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Therefore, it is very important to consider the details of these situations in order to be more successful in the business. Lastly, as it was seen from the regression analyses results, it was observed that the hypothesis for the positive relation between quality of information sharing and logistics management system in the SC and performance of organization had been rejected based on the regression analyses result unlike it was observed with positive or direct results from other researches. So to improve these problems and to be competitive enough in the global market, to improve its market share, operational and financial performances in the long run, the company's management needs to give due attention to supply chain strategy practices and its relation with performance of organization.

5.3. Limitations and Directions for future researches

In this study, there were some specific variables that contributed in the investigation. The study was relied only on the case company; however, there are many other companies involving in similar businesses. Therefore, future researches should focus and extend their work to such similar businesses in Ethiopia to see the effect of other variables.

The research led to the confirmation that implementation components of supply chain management practices (CRM, SSP, LIS, ICT and TMT) resulted positive cause-effect relationship outcomes for most business organization except those results which need further research works like QIS and LOG which were seen negative results on cause-effect relations and inverse effect on performance. In this research, only seven dimensions of supply chain management practices were considered but future researchers should consider the effect and relationships of other variables or components on performance in similar business organizations (variables such as like lean supply chain, supply chain responsibility flexibility, green supply chain and the likes), also the opinions of employees from other companies may add valuable inputs to future researches outcome.

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APPENDIX

**ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF Management**

1. Questionnaire

Dear respondent, the purpose of this questionnaire is to gather data related on *The Impact of Supply Chain Management Strategy on the Performance of Business Organization* of the company in partial fulfillment of an Award for Masters of Business Administration in Management. The purpose of study is purely academic and every information presented here will be utilized only for the study. The researcher, in this study assures the absolute confidentiality of every information presented here, thus your response whatsoever might be will not affect your personal case in anyways. therefore, the researcher here, kindly requests your careful, genuine and timely response for all question items as they are vital for the success of the study. Finally, I kindly and gratefully forward my thanks and appreciations in advance for your cooperation and on time responses.

General Instructions

Dear respondent, no need of writing your names while answering questions. In answering questions where answer options are available please tick (√) on the appropriate box for part one and put numbers based on the Five- point Likert scale rating from 1-5 as per instructed.

Contact Address

If any respondent needs clarification or have questions on the questionnaire, please do not hesitate to contact me at your earliest convenient with the addressed presented: (**Mobile: 09-11-06-58-88**) and *e-mail sendeyasu@gmail.com*).

PART I: Demographic Information

1. Educational Qualification

College diploma first Degree MA/MSc/MBA or above

2. The position that you had been working in the organization

Department managers/Leaders Team Leaders Coordinators

Senior officer Experts/ officers Others

3. The department which you are belonging to work in the company?

Finance Export Import HRD Logistics

4. How long have you been serving or working as an employee in the case company or your experience in the case company?

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Less than 1 year 2- 7 years 8 – 13 years 4-21 years
22-28 years

PART II: The nature of Supply chain management practices in the company.

1. To what extent do you agree about each independent variable indicated in the table that are practiced in the supply chain of the company which are stated in following statements? (Please mark (√) in the appropriate box parallel to the number on the upper head column to represent your opinion) Where; SDA = strongly disagree, DA = disagree, NAD = Neither agree nor disagree A=agree and SA = strongly agree and rated as: SDA = 1, DA = 2, NAD = 3, A = 4 to SA = 5 according to the 5 point Likert scale.

Customer relationship management		1	2	3	4	5
1	The company frequently measures and evaluates the level of customer satisfaction and take suggestions about the service.					
2	The company frequently interact with customers to set reliability, responsiveness, and other standards for the company					
3	The Company frequently checks and make surveys about future customer expectations and demands.					
4	The company encourages customers' ability to seek assistance from us and helps to facilitate the flow customer's business and supports their progress.					
5	The company signs long term contract agreement with reliable customers					
6	The company periodically evaluates the importance of its relationship with the customers and made adjustment on its relationships with customers every time.					
7	The company facilitates situations for two-party panel discussions with customers on how to differentiates trade items from its competitors to improve market shares of both parties					
8	The company helps its customers to achieve their financial and non-financial growth objectives and goals.					
9	The company helps reliable customers to gain sustainable competitive advantages against their inherent barrier competitions by creating customer loyalty, reducing processing times, improving customer services, reducing prices and managing customer complaints.					
Strategic supplier partnership						
1	The company's policy uses quality products as first criterion in selecting suppliers.					
2	When problems are encountered, the management has the habit of sharing effort with suppliers to solve the problems.					
3	The company frequently supports suppliers to improve their product quality					
4	The company's policy encourages key suppliers to be included in continuous improvement programs.					
5	Key suppliers are considered in planning and goal-setting activities of each physical year.					
6	Key international suppliers involve in delivering new products to the company					
7	The company helps suppliers to deliver the right product at the right time and place and strives to establish long term partnership with its suppliers					
8	Your company certifies its suppliers for quality, speed of delivery, reasonable price					

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	and role for cost reduction during shipments for import and exports.				
Logistics system management					
1	The company's order management, inventory, transportation policy, warehousing, materials handling, and packaging are integrated throughout a facility network				
2	The company's logistics performs well on the right conceptions i.e. delivery of the right product to the right place at the right time under the right condition and cost for the right customer				
3	The logistics management achieved efficiency and effectiveness of materials and goods physical flow by implementing all the management functions, such as planning, organizing, motivating, controlling, coordinating and deciding				
4	The SCM logistics plays role in maintaining the right stock levels and proper distribution of goods/services				
5	Logistics department effectively controls the shipment processes and communicates with international suppliers during import-export of goods				
6	The company's logistics effectively controls the transit and custom clearance processes				
7	The company effectively works with suppliers to reduce demurrage and retention costs during shipments.				
Information communication technology (ICT)					
1	The company's ICT(data administrator group) facilitates supplier integration by improving information exchange with major suppliers				
2	The company's ICT helps to improve the purchase ordering system and stabilize the procurement processes through networks with major suppliers and retailers.				
3	The company's ICT group helps to integrate information and facilitates free sharing of accurate information among members of the supply chain				
4	The ICT helps to improve the timely sharing of information across the supply chain members and strengthening coordination and flow of information among partners.				
5	The company's ICT helps to perform sales/credit sales through systems and monitor financial statements with major suppliers and retailers through networks systems.				
6	ICT improves data system integration and application among internal functions of the company.				
7	Adoption of ICT helps to have strong and integrated inventory and finance system				
8	The company's ICT team works to improve customer's integration and helps the company connected/linked with customers, helps it to make effective communication with major customers and establish quick ordering system.				
9	The ICT group helps the company's society to easily adapt newly invented technologies and systems while the company needs to apply them.				
Quality of information sharing:					
1	Information exchange between our companies' trading partners and our company is accurate.				
2	Information exchange between our companies' trading partners and our company is reliable.				
3	Information exchange between our companies' trading partners and our company is adequate.				
4	Information exchange between our company and our trade partners is complete.				
5	Our company and its trading partners exchange information that helps the establishment of business planning.				
6	There is timely and quick information exchange between our company and our trade				

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	partners.					
7	The supply chain members (the company and its partners) are aware that quality of information is a critical aspect of effective SCM and considers it as a strategic asset, and further ensures the flow of information with minimum delay and distortion.					
Level of information sharing:						
1	your company's trading partners keep your company fully informed about issues that affect the business flow and exchange information that helps establishment of business planning					
2	Our company's trade partners share business ideas and information about the core business processes with our company's management					
3	Our company and its trading partners keep informed with each other about events or changes that may affect our partnership and information exchange between these trade partners is timely.					
4	The company's top management team is aware of the significant aspects of information and has the knowledge when, how and to whom to share information.					
5	The two parties frequently share important and valuable information (formally and informally) that helps both parties in the business process					
6	The company frequently interact with customers to set reliability, responsiveness, and others					
top management team decision role						
1	The TMT plays role for existing systems of company to be integrated with those of our key strategic partners and the strategic plans had been developed using a participatory approach					
2	The company's TMT is highly utilized human capital and adequate mix of human skills to implement the strategic plan and motivated to perform the plan.					
3	The TMT of the company evaluated and monitored outputs of the strategy implementation and measured it at all levels and corrective actions instituted for each negative deviations identified.					
4	The management reviewed the overall performances of the company periodically, do alignments to prevailing internal and external environmental factors and promotes work climate that facilitates good strategy executions.					
5	The TMT encouraged knowledge sharing during strategy execution and facilitate the adoption of best practices and business processes that drive continuous strategy execution.					
6	The TMT of the company plays role to influence and link the physical flow of products and checks its performance the overall strategic content in the company, and also incorporate the strategy formation process					
7	Top management is involved in the strategy formation over time and has a dynamic role, monitor the physical flow of goods and the constant changes of the content strategy					
8	The TMT decides on how the external relationships with suppliers and customers as well as internal ones within own company are coordinated so that the physical flow of goods is facilitated.					
9	Our company top management team has a clear customer focus to ensure where the company's efforts must be synchronized with the customer's requirements					
10	TMT decides the characteristics of a team to be proactive in initiating strategic changes including receptivity to change, willingness to take risk, diversity in information sources and perspectives, and creativity and innovativeness in decision making.					

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1	The TMT adequately resolves issues and roadblocks on the company and remove any barriers that keep the team from completing their tasks.					
1	The TMT plays significant role in managing the budget, planning and setting goals for employees, and conducts performance evaluation of employees.					
1	The TMT exerts sufficient effort in supporting employees with training and development activities, and monitoring team performance to ensure objectives are met.					

Part III: Organizational Performance evaluation of the company

Please forward your open suggestions to what extent do you agree about the nature of organizational performance achievement in practicing supply chain management in the company which are stated in following statements? (Please mark (√) in the appropriate box to your opinion) and ratings are based on the five-point Likert Scale Where; Significantly decrease = 1; Decrease = 2; no Significant change = 3; Increases = 4; and Significant increase = 5.

Organizational Performance: How well the organization achieves its business objective and goals as well as its financial and operational performance goals in the seven years of operation in the business?		Performance ratings				
		1	2	3	4	5
1	Market share growth.					
2	Return on investment					
3	Sale volume (revenue) growth					
4	Growth in overall operation					
5	Growth of Profit margin on sales.					
6	International and national role and impact in the business					
7	Employment capacity and information and technology application awareness.					
8	Overall competition position in the business					

Part IV Subjective opinions

Dear Respondents, the following are subjective questions, please genuinely put your suggestions and opinions for all the questions provided.

What is the nature of supply chain management practice in your company? What about its future plan about the SCM practice?

How has the strategic supplier partnership in the supply chain helped/ affected you in achieving company's performance goals?

a) Positively

b) Negatively

please explain your answer

What would you recommend towards improving customer relation in the SCM strategy in building competitive strength and improving the company's performance?

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What do you observe about the level and quality of information sharing in your company? Please explain

What impact would have using or not using information and communication technology in SCM practices in your company's Supply Chain?

How do evaluate the nature of your logistics system from SCM point of view? Do you think that its functioning well?

Do you think your Top management team decision on the SCM is helpful to effectively utilize the human capital, the opportunity and the available resources?

a) Please explain, if your answer Yes?

b) If your answer is No, please explain what impact does it have on employees' motivation and promotion?

How do you evaluate the financial and operational performance of your company?

Thank you