

**THE EFFECT OF SUPPLY CHAIN MANAGEMENT PRACTICES  
ON ORGANIZATION' PERFORMANCE: IN THE CASE OF  
ETHIOTELECOM, JIMMA DISTRICT**

*A Thesis Submitted to the School of Graduate Studies of Jimma University in Partial  
Fulfillment of the Requirements for the Award of the Degree of Master of Business  
Administration (MBA)*

**BY:**

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**JIMMA UNIVERSITY  
COLLEGE OF BUSINESS & ECONOMICS  
MBA PROGRAM**

**JUNE 7, 2021  
JIMMA, ETHIOPIA**

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***BY: ALEMU TEBIKEW***

Under the Guidance of

***DR SHIMELIS ZEWDIE AND***

***MR. DEREJE TEFERA (MBA)***



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*DECLARATION*

I hereby declare that this thesis entitled “*Effect of supply chain management practice on organizational performance: A Study on Selected Ethio telecom Jimma district*”, has been carried out by me under the guidance and supervision of Dr. A SHIMELIS ZEWDIE and MR. DEREJE TEFERA (MBA) This thesis is original and has not been submitted for the award of any degree or diploma to any university or institution.

Researcher’s Name

Date

Signature

\_\_\_\_\_

\_\_\_\_\_

## **CERTIFICATE**

This is to certify that the thesis entitles “*Effect of supply chain management practice on organizational performance: A Study on Selected Ethio telecom Jimma district*”, submitted to Jimma University for the award of the Degree of Master of Business Administration (MBA) and is a record of bonafide research work carried out by Mr. *Alemu Tebikew*, under our guidance and supervision.

*Therefore, we hereby declare that no part of this thesis has been submitted to any other university or institution for the award of any degree or diploma.*

<i>Main Adviser's Name</i>	<i>Date</i>	<i>Signature</i>
<i>Co-Advisor's Name</i>	<i>Date</i>	<i>Signature</i>

## ***Abstract***

*The main goal of supply chain practice is to produce the right product or service, in the right quantity, at the right time, and at minimal cost to satisfy customer requirements and internal targets as efficiently as possible. The purpose of this study is to examine the effect of Supply Chain management practices on organizational performance in the ethiotelecom, Jimma district. the study used descriptive as well as explanatory research designs. In this study five key dimensions of SCM practices: strategic supplier partnership, the commitment of management, information sharing, customer relationship, and internal integrations practices were used as independent variables complemented by different measurement tools under each variable, while efficiency, effectiveness, and flexibility variables have been used to measure the organizational performance. The data was collected from 235 employees of ethiotelecom, Jimma district by using Likert scale type questionnaires and interviews were used by purposive and stratified simple random/lottery method frame was selected as sampling technique was used to collect data from target populations, Quantitative and qualitative data collection instruments and techniques employed and data to be gathered and analyzed using the descriptive and inferential analytical technique with the help of SPSS version 20. Descriptive statistics have been used to describe, the present, mean, standard deviation to summarize quantitative information. The relationships proposed in the framework have been tested using Pearson correlation and the effect of SCM practices on Organizational Performance was analyzed using regression analysis. From the hypothesis test the null hypothesis of SCM dimension: Strategic supplier partnership, the commitment of management, Information sharing, and internal integration variables are rejected and the alternative hypothesis which says each variable has a relationship with organizational performance has been accepted. From the research findings, it was concluded that the result all independent variables (Strategic supplier partnership, commitment of management, information sharing, customer relationship management, and internal integration) and statistically significant and had a positive effect on organization performance). However, the order of contribution in which they impact the organization performance is not the same, for instance, Strategic supplier's partnerships contributed more towards Organizational performance followed by Customer Relationship Management, Commitment of management and information sharing, and lastly, Internal integrations have a positive implication on the Organizational performance of Ethio telecom, Jimma district. As a recommendation for this study, to improve the organization performance by supply chain context, the company (Jimma district of ethiotelecom) should work on three things on coordination of peoples, increasing integration of system and working on improvement of process to bring flexibility.*

***Key Words:*** *Strategic supplier's partnership , the commitment of management, information sharing, customer relationship, and internal integration , organization performance. Ethio telecom, Jimma District.*

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## *Abbreviations*

<b>ANOVA</b>	Analysis of Variance
<b>CC</b>	Contingency Coefficient
<b>CRM</b>	Customer Relationship Management
<b>RBV</b>	Resource-Based View
<b>RV</b>	Relational View
<b>SC</b>	supply chain
<b>SCM</b>	Supply chain management
<b>SSP</b>	Strategic Supplier Partnership
<b>VIF</b>	Variance inflation factors
<b><i>SCM</i></b>	<i>Supply Chain Management</i>
<b><i>SPSS</i></b>	<i>Statistical Package for Social Science</i>
<b><i>CR</i></b>	<i>Customer Relationship</i>
<b><i>IS</i></b>	<i>Information Sharing</i>
<b><i>SCMP</i></b>	<i>Supply chain management practice</i>

# CHAPTER ONE

## INTRODUCTION

This chapter describing the background of the study and organization, the statement of the need of the study/statement of the problem, research hypothesis, objective of the study, and significance of the study, the scope of the study, limitation of the study, operational definition of terms used and also the final section that summarizes chapter one and describes the organization and general content of the rest of dissertations in the organization of the study.

### 1.1. Background of the Study

Supply chain management has become very significant for fostering competitiveness, enhancing efficiency, and promoting values added in products for organizations,(Aura, 2017), this corroborated by Adebayo(2018) who postulates that supply chain management practices contribute 50% to the profitabilities and performance of the organizations. , this can show that supply chain management practice affect organizational performance in one or other was, and effective supply chain management means that organizations have closely integrated internal function as well as external linkages with supplies, customers, and other channel members to achieve profitability and growth.

Currently, more than ever before, supply chain management has become an integral part of business and essential to any company's success and customer satisfaction. Supply chain management includes planning and management of all activities, and it involves sourcing and procurements and all logistic management activities. still, despite the significant advances in research and practice many organizations continue to strangle to understand the complex issues related to coordinated planning and supply activities amongst the member of the supply networks (Mutuerandu, 2014).

A supply chain consists of the flow of products and services, Raw materials manufacturers, Intermediate products manufacturers, End product manufacturers, Wholesalers, and distributors Retailers and, End customers are more interconnected by agents, transportation and storage activities, and Integrated through sharing of information, planning, and processing activities.(Joel D. Wisner, Keah-Choon Tan, 2011).

Supply chain management represents a most important change in business management practices, It is one of the most effective ways for firms to improve their performance is by integrated approach beginning with planning and control of materials, logistics, services, and information stream from suppliers to manufacturers or service providers to the end client; (Balal Ibrahim & Adam Hamid, 2012)

The objectives of supply chain management are to maximize the overall value generated, minimize cost, effective and timely distribution of product needed by ultimate customers., and in general the main goal of supply chain management is to produce the right product, in the right quantities, at the right time and at minimum cost within the purpose to satisfy customer Requirement and internal target as efficient as possible, Organization performance is how well an organization can meet the expectations of its constituents, and to meet its objects and goals, it needs the effective and efficient use of supply chain management practice(Macleod et al., 1998). Various studies have indicated that supply management is one of the core functions of an organization whether production-oriented or service-oriented, and a brief review of the history of the development of SCM reveals that the importance of purchasing function was referred to as far back as 1832 in Charles Babbage's book on the economy of machinery and manufacturing. For instance, during World War II (1939-45), the corporate significance of purchasing inputs was increasingly recognized, and courses in business logistics were offered in various US universities, but the post-war phase was quieter as the number of market-driven firms increased in the USA (Keane et al., 2011).

Then by the end of the 1970s and the beginning of the 1980s, the world business situation changed drastically and the rise of globalization, automation, technological change, increased inflation, international competition, and strategic alliances. These changes affected the SCM and gave birth to an integrated approach to SCM, where the demand and requirements of the customers and the role of suppliers were also increased. (Keane et al, 2011)

Assumption increase in 1990, the market comes to globalization, so the problem associated with getting the right product and service, aright place, at right cost is rise. So many organizations began to realize that, there is no enough to improve efficiency in an organization, but also needs the whole supply chain must be competitive. Understanding and practicing supply chain management practice is a prerequisite to compete in a global environment and is important for enhancing profitability. (Keane et al, 2011)

In recent years, purchasing and materials management have been considered vital in adding value to the overall organization and increasing its profitability), and in meeting the challenge of worldwide competition, rapidly changing technology, and customer expectations (Keane et al., 2011) Countries such as the UK, US and Canada have long employed SCM in the management of their procurement and logistics. For instance, Gangster et al., (2004) acknowledged that the Department of Defense (DOD) in the US has minimized cost through lead time in the management of its logistics by employing SCM practices. Also in Africa countries like Kenya, the strongest economy in Eastern Africa region has taken a strong development path by institutionalizing research institutes in various aspects in a bid to meet its growing population demands (USDS, 2010). One of the major areas that have been identified as having great potential to improve efficiencies and reduce costs is in the supply chain Burgers et al., (2006).and the concept is also very important in developing countries, such as Ethiopia. And those concepts Supply Chain Management has the power to boost customer service, reduce operational cost and improve the financial standing of the company. Supply Chain in Service Industry Most of the literature Done on areas integrating SCM of service sector mainly to industries like healthcare, telecom, hotel, bank, finance, etc. Cook, DeB ree, et al., (2001) form instance focused on the application of traditional SCM to the healthcare industry, and they found that lack of systematic integration of supply chain functions is a big problem to adopt SCM to service sector practitioners. This is the concept has also applicable for Ethio telecom company need to operate efficiently for their supply chain management to perform the best performance, and to achieve the main goal of company and customers, it is best to be practice the effective supply chain in ethio telecom, therefore based on the above importance of supply chain management practice, This study has focused on to analyze the impact of supply chain management on organizational performance, on Ethio telecom, Jimma District.



## 1.2 Background of the Organization

Telecommunications service has begun in Ethiopia more than a hundred years ago (Dubale, 2010).

During Emperor Menelik II in 1894, Telecom service was introduced in Ethiopia during the commencement of the telephone line installation from Harar to Addis Ababa. Then the inter-urban network was expanded in all other directions from the capital to many important centers in the Empire were interconnected by landlines to facilitate long-distance communications with the help of intermediate operators acting as verbal human repeaters, and then its name was changed from Telecommunication to Ethio telecom born on 29 November 2010, from this ambition of supporting the steady growth of our country, that is there is also organization reform is developed in the company for example,

- 1890: - Central Administration of Telephone and Telegraph System of Ethiopia
- 1907: - The central office of the Post, Telegraph, and Telephone (PTT) System of Ethiopia
- 1910: - Ministry of Post, Telegraph, and Telephone (PT&T)
- 1952: - The Imperial board Telecommunication of Ethiopia (IBTE)
- 1975: - The Provisional Military of Socialist Ethiopian Telecommunication Services
- 1996: - Ethiopian Telecommunication Corporation (ETC)
- 2010: - Ethio telecom

Ethiopian Telecommunications Corporation is the oldest public telecommunications operator in Africa and Nowadays Ethio telecom is the most profitable company in Ethiopia and only a Monopoly company. Despite the coronavirus crisis, Ethiopia continues to work on plans to privatize its national telecommunications company. The government is now planning to sell 40% of Ethio telecom shares to retain the majority, then after I mention some about the general company, the company have head office at Addis Ababa, and there are around 22 regions and among those region, Jimma district is one of the regions which is called the southwest region, the southwest region has also around 17 shops, therefore the description of the study is would like this.

### 1.3 Statement of the Problem

Recognizing and practicing the supply chain effectively and efficiently can lead not only to increase the performance of the internal process of the company, but it can also increase the performance of all members of the supply chain. Business success depends on the firm's ability to turn internal competencies into products and services that customers want while providing desired environmental, quality, and customer service levels at a reasonable price (Joel D. Wisner, Keah-Choon Tan, 2011.)

The performance of Supply chain Ethio telecom in Jimma District as well as the company is not capable as expected. For instance, as Jimma district performance in 2019 and 2020 compared to ranked 18th from 22 districts, (Regional operational performance of 2019 and 2020) and the decline of this performance is the result of various variables may exist, but most critical effective and efficient use of supply chain is vital. In addition to this, it is difficult for the company to respond to the customer at this position for example currently, emerged pandemic corona virus has also increased the demand for Ethio telecom, (<https://www.researchandmarkets.com/r/6tk5nw>). In addition to the above scenario by the current position of the company it is difficult to win competitors on the selected area since the government has already announced that new telecom service providers are invited. (<https://www.researchandmarkets.com/r/6tk5nw>).

Many reasons result in effect/ impact on organizational performances or there are many variables to judge the performance of the organization, and according to explained by (Li et al., 2006) higher levels of SCM practice can lead to enhanced competitive advantage and improved organizational performance. In addition, competitive advantage can have a direct, positive impact on organizational performance.

According to (Ruttah et al., 2015) Organizations that possess high innovation orientations engage in value creation strategies such as market segmentation, developing new products/services for new markets thus enhancing organizational performance,

According to (Sabry, 2015) Based on the literature review, a proposed research model and five hypotheses are developed. The results indicated that there is a significant positive correlation between the three constructs of supply chain management capabilities and business performance and according to (Mutuerandu & Iravo, 2014) There is a high practice of supply chain management in Hero Industry Ltd and it has a positive effect on organization performance in terms of lowering operational cost, reduction of lead time, high customer service level product quality, fast response to changes in the market and expanding its market shares and sales.

As per (Afera, 2014) Empirical results indicate a strong and positive statistical relationship between supply chain performance and three processes of the SCOR model.

Even though the literature evidence shows that supply chain management practice is very important and the backbone of the business not only in manufacturing but also in the service sector such as ethiotelecom, there is no enough emphasis on research is given on this topic especially in the service sector, therefore, to fill some extent of the above gap and the importance of the title initiated the researcher to conduct this research. to improve the current situation of declines in the performance of the selected areas, to meet customer demand, to be competitive with an upcoming rival, it is very important for the company to be analyses SCMP of ethiotelecom, to achieve this, the general purpose of this research to investigate the effect of supply chain management practice on organization performance, just to achieve the goals of both organization and customer.

## **1.4. Objectives of the study**

Depending on the problems which are discussed above, the study has both general and specific objectives.

### **1.4.1. General objectives of the study**

A general objective of the study is to examine the Effect of Supply Chain Management practice on organizational performance in the case of the Ethio telecom, Jimma district.

### **1.4.2. Specific Objectives**

The specific objectives of the study are-

- ❖ To investigate the effect of strategic supplies partnership on organization performance of Ethio telecom Jimma district.
- ❖ To portray the effect of commitment of management on organization performance of Ethio telecom Jimma district.
- ❖ To evaluate the effect of information sharing on organization performance of the Ethio telecom Jimma district.
- ❖ To ascertain the effect of customer relationship on organization performance of Ethio telecom Jimma district.
- ❖ To examine the effect of internal integration on organization performance of ethio telecom, Jimma district.

## **1.5 Hypothesis of the study**

A hypothesis is a logical conjectured relationship between two or more variables expressed in the form of testable statements. The researcher came up with five null hypotheses for the study

H01: Strategic supply partnership has not statistically significant positive effect on organizational performance.

H02: Commitment of management has not statistically significant positive effect on organizational performance.

H03: Information sharing has not statistically significant positive effect on organizational performance.

H04: customer relationship has not statistically significant positive effect on organizational performance.

H05: Internal integration has not statistically significant positive effect on organizational performance.

## 1.6 Significance of Study

A study on supply chain management practices is an important aspect of development research. Thus, the importance of this research can be pointed out from different beneficiaries' views:

**Firstly**, the study provides additional insights to the existing stock of knowledge on the effect of SCM practices on Organization performance. The investigation will help the company to identify its problems and fill the gaps to respond to the customer as quickly as possible and become strong competent with the upcoming two telecom service providers. Thus, it will give the signal to the operational management of the organization to take corrective action. And **then**, it allows the researcher to gain deep knowledge in the modern practice of supply chain management. **Finally**, it will help as a source of reference and a stepping stone for those researchers who want to make a further study on the area afterward.

## 1.7 Scope of the study

This study aims to analyze the effect of supply chain management practice with most selected variables on organization performance. Supply chain management has a wide scope and includes a lot of theories about how to set up the chain. However, the theoretical delimitation of the study on this thesis is focused on only on five independent variables, the studies mainly focused on supplier partnership, the commitment of management, information sharing, customer relationship, and internal integration. and in terms of organizational performance such as efficiency, effectiveness, flexibilities to the customer, and due to certain limitations and to meet feasibility, The study was also not done on all areas of ethiotelecom, , this study was conducted on selected regions of ethiotelecom, that is Jimma regions, and with regards to methodology, there is many option of approach, and models, but, this study was employed mixed approach of methodology approach(qualitative and quantitative approach), and the data was used multiple linear regression model, since the nature of the questionnaire design are Likert, and all assumption of multiple linear regression is fit.

## **1.8 Limitation of the Study**

Most of the limitation of this research is explained in suggestion for future research in the final part of the research, regarding scope, variables, methodology, and extent of generalization limitation of the research is discussed, With regards to scope, this study is conducted on selected regions of ethiotelecom, that is Jimma regions, limitation of this study is that it was conducted on Ethiotelecom Jimma district, Hence, it is not known to what extent one can generalize the findings from this study to other branches of Ethiotelecom such as Neqemte, Baharat, Mekele, and also other organizations across the country. The other thing is that this study does not include is that other supply chain parties such as suppliers, and it's only conducted on the organization side. Finally, with regards to variables, these research include almost both downstream and upstream supply chain, but all additional dimensions supply chain was not included such as Jit/ lean capacity.

## 1.9 Operational Definition of Terms and Concepts

**Supply chain management (SCM):** It is the relationship of organizations with a higher and lower relationship that is involved in process and activities and like presentation product and services to final customers to create value

**Organizational performance:** It refers to how well an organization provides accurate products and services, at a reasonable price, at a reasonable time, and a reasonable quantity.

**Strategic supplier partnership:** It is 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.

**The commitment of management.:** Dedication of the manager to achieve the objective of organizations and supply chain. Management can allocate resources for supply chain endeavors, the power to structure or restructure, and corporate incentive policies to focus on achieving organizational objectives.

**Information sharing:** Information sharing is defined as the extent to “which critical and proprietary information is communicated to one’s supply chain partner”.

**Customer relationship:** It refers to the entire array of practices that are employed to manage customer complaints, building long-term relationships with customers, and improving customer satisfaction.

**Internal integration:** Internal integration, in essence, refers to information sharing between internal functions, strategic cross-functional cooperation, and working together

**Flexibility:** can be used as a measure of how well a company can cope with fluctuation in demand and deliveries from suppliers, manufacturers, and customers, and is vital for the success of a supply chain in a modern market



### **1.10. Organization of the study**

This study is organized into the following five major parts. The first part introduces the paper-it gives a startup concept and definitions given to the topic. In this part the major questions are answered, the objectives of the study as well as the scope of the study will be listed. Part two examines existing literature on supply chain management empirical evidence and various experiences will be discussed. Chapter three explores the method of selection of study population and sampling design, techniques of data collection, procedures of data cleaning, encoding, and analyses was included. Part four discussed the main purpose of the study—which is data presentation and analyses. Finally, part five concludes the major thoughts advanced in the preceding parts of the paper and winds up with some possible recommendations for further interventions, the suggestion of further studies, and sustainable development in supply chain management.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

This section presents the theoretical framework, Empirical Reviews, Literature gap, and conceptual framework.

#### **2.1 Theoretical Literature Review**

This section presents a theoretical overview of related literature. It briefly presents Porter's Value Chain theory, Resource-based View theory, Relational View theory, an overview of Supply Chain Management, a component of supply chain management versus service industry, supply chain management, and Telecom industry, Service supply chain management Model.

##### **2.1.1 Porter's Value Chain Theory**

Porter (1985) advocates the identification and strategic exploitation of horizontal and vertical linkages. Vertical integration is defined as the process in which several steps in the production and/or distribution of a product or service are controlled by a single company or entity, to increase that company's or entity's power in the marketplace. And Horizontal integration is a strategy to increase market share by taking over a similar company (Chircu et al. 2001). Optimizing the vertical(backward)integration linkages with suppliers is the core of supply chain management.

Value chain analysis describes the activities within and around an organization and relates them to an analysis of the competitive strength of the organization. Therefore, it evaluates which value each particular activity adds to the organization's products or services. This idea was built upon the insight that an organization is more than a random compilation of machinery, equipment, people, and money. Only if these things are arranged into systems and systematic activates it will become possible to produce something for which customers are willing to pay a price. Porter argues that the ability to perform particular activities and to manage the linkages between these activities is a source of competitive advantage (Gurría, 2012).

### **2.1.2. Resource-Based View Theories.**

According to Barney (1991) and Peteraf, (1993), the Resource-Based View (RBV) theory states that firms are heterogeneous and achieve competitive advantage due to rare, valuable, inimitable, and not substitutable resources and capabilities. The original approach of the RBV focused on the internal resources owned by a firm, was broadened to consider the relationship as a source of competitive advantage and improvement of performance.

This gave rise to the Relational View (RV) theory.

### **2.1.3 Relational View Theory**

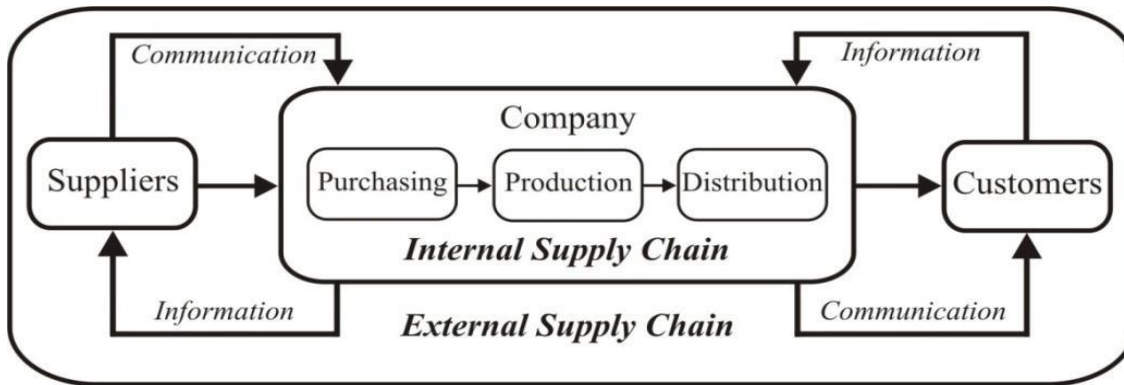
According to Dyer & Singh(1998) and Holcomb & Hitt(2007) RV considers relationships as potential sources of superior performance. It identifies four different sources of relational rents: investments in relation-specific assets, substantial knowledge exchange, complementary and rare resources, and lower transaction costs. All these sources are influenced by more effective governance mechanisms based on informal safeguards, such as trust and reputation. As in the RBV perspective, the relational resources and capabilities should be rare, valuable, and hard to imitate or to substitute to provide a sustainable competitive advantage.

Generally, the relation and impact of SCM on organizational performance can be better understood if it is interpreted by using the relational view. Information sharing maps directly into accurate and temple knowledge exchange. Long-term relationships with suppliers and customers can help to reduce transaction costs through the development of trust and reputation (Cooper, et.al., 2007); (Mentzer, 2001) and Li *et al.*, 2006). It also can contribute to developing knowledge exchange and assure investments in specific assets. Therefore, the researcher will support ideas for the study based on relational view theory.

#### **2.1.4 The Network Perspectives(NP) Theories**

The performance of the firm depends not only on how efficiently it cooperates with direct partners but also on how well those partners cooperate with their business partners. NT can be used to provide a base for conceptual analysis of reciprocity in cooperative relationships. Here the firm's continuous interaction with other players becomes an important factor in the development of new resources. The relation combines the resource of two organizations to achieve more advantage than through individual efforts. Such a combination can be viewed as a quasi- organization. The value of the resource is based on combination with another resource which is why inter-organization ties may become more important than processing resources. Thus, the resource structures determine the structural supply chain and it becomes its motivating force. The network theories(NT) contribute profoundly to the understanding of the dynamic of inter-organizational relationships by Phasing the importance of personal chemistry between the parties, the buildup of trust through positive long-term cooperation, and the mutual adaptation of routines and systems through exchange processes. Through direct communication, the relationship conveys a sense of uniqueness ultimately resulting in supply chains as customizations to meet individual customer requirements. The parties gradually build up mutual trust through social exchange processes. A network does not seek an optimal equilibrium, but it is a constant state of movement and change. Links between firms in-network develop through two separates, but closely linked, types of interaction: exchange processes (information, good and service, and social process) and adaption processes (Personal, technical, legal, logistic, and administration element). A network is a set of relationships among firms aiming to establish connections based on relationship functions (e.g. activities, resources, and actors) to support information sharing for better performance in the export supply chain(Jraisat, 2011).

## 2.1.5 Overview of Supply chain management



Source(Joel D. Wisner, Keah-Choon Tan, 2011)

The supply chain is referred to as an integral system that synchronizes a series of integrated business processes to create demand for products, acquire raw material and parts, transfer those raw materials and parts, into new products and services, add values to products and services, distribute the products to either retailer or customer, facilitates information exchange among various business entities (suppliers, manufacturers, distributors, third party logistic providers, and retailers).

Supply chain management can be defined as the Management of the flow of products and services, which starts from the origin of products and conclude at the product consumption. It is also comprising the movement and storage of raw materials that involved in work in progress, inventory, and fully finished goods. According to Amy Drury (2020), Supply chain management is the management of the flow of goods and services and includes all processes that transform raw materials into final products. It includes the dynamic streamlining of a business's supply-side exercises to maximize client esteem and pick up a competitive advantage within the commercial center.

SCM represents an effort by suppliers to develop and implement supply chains that are as efficient and economical as possible. Supply chains cover everything from production to product development to the information systems needed to direct these undertakings. According to Robert (2020) inside states Supply chain management (SCM) is the active management of supply chain activities to maximize customer value and achieve sustainable competitive advantage. It represents a conscious effort by the supply chain firms to develop and run supply chains in the most effective & efficient ways possible. He adds that supply chain activities cover everything from product development, sourcing, production, and logistics, as well as the information systems needed to coordinate these activities.

Robert (2020) also states the concept of Supply Chain Management (SCM) based on two core ideas. The first is that practically every product that reaches an end-user represents the cumulative effort of multiple organizations. These organizations are referred to collectively as the supply chain. The second idea is that while supply chains have existed for a long time, most organizations have only paid attention to what was happening within their four walls. Few businesses understood, much less managed, the entire chain of activities that ultimately delivered products to the final customer. The result was disjointed and often ineffective supply chains.

IBM defines Supply chain management as the handling of the entire production, flow of a good or service starting from the raw components to delivering the final product to the consumer. To accomplish this task, a company will create a network of suppliers that move the product along from the suppliers of raw materials to the organizations that deal directly with users

### **2.1.6 Components of Supply Chain Management**

Most of the studies of supply chain explain supply chain by only focusing on one extreme, but the supply chain has included both upstream and downstream. In the supply chain, unless the whole process is efficient the individual unit cannot achieve its potential. It needs a holistic values stream approach to the supply chain or total supply chain management approach. Supply chain management comprises basic elements like:

- Planning management
- Procurement and sourcing management
- Inventory management
- Distribution management
- Information element
- Key performance management

Supply chain management activities are interconnected with each other in either the manufacturing of products or delivering services, that are required by consumers. Businesses that have a strong supply chain management system in place always put great emphasis on all the components listed, and also ensure that management, as well as the teams at various levels, play by the rules. Profit is the bottom line and to make sure that the business achieves it, the supply chain mustn't have any gaps. Any snag should be dealt with immediately and the weak links repaired or removed. Demand and supply are two of the most important aspects of a business. For any business to be successful, trends, concerning demand and supply, need to be studied carefully while implementing an effective plan of execution.

A supply chain management system is required not just for the timely manufacture of goods; it is also a very critical system for ensuring that consumer requirements are met effectively. (Ballou, 2007).

Businesses need to ensure two things for their supply chain to be effective, one is the supply chain should be cost-effective, and second, it should deliver the results on time. To be effective and cost-effective and deliver results in time, the following eight important components are should be considered: planning, information, source, inventory, production, transportation, and return of goods. (Ballou, 2007).

### **2.1.7 Supply chain management and the Service Industry**

Today, the supply chain concept is expanded to include the flow in the opposite direction, which is known as reverse logistics. In this context, supply chain management is the effective and efficient management of this structure and the relationships between parties taking place in the chain. Following a widely accepted definition, which was proposed during the Global Supply Chain Forum held in 1998, supply chain management is the integration of the key business processes from end-user through original suppliers of products, services, and information that add value for customers and other stakeholders [Lambert, Cooper and Pagh, 1998].

Despite the importance of the service industry mentioned above, scholarly work devoted to services is relatively new and therefore scarce, compared to the manufacturing industries. The earlier focus on service industries began in the 1980s; in many of these studies, the definitions of goods and products were adapted to services and service production.

However, it was obvious that managers who yearn for successful service enterprises could not continue to rely solely on tools and concepts developed in the manufacturing sector. In time, service management emerged as distinctive. field and began to create its terminology. However, in in-service business, as in other industries, managers should consider other aspects. Supply chains and supply chain management are some of these. Integration with the other firms in the supply chain, such as intermediaries, suppliers, and industrial customers has vital importance for service firms.



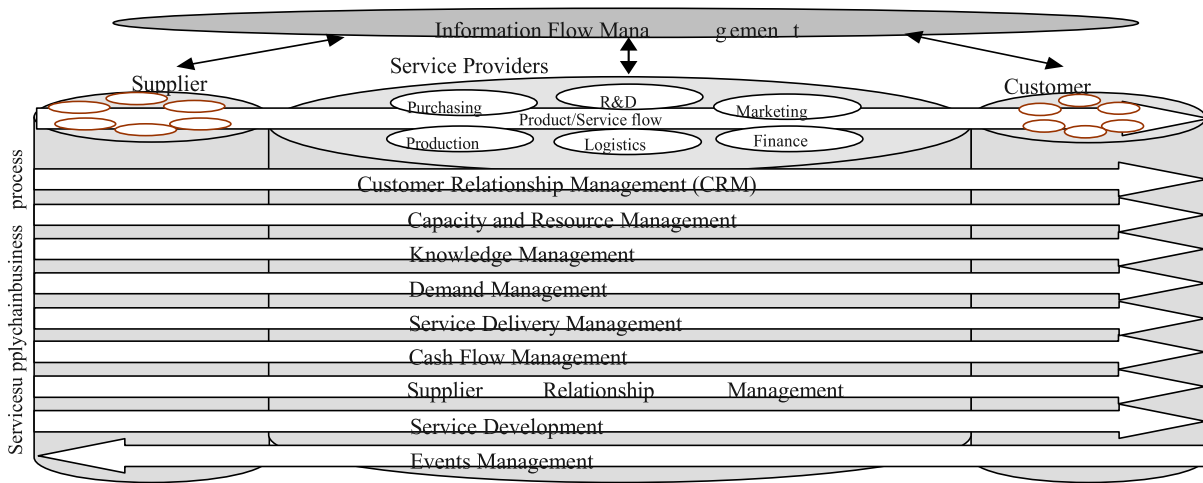
As in the manufacturing industry, effective supply chain management is essential in the services industry. Thus, the supply chain management concept, which is relatively new, should be adapted to the service business, taking into account the distinguishing characteristics of services

### **2.1.8 SCM in Telecommunication Industry**

In the modern telecommunications industry, supply chain management (SCM) needs reliable design and versatile tools to control the material flow. The objective for efficient SCM is reducing inventory, lead times, and related costs to assure reliable and on-time deliveries from manufacturing units towards customers. Supply chain management (SCM) is the combination of art and science that goes into improving the way the company finds the raw components it needs to make a product or service and deliver it to customers. A supply chain is a coordinated network of entities that transforms raw goods into finished products. The overarching goal of supply chain management is to produce the right products, in the right quantities, at the right time, at a minimal cost. SCM is the process of planning, implementing, and controlling the operations of the supply chain with the purpose to satisfy customer requirements and internal targets as efficiently as possible. SCM in the telecommunication industry connects component suppliers, inbound logistics manufacturing and work-in-process, finished goods, and outbound logistics to customers. (Pedro, Mahesh, Raising Hani, Manor 2002).

## 2.1.9 Service supply chain management Model

There is a lot of models is developed in supply chain management most of them is the direct implication with the manufacturing industry, and there is little model is developed for the service sector for the study, by considering this, and variables of the included, the researcher add some existing theoretical model which can support for this study on some extent, and service, sector supply chain more importantly in addition to a conceptual model which is developed by the researcher.



**Fig. 2.1 Service supply chain process structure**

**Source:** (Johnson and Mena, 2008). The internal functions of the service providers are similar to the manufacturers in a product supply chain.

This paper use, the above model, as the theoretical model to show components of the supply chain, and the paper is no go detail, with all variables, listed. In the model, but use, some of the variables, as the base and theoretical support to the developed conceptual framework, and, its ideas can also use to overall, as below:

***Network, technology, and information flow management.*** Service changes a lot from labor-intensive to information-intensive by the application of advanced information technologies. And the service quality and performance largely depend on the technologies applied in the service supply (Zsidisin, Jun, et al., 2000).

In this study, Information sharing is used as one variable, and it is more related to this model, and it has direct implications with the study,

***Capacity and resources management.*** In this model, the conception of resources is broader than the traditional supply chain. It covers not only the tangible resources, such as facilities, labor, and capital; but also the intangible resources, such as skills, experiences, and knowledge. The intangible resources are critically important for the effective operation of the service supply chain, Hence, this study is trying to include, capacity management, not only physical resource management, For instance, in variable two, the commitment of management is included, and the main intention is that management has a great role in supply chain activities, starting from need assessment to developing a new action plan to meet the demand of the customer, and in general, the effective skill, experience, and knowledge is a great role in service sector performance improvement, in addition to physical resource management., and ***Knowledge management.*** It puts focus on intangible resources of the service supply chain, in particular how to transfer the intangible knowledge into service outputs, and how to share the intangible knowledge are critical issues.

***Service delivery management.*** It is an order fulfillment process providing services and servitude products to the customers. production management (Johnson and Mena, 2008) and manufacturing flow management (proposed by GSCF) into our model. Service delivery management is the other crucial thing in service sector organization, and the variable of the delivery time is also included as the performance evaluation on this study.

In general, for this study, the above model is not used as the main, since the researcher develops conceptual model, but it used some of the ideas that are directly related to the variables studied such as supplier relationship management, service delivery management, and capacity and resource management are included as an additional theoretical model support for the study.

## **2.2 Empirical Review**

Different scholars have studied the impact of the supply chain practice management on organizational performance both in developed and developing countries, A study conducted by Suhong Lia,\*, Bhanu Ragu-Nathan, T.S. Ragu-Nathanb, S. Subba Ra, The results indicate that higher levels of SCM practice can lead to enhanced competitive advantage and improved organizational performance. the study conducted by Ferreira, Nogheira, and Alcantara (2015) investigated the impact of supply chain management on organizational performance. Findings from the study showed that the higher level of supply chain dimensions such as strategic supplier partnership, customer relationship, and information sharing led to improved organizational performance and enhanced competitive advantage.

In the same vein, Choi, Min, Joo, and Choi (2016) investigated the impact of supply chain management on financial performance through the mediating role of customer satisfaction among life insurance companies in South Korea. The findings concluded that there was a significant relationship between supply chain management and organizational performance.

Wagnera Grosse-Ruykena and Erhunb (2017) in their study had shown that supply chain management dimensions had positive implications on a firm's competitive position and performance. Bamgbade, Kamaruddeen, and Nawi (2015) examined the impact of supply chain management on a firm's performance based on a sample of 51 publicly traded firms in Nigeria.

The study provided some evidence that supply chain management improved a firm's cost efficiency, productivity, and profitability.

However, other empirical studies did not find any relationship between supply chain management practices and organizational performance. An exploratory study by Finne and Holmström (2018) indicated that supply chain management did not affect the performance of companies. The findings also showed that manufacturing and distribution operations did not have a direct and positive impact on the performance of companies and improve the performance of these companies. Selvaraju, Beleya, and Sundram (2017) evaluated the effect of supply chain management on supply chain performance among manufacturing and service companies of Tehran province where the sample consisted of purchasing, sales, and financial companies. Findings from the study supported an insignificant and indirect impact of supply chain management on the financial performance of companies.

On the other hand, Sundram, Chandran, and Bhatti (2016) in their study of the Indian manufacturing industry found the impact of supply chain management on organizational performance was relatively low. Another study conducted by Barrat (2014) did not show the influence of supply chain management on performance among USA companies in California. Voss, Ahlstrom, and Blackmon (2016) examined the extent to which supply chain management influenced firms' financial and nonfinancial performance on a sample of 94 manufacturing firms in Spain. The study did not find any significant direct effect of supply chain management on organizational performance. Using the same sample, Arora, Haleem, and Farooque (2017) analyzed the effect of supply chain management on firm performance where no effect was found on financial performance.

Despite some consensus from the literature that supply chain management plays a critical role in enhancing organizational performance, There is little research is done on the service sector, and most of the research is done on manufacturing company, while the researcher belief tese research can add some extent to fill the existing gap.

In addition to the topic, let us see some, the variables selected by the researcher which is empirically supported, one by one such as on strategic suppliers partnership, the commitment of management, customer relationship management, and internal integrations as below

(Li et al in Adam Mohd ,2014) and (Chen & Paulraj, 2004). He has investigated that strategic supplier partnership has a significant relationship with the competitive advantage of the firm in terms of quality, price, delivery, time to market, and product. The supply chain performance is affected by the competitive advantage. Hence, the strategic supplier partnership is crucial to enhance the supply chain performance.

An often mentioned key enabler, and a necessary prerequisite for performing SCM in real life, is management support (Lambert and Cooper, 2000). This is also supported by a recently conducted a survey study among senior members of the Council of Supply Chain Management Professionals, CSCMP, where management support is identified as the most important facilitator for the implementation of SCM.

Different works of literature take supply chain information sharing as the collaborative effort in linking functions and supply chain networks in terms of process, information, and physical flow (e.g Frohlich and Westbrook, (2001); Mentzer et al. (2001); and Mentzer et al. (2008). Hence, coordination and collaboration in linking business processes become the key components of supply chain integration which is the focal point of this study.

Regarding customer handling Alemayew, (2018) indicated that the primary reason mentioned for the poor level of customer service are internal operations and challenges or barriers to effective SCM Adam Mohd,2014) also stated that customer relationships as to how to manage the customer complaints, enhanced customer satisfaction and creates long term relationship with the customer. He found that supply chain management practice made up of customer relationships has a direct impact on organizational performance in Taiwan. Hence, customer relationships will be able to enhance the supply chain to better performance.

According to Daniel (2018), Effective supply chain integration (internal, customer, and supplier integration) leads directly to higher operational performance. In addition, the findings provide further evidence for the conventional wisdom that the more integration the better the performance'. This study showed the importance of applying supply chain integration in the industry because supply chain integration can be a source of competitive advantage leading to superior performance through enhancing firms' operational performance.

Dniel (2015) described the great importance of supply chain integration for achieving operational performance referring (Frohlich and Westbrook, 2001). However, some authors found no direct relationship between internal integration and operational performance. Those authors, who identified a positive relationship between Internal Integration and operational performance, indicate the positive effect of internal integration on cost, quality, delivery, flexibility, innovation, process

efficiency, time-based performance, and logistics service performance. In line with the above, the described integration is positively related to operational Performance.

Keeping materials undifferentiated for as long as possible will increase an organization's flexibility in responding to changes in customer demand. In addition, an organization can reduce supply chain costs by keeping undifferentiated inventories.

### 2.2.1 Literature Gap

Supply chain management practices are affected by the global operations, the real challenge for managers of this new enterprise environment is to develop suitable performance measures and metrics to make the right decisions that would contribute to an improved supply chain practices, the competitiveness of the organization, and its operational performance. Supply chain management practices are affected by global operations, and their chain is not only limited to upstream or downstream supply chains, Some of the empirical studies only focus on upper-tier supply chains i.e. suppliers (Addis, 2015), and some only focus on the lower-level supply chain i.e. customers. Some studies like (Suhong, Li, et al., 2004), (Mutuerandu, 2014), (Karimi & Rafiee, 2014) but these research is trying to include both streams while developing the variables, to address both streams on some extent, in addition to the above, many research literature done on the topic is more focused on manufacturing organizations, but this research is done on the specific organization of service sector, and the other literature gap the researcher find that most of the research done even on ethiotelecom those done are more focused on only some departments mainly the data is collected from the warehouse parts,(Afera, 2014) and but supply chain is not only limited to a warehouse or logistic parts, but its chain is large even in internal organization and this research tries to include other related departments to cover the existing gaps.



## 2.3 Conceptual framework

This study's independent variables are Strategic supplier relationships, the commitment of management, information sharing, customer relationship, and internal integration are expected to affect the dependent variable i.e. Organization performance. The above relationship is diagrammatically presented in the figure below which displays how the independent and dependent variables relate as conceptualized by the researcher. The directions of the arrows show the interrelationships between the variables of the studying. 1 presents the SCM framework developed by the researcher, to Proposes SCM practices will have an impact on directly organizational performance. In the conceptual framework, the independent variables which are believed to have an impact on the performance of the selected company are strategic supplier partnership, a commitment of management c, use of information sharing, and customer relationship, whereas, the organizational performance is considered a the dependent variable. Let us describe and define the conceptual framework as below, and shows their relationships.

### 2.3.1 Strategic Suppliers partnership (SSP)

Strong Strategic supplier partnerships Important to achieving win-win competitive performance for the buyer and supplier -- these require a strategic perspective as opposed to a tactical position. Involve “a mutual commitment over an extended time to work together to the mutual benefit of both parties, sharing relevant information and the risks and rewards of the relationship.

SSP is referred to the long-range association with organizations and their suppliers (Li et al., 2006). SPS allows organizations to function more efficiently with more significant suppliers that are ready to divide responsibility for product success (Li et al., 2006).

SPS plays an important role in innovation and there is a study that explicates that SSP has a positive influence on innovation (Maalouf, 2018). Strategic Supplier partnerships enable organizations to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Strategically aligned organizations can work closely together and eliminate wasteful time and effort.

### 2.3.2 commitment of management (CM)

Management has a great influence on the planning, scheduling, and control of the activities that transform inputs into finished goods and services in supply chain activities. As stated above the SCM expression is unclear and empirical studies indicate a difference between the ideal SCM theory and practice. Taking the SCM philosophy from theory to practice seems to be a difficult task for companies, despite the many obvious advantages discussed. An often mentioned key enabler, and a necessary prerequisite for performing SCM in real life, is management support (Lambert and Cooper, 2000). This is also supported by a recently conducted survey study among senior members of the Council of Supply Chain Management Professionals, CSCMP, where management support is identified as the most important facilitator for the implementation of SCM.

Management plays a key role as a facilitator and driver for change. It is argued that management should function as a driver for an SCM-friendly culture in the company along with proper measurement that facilitates SCM initiatives. Erik & Mats (2010) Supply chain management involves managing the production process from raw materials to the finished product. It controls everything from production, shipping, distribution, to delivery of products.

### 2.3.3 Information sharing (IS)

Information sharing is defined by Gillis, Combs, and Ketchen (2014:96) as the extent to “which critical and proprietary information is communicated to one’s supply chain partner”. Another definition by Jin and Edmunds (2015) describes information sharing as the access to private data between trading partners thus enabling them to monitor the progress of products and orders as they pass through various processes in the supply chain. Some of the elements that comprise information sharing include data acquisition, processing, storage, presentation, retrieval, and broadcasting of demand and forecast data, inventory status and locations, order status, cost-related data, and performance status. Hwang and Min (2015) further add that information sharing improves the supply chain visibility thereby enabling effective decision making.

Empirical findings have revealed that information sharing, including streamlining is the key to an integrated and effective supply chain management (Idrissia, Amaraa, and Landrya, 2012; Zeng, Xie, and Tam, 2010). For instance, Zeng, Xie, and Tam (2010) have explained that supply chain partners who exchange information frequently will be able to respond to market change quickly as they understand the needs of the end customers. Moreover, information sharing will help to reduce uncertainties in the market when supply chain members have information and knowledge about each other (Puche, Ponte, Costas, Pino, and de la Fuente, 2016). Hence, information sharing enables the right information to be available at the right time, right place, and right trading partner which will contribute to greater organizational performance.

Academic research has also followed suit in studying the inter-connectedness between ICT and production/operations/supply chain management. This has resulted in hundreds of articles being written on the linkage between information systems (IS) and supply chain management.

Information technology (IT) is an important enabler of effective supply chain management, IT for supply chains includes internal and external systems that facilitate information between various companies and individuals. For many firms, IT provides a competitive advantage. The goals of Supply Chain Information Technology are to collect information, assess the data, analyze, and collaborate with supply chain partners.

It was addressed by Alter (2002), Information systems: Foundations of e-business that the Information systems have had a huge impact on the way that businesses operate. When computers were first introduced, employees had limited access to the data stored within them. As technology has developed, data storage has become more prevalent within organizations. With networked PCs, employees can now access information and information systems with an ease that was just not possible ten years ago, the study highlighted the impact of technology on business in the two main areas: 1) Economic Impact: By using appropriate materials and information systems, the organization can save materials and resources, as well as staff time. In addition, administrative duties performed less effort, were easier, and less time-consuming through the introduction of suitable information systems.

According to Mohammed & Vidyaranya, (2018), Organizations in practice, for decades, have been integrating information and communication technologies (ICT) into their production/operations/supply functions for enhancing performance, in terms of reducing costs, improving customer service, and increasing the speed of delivery and reliability.

Supply chain management (SCM) relies heavily on information and communication technologies (ICT) for handling transactions, performing communications, developing management insight, and exchanging information Mohammed & Vidyaranya, (2018). Therefore, the concept of SCM gained attention and was highlighted by researchers only after the introduction of ICT tools (Alfalla-Luque and Medina-Lopez 2009). The use of ICT tools in SCM started in the 1960s with the introduction of electronic data interchange (EDI) systems, followed by material requirements planning (MRP) solutions in the 1970s, manufacturing resource planning (MRP II) in the 1980s, and enterprise resource planning (ERP) in the 1990s.

#### **2.3.4 Customer Relation management**

As pointed out by Day [43], committed relationships are the most sustainable advantage because of their inherent barriers to competition. 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.

Supply Chain Management competency contributes to an organization's success by providing customers with timely and accurate product delivery. It is important to clearly understand, and customer service deliverables when establishing Supply Chain Management.

A customer-focused strategy needs to accommodate and develop a combination of products and services that satisfies customers. One of the key factors for successful marketing is the availability of products and services to the customers, when and where desired by their strategies. Basic customer service is defined in terms of availability, performance, and reliability. Availability is the capacity to offer inventory when demanded by a customer. Operational, Performance can be measured in terms of speed, consistency flexibility, and malfunction/recovery.

Reliability is one of the most important dimensions of customer service quality Customers' confidence can be built by providing advanced accurate information on the status of their orders, rather than giving surprises. the customer-focused firm will do well to state the level of basic service commitment in terms of availability, operational performance, and reliability to all customers. The main purposes of the customer relationship are to respond the customer expectations, To manage customer complaints, to follow up sales after delivery and to build long term relationships with customers, and to develop customer lo company products and services(Reyes and Giachetti, 2010), according to Li et al., 2006; Kim et al., 2006) CF is concerned with planning, implementing, and evaluating successful services and relationships between providers and recipients in both upstream and downstream of SCM. It deals with the ability to communicate delivery of the right products and services to customers locally and globally at the right time, right place, and right quantity with the correct invoice.

### **2.3.4 Internal Integration**

Internal integration in essence refers to information sharing between internal functions, strategic cross-functional cooperation, and working together. Before supply chain management thinking, companies relied on internal integration to gain competitive advantage and company performance

Integration is one of the best for the organization's success because it allows the integration of the process across the different departments that include sourcing, manufacturing, and distribution (Ellegaard and Koch, 2012). According to O'Leary-Kelly and Flores (2002), Internal Integration is defined as the extent to which separate parties work together cooperatively to arrive at mutually acceptable outcomes. internal integration involves the coordination, cooperation, and collaboration between all internal functions within the firm from raw material management through production, shipping, and sales. ( Narasimhan and Jayaram,1998) Ellegaard and Koch (2012) have recognized the positive impact of internal integration and considered it as an important practice for the effective management of supply chains and the successful overall performance of organizations (Ellegaard and Koch, 2012).

### **2.3.5 Organizational performance (OP)**

Organizational performance (OP) is referred to the phenomenon of how well enterprises obtain their desired goals. Organizational performance can be measured by a different approach, for instance, some studies measure organization performance in terms of finance and market which include return on investment and competitive position of the company(Li et al., 2006). but To select an appropriate measure of the performance it should be seen based on organization performance in terms of supply chain context and it also needs to understand types of organizations, how we get the data. Performance measures are created from a single or several indicators of a process. The measures can be a single indicator, a sum of indicators or a ratio of them depending on the information wanted from the measure. (Gamme & Johansson, 2015)

Apart from quantifiable measures with numeric values, there are also qualitative measures. The qualitative measures are more complicated to use since they cannot be directly represented numerically. Typical qualitative measures are customer satisfaction and information flow i.e. measures that cannot be measured but have to be expressed in other ways (Beamon, 1999).

These measures are better described as average, good, and excellent, which means that measuring them includes some kind of evaluation. One common way of doing a thesis is by using Likert scales to register opinions and feelings. A Likert scale is based on several options rating an opinion or feeling to a degree of compliance with a statement (Touchier & Quagini, 2010)

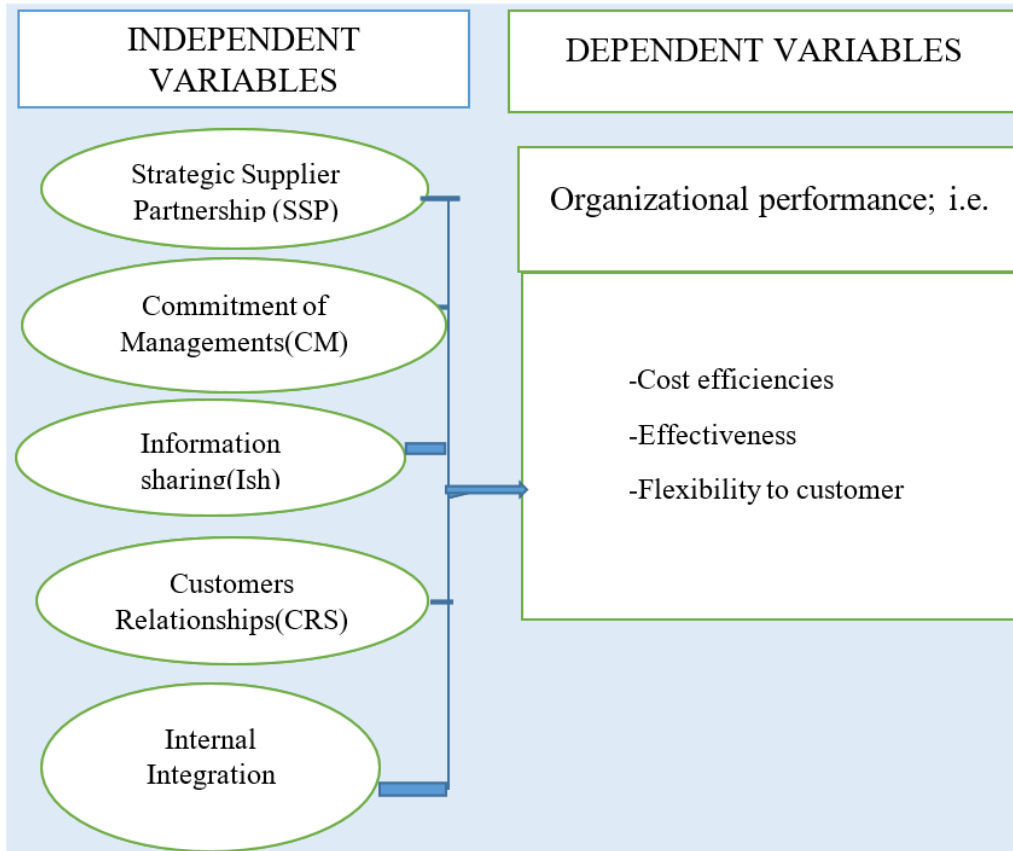
Therefore, based on types of organization (I.E) currently, ethiotelecom, has only monopoly company in Ethiopia, to get the exact competitive position is difficult, and it is also appropriate to measure organization performance in terms of supply chain context, the researcher decided to use one approach to measure (Approach 1 -The Resource, Output, and Flexibility approach) To measure organization performance.

Resource measures are usually connected to efficiency measures, i.e. to what degree the resources are utilized in the supply chain, and are often a quantified minimum requirement of the resources needed. (Gamme & Johansson, 2015)

The output measures are usually quantifiable short-term measures that show how well a company did, but can also be qualitative such as customer satisfaction. The output measures have to reflect the strategic goals, both organizational and customer requirement goals. (Gamme & Johansson, 2015)

Flexibility can be used as a measure of how well a company can cope with fluctuation in demand and deliveries from suppliers, manufacturers, and customers, and is vital for the success of a supply chain in a modern market (Beamon, 1999).

*Fig2.2: Conceptual Framework.*



**Source:** Constructed from review literature,2021



## **CHAPTER THREE**

### **3.RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

This chapter stretches an outline of the research design and methodology that was used in conducting this study, therefore, research design, the target population of the study and sampling procedure and sample size determination, data source and collection method, method of data analysis, model specification, and reliability of the instrument, and description of study variable are discussed respectively.

#### **3.2 Description of the study area**

This study is focused on the Effect of supply chain management practice on organizational performance, Ethio telecom Jimma district, Jimma district ethio telecom is located in the southwestern part of ethio telecom of the Oromia region, it is located 220 miles (353 km) from Addis Ababa, the capital city of Ethiopia. According to information obtained from Regional HR data, the region has 17 sub shops that were managed under the district, and in Jimma district, there are 16 divisions and among this division, this study was conducted on 10 divisions.

#### **3.3. Research Design**

This research study was conducted using descriptive as well as explanatory research design since it has been used both descriptive part cause and effect relationships. The purpose of the explanatory approach field study was to test Cause and effect relationships, A correlation research study allows the researcher to describe in quantitative terms the degree to which two or more variables are related.

While descriptive surveys were designed to see respondents' opinions on SCM practices and organizational performance. Descriptive studies present facts, existing conditions concerning the nurture of persons, several objectives or class of events and may entail procedures of enumeration and induction analysis, classification details, and measurement (Creswell,2014).

### **3.3.1 Research Approach**

Both qualitative and quantitative approach was designed to investigate the problem under study. Employing a mixed approach is used to neutralize the biases of applying any of a single approach (Creswell, 2008). Qualitative research is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. Quantitative research is a means for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures. So, the researchers used this quantitative and qualitative approach to help us to investigate the effect of SCM practice on Organizational performance.

## **3.4. Data Source and Methods of Data Collection**

### **3.4.1 Data Source and types of data**

Depending on the research data type and collection method the study makes use of both quantitative and qualitative data were collected from primary and secondary sources through different techniques. Primary data were collected using a self-administered questionnaire and semi-structured instruments to collect data from clerical employees working in the organization and key informant interviews operational manager of the organization.

Secondary data relevant to the research work was collected from Ethio telecom, Jimma district human resource documents such as office records and reports, journals, manuals, books, and files from the internet or web pages. Both primary and secondary sources were considered to collect qualitative and quantitative data that complement and/or supplement each other and diverse information from different sources, to make the data and the results of the research more reliable.

### **3.4.2 Methods of Data collection**

The survey is one type of data collection method which involves asking questions face to face, via telephone or questionnaires to individuals, and departments, or companies to find out personal, company, or sector information (Adams, p. 2007). Accordingly, for this research, a structured and semi-structured questionnaire and personal interview questions are used to conduct the survey.

The questionnaire is prepared by mixing ranking, open-ended, and rating questions; by six levels of Likert-style rating scale since a six-point scale forces choice, giving HR and managers better data. And, if at any point a neutral is desired, the “slightly agree” and “slightly disagree” can be averaged together. Additionally, an even number of items in the response scale can yield groupings that are easier to understand and discuss, the six-point Likert scale of questionnaires design was used because, it can provide better meaningful interpretation for managers, and a mixed method of data collection is used to collect reliable information that does not get only in one approach.

## **3.5. Sampling**

### **3.5.1. Target Population of the Study**

The target population for this study focused on 10 Division of ethiotelecom employees of Jimma district(southwest region) departments who are more related to supply chain departments. (total population of 547).

#### **Included criteria**

Ten division of the Jimma district of ethiotelecom is included b/c the researcher strongly belief that them to get more reliable information's.

### Excluded criteria

Some divisions such as security division, legal, division are excluded b/c of the reason of getting reliable information.

### 3.5.2 sampling frame:

The sampling frame is a (physical) representation of all the elements in the population from which the sample is drawn.

#	DIVISION	No of staff	sample size
1	Supply chain Division	19	8
2	Fleet and Facility	76	31
3	Sales Division	156	64
4	Infrastructure-Power and Environment	47	19
5	Fixed Network	121	50
6	Finance	49	20
7	Communication	6	2
8	Information System	3	1
9	Internal Audit	3	1
10	Wireless Network	67	27
	TOTAL	547	235
	total of all(including excluded one)	574	

*Table 3:1 Sampling frame*

Source: Ethiotelecom Jimma District HR department FEB,2021).

N.B

The percentage of the population for every Division is calculated relative to the total number of purposively selected divisions \ Division representing sample is obtained by multiplying sample size (235) which is obtained from the universe to relative percentage of employees of the district.

### **3.5. 3.. Sampling Procedure and Technique**

According to Admass et al. (2007) sampling is the process or technique of selecting a suitable sample to determine parameters or characteristics of the whole population. To determine the sample size, the researcher has already information regarding the list of staff. to select respondents, probability-sampling techniques were used (GREENER, 2008)). This study uses both probability and non-probability sampling design, from probability sampling design the Stratified sampling, because in which the population is divided into two or more relevant and significant strata based on one or more attributes. Each of the strata to which the population is divided obtain an equal chance of being included in the sample. and this technique is preferred because it is used to assist in minimizing bias when dealing with the population. With this technique, the sampling frame can be organized into relatively homogeneous groups (strata) before selecting elements for the sample. According to Janet (2006), this step increases the probability that the final sample was represented in terms of the stratified groups. since the list of a sampling frame is available, and the employee data is known well, stratified sampling techniques is more valid for sampling techniques and procedures of this study, and from non-probability sampling, this study used purposive probability sampling to conduct the interview, it is used based on a judgment of researcher to get more reliable information concerning the topic among 12 managers to exist, a personal interview is conducted with operational(supply chain division) manger to get more relevant information.

### 3.5.4. Sample Size of the Study

Sampling is the process of systematically choosing a sub-set of the total population that the researchers are interested in surveying. Regarding these Paula et al. (2001) noted that sampling refers to drawing a sample or selecting a subset of elements from a population. The design of a sampling strategy is an important issue for a research study and it can be a powerful tool for accurately measuring the opinions and characteristics of a population. The usual goal in sampling is to produce a representative sample. As it is stated by Paula et al. (2001), a perfect representative sample would be a mirror image of the population from which it would be selected.

Depending upon Taro Yamane (1973) the sample size was calculated as follows to represent the total population or universe, 575, which is the total number of employees managed under ethiotelecom, Jimma District at 95% confidence level.

It was calculated as follows:

$$n = \frac{N}{1 + N(e)^2}$$
$$n = \frac{574}{1 + (574)(0.05)^2}$$
$$n = 235$$

Where, n=Sample size, N= Population, e= standard error

Therefore, the total sample size representing the universe or population is 235 employees which were be used for assessing the effect of Supply chain management practice on organization performance in Ethio telecom, Jimma District.

For the convenience of the study the calculated 235 number of samples are collected from purposively selected 10 Division upon their degree more relative of researcher variables to be addressed to supply chain and accessibility, and convenient for data collection using proportional allocation, the proportion of each which is elected by stratified sampling.

### **3.6. Method of data analysis**

Once the questionnaires were collected by the researcher, it was coded and fed into the SPSS computer software For analyzed. Initially, screening of data was done using sort functions. The data were analyzed using descriptive and inferential statistics by Statistical Package of Social Science (SPSS) version – 20 Quantitative data collected were analyzed using descriptive statistical techniques which were mean and standard deviation. Qualitative data were categorized and reported in emergent themes. Measures of central to investigate the causal association between dependent and independent variables, its underlying assumptions (normality, linearity, and multicollinearity) that substantially affect the ability to represent the relationship was tested and To reveal out the relationship, Pearson’s product-moment correlation ( $r$ ) was conducted

The findings were presented by the use of distribution tables that gave a record of the number of times a score or a response occurs. Descriptive statistics gave the profile of the target population, i.e. frequencies and percentages, means, standard deviations, whereas inferential statistics to be used were ANOVA/T tests, Pearson correlation, and multiple linear regression analysis is a reliable method of identifying which variables have an impact on a topic of interest. Therefore, multiple linear regression models were performed using the summated scale of items with the highest factor loadings to identify the determinant explanatory variables that can predict the outcome variable significantly and a p-value of less than 5% was considered to flag statistical significance.

## **3.7 Method of Administration /Quality criteria**

### **3.7.1. Questionnaires' Design**

As a Measurement instrument, the researcher was used close-ended Likert-type questionnaires. This questionnaires' type is selected because is less costly and less time consuming, easy to administer to a group of peoples simultaneity than other measurement tools. The questionnaire is composed of three different sections. Sections I consisted of questions related to the socio-demographic characteristics of respondents, section II consists of questions related to selected SCM practices considered as the independent variables namely Strategic supplier's partnership, the commitment of management, information sharing, and Internal Integration and questions stated under Organizational performance and the section III consists of interview questions that were conducted operational manager of ethiotelecom. and most of the questions were stated in a six-point Likert scale the Likert scale ranges from 'strongly agree' to 'strongly disagree' (6 strongly agree 5- agree 4=- inclined to agree 3-inclined to disagree 2 disagree 1- strongly disagree). 3.7.3 pilot test

The pilot study was conducted to test the reliability and validity of the questionnaire. This has been undertaken to test the reliability and validity of data collection instruments (Sekeran 2003). According to Dempsey (2003), a pilot study is a process of conducting a preliminary test of data collection instruments to eliminate data collection problems that may lead to low data validity and reliability. The pilot study is thus conducted to help in the identification of errors in data collection instruments and make the necessary adjustment to ensure valid and reliable data was collected.



### **3.7.2 Validity Test**

Harper and Thompson (2011) note that for data collection tools to provide useful results, the questions must be both valid and reliable. According to Creswell (2009), the usual procedure in assessing the content validity of a measure is to use a professional or expert in a particular field which helps in discovering question content, correction in the wording and the sequencing problems before the actual study as well as exploring ways of improving the overall quality of the study. This study was used to maximize the opinions of experts in the field of study especially university research instructors specifically the main advisor and the co-advisor to establish the validity of the research instrument. Also, the researcher used the opinions of experts of the organization for the questionnaires whether they are correctly processed or not. This facilitated the necessary revision and modification of the research instrument thereby enhancing validity.

### **3.7.3 Reliability test**

Reliability of the data collection instrument is the consistency of measurement and is frequently assessed using a test-retest reliability method (Cooper and Schinder, 2014). Reliability enables the researcher to identify the ambiguities and inadequate items in the research instrument; where the instrument reliability is the dependability, consistency, or trustworthiness of a test. The scores were tested using Cronbach's Alpha for the data to be reliable for those questionnaires raised by the Likert scale. According to George & Mallory (2003), it is recommended that if a Cronbach's coefficient of measurement scale exceeds 0.70 is acceptable as an internally consistent so that further analysis can be carried unless it is unacceptable. They indicated the alpha in the following rule of thumb concerning the reliability coefficient. Accordingly, the result of all variables of this study is enough, and overall it is reliable because the Cronbach Alpha is 0.912, The Cronbach's alpha for this study was 0.912, an indication of the acceptability of the scale for further analysis.

*Table 3.2 Reliability of measurement instrument each variables Summary (Cronbach's Alpha)*

<b>Category of questionnaire or Scale</b>	<b>Cronbach's Alpha</b>	<b>No of Items</b>
Strategic suppliers partnership(SSP)	.756	6
commitment of Managements(CM)	.763	4
Information Technology(IT)	.732	5
Customers Relationships(CRS)	.721	5
Internal Integration	.814	4
Organizational performance	.898	7
Total	0.912	31

Source: **Author's illustration based on SPSS output,2021.**

Table 3:2 of above shows that the Cronbach's alpha for this study was 0.912, an indication of the acceptability of the scale for further analysis.

## 3.8 Model Specification and Description of Study Variables

### 3.8. 1 Model Specification

To found the cause and effect relationship between dependent and independent variables, the study has used a multiple regression model to measure the level of a significant relationship between the dependent and independent variables.

The model applied to show this influence is presented as follows;

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon$$

**Where:**

Y = Organizational performance of ethio telecom.

$\beta_0$  = Constant (value of Y when X1, X2, X3, X4 and X5=

0)  $\beta_1$  = Regression coefficient for strategic Supplier relationships

X1= Strategic supplier partnership

B2=Regression coefficient for strategic partnership

X2= Commitment of management

B3=Regression coefficient Commitment of management

X3= = information Technology

B4=Coefficient of regression for information **Technology**

X4= Customer relationship

B5=Coefficient of regression for Customer relationship

X5= Internal integration  $\varepsilon$  = the error

## **3.8.2 Description of Study Variables**

### **3.8.2.1 Independent variables**

In this study, the independent variable (Strategic supplier's partnership, commitment of management, information sharing, customer relationship, and Internal Integration) are used as independent variables for t SCM practice of the Ethio telecom, Jimma district. Each independent variable was extracted from the stages of SCM practices from the literature review and also the established relationship of these independent variables with Organization performance. Those variables affecting employee Supply chains are the domain considered as first-order independent variables.

### **3.8.2.2 Dependent variable**

The dependent variable is Organizational performance measured by efficiency, effectiveness, and flexibility to customers is considered as the dependent variable.

## **3.9. Ethical Consideration**

Research ethics deals with how to treat those who participate in the studies and how the data is handled after collecting them. In this regard, this study is prepared by the survey questionnaire clear introductory and instruction part regarding the purpose of the research and ethicality, and respondents were not enforced to return the questionnaire. The researcher keeps respondents privacy, anonymity (i.e protecting the identity of the specific individual from being known), and confidentiality which keeps the information in secret) (THORNHILL, 2019)

## CHAPTER FOUR

### RESULTS AND DISCUSSIONS

#### 4.1. Introduction

This chapter presents the results and analysis of data collected Via questionnaires and semi-structured interviews. This chapter is organized into two parts, the first part consists presentation of the demographic profile of respondents, description of the supply chain management practice of ethiotelecom Jimma district by using descriptive statistics (frequency, percentage, mean and standard deviation). The second part contains inferential analysis i.e. The Pearson Product Moment Correlation Coefficient and multiple linear regression analysis with discussions.

#### 4.2. Response Rate

217questioners are collected out of 235 distributed questioners to the selected respondents that make 92% response rate and 8% non-response rate. However, to reduce the possible errors in the data administration, immediately after the collection of data the researcher has cleanses the outlier, missing values, and discrepancies. Finally, 212 complete respondents' data are used for the survey analysis using SPSS 20.0. Fowler (1993) recommends 75% as a rule of the thumb for minimum responses.

*Table 4.1 Response Rate of Questionnaires*

<b>Responses</b>	<b>No of Questionnaires</b>	<b>Percentage</b>
<b>Administered questionnaire</b>	235	100.0%
<b>Unreturned</b>	18	8%
<b>Functional questionnaires</b>	212	92%

Source: Own Survey, 2021

### 4.3. Descriptive Analysis

In this part of the analysis, the researcher has divided and described it into two parts. The first part focuses on the demographic information of the respondents so frequencies and percentages are used for the analysis. The second part focused on the basic questions which are intended to acquire the perceptions and the feeling of the respondents towards supply chain practices i.e. Strategic supplier partnership, Commitment of management, information sharing, customer relationship, and internal integrations in the organization, and also focuses on the perceptions of the employees towards the organizational performance of the company. Therefore, for the analysis mean, and standard deviations are used to describe the findings.

### 4.3.1 Demographic Data of the Respondents

The profile of the respondents in the selected division of ethiotelecom re summarized into five parts in this survey. The first one is the gender of respondents, and the second one is the age of respondents, and the third one is an educational qualification, the fourth one is employee experience in the selected in the company, and the fifth one is their division of the respondents, all of them is described by table format, and some selected are described by figure

*Table 4:2: Demographic data of the respondents*

<b>Variable</b>	<b>Category</b>	<b>Frequency</b>	<b>Percent</b>
Gender	Male	162	76.4
	Female	50	23.6
Age	Less than 30	60	28.3
	31-40	83	39.2
	41 – 50	46	21.7
	above 50	23	10.8
Education	Certificate/diploma	2	0.9
	Bachelor’s degree	194	91.5
	Post Graduate degree /Masters	16	7.5
	Doctorate degree	0	0
Experience	Under two Years	3	1.4
	2-5 Years	40	18.9
	6-10 Years	108	50.9
	Above 10 years	61	28.8
Division	Supply chain	8	3.8
	Facility and fleet	31	14.6
	Sales	56	26.4
	Power and environmental	14	6.6
	Fixed/wireless network	79	37.3
	Finance and internal audit	21	9.9
	communication information system	2 1	0.9 0.5

**Source: Author’s illustration based on SPSS output,2021.**

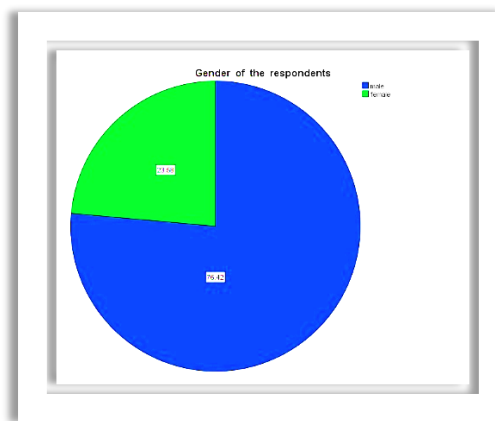
presents a demographic analysis of the respondents. This analysis includes the gender of respondents, their age, educational levels, experience in the company, and their educational level., and in the division, they work. As is shown in table 4:2 above 76.4% of the respondents are males but the remaining 23.6% of the respondents are females. This suggests that the employees in the region are dominated by male employees.

About 39.2% of the respondents are in the age range of 31-40 and 28.3% of the age respondents are less than 30 years. These two categories comprise 86.1% of the respondents. But only 10.8% of the respondents are in the age category of above 50 years. These suggest that both supply chain and management departments of the company are comprised of a younger workforce.

Divisional-wise, about 37.3% of the respondents work in under network division and 26.4% of respondents work in the sales division, 14.6% of respondents work facility divisions. This implies that most of the internal supply chain issues are included in the organization side, to get information, in addition to the above-summarized tabs, each graphical illustration of demographic data is described below.

### 4.3.1 Gender

Figure 4.1 graphical representatives of the gender of the respondents



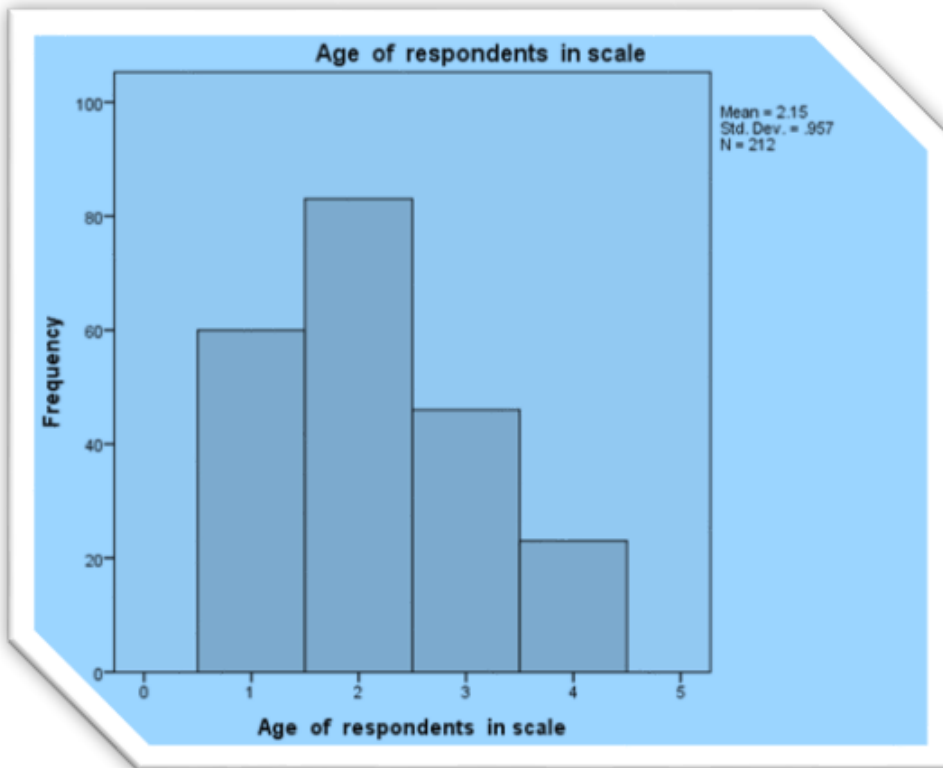
Source: Own survey data, 2012

As it is explained in the tables forms, the above pie chart can also depict that, most of the employees of the regions are dominated by males, and this implies that most of the employees of Jimma ethiotelecom and supply chain management department in the region are more dominated by males.



### 4.3.2 Age Distribution of Respondents

Figure 4:2 graphical representatives of the Age of the respondents



Source: Own survey data, 2021

In addition to the summary of the data in table form, the above digraph represents shows that there the most of employees age in the region are lies in is less 40, and followed by less than 30and this depicts that most of the employees of supply chain partners in company side are youngest.

### 4.3.3 Division of the respondents

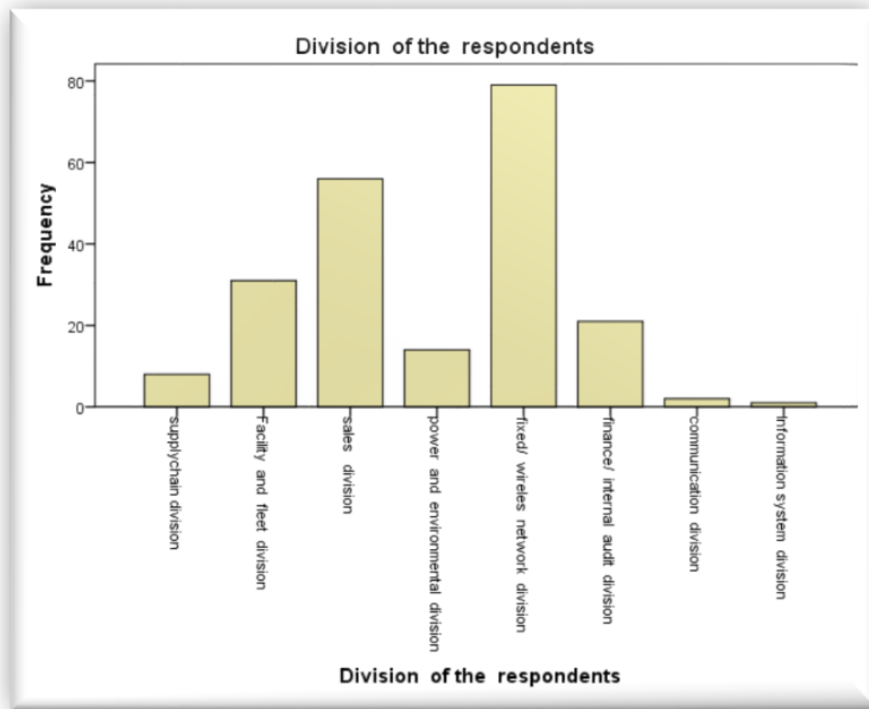


Figure 4.3 graphical representatives of the Division of the respondents

**Source:** Own survey data, 2021

The above digraph clearly shows that since supply chain broad concept, it is not only limited to a warehouse, or procurement, this data is taken not only from one division, it includes around eight divisions, and this implies that almost all selected division is included to collect data so that even if the data is collected organization sides of supply chain partners, all division of representative is included to collect the data, that means is not limited to one division, this is done by the researcher to fill the gap that most of supply chain research is collected only in one division.

### 4.3.2. Descriptive Analysis on Variables' Used

Supply Chain Management Practices of ethiotelecom Jimma branch is presented and discussed for each parameter of supply chain management with respective tables through mean and standard deviation.

### 4.3.1. Descriptive statistics of Strategic Supplier Partnership practice

Strategic Supplier Partnership is the first dimension that is given for staffs of ethiotelecom, Jimma district subset of respondents responded to the questionnaires, which the researcher was intended to know whether there is a relationship between Strategic Supplier Partnership and Organizational performance, and also to know what is the practice of strategic supplier partnership practice would like in the company. The level of agreement from the participants regarding Strategic Supplier Partnership statements is shown in Table (4:3) below:

*Table 4:3. Mean and Standard deviation for Measures of Strategic Supplier Partnership*

<b>Variables</b>	<b>Mean</b>	<b>Std. Deviation</b>
Quality is our first criterion in selecting suppliers	2.35	1.165
The company measures the performance of suppliers continuously	2.32	1.18
The company supports suppliers to improve their product quality	2.49	1.186
Key suppliers are included continuous improvement programs	2.58	1.196
Key suppliers are included in planning and goalsetting activities.	2.46	1.233
Problems are jointly solved with suppliers	3.42	0.978
The overall perception of employees towards the Strategic Supplier Partnership practice.	2.60333	1.156333

**Source: Author own Survey illustration based on SPSS output,2021**

1=Strongly Disagree, 2= Disagree, 3= inclined to disagree 4=inclined to Agree, 5=Strongly Agree 6= strongly agree.

The result of descriptive statistics in the above (table 4:3) shows that (on average) of respondents have disagreed about the Strategic Supplier Partnership practice of the ethiotelecom, Jimma district. The overall mean for all dimensions under Strategic Supplier Partnership practices shows that the mean value of 2.603333333, which shows that majority of respondents were Disagree with the strategic supplier partnership practice of the company, and a detailed explanation of each variable with interview result is explained in below:

The regard of, Practices of Strategic Supplier Partnership are presented Table 3. above. The level of practice is presented by using mean and standard deviation. Based on previous literature the researcher developed 6 questions to identify practices of the strategic supplier partnership.

To identify the criteria for the selection of strategic suppliers the researcher asked the respondents whether the quality is an issue or not. The responses indicated that the company does not more use supply quality as the first criteria of supplier selection. In addition to basic questions developed to get more reliable data the researcher made an interview with the supply chain manager and the manager responds that the ethiotelecom are currently used cost as the first criteria, even though we consider the quality, our first criteria are low cost, therefore, this indicates that there is the consistency of ideas exist.

In second questions, to measuring the performance of suppliers, the company the mean 2.32 shows that on the average majority of the respondents disagree, on the statements, and interview result shows that the company can't measure the performance of suppliers on periodically level, the at the regional level we start to measure and reward the suppliers only once, but it is not continued, this indicates, to bring strategic alliance partnership, needs to measures the performance of suppliers periodically.

In the third question, to support the company provides support to suppliers to improve the quality of supplies. The mean of 2.49 Shows majority of the respondents disagree with the statements, and According to the interview response, the company is has developed a strategy now to support the quality of suppliers, but still, now there is our company is no do any things to improve the quality of suppliers.

The mean value of 2.58 indicates that the majority of the respondents disagree with the statements, and the key suppliers are not involved in continuous improvement programs in the company practices. The interview result shows that the practice of the company especially at the regional level, there is little way to work with key suppliers, b/c there is a shortage of supply is exist on our region, and still, now we are working as we get the suppliers, and even though some key suppliers exist they are not developed, and we are working to select the best potential suppliers to work with them, and still we are now they are not included on continuous improvement program, but there is some start of work, to evaluate, and work with the selected suppliers.

The mean value of responses for key suppliers' inclusion in planning and goal setting activities is 2.46 suggesting that the respondents disagree on the involvement of key suppliers in planning and goal setting activities. The standard deviation of this response is 1.233 suggesting that there is some variation from the mean response. The interview also supports that, during the planning activity the company can't assess the performance and willingness of key suppliers to set goals.

The strategic partnership helped the company to solve problems jointly with suppliers. Responses with the mean value of 3.42 indicated that the result is inclined to disagree so that still there is a problem, the company is jointly solving problems with suppliers with s Commonly solving problems is another benefit of strategic partnership. The standard deviation of 0.978 indicates that the respondents have a similar outlook about solving problems jointly with strategic partners. This implies that the and strategic partners need to be an improvement to develop good coordination in solving problems.

### 4.3.2. Descriptive statistics of Commitment of Management practice.

The commitment of management is the second dimension that the staffs of ethiotelecom, Jimma district subset of respondents responded to the questionnaires, which the researcher was intended to know whether there is a relationship between the commitment of management and Organizational performance. and also to know the commitment of management practice would like in the company. The level of agreement from the participants regarding the commitment of management statements is shown in Table (4.4) below:

*Table 4 4. Mean and Standard deviation for Measures of Commitment of Management practice*

Variables	Mean	Std. Deviation
The manager shows a high commitment and support for the activities of the SC.	2.30	.822
Managers identify changes in the marketplace and commit resources quickly to new courses of action.	2.59	1.369
CMGT3(The managers understand and are committed as part of the supplier chain.	2.30	.817
Managers are used to making plans and follow up.	3.40	.961
Average Commitment of Management	2.6475	0.99225

Source: **Author own Survey illustration based on SPSS output,2021**

1=Strongly Disagree, 2= Disagree, 3= inclined to disagree 4=inclined to Agree, 5=Strongly Agree 6= strongly agree

From the value above (table 4;4) around half of the respondents have negative feelings about the commitment of the management. The total perception of employees about the commitment of the management was lying on the mean value of 2.6475. From this, we understand that majority of respondents are inclined to disagree I about the commitment of The detailed analysis is with each variable, and interview results are discussed below

With regards, the managers show high commitments, and support for the activities of supply chains, the mean is 2.3, which indicate that majority of them on average disagree with the statements, In addition to the above, with regards to whether the managers identifies changes in market places and commit resources quickly to a new course of actions mean 2.59, this indicates that still the response show disagreement on the statements, and managers, cant perform regarding activities to respond to environments quickly, and s.d 0.575 is shows there is little variation in answers deviates from the means. In number three, The managers understand and are committed as part of the supplier chain the mean 2.3 indicates that, most of the managers are not act as part of supply chains, and there is a sense of disintegrations, s.d 0.863 indicates there are little deviations from the means, and At fourth, Managers are used to making plans and follow up, the mean (3.4) indicates that the managers perform activities of planning and follow-ups concerning supply chains achievements 0.86 there is little deviated from the means.

### 4.3.3 Descriptive statistics of Information sharing practice.

The third dimension of the respondents represents the information-sharing practice at ethiotelecom, Jimma district, and its effects on the organizational performance. Table (4.5) describes the respondent's level of agreement concerning the information practice of the company.

*Table 4.5 Mean and Standard deviation for Measures of Information sharing practice*

Variables	Mean	Std. Deviation
The company has a network of IT systems (ERP, CRM, SCM, Intranet, etc.) highly integrated with key suppliers.)	3.11	1.141
(Information exchange between our Supply chain partners and us is accurate)	2.38	1.185
There is a complete information flow between the company and supply chain partners.	3.85	1.205
The company uses the most advanced IT for the Supply Chain	3.07	1.03
There is reliable information exchange between the company and supply chain partners	2.38	1.185
Average Information sharing practice	2.958	1.1492

Source: **Author own Survey illustration based on SPSS output,2021**

1=Strongly Disagree, 2= Disagree, 3= inclined to disagree 4=inclined to Agree, 5=Strongly Agree 6= strongly agree

From the value of the above table, 4: 5 around more than half of the respondents have negative feelings about the information-sharing practice of the ethiotelecom. The total perception of employees about information sharing has lain on the mean value of  $2.958 \approx 3$ . From this, we understand that majority of respondents are inclined to disagree about information system of the company, and detail of each analysis is described clearly as below.



With regards to the company has a network of IT systems (ERP, CRM, SCM, Intranet, etc.) highly integrated with key suppliers, means of 3.11. this indicates the majority of the respondents are inclined to disagree response, qualitative data of interviews, and the interview result shows that there is a problem related to the company network, especially on regional and local level suppliers, the company It system is not interconnected with the suppliers, and as we get information from the manger, Erp, and other company network is is only applicable for global purchase suppliers, at the regional level, the It system is not connected, and it needs to be improved.

And therefore, the response rate of the is inclined to disagree as it is supported by the interview result, and the Information system is not integrated to key suppliers, it needs to be improvements. and in addition to this, the quality of the information in supply chain partners is limited in terms of accuracy, completeness, and reliability of the information needs to improvements, and with regards to completeness 3.85indicates most of the respondents are agree on statements, and with regards to also the company is currently not using the most advanced it the response is inclined to disagree, and the interview result shows, that the existing it is good but not advanced and it needs to be updated.

#### 4.3.4. Descriptive statistics of Customer Relationship Management practice

The fourth aspect represents the Customer relationship management practice and its effect on the organization performance in ethiotelecom, Jimma district. Table (4.6) illustrates the respondent's agreement level regarding Customer relationship management practices statements.

Table 4.6 Mean and Standard deviation for Measures of Customer relationship management practice.

Variables	Mean	Std. Deviation
There is frequent interaction with customers to set reliability, responsiveness, and other standards	2.86	1.762
The company frequently measures and evaluates customer satisfaction.	3.11	1.142
The Company frequently determines future customer expectations.	3.11	1.136
The company facilitates customers' ability to seek assistance from us.	3.36	0.976
Periodically, the company evaluates the importance of the relationship with customers.	3.36	0.976
Average Customer relationship Management	3.16	1.1984

Source: **Author own Survey illustration based on SPSS output,2021**

1=Strongly Disagree, 2= Disagree, 3= inclined to disagree 4=inclined to Agree, 5= Agree 6= strongly agree

From the value of above table 4. The total perception of employees about the customer relationship was lying on the mean value of  $3.16 \approx 3$ . 2From this we understand that majority of respondents are inclined to disagree and the detail of each variable is explained below.

Table 4 above presents the practices of customer relationships in the company. The researcher used 5 sub-variables to identify practices of customer relationships and sorted them with the descending mean value. Overall all practice of customer relationships is computed by transforming sub-variables by using mean.

The responses with the mean value of 2.86 indicate there is inclined to disagree response, interview response with regards to frequent interaction with customers to set reliability, responsiveness, and other standards are, at the regional level, there are no such kinds of interaction with the customer to set standards, but as shown on response, on a company level, there is a plan form, which includes which deals with the customer to set reliability, responsiveness, and other standards, therefore, the rate is inclined to disagree as the interview result clearly shows.

and the mean value for the statement 'the company frequently measure and evaluate customer satisfaction is 3.11 suggesting that the respondents' response is inclined to disagree, the interview result shows that there is no practice of measuring customer satisfaction on a regional level, and it is all managed in centrally, therefore, the response rate is inclined to disagree.

The respondents were asked to give their responses for practice in the company in determining the future expectations of the customers. Responses with the mean value of 3.11, indicates, the response is inclined to disagree, on the practice of the company for determining future customer expectations, the interview result shows, for response to this question, most of the time, demand is not determined properly, and there is the practice of customer itself ask different demand, and from the company side, there is a problem to determining future customer expectation, by analyzing forecast. This implies that the needs of the customer are changed, at times, but the company needs to be improved on determining future customer expectations, and even to create demand for the customers.

With regards to The company facilitates customers' ability to seek assistance from us, the mean 3.36 indicates the majority of the respondents are inclined to disagree on statements, and the interview result shows that According to the interview response, there is some assistance is exist such as discount service, another loan facility which is recently started, for example, providing smartphone by loan, but still there is no applied well.

This implies that there are still gaps or problems regarding assisting the customer, but some start. The standard deviation of 0.976 suggests there is little variation from the common mean.

The mean value for ‘the company periodically evaluates the importance of a relationship with customers’ is 3.36 suggesting that the respondents agreed that the company evaluates relationships with customers based on the regional level. The standard deviation for this statement 0.806 suggesting that there is little variation of agreement on the statement.

#### 4.3.5. Descriptive statistics of Internal Integrations practice

The fifth dimension represents the Internal Integrations and its effect on organizational performance ethiotelecom, Jimma District. Table (4:7) represents the respondent’s level of agreement concerning Internal Integrations.

*Table 4:7. Mean and Standard deviation for Measures of Internal integration practice*

Variables	Mean	Std. Deviation
There is a high level of coordination between different departments in our firm.	3.95	0.943
The company can handle unexpected challenges within different departments in our firm.	3.91	0.942
The company has a network of IT systems (ERP, CRM, SCM, Intranet, etc. Highly integrated across the functional units.	3.87	0.955
Our firm formulates quality circles and cross-functional teams for solving problems and/or developing processes, products, and services.	3.4	0.961
Average Internal Integration	3.7825	0.95025

Source: **Author own Survey illustration based on SPSS output,2021** 1=Strongly Disagree, 2= Disagree, 3= inclined to disagree 4=inclined to Agree, 5=Strongly Agree 6= strongly disagree

As shown in the above table 4 majority of the respondent have positive feelings regarding the Internal Integrations of the company and at the mean value of 3.7825. So, it is possible to say that majority of the respondents were inclined to agree with the Internal practice of the theEthiotelecom.

The above table 4: 7 shows that: in the first questions, there is a high level of coordination between different departments in our firm the mean of 3.95 implies that the majority of the respondents are inclined to agree on the statements,

and this shows that there is coordination b/n different functional units in ethiotelecom, Jimma district and s.d 0.907, shows that there are little variations from the means.

The company can handle unexpected challenges within different departments in our firm., the mean 3.91, depict that there is the different department can solve the unexpected problem jointly, and the interview result depicts that the manager responds this question, even though there is a problem on consistency after the problem is solved, there is the practice of solving the problem with different departments to solve an unexpected problem, and s.d 0.77 shows that there are little variations from the mean. In the question of The company has a network of IT systems (ERP, CRM, SCM, Intranet, etc.) highly integrated across the functional units the mean 3.87 shows the many respondents are inclined to agree on the statements, and the interview result shows that there is the there is indifferent functional unit there it system is integrated, for example, the finance department is integrated with supply chain departments, again they are integrated with sales departments. , and this implies that there is an integrated IT system across, different departments of ethiotelecom, Jimma district,

With regards to Our firm formulates quality circles and cross-functional teams for solving problems and/or developing processes, products, and services the mean 3.4 shows there is the majority of the respondents inclined to disagree on the statements, the interview result shows that, with regarding quality circle practice, previously there are such kinds of practice in the company, but now there are no such kinds of practice to solve the inter-departmental problem, therefore there limitations on solving the problem in different departments by use quality circle, this implies needs of improvements, to create different department teams to solve the problem.

#### 4.3.6. Descriptive statistics of Organizational Performance variables.

**Table 4:8 Mean and Standard deviation for Organization performance.**

<b>Variables</b>	<b>Mean</b>	<b>Std. Deviation</b>
The company offer product or services at reasonable prices.	2.35	1.161
The Company delivers quality products and services to the customers whenever needed (On reasonable response time).	2.3	1.174
The company planning is always meet the customer need(Correct on our forecasting) specifically at the Regional level.	3.4	0.966
The company planning(budget and optimization plan) is Accurate)	3.39	0.955
Quality standards of materials received from vendors are as per the specification.)	2.45	1.233
(We provide dependable delivery(i.e Dependability is an operational performance objective that measures how dependable the company is when it comes to timely delivery of the product to customers by planned prices and costs.)	3.36	0.976
The company delivers products and services to market quickly.	3.4	0.961
<b>Average Organizational performance</b>	<b>2.95</b>	<b>1.0608</b>

Source: **Author own Survey illustration based on SPSS output,2021**

1=Strongly Disagree, 2= Disagree, 3= inclined to disagree 4=inclined to Agree, 5= Agree 6= strongly agree

From the value of the above table 4:8, around half of the respondents have disagreed about the performance of ethiotelecom, Jimma district. The total perception of employees about the performance of ethiotelecom was lying on the mean value of 2.95. From this we understand that majority of respondents response is inclined to disagree about performance of the company., and detail explanation with interview result is shown below.

As depicted in the above table ‘The company offer product or services at reasonable prices’ mean 2.35 implies that most of the responses imply inclined to disagree with the statement which set as performance, for delivering the right product at the right prices, and it needs to be improvements, standard deviation 0.981 shows that there are little deviations from the means.

With another statement “The Company delivers quality product and service to the customers whenever needed (On reasonable response time)”, they mean 2.3 shows that still there are need improvements to delivering the right product at right time, and the s.d 1.041 shows there are some variations from the means, and, and timely delivering the product at the regional level is still needs some improvements,

The other question is that The company planning is always meet the customer need(Correct on our forecasting) specifically at the Regional level’, the mean 3.4, this shows that majority of the respondents are inclined to disagree on statements, and standard deviation 1.022 shows there is a problem on planning and some variation from the mean, the interview question is ae implies that most of our planning is not meet the intended results in terms of both financial and customer perspectives based on our experience, and especially at the regional level, our plan is not achieved, and it needs to a lot of works currently.”

Their other variables are that “The company planning(budget and optimization plan is Accurate”’, The mean and sd( 3.39), this implies that majority of the respondents inclined to disagree on statements, and to clear this the researcher use interview results and, and that, our regional planning is not accurate especially at a regional level, and they told me the reason within this two years our regions, highest budget utilization, we the first on budget, but last on performance based on the internal report of 2021 of second courter performance, therefore, this implies that it need to be improvements.

With about “Quality standards of materials received from vendors are as per the specification”, the mean 2.78 and standard deviation 1.233, indicates that most lies in inclined to disagree on the term, and the s.d 1.233, shows there are some variations from the means, and the Interview result can also show that, most of the time when the material is purchased at regional level the first criteria

is cost, not quality, that doesn't mean that we compromise the quality, and most of the material is not purchased as per quality specification since we do not include them in specification on first.

We provide dependable delivery(i.e. Dependability is an operational performance objective that measures how dependable the company is when it comes to timely delivery of the product to customers by planned prices and costs, the mean of 3.36 implies that the majority of the respondents inclined to disagree on statements and to clear the statements, and the researcher use interview result there is a gap on service dependability, by providing the combination of providing the right product, at a reasonable price with needed time, but still, the performance is poor and needs to work. and s.d.0.976s how that lies in disagreement on the statement, and s.d.1.248, and With regards to The company delivers products and services to market quickly the mean 3.4and standard deviation of 0.961, implies that there the majority of the respondents again inclined to disagree nor agree on statements, and the interview result shows that on terms, and, at the company as a whole we are now not delivering the producer quickly to customer, now the customer need is increasing, but our company is not delivery the product quickly, and this one problem of the supply chain as a whole, and most of the time, the product is delivered after a lot of request from customer and, and the trend is not continuous, it on working to updates.



## 4.4. Inferential Analysis

### 4.4.1. Multiple linear regression assumptions

Before joining regression analysis, it is essential to test assumptions of multiple linear regression analysis Model (Keith, 2006; Pallant, 2005). Therefore, each assumption result was done as discussed below:

#### 4.4.1.1.1 Normality test

One of the important diagnostics tests conducted in this study is the normality assumption (i.e. the normally distributed errors). The normality assumption is about the mean of the residuals is zero. Moreover, Normality tests are used to determine whether a data set is well-modeled by a normal distribution or not, or to compute how likely an underlying random variable is to be normally distributed (Gujarati, 2009). Therefore, the researcher has used Histogram methods of testing the normality of the data. According to Fidel,(2001), if the residuals are normally distributed around its mean of zero, the histogram should be bell-shaped and regression standardized residual plotted between 3.3 and  $-3.3$ . So that, from figure 4.5 below, it can be noted that the data conforms to the normality assumption (Stevens, 2009). As we can understand from the histogram and p-p plot depicted below, the residuals seem normally distributed and the residuals are distributed with a mean of 0 and standard deviation of 0.988 which is approximately 1. Thus, the model fulfills the assumption of being normally distributed. Moreover, in the normal probability plot is expected that our points will lie in a reasonably straight diagonal line from the bottom left to the top right which can be confirmed from the p-p plot depicted below. This would suggest no major deviations from normality, and in addition to table 4.10, table 4.11 also shows that the data is normally distributed since p-values are greater than 0.05 in both cases.

*Table 4.10 Residuals Statistics on Normality Test*

Residuals Statistics					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.0604	5.0895	2.9501	.77620	212
Residual	-.88471	.85800	.00000	.32065	212
Std. Predicted Value	-2.435	2.756	.000	1.000	212
Std. Residual	-2.726	2.644	.000	.988	212

a. Dependent Variable: Organizational Performance

Source: **Author own Survey illustration based on SPSS output,2021**

*Table 4.11; Tests of Normality*

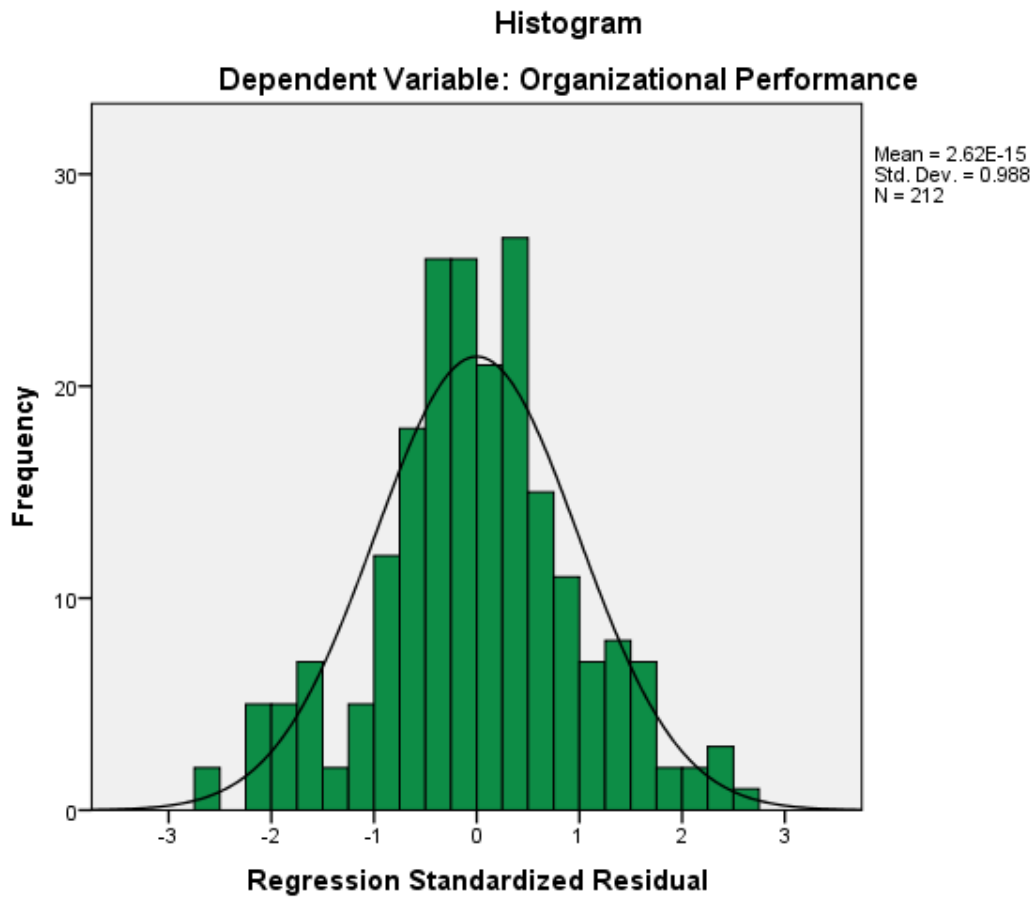
Tests of Normality						
	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	0.056	212	.200*	0.989	212	0.09

\* This is a lower bound of the true significance.

a Lilliefors Significance Correction

Source: **Author own Survey illustration based on SPSS output,2021**

*Figure 4.4 Normality test Histogram*



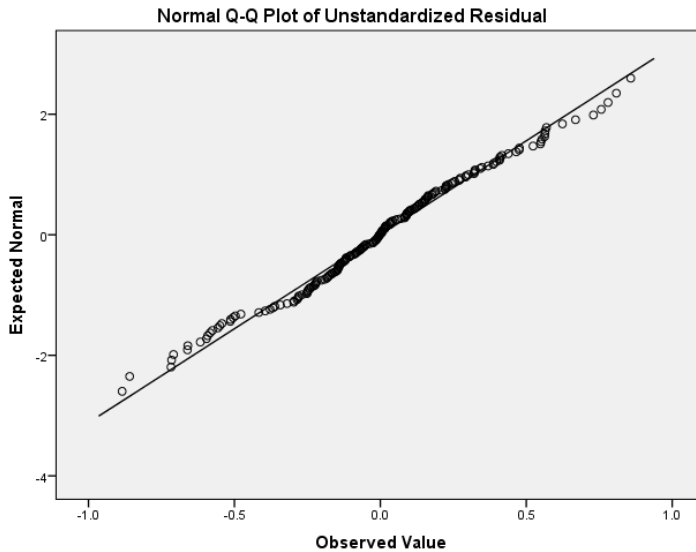
Source: Author own Survey illustration based on SPSS output,2021

A plotted data on the histogram (Figure 4.4) outlines the scores were approximately normally distributed in the graph.

#### 4.4. 1.1.2 Linearity test

This is slightly different from simple linear regression as we have multiple explanatory variables. Multiple regressions can accurately estimate the relationship between dependent and independent variables, when their relationship is linear (Keith, 2006). If linearity is violated, all the estimates of the regression including regression coefficients, standard errors, and tests of statistical significance may be biased (Keith, 2006). This can be best checked by p-p plot residual as shown in figure 4.5. When, p-p residual looks at a straight line, the relationship between the dependent and independent variables is linear. Therefore, there is no linearity problem with the data used for this study.

*Figure 4.5 P-P plot linearity test results*



Source: **Author own Survey illustration based on SPSS output,2021**

Inspection of the P-P plot in above Figure4: 5 shows a linear relationship exists among variables in the study.

#### 4.4. 1.1.3 Multi-Collinearity Diagnostics Test

If an independent variable is an exact linear combination of the other independent variables, then we can infer that the model suffers from perfect collinearity. According to Gujarati (2003), the Multi-Collinearity test helps to identify the correlation between explanatory variables and to avoid the double effect of the independent variable from the model. When independent variables are Multi-Collinearity, there is overlap or sharing of predictive power. This may lead to the inconsistent effect, whereby the regression model fits the data well, but none of the explanatory variables (individually) has a significant impact in predicting the dependent variable. For this purpose, variance inflation factor (VIF) and tolerance test were employed to check whether or not Multi-Collinearity problem exists in explanatory variables (Strategic suppliers, and Commitment of Management, Information Technology, Customer Relationship Management, and Internal Integrations,). If the value of VIF is less than 10, there is no Multi-Collinearity between the explanatory variables, and on the other hand VIF greater or equal to 10 is an indicator of a serious Multi-Collinearity problem. In addition, Tolerance is an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model and calculated using the formula for each variable. If this value is very small (less than .10), it indicates that the multiple correlations with other variables are high, suggesting the possibility of Multi-Collinearity (Keith, 2006; Shieh, 2010).

Collinearity Statistics		
	Tolerance	VIF
Strategic Supplier Partnership	0.528	1.895
Internal Integrations	0.879	1.138
Information Technology	0.578	1.731
Customer Relationship Management	0.723	1.384
Commitment of Management	0.709	1.41

Source: **Author own Survey illustration based on SPSS output,2021**

*Table 4.12: Results of Variance Inflation Factor and Tolerance*

Table (4.12) shows that VIF values for each dimension of the independent variables are less than 10, with a tolerance range (0.528-0.879). This indicates that there is no Collinearity diagnostics problem in the regression model (Gujarati and Porter, 2003).

**4.4. 1.1.4 Autocorrelation test**

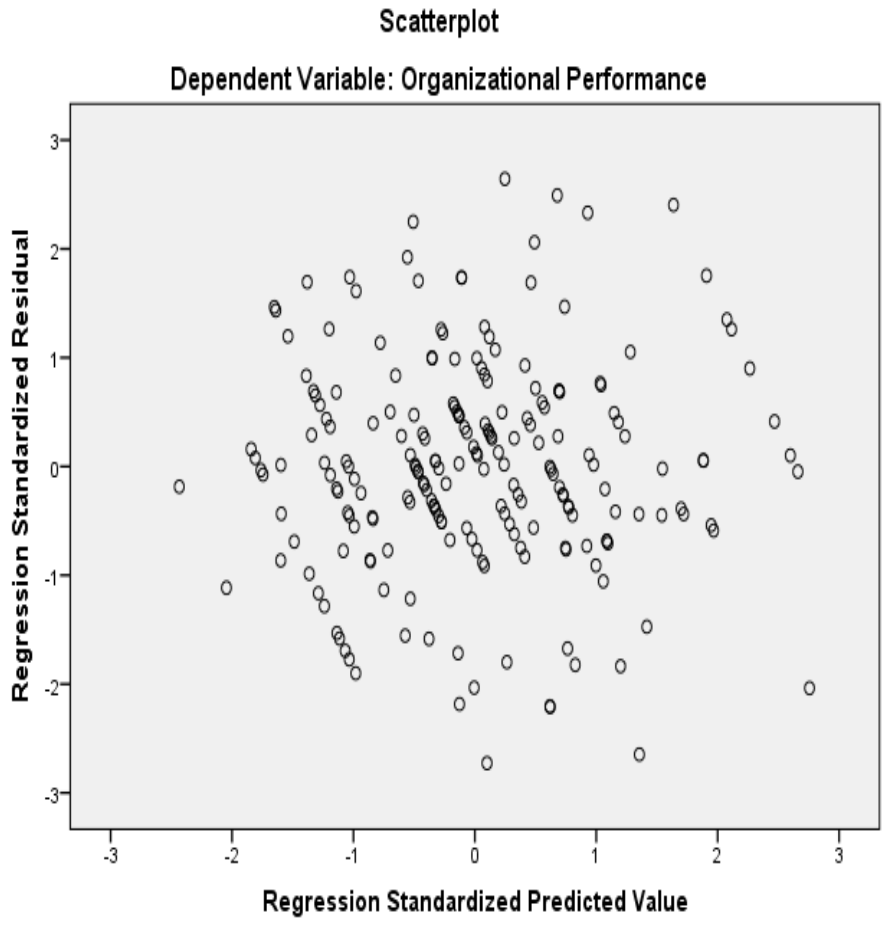
For any two observations, the residual terms should be uncorrelated (or independent). This eventuality is sometimes described as a lack of autocorrelation. Even though most of the time check of Autocorrelation is mandatory for panel data, the researcher used and tested this with the Durbin–Watson (DW) test, which tests for serial correlations among errors. A value substantially below 2 (and especially a value less than 1) means that the data is positively autocorrelated, i.e. on average, a data element is close to the subsequent data element. A value of  $d$  substantially above 2 means that the data is negatively autocorrelated, i.e. on average a data element is far from the subsequent data element. Thus the Durbin-Watson test result obtained was 2.179 which means the data is negatively autocorrelated.

#### 4.4. 1.1.5. Heteroscedasticity Test

Homoscedasticity is the extent to which the data values for the dependent and independent variables have equal variances (Field 2009). At each level of the predictor variables, the variance of the residual terms should be constant. This just means that the residuals at each level of the predictors should have the same variance, therefore checking for this assumption is helpful for the fitness of the regression model. In this regard, to plot the homoscedasticity analysis, as suggests by Field (2009), the researcher plot the standardized residuals, or errors (ZRESID) on the Y-axis and the standardized predicted values of the dependent variable based on the model (ZPRED) on the X-axis and the result is presented as follows.

In this regard, as Field (2009) describes, the graph of \*ZRESID and \*ZPRED should look like a random array of dots evenly dispersed around zero, if the assumption of homoscedasticity has to be met. Likewise, as shown in the below figure, the points are randomly and evenly dispersed throughout the plot and there are no obvious outliers on this cloud of dots which are spaced around zero. According to Garson (2012), homoscedasticity helps to check for the relationship under investigation is the same for the entire range of the dependent variable and lack of homoscedasticity is shown by higher errors (residuals) for some portions of the range, which can be seen on the scattered plot. Therefore, as shown in figure 4.7 the data did not violate the heteroscedasticity assumption and instead, it was homoscedastic.

*Figure 4.6 scatter plot Heteroscedasticity test results*



Source: Author own Survey illustration based on SPSS output,2021



#### 4.4.2. Pearson Correlation Analysis

Correlation is a statistical tool to determine the strength of the relationship between two suitability variables. Therefore, a correlation matrix is an interpretation of the correlations based on the significance of the correlation between two or more variables. The ranges of r value from -1 to +1, which used to describe a direct relationship between two variables. Among them, minus means the relationship between two variables is negative, and if the greater the absolute value of the correlation coefficient, the stronger the relationship. It shows that if one variable becomes bigger and another variable will become smaller. For plus sign means a positive relationship between two variables, a variable tends to directly become bigger with another variable, or smaller and smaller with this variable (direct relation). When the correlation coefficient is equal to 0, it means the weakest relationship inconsistency between two variables. In general, all variables are treated symmetrically, i.e. there is no discrepancy between dependent and independent variables. Two variables are said to be correlated when they tend to simultaneously vary in the same direction. If both the variables tend to increase or decrease together, the correlation is said to be direct or positive. When one variable tends to increase and the other decreases, the correlation is said to be negative. The results regarding this were summarized and presented in table 4.9.

*Table 4. 9 Pearson Correlation Analysis for independent and dependent variables*

		Correlations					
		OP	SSP	CMGT	INSHA	CRM	ININT
OP	Pearson Correlation	1					
	Sig. (2-tailed)						
SSP	Pearson Correlation	.874**	1				
	Sig. (2-tailed)	.000					
CMGT	Pearson Correlation	.470**	.392**	1			
	Sig. (2-tailed)	.000	.000				
	N	212	212	212			
INSHA	Pearson Correlation	.588**	.584**	.478**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	212	212	212	212		
CRM	Pearson Correlation	.677**	.512**	.303**	.343**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
ININT	Pearson Correlation	.340**	.269**	.277**	.130	.208**	1
	Sig. (2-tailed)	.000	.000	.000	.058	.002	

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

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

Correlation is significant at the 0.05 level (2-tailed).

Source: Author own Survey illustration based on SPSS output,2021

The general conclusion from the above table is that From the result of Pearson Correlation the variables Strategic suppliers, partnership, and Customer Relationship Management have a strong positive relationship with Organizational performance but Information sharing, and Commitment of Management has a moderate positive relationship with organizational performance and however Internal Integrations with Organizational performance showed a weak positive correlation with organizational performance, and the detail explanation with the figure of each is explained in below.

The study findings indicated in table 4that Strategic suppliers, Internal Integrations, Information sharing, Customer Relationship Management, and Commitment of Management were positively associated with Organizational performance as represented by positive Pearson coefficients of 0.874, 0.340, 0.588, 0.677 and 0.470 respectively.

The strength of the association between the predictor variables such as Strategic suppliers partnership, and Customer Relationship Management with Organizational Performance was positive and marked degree of correlation since the Pearson coefficients were greater than 0.6 i.e.  $r$  is in between .60 to .80 indicates positive and marked degree of correlation whereas Information sharing, and Commitment of Management with Organizational Performance showed a moderate degree of correlation i.e.  $r$  is in between .40 to .60 indicates the positive and moderate degree of correlation however Internal Integrations with Organizational performance showed Low/weak positive correlation since the Pearson coefficients were 0.340 i.e.  $r$  is in between .3 to .5 indicates positive but Low degree of correlation. This suggests that from the analysis it can be inferred that Strategic suppliers, Internal Integrations, Information Technology, Customer Relationship Management, and Commitment of Management were positively in ethiotelecom, Jimma district is expected to independently and positively correlate with Organizational performance. The above correlation interpretation is described based on five classical rules introduced by Franzblau (1985) to interpret correlation coefficients amongst different variables.

#### 4.4.2.3. Results of the Regression Analysis of Model summary

*Table 4:13 Model Summary*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
<b>1</b>	<b>.924<sup>a</sup></b>	<b>0.854</b>	<b>0.851</b>	<b>0.32452</b>
a. Predictors: (Constant), Strategic supplier's relationship, Commitment of Management, Information sharing, Customer Relationship Management, Internal Integrations				
b. Dependent Variable: Organizational performance				

Source: **Author own Survey illustration based on SPSS output,2021**

Table 4: 13 explains the model summary of multiple regression models; the results showed that all the five predictors (Strategic suppliers relationship, Commitment of Management, Information sharing, Customer Relationship Management, Internal Integrations) explained 85.4 percent variation of Organizational performance. This showed that considering the five study independent variables, there is a probability of predicting Organizational performance by 85.4% ( $R^2=0.854$ ) whereas the remaining 19.5 percent were not explained which means that the rest 14.5 percent of the variation of Organizational performance is related to other variables which are not depicted in the model.

#### 4.4.2.4 Anova Model

ANOVA compares whether the average values or levels of one variable (the means of the dependent variable) differ significantly across the categories of another variable or variables (the independent variable). Table 4.13 discloses that the F-value of 241.425 with a p-value of 0.00 significant at 5% indicates that the overall regression model is significant, hence, the common contribution of the independent variables was significant in predicting Organizational performance. This result indicates that the variation in the regression can be clarified by the predictors and this is further verified by the residual mean square which shows that variation exists but its error is minimal.

Table 4.14 Anova Model

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	127.125	5	25.425	241.425	.000b
	Residual	21.694	206	.105		
	Total	148.820	211			

**a. Dependent Variable: Organizational Performance**

**b. Predictors: (Constant),**

*b. Predictors: (Constant), Internal Integrations, Information sharing, Customer Relationship Management, Commitment of Management, Strategic Supplier Partnership*

**Source: Author own Survey illustration based on SPSS output, 2021**

In the above table, F-ratio describes whether the regression model was a good fit or not. A large F value and a small significance level (sig.) (typically smaller than 0.05 or 0.01) indicate that the model was a good fit for 0.05 in this case. Accordingly, as can be seen from the table above the F value is 241.425 and is significant at 0.000. Hence, the researcher can suggest that the regression model adopted in this study was a good fit and is considered significant.

#### 4.4.2.5 Coefficient of Regression

Multiple regression analysis was conducted to examine the effect of strategic supplier partnership, the commitment of management, information sharing, customer relationship management, and internal integration on organizations' performance. The multiple regression model used to predict the organization performance was,  $Y = \beta_0 + \beta_1 SSP + \beta_2 CM + \beta_3 IT + \beta_4 CRM + \beta_5 IE + e$

Table 4.15: Coefficient of Estimate

Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
	(Constant)	-.628	.155		-4.048	.000	
	SSP	.683	.040	.633	17.297	.000	.528 1.895
1	COMGT	.104	.042	.078	2.478	.014	.709 1.410
	INFSH	.104	.051	.071	2.025	.044	.578 1.731
	CRM	.286	.031	.289	9.221	.000	.723 1.384
	ININT	.087	.031	.078	2.766	.006	.879 1.138

a. Dependent Variable: Organizational Performance

Source: Author own Survey illustration based on SPSS output,2021

Table 4.15 shows that organizational performance is positively associated with Strategic suppliers partnership (.283), Commitment of Management (.104), and Information sharing (.104), Customer Relationship Management (.286) and Internal Integrations(.089) on ethiotelecom, Jimma district. The multiple regression model with all five predictors produced  $R^2=.854$ ,  $F=241.425$ ,  $p=0.000$ . Since the p-value is less than  $\alpha=.05$ , we can conclude that all of the predictors did contribute positively to the multiple regression model. The multiple regression model with all five predictors produced  $R^2=.854$ ,  $F=241.425$ ,  $p<.001$ . Therefore, the final model for the multiple regressions was,

**Organizational performance = -0.628 + 0.283SSP + 0.104CM + 0.104IT + 0.286CRM + 0.086II + e** SCM practices in Ethio telecom, Jimma district like Strategic suppliers partnerships, Commitment of Managements, Information sharing, Customer relationship Management, and Internal integration practice has positive significant effect on reorganization performance

at  $\beta_1=0.628$  with  $p=0.000, p<0.001$ ,  $\beta_2 =0.104$  with  $p=0.000, p<0.001$ ,  $\beta_3 =0.104$  with  $p=0.000, p<0.001$ ,  $\beta_4=0.286$ ,

with  $p=0.000, p<0.001$  and internal integrations  $\beta_5= 0.086$  with  $p=.0.006, p <0.001$  and the constant was  $-0.628$ . From the result of multiple regression analysis presented in table 4.16, the researcher concluded that Strategic suppliers partnership has a stronger effect on Organization performance relative to the other independent variables.

In general, the results in Table 4.16 indicated that all other factors being zero, the organization performance is  $-0.628$ . Furthermore, the results indicate that the relationship between SCM practices (Strategic suppliers partnerships, Commitment of Management, Information Technology, Customer relationship Management, and Internal integration practice) with Organizational performance is positive as indicated by beta coefficients of  $.0.683, 0.104, 0.104, 0.286, 0.08$  respectively. The findings imply that all other factors held constant, a 1% unit increase or improvement in Strategic suppliers partnerships, Commitment of Management, Information Technology, Customer relationship Management, and Internal integration practice leads to a 68.3% 10.4%, 10.4%, 28.6%, and 8% unit improvement on Organizational performance in Ethio telecom, Jimma district. Furthermore, the results indicated that in order of contributions, Strategic suppliers partnerships contributed more towards Organizational performance followed by Customer Relationship Management, Commitment of management and information technology, and lastly Internal integrations have a positive implication on the Organizational performance of Ethio telecom, Jimma district.

To summarize the study found, as it is indicated in the above figure, by improving the supply chain practices i.e. strategic supplier partnership, the commitment of Management, Information sharing, customer relationship, and Internal Integrations practices of the telecom, the Organizational performance of the organization could significantly and positively be improved. The finding of this survey is consistent with the findings of the other empirical researches findings on the area of the study. supported by (Li, S., et al., 2005), (Mutuerandu, 2014), (Karimi & Rafiee , 2014), (Charles, et al., 2014), (Li, et al., 2006) (Mutuerandu, 2014) and (Mustefa, 2014).

## CHAPTER FIVE

### 5.SUMMARY, CONCLUSION, AND RECOMMENDATION

This chapter presents the summary of major findings of the study, conclusions, recommendations, and suggestions for further studies. The study sought to determine the effects of Supply chain management practices on organizational performance in the case of ethiotelecom, Jimma District. The summary of findings is done by the hypothesis and objectives of the study based on the outcome of the inferential statistical analyses used to test the research hypotheses of the study.

#### 5.1 Major Findings

The major findings of this study are summarized in line with the objectives and hypotheses. Accordingly, the following sub-headings are used to present the major findings on the study objectives and hypotheses.

The findings implied that When we see their correlation of strategic supplier partnership separately with organization performance: organizational performance with strategic supplier partnership had a strong positive relationship (**0.874**), organizational performance and, that means that when strategic supplier partnership increase, the organization performance also increases.

For this hypothesis to be supported, the p-value associated with this variable (Strategic suppliers partnership) has to be less than alpha (0.05) and the t-value has to be greater than 2 to be regarded as a useful predictor of the dependent variable, Organizational performance. Moreover, the standardized Beta coefficient that links this variable to the dependent variable is positive.

In light of this, the p-value is  $0.000 < 0.05$  and the t-value is  $17.297 > 2$  and,  $\beta = 0.683 > 0$ . Thus, based on these findings, the Null hypothesis is rejected, and the alternative hypothesis is supported. Thus, a Strategic supplier's partnership has a significant positive effect on organizational performance,



And Finally, since the p-value of all variables is less than the level of significance (0.05), we fail to retain the null hypothesis. So, “There is a significant impact of strategic supplier partnership on organizational performance regarding Ethio telecom”, thus, the  $H_a$  was accepted.

this study is supported by other studies such as Admire (2020), (Li, S., et al., 2005), (Mutuerandu, 2014), (Karimi & Rafiee, 2014), (Charles, et al., 2014), (Li, et al., 2006) (Mutuerandu, 2014) and (Mustafa, 2014).

The findings implied that When we see their correlation of commitment of management practice separately with organization performance: organizational performance with the commitment of management has a large positive correlation (0.470), with organizational performance and, that means that when the commitment of management practice increases, the organization performance also increases.

Then the null hypothesis proposed in Commitment of manger is not significant positive effect on organizational performance supported as the associated p-value=  $0.014 < 0.05$ , t-value = $2.478 > 2$  and its beta value  $\beta = 0.104 > 0$ . Thus, based on these findings, the Null hypothesis is rejected, and the alternative hypothesis is supported.

Finally, since the p-value of all variables is less than the level of significance (0.05), we fail to retain the null hypothesis. So, “There is a significant impact of commitment of management practice on organizational performance regarding Ethio telecom”, thus, the  $H_a$  was accepted.

***The commitment of management is a significant positive effect on organizational performance***

This result is also consistent with those of a study by Lucas Waweru(2015) The major finding was that top-level management’s involvement in the supply chain improves its performance

The findings implied that When we see their correlation of information technology practice separately with organization performance: organizational performance with information technology has a strong positive correlation (0.588), with organizational performance and, that means that when information-sharing practice usage increase in the organization performance also increases.

To decide on the fate of this null hypothesis, once again, we need to look at the associated p-values, t-value, and the magnitude of the standardized Beta coefficient that relates this independent variable (Information Technology) to the explained variable, organizational performance. Accordingly,  $P\text{-value} = 0.044 < 0.05$ ,  $t\text{-value} = 2.025 > 2$  and  $\beta = 0.104 > 0$ . Therefore, Information technology has a significant positive impact on Organizational Performance and the null hypothesis is rejected, and the alternative hypothesis is supported with statistical findings.

Finally, since the p-value of all variables is less than the level of significance (0.05), we fail to retain the null hypothesis. So, “There is a significant information technology practice on an organizational performance about Ethio telecom”, thus, the  $H_a$  was accepted.

This result is also consistent with those of a study b studies such as Admire (2020), (Li, S., et al., 2005), (Mutuerandu, 2014), (Karimi & Rafiee, 2014), (Charles, et al., 2014), (Li, et al., 2006) (Mutuerandu, 2014) and (Mustafa, 2014). which found a significant positive relationship between Information technology and Organizational performance.

The findings implied that each variable is positively associated with the other. When we see their correlation of customer relationship management practice separately with organization performance: organizational performance with customer relationship has strong positive correlation (0.677), with organizational performance and, that means that when of customer relationship management practice increase in the organization performance also increase.

The null hypothesis proposed in connection with customer relationship Management is not significant positive effect on organizational performance is supported as the associated p-value= $0.000 < 0.05$ ,  $t\text{-value} = 9.221 > 2$  and its beta value  $\beta = 0.286 > 0$ . Therefore, Customer Relation management has a significant positive impact on Organizational Performance and the null hypothesis is rejected, and the alternative hypothesis is supported with statistical findings.

Finally, since the p-value of all variables is less than the level of significance (0.05), we fail to retain the null hypothesis. So, “There is a significant customer relationship management practice on an organizational performance about Ethio telecom”, thus, the  $H_a$  was accepted.

This result is also consistent with those of a study b studies such as Admire(2020), (Li, S., et al., 2005), (Mutuerandu, 2014), (Karimi & Rafiee, 2014), (Charles, et al., 2014), (Li, et al., 2006) (Mutuerandu, 2014) and (Mustefa, 2014). which found a significant positive relationship between customer relationship management and Organizational performance.

The findings implied that When we see their correlation of internal integration practice separately with organization performance: organizational performance with internal integration has a positive correlation (0.340), with organizational performance and, that means that when internal integration practice increases in the organization performance also increase.

The null hypothesis proposed in connection with Internal integration is not significant positive effect on organization performance s supported as the associated p-value= 0.006 < 0.05, t-value =2.766 > 2 and its beta value  $\beta= 0.087 > 0$ . Therefore, Internal Integration has a significant positive impact on Organizational Performance and the null hypothesis is rejected, and the alternative hypothesis is supported with statistical findings

Finally, since the p-value of all variables is less than the level of significance (0.05), we fail to retain the null hypothesis. So, “There is an internal integrations practice on organizational performance regarding Ethio telecom”, thus, the  $H_a$  was accepted.

findings This result is also consistent with those of a study b studies such Ellegaard and Koch (2012) have recognized the positive impact of internal integration and considered it as an important practice for the effective management of supply chains and the successful overall performance of organizations (Ellegaard and Koch, 2012).

Finally, since the p-value of all variables is less than the level of significance (0.05), we fail to retain the null hypothesis. So, “There is an internal integrations practice on organizational performance regarding Ethio telecom”, thus, the  $H_a$  was accepted.

Furthermore, the study aims to identify which of the variables contributed the most to the prediction of the dependent variable. This SCM Practice can be investigated via a Standardized coefficient. The standardized coefficients mean that “values for each of the different variables have been converted to the same scale so they can be compared”. In this study, the highest Beta value is 0.683 for strategic supplier’s partnership, and second, highest is 0.286 for customer relationship management practice, the third is both commitments of management and information technology (0.104), and finally, internal integration is the last (0.087), and all independent variables are statistically significant since the Sig. value is less than 0.05. These results indicate that the variables strategic supplier’s partnership, customer relationship management, information technology, the commitment of the management, has the strongest unique contribution in explaining the dependent variable organizational performance. The variable internal integration provides a low unique contribution in explaining the dependent variable (0.087).

*Table 5.1 Summary of Hypothesis testing result.*

Hypotheses	Decisions
<i>H01: strategic supplier partnership is not significantly positive effect on organization performance in the case of Ethio telecom, Jimma District.</i>	Reject
<i>H02: Commitment of management is not significantly positive effect on organizational performance in the case of Ethio telecom, Jimma District.</i>	Reject
<i>H03: Information sharing is not significant positive effect on organizational performance in the case of the Ethio telecom Jimma District.</i>	Reject
<i>H04: customer relationship Management is not significant positive effect on organizational performance in the case of the Ethio telecom Jimma District.</i>	Reject
<i>H05: Internal integration is not positive effect on organization performance in the case of ethio telecom, Jimma district.</i>	Reject

Source: **Author own Survey illustration based on SPSS output,2021**

## 5.2 Conclusions

In this part conclusions of the finding are discussed. For clarity purposes, the conclusions are based on the research objectives of the study. This study aimed to investigate the effect of supply chain management practice on organizational performance in, in case of Jimma region. and examine the extent to which the independent variables (strategic supplier partnership, commitment of management, information sharing, and internal integration) are associated with the dependent variable (organizational performance). Based on the result of this study, the following conclusions are drawn.

Based on the study finding of descriptive statistics, the study concludes that the majority of the respondents have inclined to disagree about the Strategic Supplier Partnership, the commitment of management, information sharing, customer relationship, however, they agreed with internal integration of the practice of the Jimma ethiotelecom, and the interview result can also depict those ideas

Another conclusion is drawn Pearson correlation shows the variables Strategic suppliers partnership, and Customer Relationship Management has a strong positive relationship with Organizational performance but Information sharing, and Commitment of Management has a moderate positive relationship with organizational performance and however, Internal Integrations with Organizational performance showed a weak positive correlation with organizational performance.

Standing from the result of regression analysis, the study concludes the result all independent variables (Strategic supplier partnership, commitment of management, information sharing, customer relationship management, and internal integration) and statistically significant and a positive effect on organization performance). However, the order of contribution in which they impact the organization performance is not the same, for instance, Strategic supplier's partnerships contributed more towards Organizational performance followed by Customer Relationship Management, Commitment of management and information sharing, and lastly, Internal integrations have a positive implication on the Organizational performance of Ethio telecom, Jimma district.

### **5.3 Recommendations**

This section contains recommendations drawn from the findings and conclusions of the study.

The researcher believes that the following recommendations would enable Jimma ethiotelecom for improving their performance.

It is recommended that the company ( supply chain division of Jimma), should develop long-run strategic relationships with suppliers, by developing a strategic alliance with key selected suppliers, measure the performance of suppliers continuously, and develop involvement of suppliers in planning and goal setting, and also the company should improve work process, for instance, the criteria to select suppliers to bring more flexibility.

The study also recommends that management of the organization, Specifically, CEO of the regions, with Hr. departments and supply chain departments should facilitate training of the workforce and developing supply chain management skills through workshops and systematic training programs for managers, so as the managers identify changes in the marketplace and commit resources quickly to new courses of action.

It is also strongly recommended that the company, (Specifically IS division Jimma District )should work to increase the technological capacity especially of ERP (enterprise resource planning) to integrate to external suppliers in addition to internal integrations.

Besides the above, this it is also strongly recommended the company( sales division Jimma district of ethiotelecom) should have to develop a platform to evaluate the customers to set reliability, responsiveness, and other standards, so as create strong relationships with customers, and to follow up customer needs

In addition to the above, It is also recommended again that Even though internal integration of the company is good, it is better to increase more than this by developing internal integration automation, coordination among different departments should be improved by creating a team among different departments to increase the performance of the company.

In general, the company (Jimma district of ethiotelecom) should work on three things on coordination of people, increasing integration of systems, and working on improvement of processes to bring flexibility and to be competitive enough, and to sustain in a changing market, and remain profitable.

## 5.4 Suggestions for Further Research

Some extensions to this study may provide further insights into the effects of supply chain management practices on organizational performance. Some suggestions for future studies have been provided below:

First of all, research works on supply chain management practices and their effect on organizational performance are vital for organizations in today's global competitive time. However, most of the existing studies are carried out in developed countries, and most of them are done manufacturing sector. It is, therefore, necessary for more researchers, especially, in Africa to continue to explore the area empirically in the service sector. Also, due to certain limitations, With regards to scope, this study is conducted on selected regions of ethiotelecom, that is Jimma regions, It is, therefore, not known to what extent one can generalize the findings from this study to other public organizations or even the same institution's branch across the country, it is good if the future study is conducted on the company level by including all regions, and it is also suggested that future studies should focus on those institutions/organizations not captured in the current study.

The other thing is that this study does not include is that other supply chain parties such as suppliers, and it's only conducted on the organization side, therefore, it is good if the future study includes selected suppliers to collect data.

Moreover, about methodology, this research measure dependent variable by combining them into one, it does not shows, specifically, the effects of each dependent variable, therefore it is goods for future research to research another model in addition to what the researcher used in this model to show specifically effect of each dependent variables and also future research can also be good to test the relationships/ dependency among the SCM practices.

Finally, with regards to variables these research include almost both downstream and upstream supply chain, Future research can expand the domain of SCM practice by considering additional dimensions such as Jit/ lean capacity and is better to add more based on the interest of different organization on which the study is conducted.



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# APPENDIX

**Annex B**

**Questioner of the Survey**

JIMMA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
DEPARTMENT OF MANAGEMENT



## **Questionnaire**

***Subject: Request for Participation in a Research Study***

**Dear Sir/Madam;**

I am a Postgraduate student at Jimma University in the college of business and economics as partial fulfillment for the Masters of Business Administration, I am conducting a research study on “The effects of Supply Chain Management Practices on Organizational Performance in the case of Ethio telecom, Jimma district.

Therefore, I would appreciate it if you could spend few minutes of your time answering the following questions concerning practices in your organization. All the information provided will be purely used for academic purposes and your identity will be treated with the utmost confidentiality.

### ***General Instructions***

- There is no need of writing your name
- Where answer options are available please tick (√) in the appropriate box.

### **Contact Address**

If you have any queries, please do not hesitate to contact us, and I am available as per your convenience at (Mobile: 0911246629 or e-mail: *alemutebikew3@gmail.com*)

*Thanks for responding within the next five days.*

***Thank you again for spending your precious time in advance!***

## **PART I: DEMOGRAPHIC INFORMATION**

### **1. Gender:**

Male

Female

### **2. Age in years:**

Less than 30

31-40

41 – 50

Above 50

### **3. Educational Qualification:**

Certificate/diploma

Bachelor's degree

Post Graduate degree /Masters

Doctorate degree

### **4. Years stayed at the Ethio telecom:**

Under two Years

2-5 Years

6-10 Years

Above 10 years

**5. Your department/Division**

Supply chain

Facility and fleet

Sales

Power and environmental

Fixed/wireless network

Finance and internal audit

communication

information system



## Part II: Instruments of Supply chain management practice

**Instruction:** Please mark (**circle**) in the appropriate cell to your response

1. To what extent do you agree about practices of strategic supplier partnership which are stated in the following statements? (Please mark **circle** in the appropriate box your opinion)

Where; 1=SD (strongly disagree), 2=D (disagree), 3=ID (inclined to disagree), 4=IA (inclined to agree) 5=A (agree) and 6= SA (strongly agree).

1	Strategic supplier partnership:	SD	D	ID	IA	A	SA
1.1	Quality is our first criterion in selecting suppliers.	1	2	3	4	5	6
1.2	The company measures the performance of suppliers continuously.	1	2	3	4	5	6
1.3	The company supports suppliers to improve their product quality.	1	2	3	4	5	6
1.4	Key suppliers are included continuous improvement programs.	1	2	3	4	5	6
1.5	Key suppliers are included in planning and goal-setting activities.	1	2	3	4	5	6
1.6	Problems are jointly solved with suppliers.	1	2	3	4	5	6

<b>2.</b>	<b>Commitment of Management</b>	SD	D	ID	IA	A	SA
2.1	The manager shows a high commitment and support for the activities of the SC.	1	2	3	4	5	6
2.2	Managers identify changes in the marketplace and commit resources quickly to new courses of action	1	2	3	4	5	6
2.3	The managers understand and are committed as part of the supplier chain.	1	2	3	4	5	6
2.4	Managers are used to making plans and follow up	1	2	3	4	5	6

<b>3</b>	<b>Information Sharing (IS)</b>	SD	D	ID	IA	A	SA
3.1	The company has a network of IT systems (ERP, CRM, SCM, Intranet, etc.) highly <b>integrated</b> with key suppliers.	1	2	3	4	5	6
3.2	Information exchange between our Supply chain partners and us is accurate	1	2	3	4	5	6
3.3	There is a complete information flow between the company and supply chain partners.	1	2	3	4	5	6
3.4	The company uses the most advanced IT for the Supply Chain (CS)	1	2	3	4	5	6
3.5	There is reliable information exchange between the company and supply chain partners.	1	2	3	4	5	6

<b>4</b>	<b>Customer relationship:</b>	<b>SD</b>	<b>D</b>	<b>IDN</b>	<b>IA</b>	<b>A</b>	<b>SA</b>
4.1	There is frequent interaction with customers to set reliability, responsiveness, and other standards	1	2	3	4	5	6
4.2	The company frequently measures and evaluates customer satisfaction.	1	2	3	4	5	6
4.3	The Company frequently determines future customer expectations	1	2	3	4	5	6
4.4	The company facilitates customers' ability to seek assistance from us.	1	2	3	4	5	6
4.5	Periodically, the company evaluates the importance of the relationship with customers.	1	2	3	4	5	6

<b>5</b>	<b>INTERNAL INTEGRATION</b>	<b>SD</b>	<b>D</b>	<b>ID</b>	<b>IA</b>	<b>A</b>	<b>SA</b>
5.1	There is a high level of coordination between different departments in our firm.	1	2	3	4	5	6
5.2	The company can handle unexpected challenges within different departments in our firm.	1	2	3	4	5	6
5.3	The company has a network of IT systems (ERP, CRM, SCM, Intranet, etc.) highly integrated across the functional units.	1	2	3	4	5	6
5.4	Our firm formulates quality circles and cross-functional teams for solving problems and/or developing processes, products, and services	1	2	3	4	5	6

<b>6</b>	<b>Organization Performance</b>	<b>SD</b>	<b>D</b>	<b>ID</b>	<b>IA</b>	<b>A</b>	<b>SA</b>
6.1	The company offer product or services at reasonable prices	1	2	3	4	5	6
6.2	The Company delivers quality products and services to the customers whenever needed (On reasonable response time).	1	2	3	4	5	6
6.3	The company planning is always meet the customer need(Correct on our forecasting) specifically at the Regional level.	1	2	3	4	5	6
6.4	The company planning(budget and optimization plan) is Accurate.	1	2	3	4	5	6
<b>6.5</b>	Quality standards of materials received from vendors are as per the specification.	1	2	3	4	5	6
	We provide dependable delivery  (i.e Dependability is an operational performance objective that measures how dependable the company is when it comes to timely delivery of the product to customers by planned prices and costs.)	1	2	3	4	5	6
6.7	The company delivers products and services to market quickly.	1	2	3	4	5	6

## **II. Interviews**

1. What are the practices of strategic supplier partnership and their effect on the organizational performance of ethiotelecom, Jimma district?
2. What is the practice of commitment of management would like and its effect on organization performance of in Jimma district of ethiotelecom
3. How the Practice of information sharing is used in a company with Supply chain partners and its effect on the organizational performance of Jimma ethiotelecom?
4. What are practices of customer relationship management and their effect on the Organization performance of the EthioTelecom, Jimma district.
5. What are the internal integration practices and their effect on the organizational performance of Would like in Jimma ethiotelecom?
6. Is (are) there any supply chain practice(s) which is (are) unique or special for your company?