

***Effects of Supply Chain Management Practice on Organizational  
Performance: The Case of Jimma Zone Farmers' Coffee  
Cooperatives***

*A thesis submitted to Jimma University, College of Business and  
Economics in Partial Fulfillment for the Degree of  
Master of Art in Logistics and Transportation Management (LATM)*

**BY:**

**NEZIF ZINAB ABBALULESSA**



**JIMMA UNIVERSITY**

**COLLEGE OF BUSINESS AND ECONOMICS**

**LATM PROGRAM**

**AUGUST 19, 2020**

**JIMMA, ETHIOPIA**

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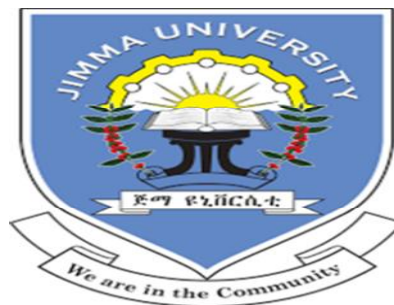
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**Under the Guidance Of**

**Kenenisa Lemi (PhD, Associate professor)**

**And**

**Rajabot Mahamud (MBA)**



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## **DECLARATION**

I hereby declare that this research paper entitled Effects of Supply Chain Management Practice on Organizational Performance of Farmers' Coffee Cooperatives: The Case of Jimma Zone, Oromia Regional State, has been carried out by me under the guidance and supervision of Kenenisa Lemi (PhD, Associate professor) and Rejebut Mahmud (MBA).

The thesis is original work and has not been submitted for the award of any degree in any other university and all the materials used for this study have been properly acknowledged.

**Name Nezif Zinab (MA)**

Signature \_\_\_\_\_

Date \_\_\_\_\_

## STATEMENT OF CERTIFICATE

This is to certify that Nezif Zinab has carried out this research work on the topic entitled ‘The Effect of Supply Chain Management Practices on Organizational Performance of Farmers’ Coffee Cooperatives: The Case of Jimma Zone, Oromia Regional State’ under my supervision. This work is original in nature and it is enough for submission to the partial fulfillment for the award of masters of Arts degree in Logistics and Transport management.

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## ABSTRACT

*The purpose of this study is to test the effect of Supply Chain management practices on Organizational performance. A study on Jimma Zone farmers' coffee cooperative. In this study five key dimensions of SCM practices: strategic supplier partnership, customer relationship, Quality of information sharing, Internal lean practices and training were used as independent variables complemented by different measurement tools under each variable, while financial and market performance variables have been used to measure the organizational performance. Data was collected via questionnaires from a sample of 26 coffee cooperative firms and 179 respondents. Multi-stage sampling design have been employed in order to choose respondent from target population in which purposive and stratified simple random/lottery method frame was selected as sampling technique. Quantitative and qualitative data collection instruments and techniques employed and data to be gathered and analyzed using descriptive and inferential analytical technique with the help of SPSS version 20. The descriptive statistics have used to describe, 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 analyzed using regression analysis. From the hypothesis test the null hypothesis of SCM dimension: Strategic supplier partnership, Quality of information sharing, Internal lean practices and training rejected and the alternative hypothesis which says each variable have a relationship with organizational performance have accepted. But the null hypothesis of Customer relationship accepted. From the research finding it was concluded that all dependent variables (Strategic supplier partnership, Quality of information sharing, Internal lean practices and training) have a positive effect on farmers' coffee cooperative except Customer relationship which have negative effect. As a recommendation for this study, it may play an important role for managers and coffee cooperative firms through understanding the effect of supply chain management practice to increase the sales and profits.*

**Keywords:** *Supply Chain, Supply Chain Management, Supply Chain Management practice, Organizational Performance*

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## ABBREVIATIONS

FCC	Farmers' Coffee Cooperative
IT	Information Technology
JIT	Just In Time
JZCDO	Jimma Zone Cooperative Development Office
OCCU	Oromia Coffee Cooperative Union
SC	Supply Chain
SCM	Supply Chain Management
SCMP	Supply Chain Management Practice
SOCFCU	Status Of Oromia Coffee Farmer Cooperative Union
SPSS	Statistical Package for the Social Sciences

# CHAPTER ONE

## 1. INTRODUCTION

This chapter indicated the general overview on the concept of supply chain (SC), supply chain management (SCM), dimensions of supply chain management practice, Organizational Performance (OP), effect of supply chain management practice on organizational performance, statement of the problem, the research questions, and research objectives. The chapter also discussed the significance of study, scope and delimitation of study.

### 1.1. Background of the Study

Supply chain is a network between a company and its suppliers to produce and distribute a specific product to the final buyers. It encompasses the companies and the business activities needed to design, make, deliver, and use a product or service. Supply chains has a function to successfully and efficiently manage the steps in production process as raw materials are turned into a finished product, and ultimately sold to consumers. A supply chain consists of all parties involved, directly or indirectly, in fulfilling a customer request which includes the manufacturer and suppliers, transporters, warehouses, retailers, and even customers themselves with all functions involved in receiving and filling a customer service (Sunil, 2016).

The supply chain within the coffee industry can be very complex and difficult to manage. The main associates within the coffee supply chain include: growers, intermediaries, processors, government agencies, exporters, dealers/brokers, roasters and retailers. Specifically, in case of coffee cooperative, the network of supply chain starts from coffee harvesting up to end user of coffee (customer). According to (Blanchard, 2010), supply chain is a phenomenon extends from the original supplier or source (the farmer and the seed) to the ultimate customer (the consumer who use the product) in which the sequence of events and processes that take a product from production location to consumer location. This is the reason why each businesses organization and company depend on their supply chains to provide them with what they need to continue and succeed. Every business company fits into one or more

supply chains and has a role to play in each of them. The step of change and the uncertainty about how markets will evolve has made it increasingly important for companies to be aware of the supply chains they participate in and to understand the roles that they play. Those companies that learn how to build and participate in strong supply chains will have a substantial competitive advantage in their markets.

The existence of supply chain is noting in the absence of supply chain management. But, the impression of supply chain management gained some serious acceptance since as early as 1990s where during the time that the world experienced the era of intensive competition in the global market to deliver products or services at a right place and at the right time. According to Jacobs & Chase, (2018) the central idea of supply chain management is to apply a total system approach to managing the flow of information, materials, and services from raw material suppliers through factories and warehouses to the end customer. Hence, it is defined as the management of the flow of goods and services which include all process that transform raw materials in to final products Thus, it covers all the necessary movement and storage of raw materials, work-in-process inventory, and finished products from the point of source to the point of consumption. It is considered as things we do to influence the behavior of the supply chain and get the results we want. Supply chain management also encompasses the active reorganization of a business's supply side activity to maximize customer value and gain a competitive advantage in the market place. Therefore, organizations have to realize the ideas and the practices of SCM for the purpose of achieving competitiveness as well as for increasing profits (Qayyum, 2013).

Numerous creativities to improve the performance in supply chains have revolved ever since by different industries. There are so many business companies known to be early implementer of SCM practices who made advance performance in their organizations include Hewlett Packard, West Co, Becton Dickinson, Baxter, Whirlpool, Wal-Mart, Georgia-Pacific Corp are the few of them (Qayyum, 2013). Therefore, effective management of supply chains is seen as a must strategy for the survival of any company for purpose of staying competitive in the local market as well as in the global market. This involves managing the marketing link to the supply chain and linking supply chain strategies to the overall company strategy (Christopher, 1998). Additionally, Supply chain management is a set of approaches



utilized to efficiently integrate suppliers, manufacturers, warehouses and stores, so that merchandise is produced and distributed at the right quantities, to the right locations, and at the right time, in order to minimize system wide costs while satisfying service level requirements (Simchi-Levi and Kaminsky, 2003).

The use of effective supply chain management (SCM) practices has become a potentially valuable way of securing competitive advantage and improving organizational performance since competition is no longer between organizations, but among supply chains. Hence, SCM practices are the set of activities undertaken by an organization to promote effective management of its supply chain (Li, Ragu, & Nathan, 2006). The significance of implementing supply chain management in the company was more explained by (Choy, 2002) in his research at multinational producers, has concluded by saying supply chain management practices have 50% involvement to the profitability and performance of any organization. He proposed SCM practices as a multi-dimensional construct that includes both inbound and outbound sides of the supply chain.

Many authors identified in their study as there are various elements and dimensions exist to measure the supply chain management practice. According to Karami, (2014), the dimensions of supply chain management practices include demand management, information and technology, management capacity and resource management, customer relationship management, supplier relationship management are determined to have a perceived organizational performance. In addition, (ChoonHo, 2011) introduced outsourcing, strategic supplier partnership, customer relationship, information sharing and postponement, quality of information sharing and lean practices as a main dimension of SCM practice. In each study the similar finding of SCM dimension like supplier relationship, customer relationship and information sharing indicates as it was a key dimension element for any SCM practice. In another study a number of organizational strategies and supply chain management dimension were included as strategies to increase the integration of activities, sharing of information through the internet technologies and others, cooperation and collaboration throughout the supply chain channel, and establishing partnerships with key suppliers (Dean, 2002). In other word, (Koh, 2007) identified the dimensions of supply chain management practices as Just In Time (JIT) supply, many suppliers, holding safety stock, subcontracting, few suppliers, close partnership with suppliers,

strategic planning, outsourcing, close partnership with customers, e-procurement, supply chain benchmarking

An organizational performance is defined as how well the organization works on improving the company financial condition and be able to compete against the competitor. In other word it comprises the actual output or results of an organizational as measured against its intended outputs (or goals and objectives). In study conducted by (Kamau, 2011) on buyer supplier relationship and organization performance, it was found out that as there is a clear relationship between the two variables. Performance involves the ability of an organization to fulfill its mission through management, strong governance and a persistent rededication to achieving results. Performance measures can be financial or nonfinancial but both measures are used for competitive firms in the dynamic business environment (Doyle & Stern, 2006).

According to (Richard, 2009), organizational performance encompasses three specific areas of firm outcomes: (a) financial performance (profits, return on assets, return on investment, etc.); (b) product market performance (sales, market share, etc.); and (c) shareholder return (total shareholder return, economic value added, etc.). In this study, the organizational performance is categorized into financial performance and non-financial performance. Both of the dimensions are defined as follows. Financial performance is termed as performance related to the financial prospect such as measurement of increase in portion of market share, returns of investment growing, increase profit margin and enhances competitive position (Stock, Greis, & Kasarda, 2014).

Effective SCM has become a possibly valuable way of securing competitive advantage through the improving of organizational performance and most companies have been increasingly implementing SCM practices (Bratić, 2011). This indicates that modern SCM encompasses the strategic alignment of end-to-end business process to realize market, economic value and giving firms the competitive advantage over their business competitors. Hence, practice of SCM is an important part of every organization, whether small or large. As an example, (Soo, 2006) from his results of study finding, he concluded that, in small firms, efficient SC integration may play a more critical role for sustainable performance improvement, while, in large firms, the close interrelationship between the level of SCM practices and competition capability

may have more significant effect on performance improvement . A cooperative firm like farmers' coffee cooperative is a one in which enough SCM practice and understanding should be applied. Hence, this study seeks to examine the effect of supply chain management practices on the organizational performance of coffee cooperative in Jimma Zone

## **1.2. Background of the Organization**

The first cooperative organization in Ethiopia were formulated at the beginning of the 1950 with the objective of improving living condition, providing social service, offering all the citizen equal opportunity to contributing to the economic, social progress of the country (Daniel, 2006). Currently, the agricultural cooperative society proclamation of 1994 and 1998 created a fertile ground for restructuring and strengthening all types of cooperatives. As a result, Oromia coffee cooperative union (OCCU) had been established in June, 1999 by 34 coffee producers primary cooperative representing 23691 members in Oromia Region to support farmers. The union has growth from 34 farmer cooperative representing 23691 members in 1999 to the current membership over 197 primary farmer cooperatives representing over 197 thousand members with increasing impressive grown of sale volume (OCFCU, 2010).

This study conducted in Jimma zone of Oromia regional state of Ethiopia which is located at 352.3km from Addis Ababa. Geographically it is bordered on the south by the Southern Nations, Nationalities and Peoples Region, to the northwest by Ilu Abba Bor, on the north by East Wellega, and on the northeast by West Shewa, The 2007 projected data obtained from Central Statistics Agency (CSA) indicated that, the total population of Jimma is 2,486,155 (1,250,527 males and 1,235,628 female) with an area of 15568.58 square kilometers, encompassing 20 Woreda and one city administrations (Jimma Zone Administration office, 2019).

Jimma zone is the place where the highest coffee productive area of Oromia region in which there are three farmers' cooperative union, and eighty-five (85) farmers' coffee cooperative with 56,569 members. From their study in value chain analysis of coffee in Jimma Zone, (Bizualem, Degye, & Zekarias, 2018) identified as a primary cooperative are the other important actors involved in purchasing coffee directly from farmers and sell directly to importers via unions. But most of the Ethiopian farmers'

coffee cooperatives are not achieving their proper performance and are characterized by low productivity, poor working conditions, and improper utilization of resources, weak relationship with customers and suppliers and poor management (Tomas, 2011). This all problems are the result of poor Supply management practice and need the improvement. Consequently, since the same problem was there for cooperatives of Oromia regional state including study area (Jimma), because of inappropriate implementation of SCM practice. Therefore, this thesis identified which supply chain management practice practiced effectively in the coffee cooperative and which will further help to tackle the factors hindering the performance of the Coffee cooperative. Hence, the study has carried out to determine the effect of SCM practices on organizational performance in Jimma context especially in farmers' coffee cooperative which is one of the major contributors to the country's coffee export.

### **1.3. Statement of The Problem**

Much of the international empirical studies on SCM focused on the study of relation between SCMP and firm's performance with the intermediate variable. The study was investigated in Australia to identify effect of supply chain management practices on firm performance at the presence of Supply chain performance as intermediate (Emerald, 2017). In this study four SCM Practice (Customer relationship manager, Supplier relationship manager, goal congruence, information sharing) the finding shows that Customer relationship and Supplier relationship manager are a significance effect and important driver of firms in terms of time, effort and investment. In addition, the study finding shows goal congruence and information sharing are indignantly affect and weak driver of firm.

Some study focused to investigate the impact of SCM practice on all the three common components of organizational performance. Based on this, the studies carried out in Jordanian food industries have focused to the effect of green supply chain management elements on three components of organizational performance which include environmental performance, financial performance and Operational Performance (Salah & Asad, 2015). The study shows that effective SCM impact positively on the operational performance

Another study investigated by (Yabibal & Neeraj, 2020) developed five dimensions of SCM and found out their effect on organizational performance of Ethiopian pharmaceutical supply agency. According to the study result Strategic Supplier Partnership, Customer Service Level, Quality of Information Sharing and Postponement Strategy were found to be the most significant determinants of the performance of the case organization. The study finding also shows that under the presence of the same Inventory management mediator variable, Internal Lean Practice has no significant effect. This study tried to show the effect of SCMP on pharmaceutical organization and also the study was in the presence of intermediate variable.

The development of supply chain management practice in Ethiopia is still in the premature stages, there are small numbers of manufacturing companies integrating it to their organizational system. In addition, there are some challenges in the industry which resulted in reducing the quality and demand of products manufactured locally. One of the problems is poor SCM practice of organizations in the industry (Hailemichael, 2011). Cooperative organization specifically farmers' coffee cooperative will face the same problem, as they are part of coffee product provider organization to the market in Ethiopia as well to international market. In addition, coffee supply chains are poorly integrated to one another and with market systems and within the Supply Chain. Even though, the implementation of supply Chain management is too important to every organization, fewer studies internationally and locally have been carried out that have focused on specific aspects of coffee.

The deficiency of empirical study on supply chain management practice and its impact on organizational performance in case of coffee cooperative shows less researched. The study which is analyzed by (Belay, 2017) were focused on identification of the constraints and opportunities in the coffee supply chain in Ilu Aba Bor District and findings the problems of poor quality in coffee drying and collecting and mixing of better-quality coffee with the poor. Another very recent study conducted based on the value chain analysis of coffee in Jimma Zone. (Bizualem & Zekarias, 2018) identified direct actors in coffee value chain which include input suppliers, smallholder growers, large scale private and state farms, cooperatives/unions, suppliers, exporters, domestic wholesalers, retailers, and consumers and assumed different functions along the value chain. Hence, a few studies directed coffee and

coffee related are not based on the problem of SCM concern with in coffee supply chain partner. As evidenced in the above studies there is no enough study that has focused on addressing this gap.

Moreover, the supply chain management practice of farmer's Coffee cooperative has been under searched and the literature accessed by some researcher focused on other aspects of the SCM in developed countries practices and contexts. This is an indication that there is lack of study carried out locally to bring out the level of SCM practices and its effect on organization performance in case of Farmers' Coffee cooperative in Jimma Zone of Ethiopia. This study therefore aimed at bridging this gap and seeking answers the following research questions.

#### **1.4. Research Questions**

- ✓ What is the effect of strategic supplier partnership on organizational performance of farmers' Coffee cooperative in Jimma Zone?
- ✓ How does customer relationship affect organizational performance of farmers' Coffee cooperative in Jimma Zone?
- ✓ What is the effect of Quality of information sharing on organizational performance of farmers' Coffee cooperative in Jimma Zone?
- ✓ In what extent internal lean practices affect organizational performance of farmers' Coffee cooperative in Jimma Zone?
- ✓ What is the effect of training on organizational performance at farmers' Coffee cooperative in Jimma Zone?

#### **1.5. Research hypotheses**

A hypothesis is a specific statement of prediction which describes in concrete terms what will expect to happen in the study. However, it is a reasonable conjecture, an educated guess and its purpose to provide a temporary objective, an operational target, a logical framework that guides researchers as they collect and analyze data (Leedy & Ormrod, 2010). Based on this idea and per the empirical evidence the following research hypothesis were formulated and tested:

**H<sub>01</sub>:** Strategic supplier partnership has a significant positive effect on organizational performance.

**Ho2:** Customer relationship has a significant positive effect on organizational performance.

**Ho3:** Quality of information sharing has a significant positive effect on organizational performance.

**Ho4:** Internal lean practices have a significant positive effect on organizational performance.

**Ho5:** Training has a significant positive effect on organizational performance.

## **1.6. Objective of the study**

### **1.6.1. General Objective**

To assess effect of SCM practices on the organizational performance of farmers' Coffee cooperative in Jimma Zone.

### **1.6.2. Specific objectives of the study**

- ✓ To examine the effects of strategic supplier partnership on organizational performance of Coffee cooperative in Jimma Zone
- ✓ To examine the effects of customer relationship on organizational performance of Coffee cooperative in Jimma Zone
- ✓ To investigate the effects of quality of information sharing on organizational performance of Coffee cooperative in Jimma Zone
- ✓ To assess the effects of internal lean practices on organizational performance at Coffee cooperative in Jimma Zone
- ✓ To examine the effects of training on organizational performance at Coffee cooperative in Jimma Zone

## **1.7. Significance of the study**

This study identified the effect of supply chain management practices on organizational performance of farmers' coffee cooperative in Jimma. The information gap on the subject area is one of the major factors that initiated the researcher to conduct this study. Its finding could help management of farmers' coffee cooperative in Jimma, other cooperatives operating under similar conditions, federal cooperative

commission and other well performing agricultural cooperatives in Ethiopia to improving their performance through appropriate and relevant measures to fills this information gap. The managers may consider the result of this study, which may help them to gain better understanding about the practices of supply chain management. Also, it will help the organization under study to examine its own supply chain practice and the effect of each practice on its organizational performance.

This study has its own scope of drawback hence. But its findings provided a room to other researchers to use it as reference idea or as starting point to their future studies related to this subject matter and helps to engage in different aspects of supply chain management analysis. In addition, it will enable them to see the gap of what is unknown and not addressed in this study, what needs further research and improvement. it added a value to the body of knowledge in bridging the gap between theories and practical implementation of SCM practices in farmers' coffee cooperative. Furthermore, this study also helps any policy makers to give special attention to consider about each SCM practice since they are a core activity in improving performance of farmer's coffee cooperatives. Therefore, being considering the above concept, the result of this study would be valuable to the academicians, corporate managers and policy makers.

### **1.8. Scope of The Study**

Supply chain management has vast areas of managerial practices. It is difficult and unmanageable to study the whole areas of it. Therefore, the scope of the study is delimited to specific context i.e. on SCM practices and their impact on organizational performance in which subject scope supply chain practice are also delimited to the company's point of reference towards strategic supplier partnership, customer relationship, quality of information sharing, internal lean practice and training and firm's performance is delimited to organizational which will have measured by financial and market capability. The study was specifically carried out in 85 private farmers' coffee cooperatives of total 85 located in Jimma Zone whereby the sample population was derived from each fourteen coffees productive woreda. Five woreda were delimited from study population because of their recent establishment and difficulty to evaluate their implementation of SCM practice.



## **1.9. Organization of the Paper**

The paper is organized into five chapters. Chapter one contains the introduction part dealing with back ground of the study, the research problem and its question, objectives of the study, scope and significance of the study and limitation of the study. The second chapter focuses on the literature (theoretical and empirical) review of the subject matter and conceptual frame work. The third chapter presented the research methodologies of the study. The fourth chapter presents about the analysis and interpretation of data collected. Lastly, the result of finding has been discussed, concluded and recommendation has been suggested.

# CHAPTER TWO

## 2. REVIEW OF RELATED LITERATURE

### Introduction

This chapter has presented the theoretically and empirically literature reviewed on the concepts of the study which were on the effect of supply chain management practices on performance of organizations. The main areas were presented based on author's arguments and assertions which are concept of supply chain management, supply chain management practices, how practice of supply chain management influencing organization's performance, concept of organization/firm performance, the gap of the study and the conceptual framework developed base on literature reviewed.

### 2.1. Theoretical Literature Review

This section introduced the theories related to the study. A theoretical part focused on the adoption theories and concepts that were presented by distinguished authors in relation to SCM practices implementation and organizational performance. SCM had been linked to theories borrowed from fields such as accounting, management, economics, sociology and engineering. Majority of these theories that are currently explored in SCM literature has existed for a very long time so they are actually older than the SCM concept itself (Pala, 2013). Therefore, the study adopted four (4) common theories. These theories include system theory, institutional theory, resource-based view theory, knowledge-based view.

#### 2.1.1. Systems Theory

Systems theory, which views organizations as living organisms, acknowledges the complexity of these relationships. System theory challenges the static view of organizations and following an open system view, suggests that organizations at individual, group and organizational level are affected by the time factors. This theory promotes the dynamic view of organizations. System theory is currently one of the dominant theories in supply chain management studies. However, in this theory the

functional paradigm view is dominant, which may limit its application in the process view of organizational management philosophy (Lavassani, 2010)

### **2.1.2. Institutional Theory**

The institutional theory is used to examine how external pressures influence a company (Sarkis, 2010). According to the institutional theory external pressure play a major role in shaping organizational strategies associated with supply chain management. For example, strategies associated with the organization's choices of technology adoption and supply chain collaboration (Lavassani, 2010)

Within institutional theory, there are three forms of isomorphic drivers a company tends to be induced to adopt certain practices, namely; coercive, normative, and mimetic. Coercive isomorphic drivers occur from influences exerted by those in power. Government agencies are an example of powerful institutions that may coercively influence the actions of an organization through, for example, fines and trade barriers. Normative isomorphic drivers cause enterprises to conform in order to be perceived as having legitimate organizational activities. Mimetic isomorphic drivers occur when enterprises imitate the actions of successful competitors in the industry, in an attempt to replicate the path of their success (Sarkis, 2010).

In relation to SCM practices, institutional environment where the firm operate exert an influence on adoption process. Coercive pressure is seen important in imposing authorize standard in shaping firm operational conduct through regulatory mechanism. Mimetic pressure is seen as following other organization successful implementation practices. And finally, normative pressure is seen as firm accepting best practice for SCM adoption in fast changing environment (Shamsuddin, 2013).

### **2.1.3. Resource-Based View Theory (RBV)**

The resource-based theory of the firm (RBV) can be regarded as a theory that seeks to explain why firms succeed. The combination of RBV with other organizational theory is suggested as a further step towards an improved understanding of the dynamic process that constitutes the maintenance, enhancement and development of sources of sustainable competitive advantage for a firm (Sergio, 1997). However, RBT suggests that firms must secure the right type of resources and in order to be successful, firms

must concentrate on the acquisition and, most importantly, on the development and enhancement of those resources that are scarce, hard-to-imitate and valuable to their customers now and in the future

The RBV is a theoretical perspective that attempts to describe, explain, and predict, how firms can achieve a sustainable competitive advantage through acquisition and control over resources (Arifin, 2012). According to RBV, not all the resources of firm will be strategic resources and hence sources of Competitive advantage. Competitive advantage occurs only when there is a situation of resource heterogeneity (different resources across firms) and resource immobility (the inability of competing firms to obtain resources from other firms) (Pankaj, 2010). In short, the more mobile a resource is, the less sustained the advantage gained from that resource will be.

According to Shamsuddin, (2013) organization resources can be easily categories into three building block, that is, 1) physical assets (example: technological equipment, plant), 2) human assets (example: deployment, competency and skill resources), and 3) organizational assets (example: culture, business process, and management resources). In other word the resources are also categorized as tangible or intangible (Curado, 2006). Moreover, the RBV theory is used to examine the impact of organization resources and capabilities on competitive advantage that leads to overall organizational performance. Also, in the perspective of SCM practices in the real environment, RBV can be used to understand the connection between SCM practices and competitive advantage, that is how the application become one of organization resources and contribute to SCM excellence performance (Shamsuddin, 2013).

#### **2.1.4. Knowledge-Based View (KBV)**

It has largely been accepted from different researchers in the literature to support the fact that KBV of the firm to be an important of the firm. In today's increasingly complex business environment, supply chain flexibility has become an important ingredient of firm to remain competitive. Within this context, drawing from the knowledge-based view of the firm, (Constantin, 2013) investigated the influence of internal and external knowledge transfer activities on supply chain flexibility. In addition, by taking a contingency perspective, it is possible to hypothesize about the

moderating effects of product and supply complexity on the relationships between knowledge transfer and supply chain flexibility.

The knowledge-based view (KBV) of firm suggests firms should be analyzed based on their knowledge resources (Blome, 2013) because knowledge is considered to be one of the most important assets to the creation of sustained competitive advantage for a firm (Umemoto, 2002). In the KBV, the role of the firm and its source of unique advantage, rest in its ability to integrate the knowledge of individuals in the production process of goods and services (Grant, 1996). And Grand (1997) who made significant contributions to the development of knowledge-based view, describes the contribution of several authors from various dimensions to the development of this view. These dimensions are: organizational learning, evolutionary economics, organizational capabilities and competencies. The knowledge-based view in turn is the most strategically important ones to create and sustain competitive advantage (DeNisi, 2003).

Organizational capabilities and competencies- knowledge-based capabilities are the most strategically important ones to create and sustain competitive advantage. Superior talent is recognized to be the main creator of sustained competitive advantage in high performance firms. The capacity to learn faster than competitors could turn out to be the only sustained competitive advantage. This dynamic capability builds up over time a historical or path dependency, creating causal ambiguity (creating barriers to imitability and making it very difficult for other firms to recreate the unique historical evolution each organization develops), and it establishes a basis for competitive advantage.

### **2.1.5. Supply Chain**

Supply chain consists of the series of activities and organizations that materials move through on their journey from initial suppliers to final customers (Waters, 2003). According to this concept product move through a series of organizations as they travel between original suppliers and final customers, which indicates in reality as the organizations do not work in isolation, instead each one acts as a customer when it buys materials from its own suppliers, and then it acts as a supplier when it delivers materials to its own customers. In other word in a typical supply chain, raw materials

are procured and items are produced at one or more factories, transported to warehouses for middle storage and then shipped to retailers or customers. If anyone asked people involved in business to define the term supply chain will be get many different answers. Each definition would reflect the nature of the business and the inputs and outputs produced. For some, supply chain it is related to purchasing and procurement and to others, it is warehousing, distribution and transportation. Yet for others it would be sources of capital and labor (Wright & Nevan, 2008).

Melnyk, Douglas, & Morgan, (2004) Provide a holistic definition of the supply chain which is the entire network of organizations involved in: 1) converting raw materials and information into products and services, 2) consuming the products and services, 3) disposing of the products and services. They supplementary state that this definition gives the supply chain as a product cradle to critical idea, including all value-added activities required to plan, source, make and deliver products and services that meet customer needs. To this we add the word process. We see the supply chain not as a series of separate operations and organizations but as a complete end to end process. In addition, supply chains are the series of activities and organizations that both tangible and intangible materials are moving through on their journeys from initial suppliers to final customers (Waters, 2003).

### **2.1.6. Supply Chain Management**

Supply Chain Management is the process of developing decisions and taking actions to direct the activities of people within the supply chain toward common objectives (McCormack, Johnson, & Walker, 2003 ). It involves activity taken to manage the involvement of people through supply chain starting from starting point to the last destination. The central idea of supply chain management is to apply a total system approach to managing the flow of information, materials, and services from raw material suppliers through factories and warehouses to the end customer (Jacobs & Chase, 2018) with the context of major business functions, supply chain management involves specialists in purchasing, manufacturing, service operations, logistics, and distribution. In the 1990's competition intensified and markets became global resulting to challenges associated with getting a product and service to the right place at the right time and at the lowest cost. The focus is on improving core activities to maximize the speed of response to changes in customer expectations.

Supply chain management is built up on to achieve linkage and co-ordination between the processes of other entities in suppliers and customers, and the organization itself (Christopher, 2005). Thus, for example, one goal of supply chain management might be to reduce or eliminate the buffers of inventory that exist between organizations in a chain through the sharing of information on demand and current stock level. In addition to this, (Christopher, 2005) define the supply chain management as the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole. This indicates that the emphasis of supply chain management is upon the management of relationships in order to accomplish a more profitable outcome for all parties in the chain.

### **2.1.7. Supply Chain Management Practices**

The recent business environment is growing to be more challenging, and so, companies have to increase their business operations to stay competitive. According to this idea, one of the most important factors for improving business operations is implementing of supply chain management practices that will translate into improved organizational performance. Furthermore, different studies from different countries have used several dimensions when measuring SCM practices implementation. The importance of supply chain management practices on increase the supply chain performance effectiveness which intern increase supply chain management performance effectiveness which helps to provide many direct and indirect benefits for suppliers and manufacturing companies where it represents the ability to invent and produce solutions that add more value to (customers) than existing offers (Siddig & Abdelsalam, 2016). As indicated by Elmuti, (2002) a key contributors of the success of supply chain management practice are include strategies to increase the integration of activities, sharing of information through the internet technologies and others, cooperation and collaboration throughout the supply chain channel, and establishing partnerships with key suppliers and outsourcing some of their activities.

Li & Ragu, (2005) identified the important dimensions of SCM practice, namely strategic supplier partnership, customer relationship, information sharing, information quality, internal lean practice and postponement. In otherword, Ana, Alceu, Adriana and Charbel (2014) identified four factors from his principal component analysis

which resulted in improvement and parsimony in understanding the construct of SCM practices which includes Supply chain integration, information sharing about products and targeting strategies, strategic relationship with customer and supplier, and support customer order. As researchers Omain & MdSalleh, (2010) stated dimensions of supply chain management practice are customer relationship, close supplier, close supplier relationship, information sharing, supply chain integration logistics, strategic location, Customer relationship, material management, strategic supplier partnership, information and communication technologies, corporate culture, close supplier partnership (Talib, Rahman, & Qureshi, 2011). Other researcher Mutuerandu, (2014) identified SCM practice as strategic supplier partnership, customer relationship, information sharing and training practices

All the studies (Omain & MdSalleh, (2010), (Talib, Rahman, & Qureshi, 2011), (Mutuerandu, 2014) and (Li & Ragu, 2005) are almost used similar dimensions of SCM practices to their respective studies such as strategic supplier relationship, information sharing, outsourcing, customer relationship, lean practices and others, they indicated positive results to support such practices to be applicable in their respective studies regardless of difference of style of management, geographical background, type of study organization. Therefore, this study supported such fact of more similarities found by them in terms of SCM practices dimension.

The main target of this study was to conduct assessment on the implementation level of supply chain management practice and its effect on organizational performance on the ground which are based on five basic perspectives of the supply chain management practices developed by (Perry and Sohl, 2000), (Petrovic-Lazarevic, 2007) and (Mutuerandu, 2014). These are namely; Strategic supplier partnership and customer relationship, Quality of information sharing, Lean practice and training. The following is the list of some common dimensions of SCM practices found in the literature.

#### **2.1.7.1. Strategic Supplier Partnership**

Strategic supplier partnership is defined as the long-term relationship between the organization and its suppliers (Ibrahim & Hamid, 2014) and enables the organizations to work more effectively with few important suppliers who are willing to share responsibility for the success of the products. Suppliers participating early in the



product design process can offer more cost-effective design choices, help select the best components and technologies, and help in design assessment (Tan, 2002). It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them to achieve significant ongoing benefits. The relationship is designed to control the strategic, tactical and operational capabilities of individual participating organizations to help them attain major constant mutual benefits (Jie, Parton, & Cox, 2007).

A strategic partnership emphasizes direct, long-term association and encourages mutual planning and problem-solving efforts (Gunasekaran, 2001). Such strategic partnerships are entered to promote shared benefits among the parties and on-going participation in one or more key strategic areas such as technology, products, and markets. Strategic partnerships with suppliers enable organizations to work more effectively with 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. According to Li et al, (2006), strategic supplier partnership is defined as the long-term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant on-going benefits.

#### **2.1.7.2. Customer Relationship**

Good relationships with supply chain members, including customers, are needed for successful implementation of SCM programs. As stated by Bratic, (2011), close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and enable them dramatically to extend the value it provides to its customers. Therefore, customer relationship is the key element in today SCM practices implementation in any organization (Hussain, 2014); (Mbuthia & Rotich, 2014). This is because the world today is in the era of massive growth of mass customization and personalized service which had forced organizations to maintain good relationship with customers for the sake of their survival (Jie, Parton, & Cox, 2007).

### **2.1.7.3. Quality of Information Sharing**

Information is the critical assets to the performance of supply chain management. With advances in information and communication technology, sharing information across organizations has become more feasible and information sharing is considered as an important approach to increasing organizational efficiency and performance (Tung & Terrence, 2010) because they provide the basis upon which management perform basic activity plan operations, organize supply chain (SC) processes, coordinate and communicate with business partners, conduct functional activities, and perform managerial control of physical flow of goods, information exchange and sharing among SC partners. The way in which entities in a supply chain become connected is through shared information (Christopher, 2011). Because information is serving as a bridge through which any connection can made between firms, individuals and any business partners. (Nicholas, 2005), suggested that, there is strong preliminary evidence that information sharing can bring major benefits for supply chains. Improved technologies make information sharing easy to increased consumer expectation and intensified competition.

Therefore, quality of information sharing is an important aspect in achieving perfect integration in a supply chain. Cross-functional integration and inter organizational integration requires the visibility of information across the supply chain. Poor information sharing between partners in a supply chain will result in poor coordination that will lead to many serious problems such as high inventory levels, inaccurate forecasts, low resource utilization, and high production costs. Indeed, information sharing is highly considered as the way to reduce demand uncertainty, cited by (Assefa, 2011). In old paradigm information is considered as the source power for single organization but now it shifts from single to the supply chain partners without hoarding information between them, special in case of coffee supply chain management. As stated by (Zahra-Lotfi, 2013) information sharing serves as an essential approach for the survival of enterprises and enabler of supply chain integration. Price is determined based on the international market. In order to update with price information, information sharing and trust between each partner are crucial and important.

#### **2.1.7.4. Lean Practices**

Lean practice is defined as a multi-dimensional approach that encompasses a wide variety of management practices, including just-in time, quality systems, work teams, cellular manufacturing, supplier management, and so on, in an integrated system (Shah & Ward, 2003). However, lean practice is referred to a process of eliminating waste time as well as resources in the production process (Wijetunge, 2017). This indicates as, a lean practice a management approaches that develop all the processes within the organization at every level which include removing all waste, stop shortages, minimize lead time, enhance stock turnover, and to make sure customer satisfaction. In other word,

The core thrust of lean practices are its several impotencies to the organization. This means the lean practices can work synergistically to create a streamlined, high quality system that produces finished products at the pace of customer demand with little or no waste (Woldemichael, 2012). The study investigated by (Roberto, 2014) found that Internal Lean Practice are positively associated with both operational and organizational performance. This indicates that Implementing of internal lean practices can stimulate the incremental of operational and organizational performance. Nowadays, lean is evolving into a management approach that improves all the processes at each level of an organization (Mwale, 2014). This makes the lean practice to make essential component in supply chain management practice measurement.

#### **2.1.7.5. Training**

The major concept of SCM is collaboration and seamless integration between various value adding activities within individual companies and across different organizations along a supply chain. Bringing this concept into practice requires significant changes in corporate culture as well as a new level of human performance. Successful implementation of SCM concept largely depends on human assets of organizations (Bowersox,2000) and (Mentzer & DeWitt, 2001). Because trained human power enables any business organization to achieve their plan successfully. The results of study conducted by (Raja & Muhammad, 2011) supports show that Training like on the job training and training design have significant effect on Organizational

Performance and all these have positively affected the Organizational Performance. It means effective implementation of SCM practice increases the overall organizational performance. In other word (Petrovic-Lazarevic, 2007) identified in his research, as a training has a significant contribution to improve the supply chain performance. Hence, now a day since the technology changing daily, in order to come up with new technology, training play great role for each partner at different stage of the supply chain. Therefore, training in the coffee supply chain management is about the creating awareness about importance of the supply chain management, coffee quality, new technology and etc.

### **2.1.8. Organizational Performance**

Organizational Performance has been defined as how well a firm achieves its market-oriented goals as well its financial goals. Organizational performance (OP) mostly related to phenomena of how well enterprises obtain their desired goals. Based on this, an organizational performance is an indicator that measures how well an organization is achieving its goals (Ho, 2008). This indicates analyzing a company's performance alongside its outputs such as goals and objective. Several studies have pointed out different dimensions of measuring organizational performance. But the majority of these studies have utilized financial and market indicators as main measures of organizational performance (Hussain, 2014) such as, market share, return on investment, the growth of market share, the growth of sales, growth in return on investment, profit margin on sales and overall competitive position of the organization (Li, Ragu, & Nathan, 2006).

Every task in an organization contributes to the satisfaction of one or more organizational goals through performing its process instances. To achieve corporate strategic objectives, mission and values, organization need to improve on its perceived organizational performance (Cho, 2012). Perceived organizational performance usually involves tasks that establish organizational goals, track progress to achieve goals and make adjustments to hit those goals. It is an integral part of managing an organization. The possibility of proactively surfacing the performance gaps will mitigate risk that may impact the achievement of the defined goals. Past literatures tend to focus on perceived organizational performance extensively in manufacturing industry. The measures of this perceived organizational performance

usually include financial performance, product sales performance and shareholder return. Business firms may use profits, sales, market share, productivity, debt ratios and stock prices as the measurements (Cho, 2012).

There are other measures focus on product quality, competitive position and customer service (Li & Ragu, 2005). Accounting measures have several strengths and are widely available because governments require firms to publish accounting data and the fact that they are subject to internal controls within firms enhances their reliability. Non-financial firm performance measures include; opportunities to maximizing returns on investment at minimal costs, promote stakeholder relations between customers, suppliers, investors, and competitors, increase profits, volume of sales, market share, development of new products, and communication within and outside the organization. But the foundation of long-term performance is lifetime customer value; the revenue customers generate over their lives, less the cost of acquiring, converting, and retaining them (Galvin, 2005). Business firms may use profits, sales, market share, productivity, debt ratios and stock prices as the measurements (Cho, 2012). The measures are finally streamlined to key performance outcome measures such as reliability, responsiveness, assets, cost, revenue, customer satisfaction, sustainability and safety (Acharyulu & Shekhar, 2012).

Even though, there are various studies available in the past on OP, still there is no universal definition that can be used to measure OP. Some of the researchers use financial performance to measure OP. Some others use non-financial performance to measure the performance of an organization. In the current study, financial and market factors have been considered to measure OP. Those are the measures of organizational performance adopted from (Li, Ragu, & Nathan, 2006); (Cho, 2012) and (Acharyulu & Shekhar, 2012) which are cost saving, forecasting accuracy, reduced inventory level, product and service quality, market share growth and profit margin. It is important to look into the following SCM aspects and recognize areas in which they may develop coffee cooperative and able to measure its performance.

#### **2.1.8.1. Cost Saving**

Cost saving can be defined as an action or a systematic strategy. With appropriate strategic planning, it may be anticipated that the utilization of resources will be optimized leading to cost savings. For example, reduced cycle time in production

could be materialized through reducing set-up time and/or eliminating non value-added activities. With a shortened cycle time, more orders could be processed, which would then result in improved efficiency and reduced production cost per unit (Koh, 2007).

#### **2.1.8.2. Product and Service Quality**

According to Somuyiwa, Mcilt & Adebayo, (2012) product and service quality indicates the ability of an organization to offer product quality and performance that creates higher value for customers. A lot of companies' stress quality as a means to stay competitive in the marketplace for a long period of time. They have a reputation of high quality as representing future market share for new customers and maintaining market share for existing customers over their lifetime. Further, improving quality can provide the term financial savings (Bratic, 2011). Implementation of SCM practices like strategic supplier partnership, customer relationship, and information sharing and lean practices will ensure production of high-quality products as well as provision of quality services. For instance, good cooperation and close exchange of information with customers will ensure production of quality products that customers' need.

#### **2.1.8.3. Forecasting Accuracy**

It is a planning tool that helps business people in their attempts to cope with the uncertainty of what will might and might not occur. Forecasting accuracy is the most important feature in the performance of supply chains. It is a joint performance of a combination of resources such as supply of material, manufacturing, production planning and customer demand prediction. Wickramatillake, (2006) applied the baseline forecast to consider the major milestones of a large-scale project in order to measure the performance of the supply chain with respect to meeting the delivery targets. Through closer partnerships with suppliers and customers, it is anticipated that information could be shared, and thus, served into demand forecasts to improve the accuracy of predictions. This forecast will in turn enable the firm to deliver the order more confidentially (Koh, 2007), by determining what is going to happen in the future by analyzing what happened in the past and what is going on now

#### **2.1.8.4. Reduced Inventory Level**

Lean practices such as Just-in-Time supply allows minimum inventory holding through supplies delivered when they are needed. As stated by (Mistry, 2006), applying SCM practice will reduce inventory level, make free up warehouse space and free cash flow. Therefore, effective implementation SCM practices can reduce the level of high inventory keeping which in return will lead to problems such as piling up of the stocks in the processors' warehouses, spoiled products due to obsolescence, increased distribution and recall costs, increased inventory cost and significant decrease in profit margin resulted from spoiled products (Ruteri and Xu, 2009).

#### **2.1.8.5. Market Share Growth**

A competitive supply chain in the market might be characterized by efficient use of chain resources which would lead to lower product cost, better product quality, faster response and therefore eventually higher market share (Koh, 2007).

#### **2.1.8.6. Profit Margin**

Profitability measures include values and ratios that incorporate net income or a component of net income such as operating income or earnings before taxes. But the profit margin is a ratio of a company's profit (sales minus all expenses) divided by its revenue. As stated by Richard, (2009), profit margin is the ratio of net operating profit to sales. It denotes as a measure of profitability since it measures how much out of every dollar of sales a company actually keeps in earnings. Moreover, implementation of SCM practices such as customer relationship and information sharing improve organizational profit margin because it allows organizations to access valuable information which will enable them to differentiate its products from the competitors, and hence withstand customer loyalty.

### **2.1.9. SCM Practices and Organizational Performance**

Supply chain management practices impact overall organizational performance as well as competitive advantage of an organization (Mwale, 2014). This means, SCM practices can act as the means for creating and sustaining a competitive advantage and enhancing organizational performance for the firm and for the entire supply chain (Perry II, 2012). Therefore, the higher levels of SCM practice implementation can

lead to higher levels of organizational performance and vice versa is true. For instance Karimi & Rafiee, (2014) Provided an empirical justification for a framework that identifies four key dimensions of SCM practices (Strategic supplier and partnership, customer relationship, level and quality of information sharing) and their direct impact on organizational performance (market and financial performance, customer)

In other word Dinberu, (2016) tried to study on the topic of Supply Chain Management Practices and Performance of Ethiopian Public Merchandise Business Enterprise. This study examines the relationship of supply chain management practices (strategic supplier partnership (procurement and supply management), transportation and logistics management, customer relationship management, level of information sharing, and internal lean practice) with operational and organizational performance. The finding confirmed that, among supply chain management practices; strategic supplier partnership, customer relationship management have statistically significant contribution to the competitiveness of the enterprise.

## **2.2. Empirical Literature Review**

The study conducted in Malaysia based on the link between supply chain management practices and healthcare's perceived organizational performance by employing dimensions of supply chain management practices such as demand management, information and technology management capacity and resource management, customer relationship management, supplier relationship management independent variables influencing healthcare's organizational performance (Meisamet, 2014). The results from this study depicted that to have a positive and significant relationship within perceived SCM and organizational performance.

Muhammادت, (2018)identified impact of Supply Chain Management Practices on Organizational Performance in small and medium enterprises (SMEs) in Punjab, Pakistan by using Strategic Partnership with Suppliers, Level of Information Sharing, Quality of Information Sharing, Internal Supply Chain Process and Lean Practice as independent variables affecting the organizational performance. The result from the study indicated that, quality of information sharing, internal supply chain process, and lean practices had significant influence on organizational performance while strategic partnership with supplier and level of information sharing had no any influence.



According to Li, Ragu, & Nathan, (2006) five dimensions of SCM practices (strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement) developed and the relationships between these SCM practices and organizational performance (market and financial performance) had conceptualized. The result indicated that higher levels of SCM practice can lead to the achievement of higher organizational performance.

Mwale, (2014) conducted a study on supply chain management practices and organizational performance of large manufacturing firms in Nairobi, Kenya. The study clear that there is a significant relationship between supply chain management practices and organizational performance explained by the seven independent variables strategic supplier partnership, customer relationship, level of information sharing, quality of information, extent of outsourcing, lean practices and postponement. It was also clear from the study that the seven independent variables positively impact organization performance; however, customer relationship and strategic supplier management had the greatest impact. Through the analysis of the relationship between supply chain management practices and organization performance, it was demonstrated that the practices may directly affect organization performance.

However, there is no study on effect of supply chain management practice on organizational performance in case of farmers' coffee cooperative. This has been identified as the research gap.

### **2.3. The Gap of The Study From Previous Studies Conducted In Jimma Zone Of Coffee Cooperative**

There is a lack of previous studies concerning SCM practices implementation and how it effects on the organizational performance in Jimma Zone Coffee cooperative. Most resent coffee related study conducted internationally and locally are not given attention to the research topic; effect of Supply chain management practice on organizational performance. Some of them are, understanding the coffee production and marketing value chain system in Ethiopia (Alemayehu, 2014), Assessment of pre and post-harvest management practices on coffee in Gedeo zone (Kidist, Zerihun, & Biniam, 2019), constraints and opportunities in the coffee supply chain in Ilu Aba

Bor (Belay, 2017), and also on the value chain analysis of coffee in Jimma Zone (Bizualem, Degye, & Zekarias, 2018) are not on supply chain management practice and its impact on organizational performance. As far as the knowledge of the researcher concerned, no research had been conducted on the effect of Supply Chain Management practices on organizational performance in the Coffee cooperative in Jimma Zone. As far as the knowledge of the researcher concerned, there are no empirical studies conducted on the effect of Supply Chain Management practices on organizational performance. Hence, this study therefore aimed at bridging this gap by constricting five SCM dimensions from perspectives of strategic supplier partnership, customer relationships, Quality of information sharing, internal lean practices and training in case of farmer's coffee cooperative in Jimma Zone.

#### **2.4. Conceptual Framework**

The primary objective of this study is to formulate a conceptual framework to focus on supply chain management practices impact on the coffee cooperative perceived organizational performance in Jimma Zone. Such a framework could help us better comprehend supply chain management practices and its impact on perceived organizational performance. Considering the various dimensions of supply chain management practices and measurement of organizational performance proposed by several researchers, the researcher adapted a research framework that encompassed the following five dimensions of supply chain management practices: strategic supplier partnership, customer relationship, information sharing, lean practices and training. For organizational performance measurement four financial/ operational (Cost saving, product and service quality, forecasting accuracy, reduced inventory level) and four market (market share growth and profit margin) as performance measurements were adapted.

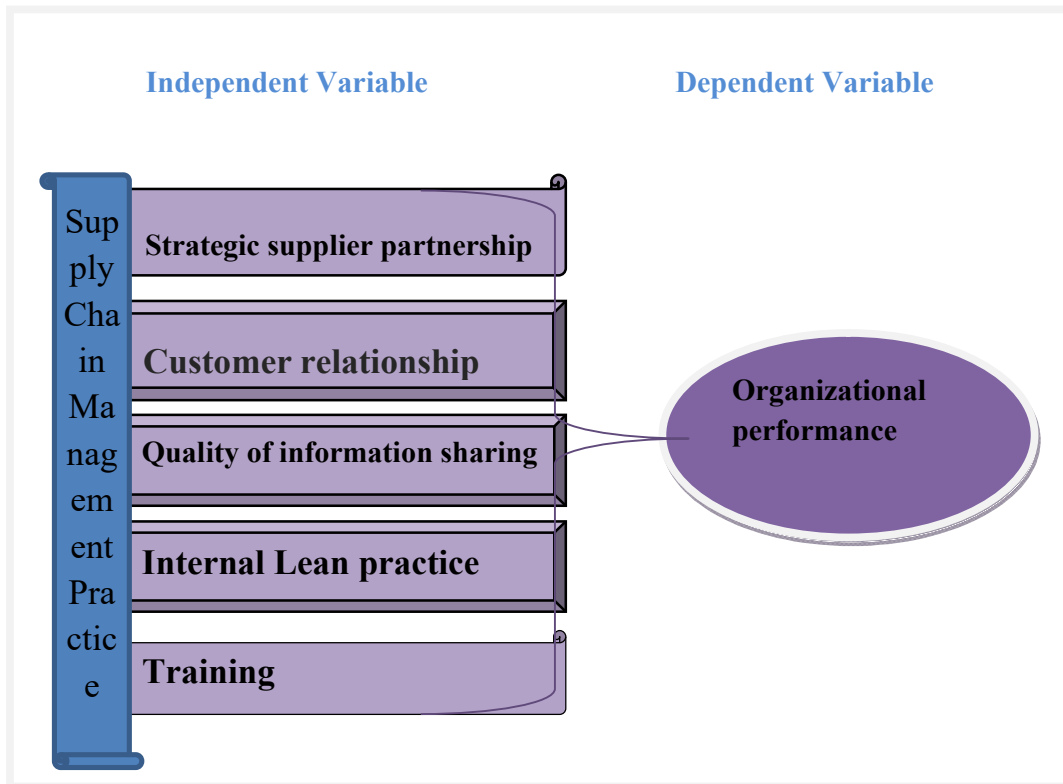


Figure 1.1: Conceptual framework of the Research

Source: Based o literature review by Researcher (2019)

# CHAPTER THREE

## 3. RESEARCH DESIGN & METHODOLOGY

### Introduction

This chapter presents the design and methodology of the research. It discusses the description of research approach, design, target population of the study, sample and sampling techniques, sources of data, instruments, procedures of data collection, ethical consideration, the employed methods of data analysis to achieve the objective of study have been discussed under this chapter.

### 3.1. Research approach

The study employed mixed method research approach to draw meaningful results from both quantitative and qualitative data. This approach is the product of the pragmatist paradigm and that combine the qualitative and quantitative approaches within different stages of the research process (Tashakkori & Teddlie, 2010). It helps to gather two types of data simultaneously as well as sequentially and to make sure of both quantitative and qualitative methodological approach to answer a particular research problem (Creswell, 2014). The main reason of employing mixed approach is to exploit the advantage that both approaches have by filling their gap that came from their weakness in such a way that qualitative approaches supplement and enriches the quantitative approach.

According to Khairu, (2008), combining multiple techniques (triangulation) was used for eliciting data strengthens and confirmed results more. Therefore, quantitative approaches have employed to collect large data from participant through questioner and qualitative data have been used to enrich quantitative data and to obtain basic information from coffee cooperative management members which might be not properly answered bay normal questioner through interview. Hence the qualitative data have tended for open ended responses while quantitative data usually includes closed-ended responses found by questionnaires. Therefore, this study has been adopted a concurrent embedded mixed research design in which both quantitative and qualitative data will be collected and analyzed simultaneously (Creswell, 2014) to

examine the degree to which practice of SCM and its effect on organizational performance of coffee cooperative in Jimma Zone.

### **3.2. Research design**

For any investigation, the selection of a suitable research design is critical in enabling to reach at valid findings, contrasts and conclusions. According to Ranjit, (2011) a research design is a procedural plan that will be adopted by the researcher to answer research questions validly, objectively, accurately and economically. Hence, this study used both descriptive and explanatory designs in order to achieves the above-mentioned objectives.

### **3.3. Types and source of data**

There are two types of data; Secondary and primary data. In this study, the primary data which is the first-hand information that can collect directly from an original source has targeted. Primary data can be collected through observation, interviews, or the use of questionnaires (Saunders, Lewis & Thornhill, 2009). Having beer in mind this, investigator was collected a data from selected sample population of Jimma Zone Coffee Cooperative using a questioner.

### **3.4. Target population**

Population is defined as the entire set of individuals or other entities to which study findings are to be generalized (Schutt, 2011) and may be include a set of people, services, elements, events, group of household that are being investigated (Ngechu, 2004).The target population of this study is those part of population to which the result of the study have generated. As a result, all eighty (85) farmers' coffee cooperatives and one thousand forty (1,040) management members in Jimma Zone are the target population of the study.

### **3.5. Sample Unit and Frame**

The individuals whose characteristics are to be measured in the analysis are sample unit. Before selecting the sample, the population must be divided in to parts called sampling units'/sample units. Sometimes the researcher chooses a sample in two or more stages when the researchers cannot easily identify the population or the population is extremely large. For such types of case, it can be difficult to obtain a complete list of the members of the population and the researcher have to force to

apply multistage sampling. Hence, for this study a multi-stage sampling design, which is further development of the principle of cluster sampling have been employed in order to choose respondent from target population in the study area. Thus, the employed sampling unit and frame are:

*Stage1.* The primary sampling units is stratifying the woreda/district. Hence, there are four strata: Gomma, Limmu, Jimma and Nada strata.

*Stage2.* The secondary sampling units are selection of Manna, Gomma and Limmu-kossa district in which they are selected from each three strata by using appropriate sampling technique

*Stage3.* The third sampling units are coffee cooperative in which some coffee cooperative is selected from total of 52 exist in the three districts.

*Stage4.* The fourth sampling unit is the respondent sampling. Sample of respondents were selected from management member of each selected coffee cooperative by appropriate formula.

With regard to the sampling frame, list of sampling units prepared to smoothly select the samples from them by using different method which will be discussed in the next section.

### **3.6. Sample Size and Sampling Technique**

During the selection of participants for any study, it is important to determine the size of the sample required for investigation. A sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population. When the target population is infinite or too large in case of finite, it is difficult to overtake investigation through the hole target population and the researchers then, forced to select a sample for study. According to Schutt, (2011), sample defined as a subclass of a population used to study the whole population. But the size of sample should neither be excessively large, nor too small. It should be optimum in which an optimum sample is one which fulfills the requirements of efficiency, representativeness, reliability and flexibility (Kothari, 2004).

Based on information provided by Jimma Zone Administrative office, all 20 woreda/district of Jimma Zone are grouped in to four clusters based on their geographical Settlement. This clustering system of district was taken as strata for the

purpose of this research. Those are strata of Gomma (Gomm, Geera, Gumay, Sigimo and Satama district), Strata of Limmu (Limmu-Kissa, Limmu-Saka, Botor Tolay, Chora-Botor and Nono-Benja), Strata of Jimma (Mana, Saka-Chokorsa, Shabe-Sombo, Qarsa and Dedo) and Nada strata (Omo-Nada, Omo-Beyam, Mencho, Tiro-Afeta and Sokoru). Out of those, the three strata (Gomma, Limmu and Jimma) were purposively selected. Because they are the only coffee productive area and they are the strata in which all eighty coffee cooperatives exist. Nada strata which contain five districts are the unique area in which no/ little coffee production and no any coffee cooperatives contained have been excluded from the study area. As a result, this study has been focused only on each 15 districts of the three clusters. Therefore, the selected samples strata are Gomma strata, Limmu strata and Jimma Strata.

In the sampling of district, because of their uniformity and assumption to represent each other within the same strata, three districts are selected by simple random Sampling technique from each three strata which include Gomma from Gomma strata, Limmu-kossa from Limmu strata and Manna from Jimma Strata. According to data gathered from Jimma Zone Cooperative development office (JZCDO, 2019), there are total of 52 coffee cooperatives exist in all three selected districts. Out of total fifty-two (52), twenty-six (26) coffee cooperative (50%) are taken purposely as a sample of cooperative study. The assumption is that, those sample to be taken will enough to represent all the remain because of their similar situation. According to evidence from JZCDO, there are thirteen management members for each coffee cooperative and there is a total of 338 members in twenty-six coffee cooperative.

When it is not possible to study an entire population but the population is known, a smaller sample is taken using a random sampling technique. Slovin's formula allows a researcher to sample the population with a desired degree of accuracy (Stephanie, 2013) with regard to the level of accuracy, a confidence level of 95% as suggested by Kothari (2005), this means that there are 95 chances in 100 (or 0.95 in 1) that the sample results represent the true condition of the population within a specified precision range against 5 chances in 100 (or 0.05 in 1) that it does not.

The Slovin's formula is calculated as follows:

$$n = \frac{N}{1 + Ne^2}$$

n= sample size

N= Total population

e= Error tolerance

The total population size of the research was 338 management member of Coffee cooperative and sampling error of 5%, and then resulted the following sample size.

$$n = \frac{338}{1 + 338X(0.05)^2}$$

$$n = \frac{338}{1.845}$$

$$n = 183$$

**Table 1.1: Sample size and sampling technique**

No	Sampling unit	Population	Sample		Sampling technique
			No	%	
1	Cluster	4	3	75	Stratifying
2	Woreda	15	3	20	Simple lottery method
3	Cooperatives	52	26	50	Stratified Proportionate sample
4	Respondents	338	183	54%	Slovin's formula sampling size

Source: Researcher (2020)

The sample size of 54% (183) is supported by Kothari (2004), who indicates that an optimum sample is the one that fulfills the requirements of efficiency, representativeness, reliability and flexibility. According to Kothari this sample is above 50 %. (cited at Lin et, 2015)

### 3.7. Data Collection Instrument and Techniques

In this study, the questionnaires were adapted from previous researches conducted by (Li, Ragu, & Nathan, 2006) and (Priscila & Luiz, 2011) to measure the study variables in which a quantitative and qualitative data collection instruments and techniques were employed. Specifically, the quantitative data collected through closed



ended questioner and qualitative data collected by employing semi structured interview with some of the leaders of the coffee cooperatives through open-ended questions from the managers and member of management to gain information to supplement and triangulate the numeric information that were gained from cooperative manager and management members. Therefore, Likert type questioners were used as the main instrument to gather data for the major or primary approach (quantitative) in this stud. Additionally, open ended interview questioners were held with specific management members to strengthen and cross-check the data obtained from each respondent in selected survey areas.

The adopted questionnaire has two major section; section A have outlined some important guidelines of the purpose of ensuring ethical issues have to considered in the given study. It consists of title, objectives, and benefits of doing such study and specifies the characteristics of people who were required to answer it while section B consists of research questions. In addition, section B has three parts. The first part contained questions that helped to generate demographic profile of the respondents together with their respective firms, the second part; answered questions on objective of the research and the third part was interview question. The mode of administration would through three techniques; by telephone, e-mail and face-to-face interview. Moreover, researcher has follow-up and clarification were provided through telephone and contacting face to face to ensure proper understanding of the asked questions as well as to remind the respondents to submit their (feedback) answered questionnaires on time.

### **3.8. Method of Data Analysis and Presentation**

Data analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data-groups (Kothari, 2004). The data can be reanalyzing by the help of two sets of statistics namely, descriptive and inferential statistics. For the sake of this study the quantitate data to be gathered was analyzed using descriptive and inferential analytical technique with the help of Statistical Package for Social Sciences (SPSS version 20). The qualitative data analyzed simultaneously by triangulating together with descriptively and inferentially analyzed data.

Descriptive statistics were used to analyze demographic factors such as respondents age, sex, educational qualification, position and work experience within the organization. Based on this frequency distribution, mean (to describe the central position) and standard deviation (to describe the spread of score) were generated for each questioner depending on the nature of the questioner and the type of scale employed (nominal, ordinal, interval or ratio) to describe, present and summarize quantitative information.

Inferential analyses were conducted by using correlation and multiple regression techniques to show the relationship and the significance between dependent and independent variables. Hence, the relationships proposed in the framework of this study were tested by Pearson correlation with quantity of  $r$ , called the linear correlation coefficient, which measures the strength and the direction of a linear relationship between the two variables. In the other hand, a multiple Regression was employed for this study to determine a statistical relationship between the variables. Because a multiple regression is more preferable way of determining the effect of more than one independent variable on one dependent variable. Additionally, the researchers used five determinant factors as independent variables and organizational performance as dependent variable in the developed regression model in order to identify the statistical significance effect of the independent variables on the dependent variable. This regression model is:

$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon$ , where  $Y$  = Organization performance;  $\beta_0$  = the  $y$  intercept when  $x$  is zero;  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ , are regression coefficients of the following independent variables respectively;  $x_1$ - strategic supplier partnership;  $X_2$ - customer relationship;  $X_3$ - quality of information sharing;  $X_4$ -Internal Lean practice and  $X_5$ - Training. Furthermore, for data presentation tabulated description (that is, tables) and graphical description (that is, charts) have been used during analyzation of preliminary data.

### **3.9. Pre-Test**

The close-ended Likert type questionnaires were selected for the purpose of this study and this type questionnaire selected because of its more appropriateness to administer to groups of people. Simultaneously, it is less costly and less time consuming than other measuring instruments. In addition, the Likert scale is a widely used rating scale

which requires the respondents to indicate the extent to which agree with each of a series of statements or questions i.e. from (1) not extent to (5) strongly great extent. The questionnaire was also included some questions about educational back ground of respondents, employee level of the respondents, experience of the respondents at their current position. However, according to the research texts, in survey-based research, before the questioners are administrated, it is important to validate the scales used for reliability and validity. However, for the purpose of this validation, the pilot study is one of the important stages in a research study and is directed to identify possible problem and deficiencies in the implementation of research instruments during the full study (Hassan & Mazza, 2006). Pilot test was undertaken prior to the main study by selecting 36 respondents (20% of the main sample size) from the target population. This is based on the justification of (Hazzi & Maldaon, 2015) which says, 10–20% of the main sample size is a reasonable number for conducting a pilot study. Though, the questionnaire used for this survey is adopted form previous research with minor customization and its validity were tested. Hence, the researcher has made a pre pilot survey to test only the questioner reliability on current survey situations-based Cronbach's Alpha value.

### **3.9.1. Validity**

Validity is the extent to which a score on a scale or test predicts scores on some criterion measure (Cronbach & Meehl, 1955) as cited in Gleam & Rosemary, 2003). To ensure precision, relevance and content validity of the instrument, the questionnaire was subject to critical evaluation by the researcher. The questionnaire tested in order to check its content, construct and face validity. The questionnaire was standardized and adopted from Li et al (2006) with few additions which mean the instrument is already valid and tested. Therefore, it can be concluded that all independent variables used as supply chain practice was valid.

### **3.9.2. Reliability**

Reliability is measures of internal consistency that concerned with items' responses consistent across constructs and indicates scores are stable over time when the instrument is administered (Creswell, 2009). To test reliability this study used Cronbach's alpha as a diagnostic measure, which assesses the consistency of entire scale, since it being the most widely used measure. The justification for this was based on the rule of thumb provided by George and Mallery (2003) which include the

value of:  $\geq 0.9$  to excellent,  $\geq 0.8$  to good,  $\geq 0.7$  to acceptable,  $\geq 0.6$  to questionable,  $\geq 0.5$  to poor, and  $< 0.5$  to unacceptable. Hence, prepared questioners have distributed to a sample of 36 respondents for the pilot test and the test results of readability was presented as indicated in the table 3.2. The test result is between 0.704 and 0.862 and the whole reliability value shows 0.7 Cronbach 's alpha coefficient. The result of pilot test data shows that, the research questionnaire has a good reliability and acceptable. Therefore, after verifying the construct and content validity, the questioners have been distributed to the respondent for a purpose of normal study.

**Table 2.2: Reliability**

Items	No of Sample	Numbers of Items	Cronbach's Alpha	Result
Strategic supplier partnership	36	5	0.704	Acceptable
Customer relationship	36	5	0.844	Good
Information sharing	36	6	0.716	Acceptable
Lean practice	36	5	0.714	Acceptable
Training	36	4	0.771	Acceptable
Organizational Performance	36	6	0.862	Good
The whole Reliability	36	31	0.797	Acceptable

Source: Researcher (2020)

### 3.10. Ethical Consideration

During investigation of any research, it is very important to considering all necessary ethical issues that relate to all research participants directly or indirectly which include privacy right, keeping security of the organization in order to depend on the agreement than enforce. Most ethical issues fall into one of the following four categories which include informed consent, confidentiality, security and honesty (Leedy & Ormrod, 2010). Based on this, Support letter was obtained from Jimma University, College of Business and Economics. In addition to this, permission and support letters were collected from Jimma Zone Cooperative Development Office and copies of these letters were dispatched to the concerned organizations at a woreda later. There were letters of Jima university, Office of cooperative organization of Zonal and Woreda level at the hands of data collectors to show for those who want to assure our recognition.

The data collectors explained the aim of the study and data collection procedures to the management members and, asked them if they would like to participate in the study. Additionally, it was explained that there will not be any incentive for participation in this study and the interviewee has a full right not to be involved in the study or withdraw from the study at any time. Finally, confidentiality was ascertained by anonymization of the data, and personal data was not disclosed beyond data collectors, supervisors and principal investigator without full willingness of study participant.

# CHAPTER FOUR

## 4. RESULT AND DISCUSION

### Introduction

The findings of the study were presented and discussed in this chapter. The questionnaire was developed in five scales ranging from one to five; where 1 represents to not at all, 2 to a small extent, 3 to a moderate extent, 4 to a great extent and 5 to very great extent. The study was targeted 184 respondents in collecting data and out of distributed questionnaires, only 179 were returned and used for analysis. So, this makes a response rate of 97.2%. This percentage was considered sufficient for this study. Therefore, the analysis was made based on 179 replied questionnaires. Frequency proportions and percent were used to determine the respondent information. Mean and standard deviation employed to identify the level of SCM practices and organizational performance of FCC. Pearson correlations were used to test the relationships proposed in the framework. In order to assess the effect of supply chain management practices on organizational performance, Linear regression analysis was conducted for scale typed questionnaire. Table and chart were applied in order to display the output data coded and analyzed via Statistical Package for Social Science (SPSS-20) software.

### 4.1. Socio Demographic Characteristics

This section basically presents general information about respondents in which the frequencies and percentages were used to present quantitative data in the form of tables and charts for demographic description of respondents. The general information collected was including gender, age, qualification, job title and work experience. Gender was assessed to understand the involvement of both genders in the study. The level of education was important to imply that the respondents were well educated and had the ability to understand and respond to the issues sought by the study. Work unit (job title) was required to infer that the respondents were able to ascertain whether they had relevant knowledge about supply chain management practices sought by the research. Work experience was important to ensure aspects of

familiarity and experience of the respondents in matters of supply chain management practices

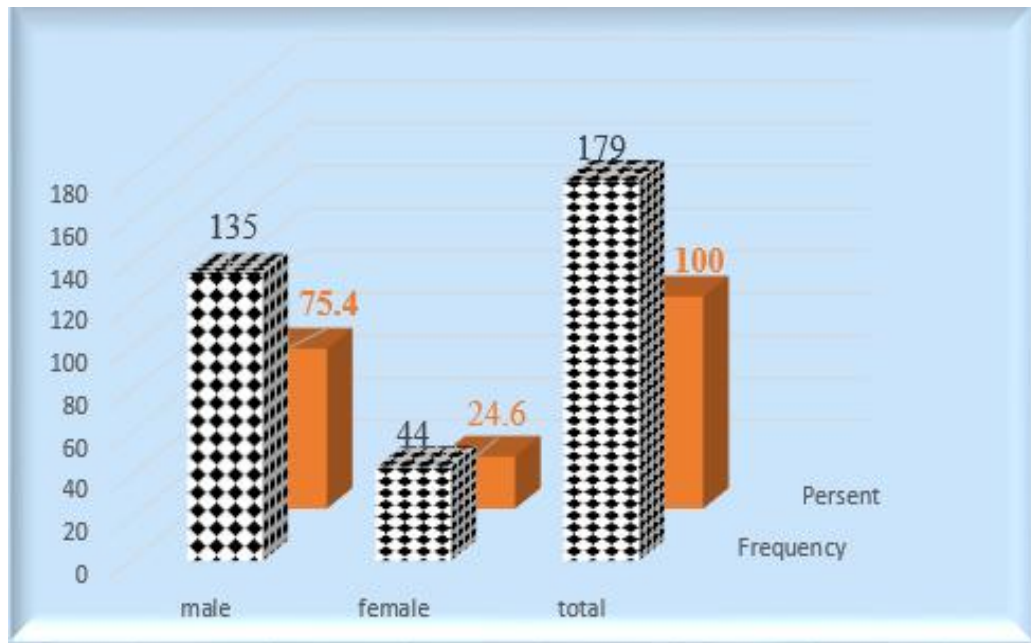
#### 4.1.1. Gender of Respondent

The study sought and obtained gender and age details of the respondents as shown in table 4.1 As it is shown in the table 4.1 blow, 75.4% of the respondents are males but remaining 24.6% of the respondents are females. This indicates the involvement of both genders in the study organization and also show that each supply chain management departments in the coffee cooperatives are highly dominated by the male members.

**Table 4.1: Gender of Respondent**

Sex	Frequency	Percent	Valid Percent	Cumulative Percent
Male	135	75.4	75.4	75.4
Female	44	24.6	24.6	100.0
<b>Total</b>	<b>179</b>	<b>100.0</b>	<b>100.0</b>	

Source: Researcher (2020)

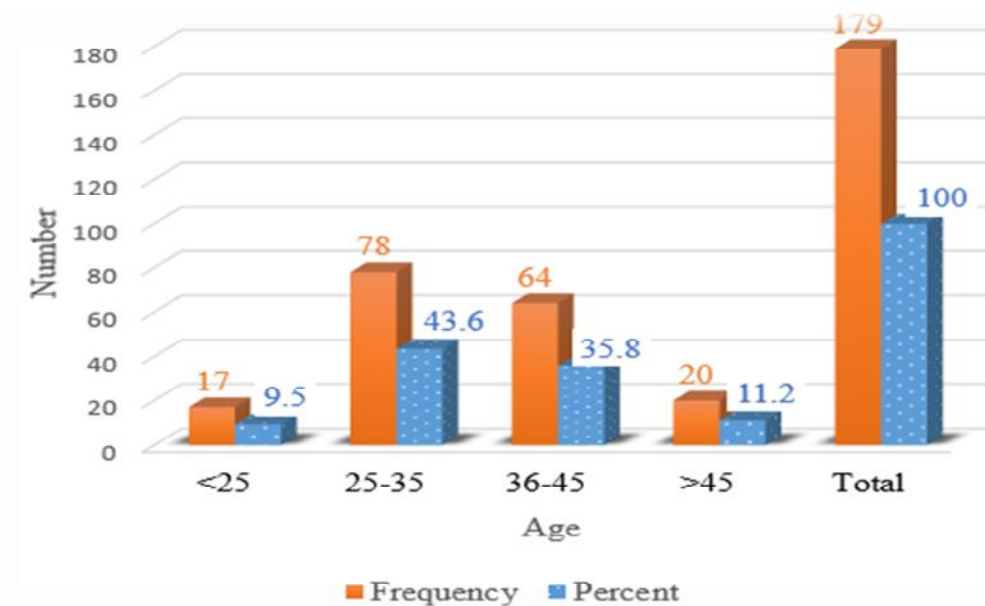


### Figure 4.1: Gender of Respondent

Source: Researcher (2020)

#### 4.1.2. Age of Respondent

As indicated in the table 4.2 below, about 9.5% of the respondents are below 25 years, 43.6% of the respondents are in the age range of 25-35 and 35.8% of the age of respondents is between 36-45 years. These three categories comprise 88.9% of the respondents. But only 11.1% of the respondents are at age category of above 45 years. These suggest that supply chain management departments of each farmers' coffee cooperative are comprised of younger work force which makes them advantageous to grow fast.



### Figure 4.2: Age of Respondent

Source: Researcher (2020)

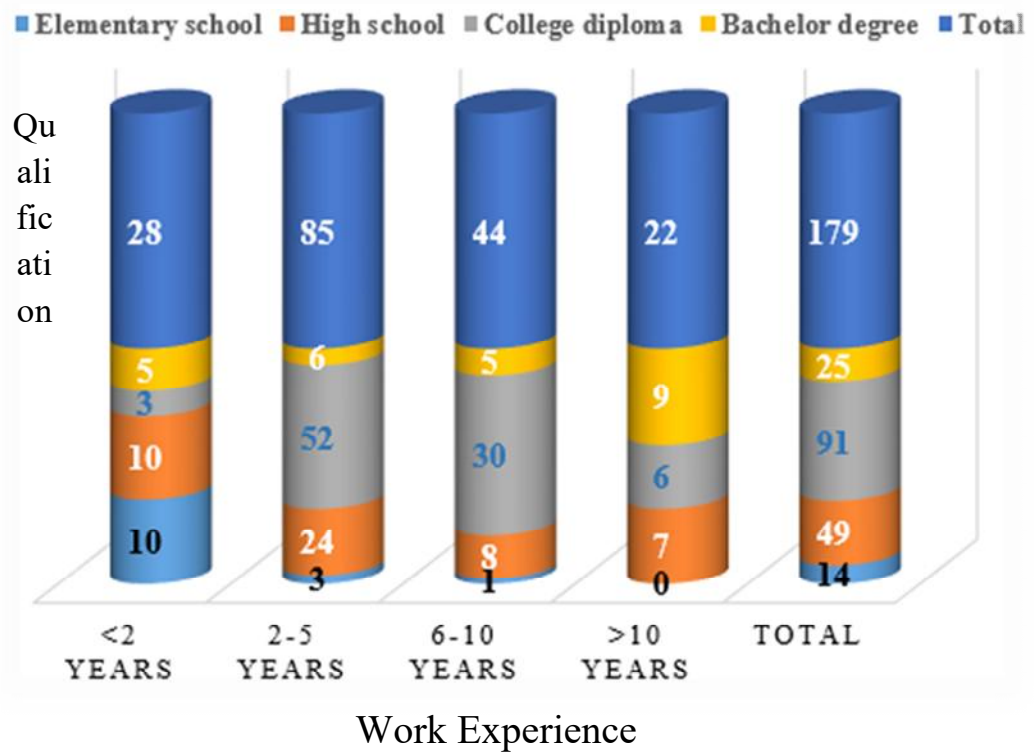
#### 4.1.3. Education Status and Work Experience of Respondents

The study sought to find out the education level, and work experience of respondents and the responses were analyzed as shown in table 4.3 below. As it showed clearly in the table, majority of respondents possessed college diploma (50.8%) and bachelor degree (14.0%). Respondents with Elementary School and high school were of 7.8%



and 27.4% respectively. Therefore 64.8% of respondents was well educated and had the ability to understand the questions they were presented with and have enough potential to manage their firm.

In addition, from the summary of table 4.3 blow, the large number of respondents work experience lies between 2 to 5 years (47.5%), followed by 6-10 years (24.6%) and in some extent over 10 years (12.3%). Only few respondents have less than 2 years (15.6%) work experience. Therefore, since majority of respondents lie above 3 years of work experience, this shows that the respondents are well experienced and knowledgeable about overall activities of their organization and its organizational



performance.

source: Researcher (2020)

Figure 2.3: Qualification and work experience of respondents

#### 4.1.4. Job Description of Respondents

The results of job title representation of respondents are shown in table 4.4. The result indicates that 12.8% of the respondents were from Chairman, 10.6% of the respondents were from Vice chairman, 11.7% of the respondents were from General Secretary, 11.2% from finance manager, 12.1% from Sight Manager, 10.1% from accountant, 9.5% from warehousing keeper, while 21.8 % of the respondents indicated that they were from other department like head of controlling committee. The results indicate that the respondents were from different work unit and thus they will give an independent view of supply chain management practices and Organizational performance. This implies that, the farmers' coffee cooperative has different work force requirements based on their work load.

**Table 3.2: Job Title of Respondents**

<i>Job title</i>	<i>F</i>	<i>P</i>	<i>VP</i>	<i>CP</i>
<i>Chairman</i>	23	12.8	12.8	12.8
<i>Vice chair mane</i>	19	10.6	10.6	23.5
<i>G/ secretary</i>	21	11.7	11.7	35.2
<i>Financial manager</i>	20	11.2	11.2	46.4
<i>Sight manager</i>	22	12.3	12.3	58.7
<i>Accountant</i>	18	10.1	10.1	68.7
<i>Warehousing keeper</i>	17	9.5	9.5	78.2
<i>Others</i>	39	21.8	21.8	100.0
<i>Total</i>	179	100.0	100.0	

*F=Frequency, P=Percent, VP=Valid percent, CP=Cumulative percent*

Source: Researcher (2020)

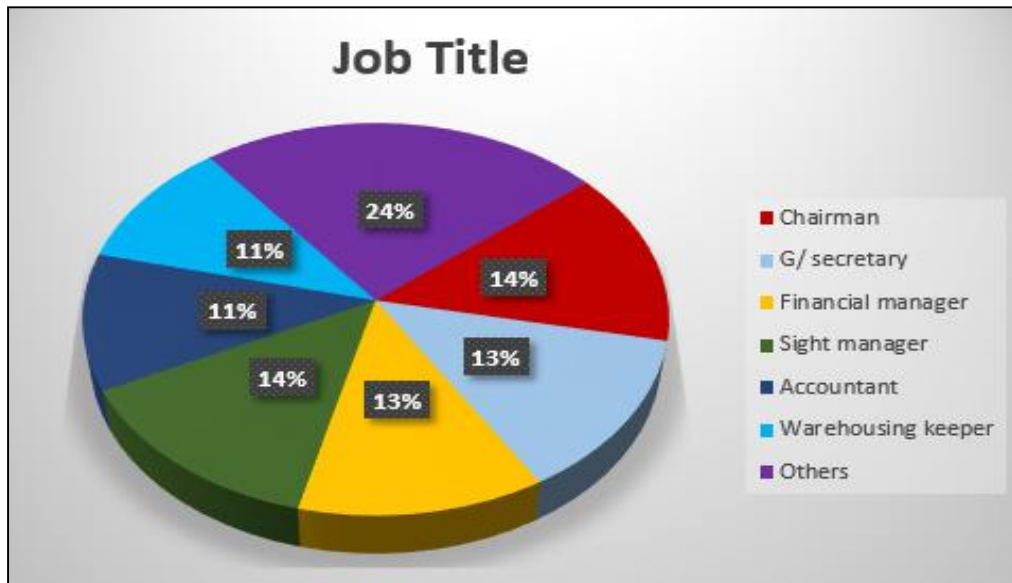


Figure 4.4: Job Title of Respondents

Source: Researcher (2020)

## 4.2. Descriptive Analysis

Descriptive statistics are numerical and graphical methods used to summarize data and bring forth the underlying information. The numerical methods include measures of central tendency and measures of variability. Measures of central tendency provide information about a representative value of the data set. Arithmetic mean (simply called the mean), median, and mode are the most common measures of central tendency. For the purpose of this study mean and standard deviation were employed

to analyses the practices of SCM and their effect on farmers’ coffee cooperative performance. The mean and group mean statistical values approaching to greater than 3.5 indicates present of understanding and its practice at greater than moderate extent. The mean value between 3.00 -3.5 indicates understanding and practice at a moderate extent and less than 3.00 value were indication of small extent of SCM practice in farmers’ coffee cooperative.

**4.2.1. The extent of SCM Practices and Organizational Performance**

This section has presented the extent of practical implementation of SCM practices and to improve an organizational performance of farmers’ coffee cooperative. The main goal was to calculate the percentage, mean and standard deviation of study variables. A number of questions were asked to the respondents who gave their

Variables	N	M	S. D
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responses on a scale of 1-5 where 1 represents to not at all practiced, 2-to a small extent, 3-to a moderate extent, 4-to a great extent and 5-to a very great extent.

**4.2.1.1. Strategic Supplier Partnership (SSP)**

Respondents were asked to indicate the extent to which the five variables under strategic supplier partnership practice were experienced in its company. These variables include considering quality as priority criteria in selecting supplier, involvement of a key suppliers in processes developing new product, supporting suppliers to improve their product quality, involvement of key suppliers in planning as well as goal-setting activities and organizing continuous improvement programs that include key suppliers.

Quality is our first criterion in selecting suppliers	179	3.07	1.204
Key suppliers involve in new product development processes	179	2.80	1.251
The Organization supports suppliers to improve their product quality	179	3.03	1.197
Key suppliers are included in planning and goal-setting activities	179	2.72	1.156
Key suppliers are included continuous improvement program	179	2.65	1.228
<b>strategic supplier partnerships</b>	179	2.85	.483
Whereas: N= number of respondents, M= Mean and SD= Standard Deviation Source: Researcher (2020)			

**Table 4.3: Strategic Supplier Partnerships**

As shown in the table 4.5, the Strategic supplier partnership dimensions have scored 2.85 grand mean and 0.483 standard deviation. The overall mean shows perception of respondents about strategic supplier partnership. Hence, the small groups mean value indicates that the overall perception of the respondents on this particular dimension is below a moderate extent. Standard deviation shows that how diverse are the responses of respondents for a given construct. High Standard Deviation means that the data are wide spread, which means that respondents give variety of opinion and the low standard deviation means that respondents express close opinion. From the observation of analysis for this variable, a standard deviation spread from 1.156 to 1.251 which implies that respondents were varied in their opinion to the responses given under strategic supplier partnerships practices. This shows that strategic supplier partnership practices were less practiced in Farmers' Coffee Cooperatives.

From the result of interview, it is concluded that the effective practice of SSP appear to be of primary importance, exhibit direct impact on product quality performance and eventually on business performance of organization. In addition, even though the implementation of SSP is important to the organization, it was poorly practiced in farmers' coffee cooperatives. This result shows that the result of the study findings which shows that less practice of strategic supplier partnership in farmers' coffee cooperatives supported with the same result of interview.

#### 4.2.1.2. Customer Relationship (CR)

Table 4.6 below presents the practices of customer relationship in the organization. In this section respondents were asked to rate its practice of customer relationship practices in five sub variables. Those variables include the extent of the farmers' coffee cooperative practice in terms of frequent interaction with customers to set reliability, responsiveness, measure and evaluation of customer satisfaction and future expectation, facilitate customers' ability to seek assistance as well as periodical evaluation of the importance of relationship with customers. Overall, all practice of customer relationship is computed by transforming sub-variables by using mean, standard deviation and result of interview.

**Table 4.4: Customer relationship**

Variables	N	M	S. D
There is frequent interaction with customers to set reliability, responsiveness, and other standards	179	3.25	1.225
The organization frequently measure and evaluate customer satisfaction	179	3.39	1.251
The organization frequently determines future customer expectations	179	3.31	1.304
The organization facilitates customers' ability to seek assistance from us	179	3.18	1.296
Periodically, the organization evaluates the importance of relationship with customers	179	3.08	1.296
Customer Relationship	179	3.24	.490
Whereas: N= number of respondents, M= Mean and SD= Standard Deviation Source: Researcher (2020)			

The respondents were asked to give their responses for practice in the organization in determining future expectation of the customers. Responses with mean value of 3.31 suggest that there is practice of determining future customer expectation. This implies that the FCC focuses on demand-based selling. The targeted customers are coffee union (exporter) and small intermediates suppliers and end producer (farmer). The

company focuses on expectations of coffee union and end producer by analyzing their needs using market assessment result.

Mean value for 'the company periodically evaluates the importance of relationship with customers' is 3.08 suggesting that the respondents agreed that the company evaluates relationship with customers based on the purchasing. The standard deviation for this statement is 1.296 suggesting that there is large variation of agreement on the statement.

The company provides assistance to customer. Mean response for providing assistance to customers is 3.18 suggesting that the company is providing the assistance to customers when they need. According to the interview response, this assistance includes awareness creation, financial and advisory support. The financial support is mainly by providing credit service for the small intermediate's suppliers. The standard deviation of 1.296 suggests that there is large variation from common mean.

The mean value for statement 'the company frequently measure and evaluate customer' satisfaction is 3.39 suggesting that the respondents agree that the company is evaluating the customers' satisfaction based on the amount they buy and sale. This helps the company to evaluate amount of the sales around coffee union area and products from supplier's area. The standard deviation for this statement is 1.251 suggesting that there is large variation in responses. This implies that FCC is evaluating the customers' satisfaction using market assessment and sales volume which helps them to access the acceptance of the product and existence of the competitors.

The responses with mean value of 3.25 and standard deviation of 1.225 suggest that there is frequent interaction with customers to set reliability, responsiveness, and other standards. Communication with customers enables to identify satisfaction of the customers for the products.

According to the interview, the organization identifies expectation of customers through market assessment and demand need. The company is identifying and

assuring reliability of products. This implies that FCC reliable and responsible and it confirms to different standards.

Generally, since all mean value of each sub-variable is range between 3.08-3.39 and also the grand mean value is above the average, the customer relationship practiced in the organization to moderate extent. This is indicated by overall mean of 3.24 and standard deviation of 0.490 which implies that FCC is customer focused organization.

#### 4.2.1.3. Quality of Information Sharing

According to our previous literatures, practices of information sharing quality is specified by measurements of advanced, important, accurate, reliable, adequate and timely exchange information. This overall all practice of quality of information sharing is computed by transforming sub-variables by using mean, standard deviation and result of interview.

**Table 4.5: Quality of Information sharing**

Variables	N	M	S. D
Our organization informs trading partners in advance of changing needs	179	3.26	1.286
Information exchange between our supply chain partners and us is complete	179	3.37	1.310
Information exchange between our supply chain partners and us is accurate	179	3.46	1.264
Information exchange between our supply chain partners and us is reliable	179	3.55	1.268
Information exchange between our supply chain partners and us is adequate	179	3.27	1.279
Information exchange between our supply chain partners and us is timely	179	3.23	1.344
Quality of information sharing	179	3.36	.521
Whereas: N= number of respondents, M= Mean and SD= Standard Deviation			

Source: Researcher (2020)



The level of Quality of information sharing with the Supply chain partners is presented in the table 4.7 above. To identify the practices of quality of information sharing, 6 sub-variables were used. Responses with mean value for all sub variable of quality of information sharing ranges from 3.23 to 3.25 indicates that the organization and its supply chain partners exchanges complete, accurate, reliable adequate and timely information to moderate extents. Overall mean for practice of quality of information sharing 3.36 implies that the overall perception of the respondents on this particular dimension is moderate and quality of information sharing is practiced in the organization to the moderate extent and the standard deviations 0.521 suggests that existence of small diverse of responses between the respondents for a given construct. From the interview information shared within supply chain partners of high quality and is helpful to keep organization and its supply chain partners informed each other about events or changes that may affect the other partners and used to reduce straying and any loss at any stage through supply chain.

#### 4.2.1.4. Internal Lean Practice

Lean practice is associated with continuous pursuit of improving the processes, a philosophy of eliminating all non-value adding activities and reducing waste within an organization. Therefore, to find out the lean practice of coffee cooperative, five questions were asked for its management member and the findings are summarized as follows.

**Table 4.6: Internal Lean practice**

Variables	N	M	S. D
The organization have continuous quality improvement programs	179	3.64	1.212
The organization reduces process set-up time	179	3.67	1.100
The organization produces only what is demanded by customers when needed	179	3.75	1.146
The organization uses a pull production system	179	4.07	0.969
The organization pushes suppliers for shorter lead-time	179	3.43	1.319
Internal Lean Practice	179	3.72	0.568
Whereas: N= number of respondents, M= Mean and SD= Standard Deviation			

Source: Researcher (2020)

Table 4.8 above presents internal lean practice identified through questionnaire. The responses with mean value of 3.64 and standard deviation of 1.212 indicated that the organization has continues quality improvement programs. Interview response also supports that, to increase market share, the company uses quality improvement as a strategy. The quality focus will result on competitive advantage for organization. This implies the FCC is using quality improvement as value adding activity.

The mean value for organization practice of reducing process set-up time is 3.67 suggesting that the organization has efficient production process. The standard deviation is 1.10 suggesting that there is large variation in agreement of the respondents. The mean value for production based on demand needed is 3.75 and the interview response suggested that, besides producing on demand the company also develop new products and present to the market.

The mean value of the organization to uses a pull production system is 4.07 indicates the organization pulled the product from the producer with standard deviation of .969 which indicates moderate variation with in respondent's opinion. Organization also pushes suppliers for shorter lead-time that has mean value of 3.43 with standard deviation of the interview response suggested that, besides satisfying on demand the organization used most of the time the pull system rather than push system which enables the customers to provide all product to the market.

The value of overall mean for lean practice 3.72 suggesting that the practice of lean practice in the organization is more than moderate which is near to a great extent. The standard deviation of 0.57 suggests that the agreement of the respondents is similar with little variation.

The results of interview tell that ILP is the importance part of supply chain management in which the manager can eliminate any wastage in the organizational activity. This wastage can have removed via providing only amount of needed, providing at the time and place where needed. ILP also implemented by reducing non-value adding tasks and some extravagancy of product through demand focus, quality improvement, awareness creation and reducing the process set-up time at all level. In general, the result of interview shows that the internal lean practice is important and

comparatively practiced in most farmer’s coffee cooperative. This elimination of any unnecessary activity within the organization facilitate other important activity of the organization which in turn leads to the improvement of its performance.

**4.2.1.5. Training**

Successful implementation of SCM concept largely depends on human assets of organizations (Mentzer, 2001). Because for any successful implementation of management practice with in an organization trained human power in addition to educational level and enough experience have to be necessary. This is the reason why training was considered as main independent variable for conducted study with four sub variables included to access the respondent’s opinion regarding to training practice with in their organization. Hence employee training increases employee motivation to perform which in-turn increases organizational performance, Ndibe (2014). Because training has always been seen as a positive impact in every organization since it is the way to create human assets for organizations in order to successfully implement the SCM concept

**Table 4.7: Training**

Variables	N	M	S.D
The company gives employees training in supply chain concepts & management	179	2.62	1.112
Delivery of diversified skill training to employees was enabled to capacitate them	179	2.51	1.008
The training given to upstream SC on how to improve the coffee quality enable them to compete international market	179	2.66	1.122
The company giving adequate training and development for management	179	2.59	1.160
Training	179	2.59	.493
Whereas: N= number of respondents, M= Mean and SD= Standard Deviation			

Source: Researcher (2020)

As revealed in table 4.9 above of training practice of supply chain management, respondents reported that, the level of farmers’ primary cooperative provides training

to different level parts considerably low. Relatively, the high mean values are scored by level provide training to upstream components especially farmers how improve the quality of coffee which enable them to compete international market and training on supply chain concepts & management 2.66 & 2.62 correspondingly. The group's mean of the different items of training practice is 2.59, which is, indication of requirement to increases the level of training they provide for each employee and concerned customer.

From the summary of interview, it is concluded that training enhances the employee and SC partner performance which intern improve organizational performance. It also increases the employee and SC partner commitment to the organization. This can be through giving training to employees, upstream, downstream, supply chain partners. But the result of nerve shows as the training practice of the organization on the ground was insignificant and which is the same finding to quantitative result of the study. Generally, in order to practice supply chain managements effectively that benefit all partners, training and capacitating of employees and farmers are very crucial.

### 4.3. Total Supply Chain Management Practice

This part sought to establish the general extent to which coffee cooperative firms in Jimma have practiced each supply chain management dimensions. A number of questions were fronted to the respondents who gave their responses on a scale from a very small extent to very great extents for each independent component of SCM.

**Table 4.8: Total Supply Chain Management Practice**

SCM Practice	N	Mean	Std. Deviation
strategic supplier partnership	179	2.85	.483
Customer Relationship	179	3.24	.490
Quality Information Share	179	3.36	.521
Lean Practice	179	3.72	.566
Training	179	2.59	.493
Total SCM practice	179	3.15	.412
Valid N (list wise)	179		

Table 4.10 above shows that the mean and standard deviation of factors that were used by the researcher to show the extent to which farmers' coffee cooperative in Jimma had adopted the various supply chain management practices. A mean of less than 3.00, shows the components of SCM has been practiced by the responding organizations to a small extent A mean of 3-3.5 shows that the SCM practice has been adopted by the responding organizations to a moderate extent and mean value greater than 3.5 shows more than moderate practice. Therefore, based on mean value Training and SSP are practiced below moderate extent, customer relationship and quality of Information sharing have been practiced to the moderate extent while internal lean practice practiced more than moderate extent in the study organization. In addition, the range of standard deviation from 0.412 to 0.566 shows the presence of slight deviation of respondent opinion from mean.

#### 4.4. Organizational Performance

In this section respondents were asked to rate its level of organizational performance in comparison to their competitors using six variables. These variables were used to assess the performances of the farmers' coffee cooperative firm with respect to costs reduction, product and service quality improvement, forecasting accuracy, reducing inventory level, market share growth and increasing profitability. In this stage the researcher used primary data in order to evaluate organizational performance of FCC. Hence, the study sought to know the respondent's level of agreement with statements related to organizational performance to indicate the extent to which the Farmers' Coffee cooperative has been achieved its market and financial goals in respect to the particular indicators as listed in the table 4.11 below. Different parameters were used to measure organizational performance. For this study analysis of the data was done using means and standard deviations. The scale for the response format in this section was used as follows whereas: 1= not at all, 2= to a small extent, 3= to a moderate extent, 4 = to a great extent or 5= to a very great extent.

**Table 4.9: Organizational performance**

	N	Mean	Std. Deviation
Our operating costs are lower than our competitors	179	3.34	1.333

Product and service quality has improved	179	3.45	1.281
Forecasting accuracy	179	3.35	1.260
Reduced inventory level	179	3.22	1.316
The organization is managed to increase its market share	179	3.51	1.229
The profitability has increased radically	179	3.59	1.154
Organizational performane2	179	3.409	.513

Source: Researcher (2020)

The results show majority of the respondents agreed that organizational performance with regard to the growth of market share and increase in profitability having a mean score of 3.51 and 3.59 respectively, which are the highest mean score from the results above; it show that the organization achieved better in market share and increase in profitability. Reducing inventory level and costs lowering had a mean score of 3.22 and 3.34 respectively, those are the lowest mean score from the results above and this shows that the organization achieved less in regard to Reducing inventory level and costs lowering. Overall mean for organizational performance is 3.41 suggesting that the respondents agree that the company is efficient in all parameters of operational performance. The standard deviation of 0.513 indicates that there is no significant variation from mean about the agreement of efficient organizational performance of the FCC.

#### 4.5. Correlation Analysis

Pearson correlation was used to identify the existence of relationship and correlation analysis helped to determine whether a statistically significant relationship exist between the dimensions of Supply chain management (i.e. Strategic supplier partnership, Customer relationship, Quality of Information sharing, Lean practices and Training practices) and Organizational performance of farmers' coffee cooperative.

By standardizing the covariance, we finalized up with coefficient of correlation which could take values reaching from -1 to +1, (Dancy and Reidy, 2004) in which the signs signifying the direction of relationship and the magnitude of the correlation coefficient determines the strength of the correlation. Based on this a coefficient value

of +1 indicates the existence of perfect positive correlation between the two variables, in which one variable increases, the other increases by a proportionate amount. Conversely, a coefficient value of -1 indicates the existence of perfect negative correlation between the two variables, indicate when one variable decrease, the other decrease by a proportionate amount. In other word +1 indicates increase of one variable increases other with the same proportion. Lastly coefficient of zero indicates no linear relationship at all and therefore with change one variable, the other stays the same.

Therefore the interpretation for this specific issue was based on the guide that Evans (1996) suggests for the absolute value of r as cited in (Beldjazia, 2016), in which the strength of correlation can be described as; very weak when  $r = 0.00-0.19$ , weak when  $r = 0.20-0.39$ , moderate when  $r = 0.40-0.59$ , strong when  $r = 0.60-0.79$  and very strong when  $r = 0.80-1.0$ .

**Table 4.10: Correlation**

Correlation							
	SSP	CR	QIS	ILP	TR	SCMP	OP
SSP	1						
CR	.500**	1					
QIS	.582**	.667**	1				
ILP	.499**	.624**	.711**	1			
TR	.607**	.496**	.472**	.458**	1		
SCM P	.783**	.814**	.856**	.830**	.745**	1	
OP	.622**	.577**	.680**	.768**	.661**	.824**	1

\*\* . Correlation is significant at the 0.05 level (2-tailed).  
 Where SSP= strategic supplier partnership, CR = Customer Relationship, QIS = Quality Information Share, ILP = Internal Lean Practice, TR = Training, SCMP = Supply Chain Management practice, OP = Organizational Performance

The results of table 4.12 indicated that there is a positive and significant correlation between strategic supplier partnership practice and organizational performance with a Pearson correlation coefficient of 0.622 ( $p < 0.01$ ). Hence, according to Evans (1996) magnitude of correlation, the relationship between the two variables is strong. This suggesting that increase in strategic supplier partnership increases organizational performance significantly and vice versa. This implies that strategic supplier partnership practice of FCC has positively and significantly importance in improving its organizational performance.

As indicated in the results of table 4.11 above, there is a positive and significant correlation between customer relationship practice and organizational performance with a Pearson correlation coefficient of 0.577 ( $p < 0.01$ ). Hence, according to Evans (1996) magnitude of correlation, the relationship between the two variables is strong. Suggesting that increase in customer relationship increases operational performance



significantly and vice versa. This implies that customer relationship practice of FCC has positively and significantly importance in improving its organizational performance.

The results of table 4.12 indicated that there is a positive and significant correlation between quality of information sharing practice and organizational performance with a Pearson correlation coefficient of 0.680 ( $p < 0.01$ ). Hence, according to Evans (1996) magnitude of correlation, the relationship between the two variables is strong. Suggesting that, an increase in quality of information sharing increases organizational performances significantly and vice versa. This implies that quality of information sharing practice of FCC has positively and significantly importance in improving its organizational performance.

According to Pearson correlation results shown in table 4.12; there is a positive and significant correlation between lean practice and organizational performance with a Pearson correlation coefficient of 0.768 ( $p < 0.01$ ). This suggests that, an increase in lean practice increases organizational performance significantly and decrease in lean practice, decrease performance of the organization. In other words, the lean practice has positively and significantly importance in improving organizational performance of FCC.

Pearson correlation results are shown in table 4.12, which indicates there is a positive and significant correlation between training practice and organizational performance with a Pearson correlation coefficient of 0.661 ( $p < 0.01$ ). This suggests that, an increase in training practice increases organizational performance significantly and decrease in training practice decrease performance of the organization. In other words, the lean practice has positively and significantly importance in improving its organizational performance of FCC.

Generally, the correlation between each dimension of SCM and organizational performance was displayed as seen in the above table with its followed brief interpretation. The result indicated in the table shows that there is a positive and significant correlation between Supply chain management practices and organizational performance in farmers' coffee cooperative. In other words, Supply chain management practices and organizational performance have relationship ( $r = 0.824$ ).

## 4.6. Regression Analysis

Multiple regression the method enables researchers to find the best possible weighting of two or more independent variables to yield a supreme correlation with a single dependent variable. It can adopt when the researcher has one dependent variable which is recognized to be a function of two or more independent variables (Kothari C. , 2004). Hence, this analysis method was employed in order to understand by how much each independent variable (Strategic supplier partnership, Customer relationship, Quality of Information sharing, Lean practices and training) explains the dependent variable that is Organizational Performance. But, before carrying out multiple regression analysis, the researcher has to checked the required assumptions that the data must meet to make the analysis reliable and valid. Moreover, the following assumptions of multiple linear regressions were tested using SPSS value.

### 4.6.1. Regression Assumption Test

#### a) MULTICOLLINEARITY Test

**Table 4.11: MULTICOLLINEALITY Test**

Model		Collinearity Statistics	
		Tolerance	VIF
1	Strategic Supplier Partnership	.516	1.938
	Customer Relationship	.481	2.079
	Quality Information Share	.377	2.655
	Internal Lean Practice	.447	2.239
	Training	.576	1.735
a. Dependent Variable: Organizational performance			

Source: Researcher (2020)

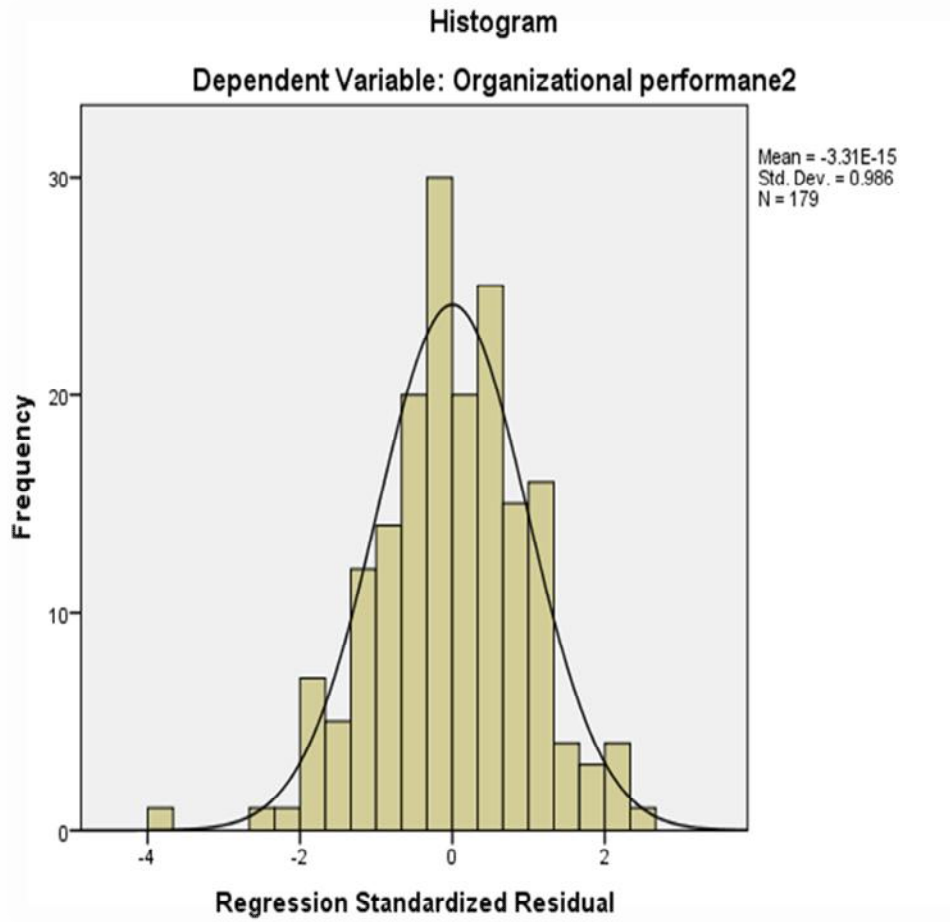
In multiple regression model, before making a regression analysis it is important to test the multicollinearity test. The multicollinearity test is used to identify a strong correlation between two or more independent variables. Also, a good regression model must not have a strong correlation and also must have not a multicollinearity problem between predictors. Hence, the most widely applicable method of detecting the multicollinearity is Variance Inflation Factor (Reddy, 2013). Also, this assumption

can be assessed by examining both tolerance and variance inflation factor (VIF). According to (Field A. , 2009), the value of tolerance well above 0.2 and VIF values statistics well below 10 can safely to conclude that there is no collinearity within the data. This method is very accurate in determining the problem of multicollinearity. Accordingly, based on collinearity diagnostics conducted with SPSS analysis, the tolerance and VIF values found were satisfied the values stated which suggesting that there is no problem of multicollinearity among the independent variables of study.

***b) Normality Assumption***

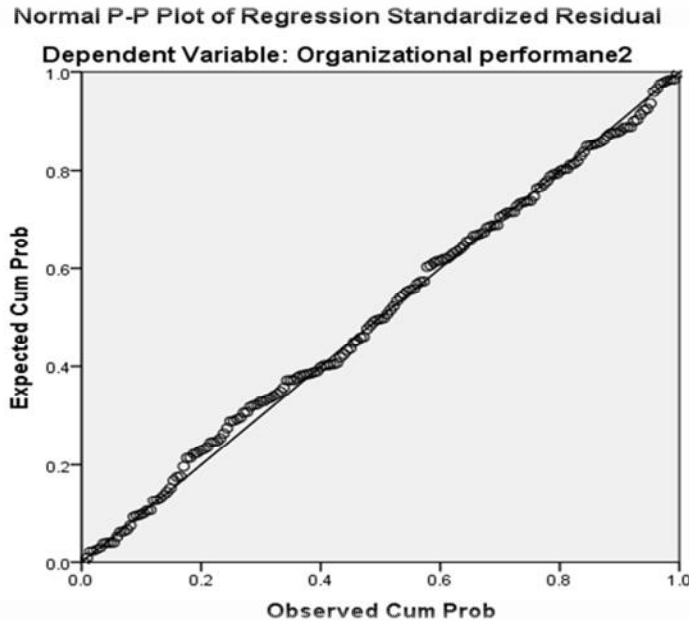
In this study both Pearson correlation and multiple regression method used to identify the effect of supply chain management on organizational performance. These two methods assume normal distribution of data of both dependent and independent variables. But in regression and design problems, since the true errors are unobserved, it is a common practice to use the residuals as substitutes for them in tests for normality.

Multiple regressions assume that variables have normal distributions. This means that errors are normally distributed, and that a plot of the values of the residuals will approximate a normal curve. Before analyzing the data in these methods, the researcher conducted the normality of data distributed. Two common methods to check normality assumption include using a histogram and a Normal P-P Plot. According to (Field, 2009), for a normality distribution, the residual line will closely follow the diagonal trends. The output shows as normality was guaranteed, because the histogram generated is normally distributed and the P-P plot follows the diagonal orientation line as shown in figure blow.



**Figure 4.5: Histogram**

Source: Researcher (2020)



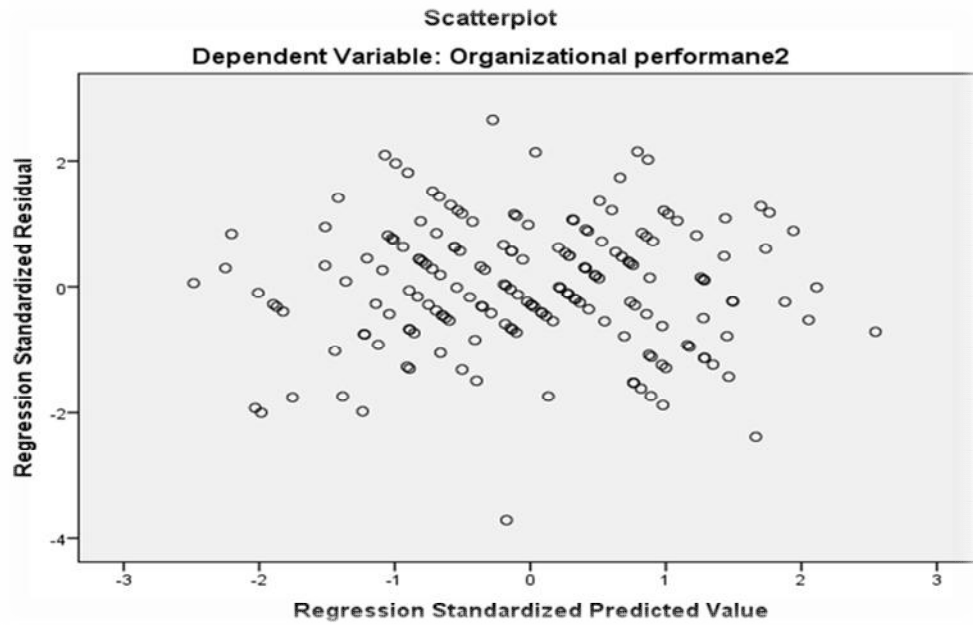
**Figure 4.6: Normal P-P plot of Regression**

Source: Researcher (2020)

From the result of above figure 4.6, it was understood that, the residuals have a comprehensive normal distribution because the plotted residuals were around the diagonal straight line rather than making distributed and any other shape.

***c) Homoscedasticity assumption***

Homoscedasticity describes a situation in which the error term – noise or random distribution in the relation between the independent variable and dependent variable will be the same across all values of the independent variables. At each level of the variable(s), the variance of the residual terms should be constant. This just means that the residuals independent at each level of the predictor(s) should have the same variance (homoscedasticity); when the variances are very unequal there is said to be homoscedasticity (Field, 2005). In Homoscedasticity assumption, the variances of error terms are similar across the independent variables. At each level of the predictor variable(s), the variance of the residual terms should be constant.



**Figure 4.7: Homoscedasticity**

Source: Researcher (2020)

As can be seen in the scattered plot on fig4.7 above, the residuals at each level of explanatory Variables look like they are evenly dispersed and that the graphs do not assume any type of shaped. Therefore, it is safe to say that this study has no heteroscedasticity problem.

**4.6.2. Coefficient of determination, R<sup>2</sup>/Regression Mode**

Regression analysis was used to express the relationship between the independent and dependent variables. The dependent variable is Organizational Performance while the independent variables were the Strategic supplier partnership, Customer Relationship, Quality of Information Sharing, Internal Lean practice and Training. The ability of independent variables to explain the changes in dependent variables was measured by adjusted R-square as shown by table:4.13 blow.

**Table 4.12: Model Summary**

Model Summary <sup>b</sup>				
Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate

1	.855 <sup>a</sup>	.731	.724	.269
a. Predictors: (Constant), Training, Lean Practice, strategic supplier partnership, Customer Relationship, Quality Information Share				
b. Dependent Variable: Organizational Performance				

Source: Researcher (2020)

The result of Table 4.13 above shows that there is causal relationship between SCM practices and organizational performance. Because the result shows that the independent variables explained 72.4% of variations in the dependent variable as shown by the adjusted R-square (0.724). The remaining 27.6% of the variation in organizational performance cannot be explained by those dimensions of SCM practices explained in the study. This variation in the dependent variable was due to other factors not considered by the model.

#### 4.6.3. ANOVA Result

**Table 4.13: ANOVA Result**

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	34.223	5	6.845	94.24	.000 <sup>b</sup>
	Residual	12.565	173	.073		
	Total	46.787	178			
a. Dependent Variable: Organizational Performance						
b. Predictors: (Constant), Training, Lean Practice, strategic supplier partnership, Customer Relationship, Quality of Information Share						

Source: Researcher (2020)

The result of ANOVA analysis presented in table 4.15 above, is used to identify suitability of the model in estimating effect of supply chain management on organizational performance which is general objective of the study. The researcher used OLS method to run regression analysis. In this analysis F-statistic value of the model is 94.24 and the significant p-value of 0.000. In this case the p-value = 0.000 less than 0.05 indicates the significance of the model under 95% confidence level and its

appropriateness to explain the effect of supply chain management on organizational performance. Consequently, this suggests that supply chain management practice of FCC significantly affects its organizational performance. This finding is similar to (Li, Ragu, & Nathan, 2006) which suggests the presence of SCM have significant effect on organizational performance in which the higher levels of SCM practice can lead to the achievement of higher organizational performance.

#### 4.6.4. Coefficients of Regression Analysis

The study conducted was employed a regression analysis to explain by how much the independent variable (SCMP) explains the dependent variable (OP). To portray the predictable relationship between the above variables, the study adopted the following linear regression model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Where Y = Organizational performance, X<sub>1</sub> is strategic Supplier partnership, X<sub>2</sub> is Customer Relationship, X<sub>3</sub> is Quality of Information Sharing, X<sub>4</sub> is Internal Lean practice, X<sub>5</sub> is training Practice and  $\epsilon$  is the error term.  $\beta_0$  Constant (Y-intercept) and  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$  and  $\beta_5$  are regression coefficient of respective variables

This model illustrates that when all variables are held at zero (constant), the value of organizational performance would be  $\beta_0$ . In other word, if X<sub>1</sub> differed by one-unit (and X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, X<sub>5</sub> did not differ) Y (organizational performance of farmers' coffee cooperative) will differ by  $\beta_1$  units, on average. In the same manner if X<sub>2</sub> differed by one-unit (and X<sub>1</sub>, X<sub>3</sub>, X<sub>4</sub>, X<sub>5</sub> did not differ) Y (organizational performance of farmers' coffee cooperative) will differ by  $\beta_2$  units, on average. The same holds for the other left variables (X<sub>3</sub>, X<sub>4</sub>, X<sub>5</sub>).

**Table 4.14: Coefficients of Regression**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.211	.157		1.340	.182
	SSP	.136	.058	.128	2.329	.021
	CR	-.037	.059	-.035	-.619	.536



	QIS	.133	.063	.135	2.106	.037
	ILP	.440	.053	.486	8.235	.000
	Tg	.326	.054	.314	6.048	.000
A. Dependent Variable: Organizational Performance						
SSP = Strategic supplier partnership, CR = Customer Relationship, QIS = Quality Information Sharing, ILP = Internal Lean Practice, Tg = Training						

Source: Researcher (2020)

With the value of SPSS output above, the equation ( $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon$ ) becomes:

$$Y = 0.211 + 0.136X_1 - 0.037X_2 + 0.133X_3 + 0.440X_4 + 0.326X_5 + 0.157$$

From the above equation, which was constructed from the analysis result of above table, when all variables are held at zero (constant), the value of OP would be 0.211.

Coefficient of Strategic Supplier Partnership is positive and significant at 0.05 indicating that Strategic Supplier Partnership has positive effect on organizational performance. Positive sign of the coefficient of the quality of information sharing indicates that a unit increasing in Strategic Supplier Partnership practice increases organizational performance by 0.136 and vice versa by holding other variables constant. This implies that FCC has Strategic Supplier Partnership that positively contributes organizational performance of the FCC. Hence, it has a result similarity with a finding of (Yabibal & Neeraj, 2020) and (Mwale, 2014) which indicates Strategic Supplier Partnership have a positive and significant effect on organizational performance

Coefficients of Customer relationship is negative and insignificant suggesting that they have negative but insignificant effect on operational performance

Coefficient of quality of information sharing is positive and significant at 0.05 indicating that quality of information sharing has positive effect on organizational performance. Its positive sign of the coefficient indicates that a unit increasing in quality of information sharing practice increases organizational performance by 0.133 and vice versa holding other variables constant. This implies that FCC has quality of information sharing that positively contributes organizational performance of the

FCC. Finding of this study is similar to findings of (Muhammed, 2018) which suggests that quality of information sharing had significant influence on organizational performance.

Coefficient of internal lean practice is positive and significant at 0.05. The positive sign of the coefficient suggests that when internal lean practice increases in a unit, organizational performance increases by 0.440 and vice versa holding other variables constant. This implies that internal lean practice is positively affecting organizational performance of FCC. Finding of this study is similar to findings of (Muhammed, 2018) and by (Roberto, 2014) that lean practice has significant positive effect on organizational performance of organization through uses a pull production system, producing only what is demanded by customers, reducing set-up time and having quality improvement programs.

The study result shows that coefficient of training is positive and significant at 0.05. Positive sign of the coefficient suggests that when training increases in a unit, organizational performance increases by 0.326 and vice versa when holding other variables constant. This implies that training practice is positively affecting organizational performance of FCC. The results of this study are similar with (Raja & Muhammad, 2011) which suggested that training like on the job training and training design have significant effect on Organizational Performance and all these have positively affected the Organizational Performance. It means effective implementation of SCM practice increases the overall organizational performance

The discussed regression coefficient results show that four out of the five variables are statistically significant in predicting the organizational performance of FCC. From the result finding internal lean practice has high positive effect on performance of an organization. Next to internal lean practice, Training and Quality of information sharing practices have highest effect while strategic supplier partnership the lower effect performance of FCC.

#### **4.7. Hypotheses Summary**

A hypothesis is an assumption or claim about some characteristic of a population, which we should be able to support or reject on the basis of empirical evidence. In other word hypothesis testing is a process for choosing between different alternatives.

A chooses can be either null or alternatives hypothesis. The null hypothesis is rejected if the p-value obtained is less than, and accepted if it is greater than the significance level at which we are testing the hypothesis. Most of the times, our objective is to reject the null hypothesis and find support for our alternate hypothesis. Therefore, the researcher tested hypotheses by using p-value to be less than 0.05 which is commonly used significance level. Based on the significant p-value of Coefficients of Regression analysis (Table 4.14), the researcher summarized alternative hypotheses in table below.

**Table 4.15: Hypotheses Summary**

NO	Hypothesis	CC	Sign	Decision
Hypothesis1	There is no relationship between the strategic supplier partnership and organizational performance in FCC	0.622	0.021	Rejected
Hypothesis2	There is no relationship between the customer relationship and organizational performance in FCC	0.577	0.536	Accepted
Hypothesis3	There is no relationship between quality of information sharing and organizational performance in FCC	0.680	0.037	Rejected
Hypothesis4	There is no relationship between Internal lean practices and organizational performance in FCC	0.768	0.000	Rejected
Hypothesis5	There is relationship between training and organizational performance in FCC	0.661	0.000	Rejected
CC = Correlation Coefficient				

Source: Researcher (2020)

Based on table 4.16 above, the effect of strategic supplier partnership is significant at 0.05, the researcher accepted alternative hypothesis; Strategic Supplier Partnership has positive effect on organizational performance and reject the null hypothesis. Similarly, since their effects are significant at 0.05, alternative hypotheses for Quality of information sharing, Internal Lean practice and training are also accepted and the null hypotheses of them are rejected. On the other hand, the researcher accepted the null hypotheses for customer relationship due to their effects statistically insignificance on organizational performance and have rejected the alternative hypothesis of the same. In general, the researcher accepts four alternative hypotheses which stated that, each supply chain management practices have positive effect on organizational performance and accept one null hypothesis

## **CHAPTER FIVE**

### **5. SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **Introduction**

The study sought to establish the effect of supply chain management practices on the organizational performance of farmers' coffee cooperative. Centre of discussion based on the five specific objectives of research. Those the study finding was focused on the objectives of the study were to assess the level of practical implementation of SCM practices in FCC and to examine the relationship and the effect between each SCM practices and organizational performance in FCC. Hence, this chapter provides the summary of findings with respect to the study objectives, conclusions, recommendations, the limitations of the study and suggestions for future research.

#### **5.1. Summary of Findings**

To determine the extent of practical SCM practices implementation in FCC, five key SCM practices were selected which include; strategic supplier partnership, customer relationship, quality of information sharing, Internal lean practice and training. The methods used to measure these SCM practices implementation proved to be reliable and valid as indicated from validity and reliability test in the study.

The preliminary data analysis indicated the general actual implementation of SCM practices in FCC was not in an organized matter and not in a very large extent, this was evidently seen in the range of mean whereby many variables had mean value

around 3 and more than three which mean at moderate extent. At a level of farmers' coffee cooperative, supply chain management practices have a great problem regarding to training and strategic supplier partnership which is practiced at the different stage below the moderate level. These two practices play a decisive role for creating effective and efficient SCM because of their strong relations and significant effect on organizational performance. But other SCM practice, like customer relationship and quality of information sharing have been exercised in moderate level while internal lean practice, implemented in a situation more than average level.

With regard to the Pearson correlation analysis, it can be clearly seen that the four supply chain management practice dimension namely Strategic Supplier Partnership ( $r = 0.622$ ), Quality of Information Sharing ( $r = 0.680$ ), Internal lean practices ( $r = 0.768$ ) and training ( $r = 0.661$ ) are positively related to organizational performance and customer relationship ( $r = -0.577$ ) is negatively related.

From the Regression analysis result of the study shows that most of supply chain management practices developed by researchers explains organizational performance. Dimension of SCM practice that significantly influenced organizational performances which was indicated with a respective value of B-value and significant value next each variable. According to the finding, Strategic Supplier Partnership ( $\beta = 0.136$ ,  $r = .021$ ), quality of information sharing ( $\beta = 0.440$ ,  $r = .037$ ), internal lean practices ( $\beta = 0.133$ ,  $r = .000$ ) and the training with ( $\beta = 0.326$ ,  $r = .000$ ). Whereas, Customer relationship ( $\beta = -0.037$ ,  $r = .536$ ) not statistically significant to influence the organizational performance. The value of regression shows the value of adjusted  $R^2$  0.724 and which is an indicator of 72.4% of organizational performance is explained by supply chain management practices.

Based on the significance value of regression the result of hypothesis has tested and its result shows that H<sub>1</sub>: Strategic Supplier partnership has significant effect on the organizational performance, H<sub>2</sub>: Customer relationship has not significant effect on the organizational performance, H<sub>3</sub>: Quality of Information sharing has significant effect on the organizational performance and H<sub>4</sub>: Internal lean practice has significant effect on the organizational performance. H<sub>4</sub>: Training practice has significant effect on the organizational performance. This indicates that, all these SCM practice except customer relationship have positively affect the Organizational Performance and it

indicates their effective practice in farmers' coffee cooperative has the ability to increase the performance of organization.

## **5.2. Conclusion**

In most case, this study tried to shows a links between practice of SCM and Organizational Performance, which services to intensely understand the relationship and interaction between them in case of farmers' coffee corporative in Jimma Zone. Hence, most of findings supported the assumption that supply chain management practice constructed can increase Organizational Performance. In this study, the effect of five variables (Strategic Supplier Partnership, Customer Relationship, Quality of Information Sharing, Lean practices and Training) on organizational performance was investigated.

Based on the study result, we can conclude that strategic supplier partnership and the organizational performance of FCC are positively related. And also, strategic supplier partnership is statistically significantly and positively influence organizational performance. So strategic supplier partnership is one of the main predictors of the organizational performance of farmers' coffee cooperative. This is because of involvement of strategic supplier partners in process improvement, new product development, planning and goal setting, focusing on quality of products during selecting supplier, and supporting suppliers to improve product quality.

According to the results of this study, it can be concluded that customer relationship has a negative effect on the organizational performance of FCCs. Hence it has no role on improving the farmers' coffee cooperative organizational performance.

The study results suggested that, the quality of information sharing has positive relation and statistically significant effect on the organizational performance of FCC. This indicates qualified information sharing can bring a significant amount of advantages to business organization like farmers' coffee cooperative by enabling them to inventory reduction and efficient inventory management, cost reduction, improved resource utilization, increased productivity, organizational efficiency, building and strengthening suppliers and customer's bonds, improved services, quick response, reduced cycle time from order to delivery and earlier time to market. Moreover, the

QIS is important for supply chain partner with whom information is shared and elucidated that it had a positive influence of the QIS on OP.

The finding results show that internal lean practices have positive and strong effect on organizational performance of the FCC that, non-value adding activities in the supply chain are minimized, outsourcing non value adding works and focus on the core competencies of the company and there is shorter production process. Therefore, internal lean practice has the ability to improves organizational performance of the farmers' coffee cooperative.

The last variable which is training also positively related with organizational performance of FCC and has a significant effect on it. But the result of the study shows that, the practice of training in case of Jimma Zone farmers' coffee cooperative is below moderate.

In this study, hypothesis 1 to 5 were formulated to test the effect of SCM practices on organizational performance in FCC where by p-value of regression result, was used to test the hypothesis and the researcher rejects the null hypothesis of four variables: Strategic supplier partnership, Quality of information sharing, Internal lean practices and training. But the hypothesis for Customer relationship failed to reject and the statement of no significant effect between customer relationship and organizational performance was accepted. Generally, this indicates that all dependent variable developed by the researcher have a significance effect on organizational performance of farmers' coffee cooperative except customer relationship and also each result of regression output and hypothesis support each other.

### **5.3. Recommendation**

The study has confirmed that supply chain management practices are very significant in enhancing organization performance of farmers' coffee cooperative. Based on the current study findings, it has been recommended the following for concerned bodies at all level:

- To the case organization (farmers' coffee cooperatives)
  - Hence, the management of the organization shall to improve its strategic supplier partnership practice by creating stronger relationship with local



suppliers that makes the company cost effective and reduces supply delivery time, including a key supplier in planning, goal-setting activities and continuously improving program

- However, the study recommended that the case organization have to improve quality of information flow by informing trading partners in advance of changing needs, exchanging adequate information and timely between their Supply chain partners and have to use advanced information technologies
  - Organization have recommended to implementing the internal lean practices in terms of reducing set-up time, small lot sizes, having a continuous quality improvement program, working together to identify and eliminate waste wherever it exists, using a pull-production system
  - Since the training practice in farmers' coffee cooperative was to small extent and its effect on organizational performance is positive and significant, the management of study organization should improve the implementation of diversified training practice within supply chain partner
- The managements of farmers' coffee cooperatives have to give attention to improve the practice of all investigated dimension of SCM specially the four significant one. Because they are less practiced but highly correlated and have significant effect on the organizational performance
- Other coffee cooperative, coffee union and Coffee provider organization had advised to implement the practices that are currently investigated in this study, because they can significantly improve organization performance from the current position. They include practices like Quality of information sharing and lean practices, strategic supplier partnership and training which have proven to have fantastic results in organizational improvement.
- Oromia region and Jimma Zone Cooperative Developmental Office together with farmers' Coffee cooperative should stress on improving the practical implementation of SCM in each farmers' coffee cooperatives through awareness creation, delivering continuous training, strong supervision and so on.
- Any policy makers have to recommended to give special attention to consider about each SCM practice since they are a core activity in improving performance of farmer's coffee cooperatives.

- Any researcher on the topic and similar investigation can use the result of the study as a reference.

#### **5.4. Research Limitation**

This study has been done to investigate the effect of supply chain management practices on the organizational performance, in case of coffee cooperative in Jimma. The scope of this research was under wide geographical coverage, collection of data was extremely difficult due to fewer resources and time shortage, only 26 farmers' coffee cooperatives' responses were included. While these results are valuable, the limitation of this study must also be considered. Hence, some of potential limitations of this research are not considering the responses of the other level of supply chain members like suppliers and customer but only focused on management members. The current study also uses five practices of SCM and future researchers can increase more practices with the same dependent variable. In other word the researcher considered only the organizational performance as the FCC performance measures, and not considering the other contextual performance like operational performance. In addition, the types of the data used for the study involves only primary source of data and note included secondary data source. Therefore, the results have to be interpreted taking this limitation into account.

#### **5.5. Suggestions for Future Research**

Future studies can examine the proposed relationships by bringing some contextual variables and additional dimensions into the model in order to fill the observed gap. The study portrayed the current trends of SCM practices understanding and implementation in farmers' coffee cooperatives and how it impacts their overall organizational performance. Thus, further studies are needed to widen the scope of respondents by encompassing other regions of the country. More studies are needed specifically to deal with SCM practices implementation and how it impacts organizational performance in Jimma zone farmers' coffee cooperative since there is shortage of such studies in the literature. The concept of supply chain management is very wide due to its multidisciplinary origin, and thus covering everything in one study is nearly impossible. Future research can consider other dimensions of SCM practices that are not accessed in this study such as firm size, supply chain length,

supply chain integration, returns on management and inventory management. It is also possible to investigate the study on the same topic a variable in the presence of intermediate variable. In addition, future research has to consider a secondary data source with a simultaneous use of primary data or lonely. Due to time constraints the study failed to consider these controls variable. Furthermore, future studies should consider barriers that hinder effective SCM practices implementation in farmers' coffee cooperative firms.

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## **ANNEX-I**

*Jimma University*  
*Business and Economic Campus*  
*Department of Management*  
*Program of Logistics and Transportation Management*

### **Section A: Guidelines to the Questionnaire**

*Subject: Request for Participation in a Research Study*

**Dear Sir/Madam:**

This is the study for partial fulfillment for the masters of Logistic and Transportation Management the title of “The Effect of Supply Chain management practices on organizational performance in farmer’s coffee cooperative at Jimma Zone”

Therefore, I kindly request you to take your valuable time and complete the questionnaire in regard to practices in your organization. All the information provided will be purely used for academic purposes and your identity will be treated with utmost confidentiality. All answered will be presented as honestly and truthfully in order to yield valid results.

#### **General direction**

- No need of writing your name
- Read the direction before answering the provided question
- Please don’t jump the question without answering

The questioner has three parts. While the first part is the personal information, the second and the third part will be information about your organization. Therefore, try

to understand the information provided carefully and make the sign “√ “on the box that you have consider to be the correct answer.

## **Section B: Research Questions**

**Part I;** Demographic Profile; Therefore, In the following question try to understand the information provided carefully and make the sign “√ “on the box that you have consider to be the correct answer.

1. Gender?      Male =                       Female =
2. Age?              < 25 =                       25-35 =   
                            36-45 =                       >46 =
3. Education status?  
    Elementary school       High school                            College diploma        
    Bachelor degree            Master’s degree                    Doctoral degree
4. Job description?  
    Chairman                       Vice chair mane                       G/ Secretary        
    Financial manager                       Sight manager                                    Accountant        
    Warehousing keeper                       Head of controll  committee  
    Other \_\_\_\_\_
5. Length of Service in the organization?  
    Under 2 years       3 to 5 years            6 to10 years            Over 10 years
6. What is the name of your organization \_\_\_\_\_?

**Part 2:** This is to investigate the level of SCM practices and its effect on organizational performance among Jimma Zone Coffee cooperative, whereas: 1= not at all, 2= to a small extent, 3= to a moderate extent, 4 = to a great extent or 5= to a very great extent.

7. To investigate the relationship between SCM practices and organizational performance of farmers' coffee cooperatives. Instructions Please mark (√) in the appropriate cell to your response

<b>1.Strategic Supplier partnership (SSP)</b>		1	2	3	4	5
1.1	Quality is our first criterion in selecting suppliers					
1.2	Key suppliers involve in new product development processes					
1.3	The Organization supports suppliers to improve their product quality.					
1.4	Key suppliers are included in planning and goal-setting activities					
1.5	Key suppliers are included continuous improvement program					
<b>2.Customer relationship (CR)</b>		1	2	3	4	5
2.1	There is frequent interaction with customers to set reliability, responsiveness, and other standards					
2.2	The organization frequently measure and evaluate customer satisfaction					
2.3	The organization frequently determines future customer expectations					
2.4	The organization facilitates customers' ability to seek assistance from us					
2.5	Periodically, the organization evaluates the importance of relationship with customers					
<b>3. Quality of Information sharing</b>		1	2	3	4	5
3.1	Our organization informs trading partners in advance of changing needs					
3.2	Information exchange between our supply chain partners and us is complete					
3.3	Information exchange between our supply chain partners and us is accurate					
3.4	Information exchange between our supply chain partners and us is reliable					
3.5	Information exchange between our supply chain partners and us is adequate					
3.6	Information exchange between our supply chain partners and us is timely					
<b>4. Internal Lean practice</b>		1	2	3	4	5
4.1	The organization have continuous quality improvement programs					
4.2	The organization reduces process set-up time					

4.3	The organization produces only what is demanded by customers when needed					
4.4	The organization uses a pull production system					
4.5	The organization pushes suppliers for shorter lead-time					
<b>5. Training</b>		1	2	3	4	5
5.1	The company gives employees training in supply chain concepts & management					
5.2	Delivery of diversified skill training to employees was enabled to capacitate them					
5.3	The training given to upstream SC on how to improve the coffee quality enable them to compete international market					
5.4	The company giving adequate training and development for management					

8. Regarding organizational performance of farmer's coffee cooperative, please mark (√) appropriate number in the appropriate cell which best indicates firm 's overall performance.

<b>Due to effective supply chain management practices</b>		1	2	3	4	5
8.1	<b>Our operating costs are lower than our competitors</b>					
8.2	Product and service quality has improved					
8.3	Forecasting accuracy					
8.4	Reduced inventory level					
8.5	<b>The organization is managed to increase its market share</b>					
8.6	<b>The profitability has increased radically</b>					

Source: Adopted from (Li, Ragu, & Nathan, 2006) and (Priscila & Luiz, 2011)

### Part III: Interview questioners to some selected respondent

1. The strength and weakness of implementation level of each five-supply chain management practice (Strategic supplier partnership, Customer relationship, Quality Information sharing, Lean practices and Training) is indicated by what? How you can measure?

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2. What strength and weakness your organization had scored? The expected benefit indicated by what? How it is possible to compare observed result with expected result? If observed result will be bellow or above the expected result what would you think to be the result?

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3. What is the result your organization has going to score? Is there any relationship between the strength and weakness of implementation of supply chain management practice with strength and weakness of the result that your organization scoring? If yes, what is its indication?

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## **ANNEX-II**

Results of statistical analysis

Socio demographic data



		Frequency	Percent
Gender	Male	135	75.4
	Female	44	24.6
	Total	179	100.0
Age	<25	17	9.5
	25-35	78	43.6
	36-45	64	35.8
	>45	20	11.2
	Total	179	100.0
Educational status	Elementary school	14	7.8
	High school	49	27.4
	College diploma	91	50.8
	Bachelor degree	25	14.0
	Total	179	100.0
Job description	Chairman	23	12.8
	Vice chair mane	19	10.6
	G/ Secretary	21	11.7
	Financial manager	20	11.2
	Sight manager	22	12.3
	Accountant	18	10.1
	Warehousing keeper	17	9.5
	others	39	21.8
	Total	179	100.0
Work Experience	<2 years	28	15.6
	2-5 years	85	47.5
	6-10 years	44	24.6
	>10 years	22	12.3
	Total	179	100.0

Strategic Supplier Partnership

**Descriptive Statistics**

	N	Mean	Std. Deviation
Quality is our first criterion in selecting suppliers	179	3.07	1.204
Key suppliers involve in new product development processes	179	2.80	1.251
The Organization supports suppliers to improve their product quality	179	3.03	1.197
Key suppliers are included in planning and goal-setting activities	179	2.72	1.156
Key suppliers are included continuous improvement program	179	2.65	1.228
strategic supplier partnership	179	2.85	.483
Valid N (listwise)	179		

**Customer Relationship**

**Descriptive Statistics**

	N	Mean	Std. Deviation

There is frequent interaction with customers to set reliability, responsiveness, and other standards	179	3.25	1.225
The organization frequently measure and evaluate customer satisfaction	179	3.39	1.251
The organization frequently determines future customer expectations	179	3.31	1.304
The organization facilitates customers' ability to seek assistance from us	179	3.18	1.296
Periodically, the organization evaluates the importance of relationship with customers	179	3.08	1.296
Customer Relationship	179	3.24	.490
Valid N (listwise)	179		

### Quality Information Share

#### Descriptive Statistics

	N	Mean	Std. Deviation
Our organization informs trading partners in advance of changing needs	179	3.26	1.286
Information exchange between our supply chain partners and us is complete	179	3.37	1.310
Information exchange between our Supply chain partners and us is accurate	179	3.46	1.264
Information exchange between our Supply chain partners and us is reliable	179	3.55	1.268
Information exchange between our Supply chain partners and us is adequate	179	3.27	1.279
Information exchange between our Supply chain partners and us is timely	179	3.23	1.344
Quality Information Share	179	3.36	.521
Valid N (listwise)	179		

### Internal Lean Practice

#### Descriptive Statistics

Internal Lean Practice	N	Mean	Std. Deviation
The organization have continuous quality improvement programs	179	3.64	1.212
The organization reduces process set-up time	179	3.67	1.100

The organization produces only what is demanded by customers when needed	179	3.75	1.146
The organization uses a pull production system	179	3.58	1.189
The organization pushes suppliers for shorter lead-time	179	3.95	1.162
Internal Lean Practice	179	3.72	.566
Valid N (listwise)	179		

## Training

### Descriptive Statistics

Training	N	Mean	Std. Deviation
The company gives employees training in supply chain concepts & management	179	2.62	1.112
Delivery of diversified skill training to employees was enabled to capacitate them	179	2.51	1.008
The training given to upstream and downstream SC on how to improve the coffee quality enable them compete international market	179	2.66	1.122
The company giving adequate training and development for management	179	2.59	1.160
Training	179	2.59	.493
Valid N (listwise)	179		

## Organizational Performance

### Descriptive Statistics

Organizational Performance	N	Mean	Std. Deviation
Our operating costs are lower than our competitors	179	3.20	1.324
Product and service quality has improved	179	3.48	1.269
Forecasting accuracy	179	3.47	1.242
Reduced inventory level	179	3.77	1.209
The organization is managed to increase its market share	179	3.35	1.252
The profitability has increased radically	179	3.18	1.225
Organizational Performance	179	3.41	.513
Valid N (listwise)	179		

## SCM practice

### Descriptive Statistics

SCM practice	N	Mean	Std. Deviation
strategic supplier partnership	179	2.85	.483
Customer Relationship	179	3.24	.490
Quality Information Share	179	3.36	.521
Lean Practice	179	3.72	.566
Training	179	2.59	.493
SCM practice	179	3.15	.412
Valid N (listwise)	179		

## Correlations Result

### Correlations

	SSP	CR	QIS	ILP	TG	SCMP	OP
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	Pearson Correlation	1	.500**	.582**	.499**	.607**	.783**	.622**
SSP	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	179	179	179	179	179	179	179
	Pearson Correlation	.500**	1	.667**	.624**	.496**	.814**	.577**
CR	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	179	179	179	179	179	179	179
	Pearson Correlation	.582**	.667**	1	.711**	.472**	.856**	.680**
QIS	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	179	179	179	179	179	179	179
	Pearson Correlation	.499**	.624**	.711**	1	.458**	.830**	.768**
ILP	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	179	179	179	179	179	179	179
	Pearson Correlation	.607**	.496**	.472**	.458**	1	.745**	.661**
TG	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	179	179	179	179	179	179	179
	Pearson Correlation	.783**	.814**	.856**	.830**	.745**	1	.824**
SCMP	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	179	179	179	179	179	179	179
	Pearson Correlation	.622**	.577**	.680**	.768**	.661**	.824**	1
OP	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	179	179	179	179	179	179	179

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

## Regression result

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.855 <sup>a</sup>	.731	.724	.269

a. Predictors: (Constant), Training, Lean Practice, strategic supplier partnership, Customer Relationship, Quality Information Share

b. Dependent Variable: Organizational Performance

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.223	5	6.845	94.239	.000 <sup>b</sup>
	Residual	12.565	173	.073		
	Total	46.787	178			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), Training, Lean Practice, strategic supplier partnership, Customer Relationship, Quality Information Share

**Coefficients**

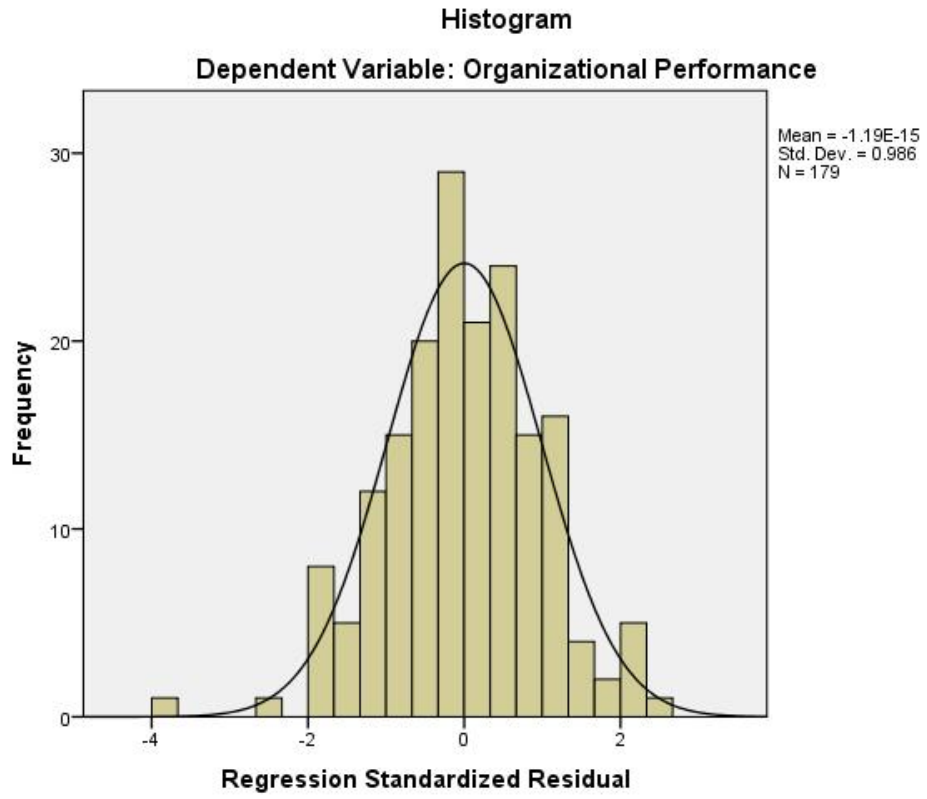
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.211	.157		1.340	.182
1 strategic supplier partnership	.136	.058	.128	2.329	.021
Customer Relationship	-.037	.059	-.035	-.619	.536
Quality Information Share	.133	.063	.135	2.106	.037
Lean Practice	.440	.053	.486	8.235	.000
Training	.326	.054	.314	6.048	.000

a. Dependent Variable: Organizational Performance

**Residuals Statistics**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.32	4.53	3.41	.438	179
Residual	-1.000	.713	.000	.266	179
Std. Predicted Value	-2.480	2.550	.000	1.000	179
Std. Residual	-3.710	2.645	.000	.986	179

a. Dependent Variable: Organizational Performance



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Organizational Performance

