



**HAWASSA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF MANAGEMENT**

**Factors Affecting the performance of Primary Coffee Producing  
Cooperatives : A Case of Bensa Woreda, Sidama National Regional State,  
Ethiopia**

**The thesis Paper Submitted in Partial Fulfillment of the Requirements for  
the Award of Masters of Business Administration degree in Marketing  
Management**

**BY**  
**HAILU YOHANNES**

**MARCH 2024**  
**HAWASSA, ETHIOPIA**

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**MARCH 2024**

**HAWASSA, ETHIOPIA**

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## **Declaration**

I, here by, declare that the thesis entitled `` Factors Affecting the performance of Primary Coffee Producing Cooperatives `` is my work and that all sources of materials used for this thesis have been duly acknowledged. This thesis is Submitted in Partial Fulfillment of the Requirements for the Award of Masters of Business Administration degree in Marketing Management. I solemnly declare that this thesis was not be submitted to any other institution any where for the award of any academic degree, diploma, or certificate. Brief quotations from this thesis are allowable with out special permission provided that accurate acknowledgment of the source is made. Requests for permission for extended quotation from or reproduction of this manuscript in whole or part may be granted by the Department of marketing Management. In all other instances, how ever, permission must be obtained from the author.

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This is to certify that the thesis entitled “Factors Affecting the performance of Primary Coffee Producing Cooperatives” submitted in partial fulfillment of the requirements for the degree of Master of Business Administration in Marketing Management the Graduate Program of the School of Management and Accounting has been carried out by Hailu Yohannes under our supervision.

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Name of the Chair person	Signature	Date
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Name of Internal Examiner	Signature	Date
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SGS Approval	Signature	Date

Final approval and acceptance of the thesis is contingent upon the submission of the final copy of the thesis to the School of Graduate Studies (SGS) through the School Graduate Committee (DGC/SGC) of the candidate’s department.

**Stamp of SGS**

**Date:** \_\_\_\_\_

## Table of Contents

Contents	page
<b>ACKNOWLEDGMENT</b> .....	<b>i</b>
<b>DECLARATION</b> .....	<b>ii</b>
<b>TABLE OF CONTENTS</b> .....	<b>v</b>
<b>LIST OF TABLES</b> .....	<b>viii</b>
<b>LIST OF FIGURES</b> .....	<b>ix</b>
<b>LIST OF ACRONYMS</b> .....	<b>x</b>
<b>ABSTRACT</b> .....	<b>xi</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
<b>1. INTRODUCTION</b> .....	<b>1</b>
1.1 Background Of The Study.....	1
1.2 Statement Of The Problem.....	2
1.3 Objectives of the study.....	4
1.3.1 General Objective of the study .....	4
1.3.2 Specific Objectives .....	4
1.4 Hypothesis of the study .....	4
1.5. Significance of the Study .....	5
1.6 Scope of the Study.....	5
1.7 Limitations of the Study .....	6
1.8 Organization of the paper .....	6
<b>CHAPTER TWO</b> .....	<b>7</b>
<b>REVIEW OF RELATED LITERATURE</b> .....	<b>7</b>
<b>2 INTRODUCTION</b> .....	<b>7</b>
2.1 Theoretical Review .....	7
2.2 Market Chains Versus Value Chains .....	8
2.3 Major Concepts Guiding Agricultural Value Chain Analysis .....	9
2.4 The Coffee Value Chain.....	10

2.5 Global Coffee Value Chain .....	10
2.6 Market And Marketing Coffee Value Chain.....	11
2.7 Coffee Production And Export In East Africa .....	12
2.8 Coffee Marketing And Coffee Fair Trade.....	13
2.9 Coffee Production And Marketing Value Chain In Ethiopia.....	14
2.10 Importance Of The Cooperatives Sector .....	15
2.11 Empirical Review Of Related Literatures .....	16
2.12 Theoretical Framework Of The Study .....	18
2.13 Conceptual frame work of the study .....	19
<b>CHAPTER THREE.....</b>	<b>20</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>20</b>
3.1 Description of the study area .....	20
3.2 Research Design.....	21
3.3 Types And Source Of Data .....	21
3.4 Study Population .....	22
3.5 Sample design and sampling procedure .....	22
3.6 Data Collection Methods.....	23
3.7 Data Analysis Methods .....	24
3.7.1 Model Specification .....	24
3.8 Reliability Test .....	25
3.9 Validity Test.....	25
3.10 Ethical Considerations.....	25
<b>CHAPETER FOUR.....</b>	<b>27</b>
<b>RESULTS AND DISCUSSIONS.....</b>	<b>27</b>
4. Introduction .....	27
4.1. Response Rate .....	27
4.2. Background Characteristics of Respondents.....	27

4.3. Descriptive Statistics Analysis of the Study Variables .....	29
4.4 factors affecting the performance of primary coffee producing cooperatives .....	30
4.5. Results of Inferential Statistics.....	38
4.5.1 Analysis of correlations .....	38
4.6 Multiple Regression Analysis .....	41
4.7 Hypothesis Testing and Discussion of the Result .....	47
<b>CHAPTER FIVE .....</b>	<b>51</b>
<b>SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION.....</b>	<b>51</b>
5.1 Summary of Findings .....	51
5.2 Conclusions .....	52
5.3 Recommendations .....	53
5.4 Suggestions for further Research .....	53
References.....	54
<b>RESEARCH QUESTIONNAIRE .....</b>	<b>59</b>
Interview Questions .....	63

## List of Tables

<b>Table</b>	<b>page</b>
Table 3. 1: Distribution of target population .....	22
Table 3. 2: Reliability Statistics .....	25
Table 4. 1: Response Rate.....	27
Table 4. 2: Demographic , Social and Economic Characteristics of Respondents .....	28
Table 4. 3: Mean range and response option .....	30
Table 4. 4: Perception of Respondents on Price .....	30
Table 4. 5: Perception of Respondents on Role of chain actor's .....	32
Table 4. 6: Perception of Respondents on market facilities.....	34
Table 4. 7: Perception of Respondents on Market Information.....	35
Table 4. 8: Perception of Respondents on Infrastructure problem .....	37
Table 4. 9: Rule of Thumb.....	38
Table 4. 10: Pearson Correlation Matrix.....	39
Table 4. 11: Collinearity Statistics.....	44
Table 4. 12: Multiple Regression analysis result of PPCPC.....	44
Table 4. 13: ANOVA Test.....	45
Table 4. 14: Estimated Unstandardized and Standardized Regression Coefficient.....	46
Table 4. 15: Summary of Hypothesis Testing .....	50

## List of Figures

<b>Figure</b>	<b>page</b>
Figure 2. 1: Conceptual Frame work of the Study.....	19
Figure 3. 1: (The GIS map of study area. 2019) .....	21
Figure 4. 1: Normality tests for PPCPC.....	42
Figure 4. 2: Linearity test.....	43

## List of Acronyms

ADLI-----	Agricultural Development Led Industrialization
ANOVA-----	Analysis of Variance
FDRE-----	Federal Democratic Republic of Ethiopia
CMC -----	Coffee Marketing Cooperative
CSA-----	Central Statistical Authority
CQIC-----	Coffee Quality Inspection Center
CIF-----	‘Cost, Insurance and Freight’
ECX-----	Ethiopia Commodity Exchange
ECEA-----	Ethiopian Coffee Exporters Association
FCA-----	Federal Cooperative Agency
FOB-----	Free On Board
GDP-----	Growth Domestic Product
GIZ-----	German Agency for Technical Cooperation
ICA-----	International Cooperative Alliance
ICC-----	International Coffee Council
ICO-----	International Coffee Organization
SCFCU-----	Sidama Coffee Farmers Cooperative Union
SNNPR-----	South Nations, Nationalities & Peoples’ Region
SPSS-----	Statistical Package for Social Sciences
PPCPC -----	performance of primary coffee products cooperative
USD-----	United State Dollar
UNIDO-----	United Nations Industrial Development Organization
VIF-----	Variance Inflation Factor
VCE-----	Value Chain Effectiveness
YCFCU-----	Yirgacheffe Coffee Farmers Cooperative Union

## ABSTRACT

*The study mainly focused on examine factors affecting the performance of primary coffee producing cooperatives: in a Case of Bensa Woreda, Sidama Region. The study was conducted to examine the problems of primary coffee performance in study area. The study was serving as a benchmark for future researchers. The scope of this study was taken place as per schedules set by the school of management from September 2023 to March 2024. The limitations were within specific kebeles and some respondents were not willing to reply the research questionnaire. The conceptual framework of the study was included by summarizing different literature. In studied area have 22 rural and 2 urban kebeles out of which only four kebeles were selected members of cooperative farmers /2500/ purposely for this study. The selected included :- Bombe, Alo, Mokonisa and Shantawene. 208 sample size was selected from the study population by random sampling technique through Cochran formula 2014. Researcher used primary and secondary data. Primary data were collected through a questionnaire from 202 primary coffee producers by employing a simple random sampling technique. Interviews were also conducted with cooperative officials and executives of the selected public cooperatives in Bensa woreda respondents. Qualitative and quantitative research approaches were employed. Descriptive statistics and inferential statistics methods were employed to analyze the data. This study provided between the dependent variable (the performance of Primary Coffee Producing Cooperatives) and independent variables (Prices, Role of chain actor, Access of market facilities, Market information and Infrastructure problem). The correlation analysis result shows, all of the independent variables were positively and strongly correlated with the dependent variable (the performance of Primary Coffee Producing Cooperatives). The regression analysis result shows all of the independent variables were a positive significant effect on the dependent variable. Based on the finding of the study recommended that government to maintain good infrastructure by facilitating the road /transportation, telephone and electric power for primary coffee producers to increase production, to improve communication channel in order to increase coffee productivity.*

**Keywords:** *Prices, Role of chain actor, Access of market facilities, Market information and Infrastructure problem.*

# CHAPTER ONE

## 1. INTRODUCTION

This research paper contains the background of the study , a statement of the problem, basic research questions, the general and specific objective of the study, the significance of the study, delimitation of the study, operational key terms and the organization of the study.

### 1.1 Background Of The Study

Agriculture is the mainstay of the Ethiopian economy contributing 41.4% of the country's gross domestic product (GDP), 83.9% of the total exports and 80% of all employment in the country (Matousa, Todob & Mojoc, 2013). Put in perspective Ethiopia's key agricultural sector has grown at an annual rate of about 10% over the past decade; much faster than population growth. Ethiopia is among the countries in this region where agriculture plays a vital role in the economy. In the country agriculture accounts for 40.2% of the GDP 80% of employment and 70% of export earnings (UNDP, 2015). About 85% of its population lives in rural areas and depends on agriculture for necessities and as a source of employment (Negatu et al. 2016).

Likewise, Ethiopia is Africa's largest coffee producer and the fifth-world producer contributing some of the world's finest coffee products. The same study witnessed that the country accounts for over 3% of the global coffee market which made it the largest coffee-producing foreign exchange earner (SCFCU, 2019). In 2013/14 Ethiopia exported 190,734 metric tons earning US\$ 749 million. Some of the major destinations of Ethiopian coffee are Germany, Saudi Arabia, Japan, the USA, Belgium and France importing over 70% of the country's total coffee exports (Tefera & Abu, 2015).

Ethiopia has great potential for coffee production, thanks to the country's abundant rainfall, optimum temperatures, favorable altitude and fertile soil. Over 60% of Ethiopian coffee is produced as forest coffee and therefore the use of fertilizers is usually unnecessary as the falling leaves enrich the forest floor. Also, the use of chemicals such as pesticides and fungicides among others is limited since the high genetic diversity in the forest creates a balance between parasites and pests (Ethiopian Coffee Exporters Association, 2016).

Ethiopia has suitable agro-ecologies for Coffee Arabica production and has the potential to produce large amounts of differentiated high-quality green coffee which was liked for its

unique flavor and taste. However, many growing locations in Ethiopia were not benefited from this huge potential, as they should have. Similarly, despite coffee playing a dominant role in the national economy and even though the country is home to Coffee Arabica, the country's coffee production is characterized by low productivity about 619 kg ha<sup>-1</sup> (CSA, 2018), which is below the global productivity of 790.7 kg ha (Wakuma, 2019).

Coffee has maintained its position as Ethiopia's top export for many years. While it accounts for about one-third of the country's export earnings this percentage is gradually declining with increased export sales of gold, cut flowers, textiles, leather products and Khat. Moreover, Coffee exports share of total agricultural exports was 35% while the share of coffee in total export of Ethiopia is about 32% (GAIN, 2022). The share of coffee in the total merchandise export revenue of Ethiopia is 25.1 percent (NBE, 2021).

Hence, marketing margin analysis is also an important aspect of agricultural marketing because of the policy implications of such studies. In substituent farming marketing margin analysis is useful in determining unfair price practices or receipt of economic profits by dominant merchants who normally have the bargaining power against the farmer.

Regarding this study conducting area, most of the coffee-producing farmers have been suffering from a lack of open prices, the role of chain actors, market access, market information, and infrastructure problems are variables for this study. The above idea initiated by the researcher examine factors affecting the performance of primary coffee producing cooperatives in a Case of Bensa Woreda, Sidama National Regional State, Ethiopia.

## **1.2 Statement Of The Problem**

According to ECX (2011), agricultural markets in Ethiopia before 2008 had been characterized by small-scale producers (95%), high costs and risks of transacting and little access to market information due to a long-chain supply of coffee with several market intermediaries.

Ludi (2010), indicated that even though the government deals with coffee marketing still the country has been constrained by poor marketing performance of agricultural products in general and the coffee sub-sector in particular.

Coffee is Ethiopia's major export with little or no processing involved. To accelerate sustainable and inclusive development in the country there is a need for an approach to

exploiting of performance of primary coffee producing cooperatives in the country. The coffee performance of primary coffee producing cooperatives in Ethiopia is weak in terms of linkages with industry, agro-processing, and value-addition downstream of farms, provision of farm inputs upstream ,poor post-harvest operations, storage, distribution and logistics. This has resulted in poor performance of the chain (Girma, 2017).

The contemporary literature on the Ethiopian indicates that the sector performance of primary coffee producing cooperatives has enormous potential opportunities for growth and room for significant improvements in its number of areas (International Coffee Council, 2015).

Even though the government has made various efforts to exploit the potential benefits of the coffee sector in the last two decades still there are not enough value chain-based efforts made in the country. Ethiopian performance of primary coffee producing cooperatives faces many challenges due to limited market outlets, limited efforts in market linkage activities and insufficient market information among actors (Dereje, 2007; Girma, 2017). Dendena et al., (2009) showed that small-scale, dispersed and unorganized producers are unlikely to exploit market opportunities as they cannot attain the necessary economies of scale and lack bargaining power in negotiating prices. A study by Nurilign(2019) found that identified that finance, access to the market, access to information, government policy and the physical environment in place for the subsector are contributing to the performance of primary coffee producing cooperatives in Ethiopia.

The performance of primary coffee producing cooperatives is not sufficiently addressed in Ethiopia regardless of some efforts from the government to improve and support the sector. The information on the performance of primary coffee producing cooperatives is not exhaustive. Little has been done to examine the factors affecting the performance of primary coffee producing cooperatives : in a Case of Bensa Woreda, Sidama Region in particular. The available studies are very few in different contexts and may not address the dynamic coffee production and marketing.

Thus, there is a need to study to add knowledge to fill the gap regarding performance of primary coffee producing cooperatives in the study areas. Therefore, this research aims to examine factors affecting the performance of primary coffee producing cooperatives :in a Case of Bensa Woreda, Sidama National Regional State, Ethiopia.

### **1.3 Objectives of the study**

#### **1.3.1 General Objective of the study**

To examine factors affecting the performance of primary coffee producing cooperatives :  
in a Case of Bensa Woreda, Sidama Region.

#### **1.3.2 Specific Objectives**

These studies were having the following specific objectives:

- To examine the effect of price on the performance of primary coffee producing cooperatives in the study area .
- To assess the roles of chain actors on the performance of primary coffee producing cooperatives in the study area.
- To consider the effect of access to the market on the performance of primary coffee producing cooperatives in the study area.
- To identify the effect of market information on the performance of primary coffee producing cooperatives in the study area.
- To examine the effect of infrastructure problems on the performance of primary coffee producing cooperatives in the study area.

### **1.4 Hypothesis of the study**

The proposed study is to prove or disprove the following research hypothesis which was prepared based on the conceptual framework of the study:

**Ho1:** Price has no positive & significant effect on the performance of primary coffee producing cooperatives in the study area.

**Ha1:** Price has positive & significant effect on the performance of primary coffee producing cooperatives in the study area.

**Ho2:** The role of chain actors has no positive & significant effect on the performance of primary coffee producing cooperatives in the study area.

**Ha2:** The role of chain actors has positive & significant effect on the performance of primary coffee producing cooperatives in the study area.

**Ho3:** Market access has no positive & significant effect on the performance of primary coffee producing cooperatives in the study area.

**Ha3:** Market access has positive & significant effect on the performance of primary coffee producing cooperatives in the study area.

**Ho4:** Market information has no positive & significant effect on the performance of primary coffee producing cooperatives in the study area.

**Ha4:** Market information has positive & significant effect on the performance of primary coffee producing cooperatives in the study area.

**Ho5:** Infrastructure problem has no positive & significant effect on the performance of primary coffee producing cooperatives in the study area.

**Ha5:** Infrastructure problem has a positive & significant effect on performance of primary coffee producing cooperatives in the study area.

### **1.5. Significance of the Study**

In agriculture, the performance of primary coffee producing cooperatives were increase productivity, business integration, responsiveness and ultimately market competitiveness. This study helped on factors affecting the performance of primary coffee producing cooperatives in studied area to give insight and pertinent information. The beneficiary of the study are research and development organizations, traders, producers, policy makers, extension service providers and government and non-governmental organizations.

The government at national and regional levels benefited from the study for any policies intervention for coffee production, marketing, and promoting value addition. Likewise, the study was provide information for non-governmental organizations for possible interventions that would improve performance of primary coffee producing cooperatives .To the researcher's career improve real knowledge. Further more, this study were serving as a benchmark for future researchers.

### **1.6 Scope of the Study**

The scope of the study was comprised of four different dimensions. :-

Conceptual scopes: -The scopes of the study was factors affecting the performance of primary coffee producing cooperatives .

The Geographic scope: - The study was delimited in Sidama Region Bensa woreda specifically four kebeles namely Bombe, Alo, Mokonisa and Shantawene.

Methodological scope: - A qualitative and quantitative approach, further more to analyze the data descriptive statistics, correlation and multi-linear regression (inferential statistics) were applied. Time scope: - The study took place as per schedules set by the school of management from September 2023 to March 2024.

### **1.7 Limitations of the Study**

The following points were limitations to the current study and its findings. The researches was carried out on a single state in Bensa woreda kebeles , Sidama Region. As a result the conclusions derived from this study might not necessarily be the real reflection of the situation in the coffee cooperatives. The absence of adequate literature on the subject in Ethiopian context would have its own limiting impact on in depth analysis of the research study. The other limitation is some respondent were not willingness to reply the research questionnaire.

### **1.8 Organization of the paper**

This research paper is structured into five chapters arranged in sequence. The first chapter consisted of the introductory part which includes a background of the study, a statement of the problem, the objective of the study, the research hypothesis, the significance of the study, the delimitation of the study and the organization of the paper. The second chapter entailed of the review of related literature which contains theoretical review, empirical review and conceptual framework.

The third chapter contained of the methodology study with components such as the design of the study, target population, type and sources of data, the sampling techniques and sample size, method of data collection and instruments, method of data analysis, econometric model specification, Model diagnostic tests and definition of variables and hypothesis. The fourth chapter consisted of the present tresults and discussion of the study. Finally, The five chapter included the summary, conclusion, and recommendations based on the study findings.

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

#### 2 INTRODUCTION

The literature review explains the concept of mapping performance of primary coffee producing cooperatives of global coffee production and export in East Africa, coffee production in Ethiopia, the importance of the cooperatives sector, cooperatives in Ethiopia and discusses the result of previous studies related to factors affecting the performance of primary coffee producing cooperatives : in a Bensa woreda, Sidama Region. Finally, the conceptual frame work of the study was included by summarizing different literature.

##### 2.1 Theoretical Review

**Marketable and marketed surplus:** Marketable surplus is the quantity of produce left out after meeting farmers consumption and utilization requirements for kind payments and other obligations (gifts, donations, charity, etc). Marketed surplus shows quantity sold after accounting for losses and retention by farmers, if any and adding previous stock left out for sales.

A coffee cooperatives is agroup of coffee producers cooperating to gain better access to resources leverage better markeing and business opportunities provide training .

Market access : - some studies might view market access as a walking time in minutes or a walking distance in kilometers which farmers spend or travel to sell their products. But in this study market access is outlets for coffee farmers to sell their coffee products. The outlets can be processors, cooperatives, restaurants, consumers and traders. It also helps to know the proportions of the products sold to each outlet and the reasons (individual farmer characteristics and attributes of each market alternative) for selling.

**Value addition** is simply the act of adding value to a product, whether you have grown the initial product or not. It involves taking any product from one level to the next (Fleming, 2005). It refers to increasing the customer value offered by a product or service. It is an innovation that enhances or improves (in the opinion of the consumer) an existing product or introduces new products or new product uses. Adding value does not necessarily involve

altering a product; it can be the adoption of new production or handling methods that increase a farmer's capacity and reliability in meeting market demand.

**The value chain** is the sequence of activities required to make a product or provide a service (Vermeulen et al., 2008). In this study value chain includes input suppliers, producers, traders (wholesalers and retailers), processors and consumers.

**Value chain analysis** examines the full range of activities required to bring a product or service from its conception to its end use, actors that perform those activities in a vertical chain and final consumers for the product or service. It is used to identify how poor people, small enterprises, or other target groups can play a larger and more active role in a particular value chain and how a value chain's structure or characteristics can be changed to enable it to grow in pro-poor ways.

**Value chain actors** are those involved in supplying inputs, producing, processing, marketing, and consuming agricultural products (Getnet, 2009). They can be those that are directly involved in the value chain (rural and urban farmers, cooperatives, processors, traders, retailers, cafes and consumers) or indirect actors who provide financial or non-financial support services, such as credit agencies, business services and government, researchers and extension agents.

**Marketing margin** is the percentage of the final weighted average selling price taken by each stage of the marketing chain. Total marketing margin is the difference between what a consumer pays and what a producer receives for the product. In other words, it is the difference between retail price and farm gate price (Cramer and Jensen, 1982). The marketing margin in an imperfect market is likely to be higher than that in a competitive market because of the expected abnormal profit. But marketing margins can also be high, even in a competitive market due to high real marketing costs (Wolday, 1994).

## **2.2 Market Chains Versus Value Chains**

The terms production chain, supply chain, market chain and value chain are often used interchangeably, but there are some important differences. In its simplest definition, the terms production chain, supply chain and market chain are synonymously used to describe all participants involved in an economic activity that uses inputs and services to enable a product to be made and delivered to a final consumer.

A value chain is understood as a strategic network between several independent business organizations. According to Hobbs et al. (2000), a value chain is differentiated from a production /supply chain because participants in the value chain have a long-term strategic vision, are disposed to work together are oriented by demand and not by supply and shared commitment to control product quality and have a high level of confidence in one another that allows greater security in business and facilitates the development of common goals and objectives.

### **2.3 Major Concepts Guiding Agricultural Value Chain Analysis**

Four major key concepts are guiding agricultural value chain analysis (Anandaj ayasekeram & Berhanu, 2009; Kaplinsky & Morris, 2000). These are effective demand, production, value chain governance and upgrading.

**Effective demand:** Agricultural value chain analysis views effective demand as the force that pulls goods and services through the vertical system. Hence, value chain analysis needs to understand the dynamics of how demand is changing in both domestic and international markets and the implications for value chain organization and performance. Value chain analysis also needs to examine barriers to the transmission of information in the changing nature of demand and incentives back to producers at various levels of the value chain (MSPA, 2010).

**Production:** In agricultural value chain analysis, a stage of production can be referred to as any operating stage capable of producing a saleable product serving as an input to the next stage in the chain or for final consumption or use. Typical value chain linkages include input supply, production, assembly, transport, storage, processing, wholesaling, retailing and utilization with exportation included as a major stage for products destined for international markets. A stage of production in a value chain performs a function that makes a significant contribution to the effective operation of the value chain and in the process adds value (Anand ajayasekeram & Berhanu, 2009).

**Value chain governance:** Governance refers to the role of coordination and associated roles of identifying dynamic profitable opportunities and apportioning roles to key players (Kaplinsky & Morris, 2000). Value chains imply the repetitiveness of linkage interactions. Governance ensures that interactions between actors along a value chain reflect the organization, rather than randomness. The governance of value chains emanates from the

requirement to set product, process, and logistic standards, which then influence upstream or downstream chain actors and result in activities, roles, and functions.

**Value chain upgrading:** Upgrading refers to the acquisition of technological capabilities and market linkages that enable firms to improve their competitiveness and move into higher-value activities (Kaplinsky and Morris, 2000). Upgrading in firms can take place in the form of process upgrading, product up-grading, functional upgrading, and chain upgrading. Upgrading entails not only improvements in products but also investments in people, know-how, processes, equipment and favorable work conditions. Empirical research in several countries and sectors (e.g. Humphrey & Schmitz, 2000; Humphrey, 2003; Humphrey & Memedovic, 2006) provide evidence of the importance of upgrading the agricultural sector.

## **2.4 The Coffee Value Chain**

The first stage in the coffee value chain includes the process from growing to the production of coffee beans involving the construction of nurseries, planting, maintenance and harvesting of mature beans (the primary phase in the value chain). The second stage encompasses the primary post-harvest processing of mature beans (International Coffee Council, 2015). This stage can create important added value depending on whether the red cherries undergo wet or dry processing. The third stage involves marketing and packaging. The last phase encompasses all activities included in roasting and distribution for final consumption. This last stage of the value chain exists only in a limited number of coffee exporting countries and seldom occurs in Africa (ibid).

## **2.5 Global Coffee Value Chain**

Coffee is one of the top cash crops produced in both developed and developing countries. Coffee production is believed a global value chain, which indicates that by the time a coffee bean has been picked, roasted, and sold it has to pass through to more than one country although coffee production can be regional and sub-national value chain. According to (Bart, 2006) these, regional and sub-national value chains obtain the leftover coffee which is not of high quality (i.e. producing countries receive the lowest grade coffee and export the best).

Due to uncertainty in the business environment different commodities faced fluctuation in price both at national and world markets. The world coffee market has experienced spectacular change over the past couple of decades because of transformations in global policies and new obligations on the supply and demand sides. As (Petit, 2007) these issues,

jointly through technological innovations, have intensified the power irregularities among the different actors in the global value chain and created it harder for the poor growing countries to split the advantage of the coffee trade.

Coffee production and coffee use are divided. More than 60 developing and less developed countries produced coffee. The developed countries Europe with the US and Japan drink most of the coffee produced. Coffee is one of the key export-determined products for the majority of coffee-producing countries over 60% of total production is exported. It is estimated that 25 million farmers worldwide produce coffee, most of them smallholders with plots of 1-5 13 hectares. As (ICO, 2007) work in a global market where there is presently an oversupply of low-quality coffee, which is driving down prices.

## **2.6 Market And Marketing Coffee Value Chain**

A market can be defined as an area in which one or more sellers of given products/services and their close substitutes exchange with and compete for the patronage of a group of buyers. Originally, the term market stood for the place where buyers and sellers gathered to exchange their goods, such as the village square. A market is a point or a place or sphere within which a price-making force operates and in which exchanges of title tend to be accompanied by the actual movement of the goods affected (Backman& Davidson, 1962).

The concept of exchange and relationships leads to the concept of the market. It is the set of the actual and potential buyers of a product (Kotler & Armstong, 2003). Conceptually, a market can be visualized as a process in which ownership of goods is transferred from sellers to buyers who may be final consumers or intermediaries.

**Marketing channel:** Formally, a marketing channel is a business structure of interdependent organizations that reach from the point of product or origin to the consumer to move products to their final consumption or destination (Kotler & Armstong, 2003). This channel may be short or long depending on the kind and quality of the product marketed, available marketing services and the prevailing social and physical environment (Islam et al., 2001).

**Marketing Performance:** Market performance can be evaluated by analyzing the costs and margins of marketing agents in different channels. A commonly used measure of system performance is the marketing margin or price spread. Margin or spread can be useful descriptive statistics used to show how the consumer's price is divided among participants at different levels of the marketing system (Mendoza, 1995).

**Marketing costs:** Marketing costs are the embodiment of barriers to having access to market participation by resource-poor smallholders. It refers to costs that are incurred to perform various marketing activities in the transportation of goods from producers to consumers. Marketing costs include handling costs (labor, loading and unloading, costs of damage, transportation) to reach an agreement, transferring the product, monitoring the agreement to see that its conditions are fulfilled and enforcing the exchange agreement (Holloway et al., 2002)

According to (USAID, 2010) Coffee production systems in Ethiopia are generally categorized into four areas i.e. forest coffee, semi-forest coffee, garden coffee, and plantation coffee. Forest coffee is a wild coffee grown under the shade of natural forest trees and it does not have a defined owner. Semi-forest coffee farming is a system where farmers thin and select forest trees to let sufficient sunlight to the coffee trees and to provide adequate shade. A farmer who prunes and weeds the forest area once a year claims to be the owner of the semi-forest coffee. Garden coffee is normally found in the vicinity (near) a farmer's residence. It is normally fertilized with organic material and usually inter-cropped with other crops.

## **2.7 Coffee Production And Export In East Africa**

Ethiopia is Africa's largest coffee producer and the fifth world's producer contributing some of the world's finest coffees. The country accounts for over 3% of the global coffee market. Coffee is by far the country's largest foreign exchange earner. In 2013/14, Ethiopia exported 190,734 metric tons earning US\$ 749 million. Some of the major destinations of Ethiopian coffee are Germany, Saudi Arabia, Japan, the USA, Belgium and France, importing over 70% of the country's total coffee exports (Tefera, Abu, 2015).

Ethiopia's coffee production for MY19/20 (Oct-Sep) is forecast at 7.35 million 60-kilogram bags (441,000 metric tons). Exports are forecasted to reach a record 4 million bags (240,000 metric tons). The United States was the fourth largest buyer of Ethiopian coffee in 2017/18, accounting for nearly 11 percent of total Ethiopian coffee exports by volume. U.S. global purchases of imported coffee totaled US\$ 5.7 billion in 2018 and Ethiopia supplied \$142.1 million worth of coffee during the same period to the US market.

In 2018/19, Ethiopian exports are estimated to reach 3.98 million bags of coffee (238.8 metric tons), making it, once again, the most important African coffee exporter and the tenth

largest exporter in the world. Coffee is the most important export for the country, accounting for about 34 percent of the value of all exports in 2017/18.

The major countries influenced involve Angola, which accounted for an average of 5% of annual world production until the mid-1970s and has lost its place among the region's leading producers, with an estimated production of just 35,000 bags in the crop year 2014/15 compared to 3.5 million bags in 1970/71. The Democratic Republic of Congo and Madagascar have also lost significant market share, with 335,000 and 621,000 bags respectively. But, coffee rehabilitation programs practiced in these countries, mainly in 15 Angola, may help to reverse the downward trend (ibid).

The most dynamic growth in African production was viewed in Ethiopia, which has recorded an average annual growth rate of 2.2% over the past 50 years, increasing to 2.7% since the crop year 1989/90 (ICO, (2013)). The country's production tendency is usually upward regardless of some downward disruptions, attaining about 6.6 million bags in 2014/15. Our country is sole in Africa in so far as it has a strong domestic coffee consumption culture, which frequently accounts for over half of production.

## **2.8 Coffee Marketing And Coffee Fair Trade**

As Alemseged & Getaneh, (2012/13) coffee season stated that the marketable coffee supply is forecasted by the Ministry of Trade to reach 343,352 metric ton, of which 288,000 metric ton is planned for the export market generating over 1.2 billion US dollars. Of the total marketable supply, 211,000 metric tons come from Oromia Regional State, 122,678 metric tons from Southern Nations and Nationalities Peoples Region, 9,297 metric tons from Gambela Region, and 377 metric tons from Benshanigul and Gumuz Region. (Workafes and Kassu, 2000) cited (Anwar, 2010), the coffee types that are distinguished for such unique characteristics include Sidama, Yirgachefe, Hararge, Gimbi, and Limu types.

However, the coffee produced in some parts of Ethiopia, especially from Harrar, and Yirgachefe, is always sold at a premium price both at domestic and international coffee markets because of its distinctive fine quality (Chifra et al., 1998; ITC, 2002) and appropriate processing approach as cited (Anwar,2010)

A market may be defined as “a particular group of people, an institution, a mechanism for facilitating exchange, (Solomon, 2002). Link the market concepts to the degree of communication among buyers and sellers and the degree of substitutability among goods.

The concept of the perfect market, for example, is an abstraction used by economists as a benchmark for evaluating the performance of market situations that deviate from its specifications (John & Sathan, 1988 (cited in Demeke, 2007))

The major reason for the increased volume of coffee exports in this marketing year is the removal of the new Ethiopian government directive launched in November 2011 requiring coffee traders to ship coffee in bulk containers rather than using the traditional 60 kg jute bags. Coffee traders usually prefer the traditional 60 kg jute bags because the bags help to maintain the identity of Ethiopian coffee. In addition, coffee traders also lack both the material and financial capacity to export coffee in bulk containers.

**International coffee market:** The third level where Ethiopian coffee transacts takes place. At this level, the Exporters sell coffee to importers. In Ethiopia, only the citizens export green coffee. The chain of coffee transactions in Ethiopia is seen below (Cited Coffee Opportunities in Ethiopia 2012) According to (Getue, 2011) Coffee improvement opportunities related to market growth of the specialty coffee industry and a wide range of market options, diverse coffee consumers' preference, modern marketing system, trade marking and licensing initiative, natural resource richest

Arabica coffee gene pool, diverse agroecology with a unique quality profile, associations Active role cooperatives coop, Proclamation updates on coffee quality and marketing systems. In addition good investment policy in the country specialization, Example Jimma University) Control Institutes coffee research center, Promising capacity-building efforts (graduates studies on coffee tea and spice Nongovernmental organizations newly emerging development intervention on coffee by NGOs.

## **2.9 Coffee Production And Marketing Value Chain In Ethiopia**

The producers under this stage in the coffee value chain of Ethiopia include small-scale farmers, privately owned farmers, and state firms. The major portion inters of the volume of products mobilized, value-adding functions, market share and capital owned in the coffee value chain of the country is under the hands of producers especially the large-scale private coffee plantations and state farms of coffee plantations. After the coffee is grown and matured, the following value-adding activities in the value chain performed by those producers are collecting coffee chary and transporting it to processing areas (USAID, 2010)

Coffee cherry collecting and transporting activities in Ethiopia in which except for loading and unloading, is mostly performed by women groups of farmers. Most farm products including coffee are raw and need to process before consumption. This increases the cost of marketing services, which adds value and price to farm products.

The small-scale coffee producers always sell the red cherry coffee on their farms as it is without harvesting, drying and hulling to the coffee collectors. However, some small-scale farmers in the country grow, harvest, dry, hull, and sell their dry cherry coffee to collectors (legal and illegal collectors). While household farmers mostly sell red cherry coffee.

The large-scale-private farmers and state farms harvest coffee chary and use the pulping machine (dry or wet pulping machines) to add more value to the coffee products. The pulped and washed coffee was then exposed to the sunrise in an appropriate place until the coffee bean become properly dried and those foreign materials in the coffee are sorted so that it was ready for grading and sacking. Therefore, most agro-processing employees are women (USAID, 2010).

Several theoretical papers reflect some of these aspects. Basu et al. (2003), for example, show with a North-South model that certification can induce green technology in developing countries. International trade and income gains can have environmentally-enhancing effects. However, monitoring and enforcement determine to a large extent the success of the certification scheme. Mattoo and Singh (1994), however, show that certification can lead in some cases to perverse environmental effects when resulting differentiation between certified and uncertified goods leads to increases in the sales of the latter.

In another paper, Basu et al. (2004) analyze the determinants of the adoption decision for the producer. They use a game theoretic framework to show that the adoption of certification depends on costs of compliance and production, the number of other competing countries with certification schemes and the respective price premium.

## **2.10 Importance Of The Cooperatives Sector**

A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise (International Cooperatives Alliance, 2017). The contribution of the sector was immense for the past economic development of different countries in the world. Data collected by the International Cooperative Alliance (ICA)

indicate that the cooperative movement brings together over one billion people around the world. In (1994) the United Nations estimated that the lives of nearly three billion people, or half of the world's population, were made secure by cooperatives enterprise. These enterprises keep contributing to the social and economic activities of the communities.

## **2.11 Empirical Review Of Related Literatures**

This section presents the assessing of research paper written in performance of primary coffee producing cooperatives . The following research papers which were conducted in Ethiopia are select because of their similarity in the current study.

Dereje (2007) This study used the competitiveness of Ethiopian coffee in the international market. The study indicates that Ethiopian farmers have low level of education, large family size with small farmland and get only 3% of the retail price in the German market. Thus, policy intervention was suggested to improve farmers' performance. Yuka Kodam (2007) conducted research on new roles of cooperatives in Ethiopia in the case of Ethiopian Coffee primary Cooperatives in general and with special focus to Sidama Region Bensa Woreda Cooperatives and its primary cooperatives in particular.

Coffee producers in Ethiopia have historically received a very small share of the export price of green coffee. Reasons that are often mentioned are heavy government intervention and high marketing and processing costs. Prior to (1992), coffee production and marketing in Ethiopia was centrally controlled under the Ministry of Coffee and Tea Development. Producers had to sell at fixed prices and fixed times during the year. The Ethiopian Coffee Marketing Corporation (ECMC) handled the vast majority of the crop. The corporation put a substantial wedge between the producer price and the world price of coffee by imposing an implicit tax on producers (Tadesse & Feyera, 2008).

A study conducted by Policy Analysis and Economic Research Team (2008 ) : on analysis of coffee supply, production, utilization and marketing issues and challenges in Ethiopia explain the coffee supply, quality and standard patterns; demand side and marketing issues and the actual and potential problems encountered in supply and marketing of Ethiopia's coffee. The study assessed the bottlenecks and/or the challenges of the Ethiopia's coffee export activities and examine alternative solutions to maximize earnings from the "green gold", coffee. Since it is a macro level analysis, it was not possible to see coffee supply and marketing issues at regional, zonal and grass root levels. Thus, for more understanding and deeper investigation

of the problems and potential solutions, the team recommended analysis has to continue till Wereda levels including the institutions involved in coffee marketing and inspecting.

Also a research on performance of cooperatives in coffee value chain: an analysis in Sasiga District of Oromia Region, Ethiopia by M. Karthikeyan (2015) indicated that variables such as trust, technology, market information, training, timely delivery of products, financial supports were found to be critical factors influencing the performance of cooperatives in coffee .

A study on marketing information operation in Ethiopia with special reference to the Ethiopia Commodity Exchange (ECX) Coffee Trading by Girma Nigussie Kinato (2011) revealed that inadequate information centers and information on coffee supply, qualities, prices, roasters. Due to the relatively low price of coffee paid to farmers, many coffee producers have shifted to high value cash crops such as” khat” which is a narcotic plant widely consumed in east Africa but banned throughout the united states and much of Europe. Thus, given the government controls the smallholders coffee producers that they can not to produce “khat” which encourages the expansion of an illegal business trend.

In addition analysis of market chains of forest coffee for the case of Belete-Gera forest in south western Ethiopia by Zekarias et al., (2012) indicated that producers, assemblers and wholesalers are the major actors involved in the market chain of coffee. The study recommended the following interventions are necessary to improve the efficiency and performance of the existing marketing system: establishment of an improved transportation system, establishment of producers” cooperative, establishing of price premium system for quality product, a strong and participatory forest management strategy.

As Hailemichael Mulie (2014) conducted research on the determinants of profit efficiency of coffee producing and marketing cooperatives in the case study of Sidama Coffee Farmers” Union point out that: area or land under coffee and cost of hired labor had positive impact on profit levels while cost of family labor and capital were found to have negative influence on profitability. The analysis reveals that firms were not operating at profit frontier and scored a mean profit efficiency of 57 and it implies there a 43% profit loss due to firm specific and institutional variables. Further analysis showed coffee farmers are losing income due to a locative and technical inefficiency. The established source of inefficiency variables were found limited access to credit extension worker lack of storage after harvest, education level

of the farmers and the major determinants were access to extension service, lack of formal education and storage facilities.

A study on export marketing practices, problems and prospects of Oromia Coffee Farmers' Cooperative Union in Ethiopia by Tamiru kumsa Deresa (2015) shows that the factors which influence union's export performances are competition, long duration of export document process, coffee quality, export barrier from country destinations, delay in transportation, communication barrier, lack of international market knowledge, export administrative procedures, unofficial fee in export documents processing, incapable to supply coffee in time by members, private traders intervention and delay of shipping. The study recommended that all the problems indicated above, in one way or another related with or could be addressed through collaborative and deliberate action of both the members and government.

Also Muhabie Mekonnen Mengistu (2015) performs a study on assessing the performance of coffee marketing cooperatives in Ethiopia with a special focus on Yirgacheffe Woreda. The result revealed that coffee cooperatives in the study area are moderately progressing so far as strengthening their financial positions and serving their members is concerned. However, they are still challenged by different impinging factors. Finally the study recommended cooperatives should find solutions that can get out them from their current financial predicaments.

## **2.12 Theoretical Framework Of The Study**

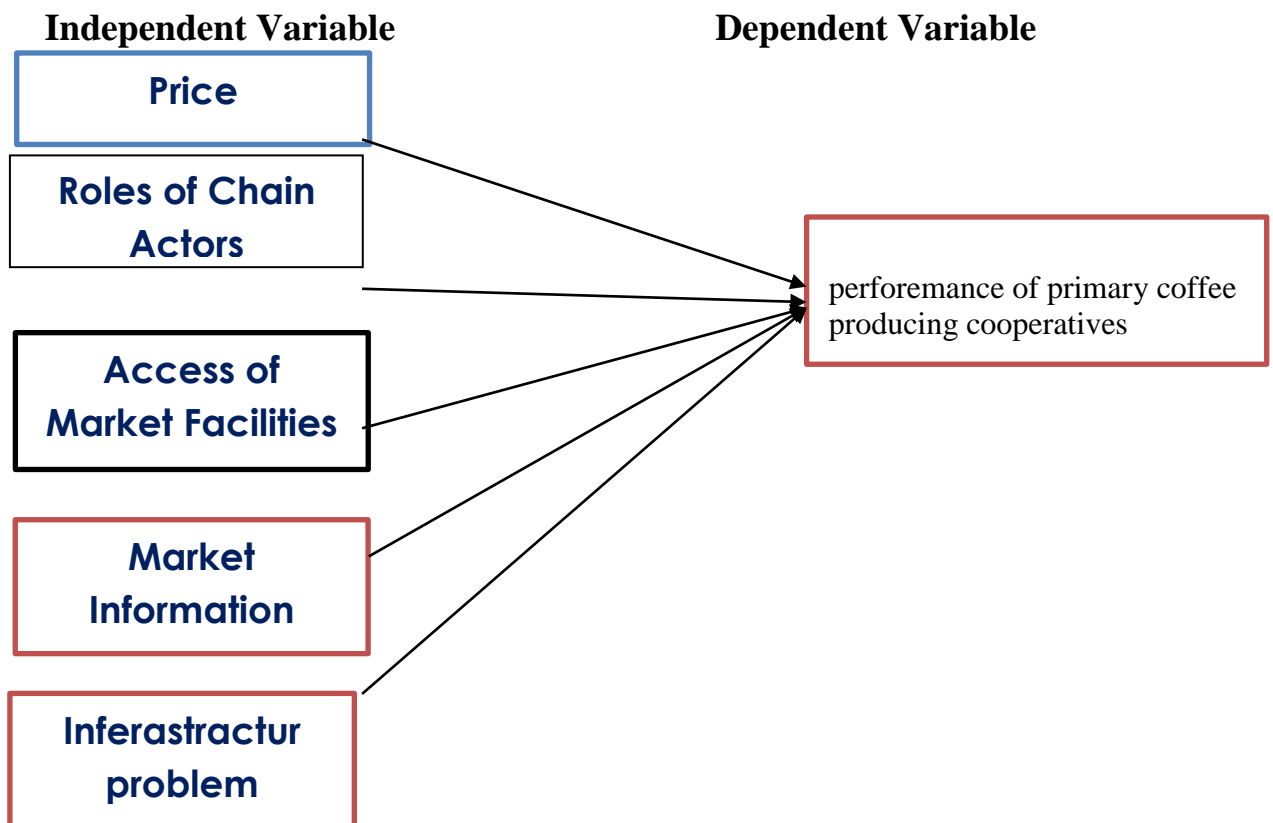
In order to develop a theoretical framework for this study, the researcher has focused on important empirical evidences in different study areas. In all countries of the world, central and local governments, as well as other actors, take a number of measures to support development of MSEs (Olayemi, J. K, 2008). He added that the measures taken by governments vary from the 'minimalist' approaches, where the government deals with improving the business environment, to 'hand-on direct support' to individual firms.

Studies conducted by Clover and Darroch (2005), Martha et.al (2010), Richardson et.al (n.d.) and Rahel and Issac (n.d.) put analyzing the value chain of coffee product in primary coffee producing cooperatives internal and external factors. The factors identified include price of products, quality of products, and limited access to market facilities, less exposure for market information, infrastructural problem, inadequate support services and problem in transportation services are some of the problems resulting in low participation of smallholder farmers in selling their products.

### 2.13 Conceptual frame work of the study

This study was help to analyzing to the price, role of chain actors, access of market, access of information and infrastructure of probleme the independent variable and performance of primary coffee producing cooperatives is dependent variable for this study. From those factors the researcher were specifically focus on the following factors.

**Figure 2. 1: Conceptual Frame work of the Study**



Sources :- Adopted from literature and owen 2023

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Description of the study area

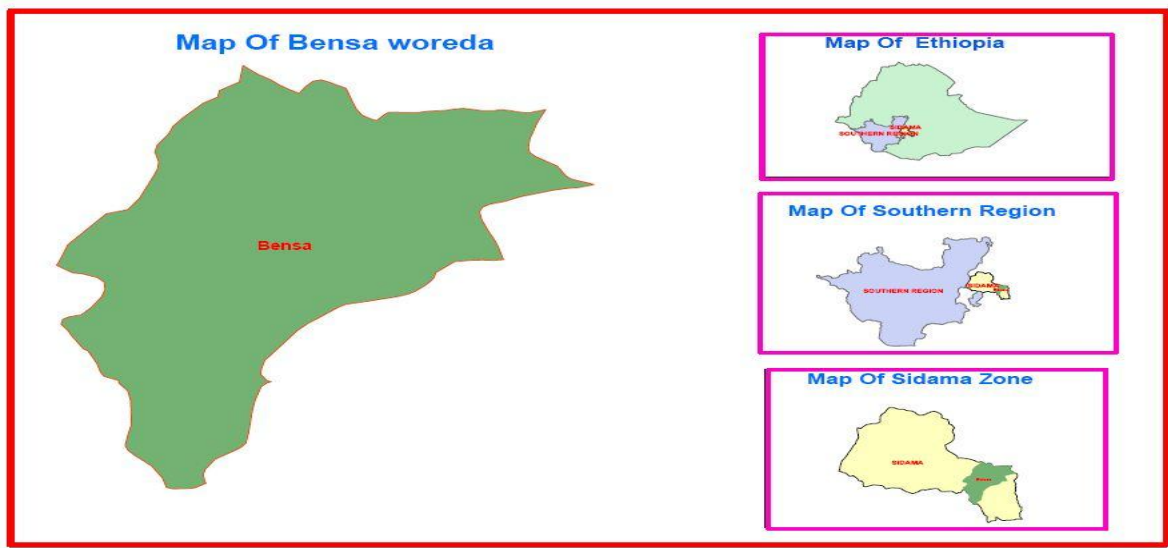
The studies were conducted in Sidama National regional state (SNRS),zone, Bensa woreda, in 2023. Bensa woreda`s have 22 rural kebeles and 2 city kebeles . It is bordered on the South and West by Oromia region, Aroresa and Cire Woreda and on the north by Arbegona and Bona Woreda.

The capital town of the Woreda is Daye located at 135 km South of Hawassa city and 408 km from Addis Ababa. Bensa woreda covers the area of 69,526 hectare with total population of 299,033 out of 152,452 are males and the rest 146,581 are females. The majority of residents belong to Sidama ethnic group with small proportion of other ethnic groups.

The topography of the site is largely plain (BWFEDS, 2015). The dominant farming system is a cereal based semi-intensive rain fed mixed farming with livestock production. The major crops grown in the woreda include ‘enset’ and coffee as annual crop, maize in ‘belg’ and barley, wheat, sorghum and legumes are grown in ‘meher’ seasons. Moreover, Coffee and maize is the main important cash crop of the woreda.

The climatic condition of the Woreda is similar to most of southern parts of the country. The main (summer) rainfall comes between June-September and the spring rainfall which is very important for agricultural activities in the Woreda comes between March to May. Rainfall ranges between 900 mm to 1400 mm per annum with maximum annual temperature also ranges between 18° C - 25° C. Agro-ecology of the Woreda is favorable for diverse of the agricultural production activities. The Woreda is one of the regularly cultivated areas in Sidama zone as the data from Woreda Agricultural and Natural Resource sector (2016), the average rural household has 0.95 hectare of land as compared to the Zone average 0.37 hectare of land.

## Bensa Woreda map



**Figure 3. 1:** (The GIS map of study area. 2019)

### 3.2 Research Design

A good design is often characterized by adjectives like flexible, appropriate, efficient and economical and so on. Generally, the design which minimizes bias and maximizes the reliability of the data collected and analyzed is considered a good design. To conduct this study, the researcher is employed descriptive research design, Explanatory research design and mixed approaches. The major purpose of descriptive research is describing the state of affairs as it exists at present and that the researcher has no control over the variables; only report what happened or what is happening (Best & Kahn, 2006).

Therefore, in this study both quantitative and qualitative approach are used to analyze the outcome. Besides, the researcher checked the reliability and validity of the questionnaire using Cronbach Alpha.

### 3.3 Types And Source Of Data

This study used the main sources of data include both primary and secondary data. By use both qualitative and quantitative collecting data methods. The mix use of these data types is from the standpoint that insufficiency and incompleteness will be minimized. Primary data was collected use semi-structured questionnaires from cooperatives owners. Secondary data personal interview with coffee producing cooperatives extension coordinators (development agents) from the coffee producing cooperatives.

Personal interview were preferred. In order to gain feedback and for probing purposes; because individuals /members of cooperative/ may be reluctant to issues which they thought are sensitive. In addition, employees of those cooperatives used systematic randomly sampling were select and interviewed.

### 3.4 Study Population

In Bensa woreda ,there are 22 rural and 2 urban kebeles out of which only four members of cooperative faremeres /2500/ kebales were selected purposely for this study. The selected kebeles included :- Bombe, Alo ,Mokonisa and Shantawene.

**Table 3. 1: Distribution of target population**

<b>N<sub>o</sub></b>	<b>Name of sample primary coffee cooperatives kebeles</b>	<b>Number of coffee producing cooperatives members</b>	<b>Proportion of sample size</b>
1	Bombe	800 individuals/faremeres/	$\frac{800}{2500} * 208 = 67$
2	Alo	750 individuals/faremeres/	$\frac{750}{2500} * 208 = 62$
3	Mokonisa	450 individuals/faremeres/	$\frac{450}{2500} * 208 = 37$
4	Shantawene	500 individuals /faremeres/	$\frac{500}{2500} * 208 = 42$
		2500	208

**Source** ;- Our Survey result 2023

### 3.5 Sample design and sampling procedure

The sample was selected from the study population using purposive sampling technique. Accordingly, 208 sample respondents were selected using the formula Cochran (2014) shows below :-

$$n = n_1 + n_2 + n_3$$

whereas, n is drawn from the total population , the sample size is determined at 5 % margin of error and 95% confidence level using sample determination method though the following formula .

$$n = \frac{Z^2 p(1-p)N}{(e)^2(N-1) + Z^2 p(1-p)}$$

(Cochran, 2014). Where, n = the sample size

Z=table value =1.96

N = the total population (2500)

e = margin of error = 0.05

p =pilot test reliability (0.18)

N= 2500 (Source, cooperatives report)

$$n = \frac{Z^2 p(1-p)N}{(e)^2(N-1) + Z^2 p(1-p)}$$

$$n = \frac{(1.96)^2(0.18)(1-0.18)2500}{(0.05)^2(2500-1) + 1.96^2(0.18)(1-0.18)}$$

$$n = \frac{(3.8416) * 0.18(0.82) * 2500}{(0.0025)(2499) + 3.8416 * (0.18)(0.82)}$$

$$n = \frac{1417.55}{6.2475+0.567} = 208 \text{ the sample size were ( members of cooperatives ) .}$$

### 3.6 Data Collection Methods

The study used self-administered questionnaires and Interview questions. The questionnaire has two sections. The first section is about demographical characteristics of respondents. The second section of questionnaire describes the performance of primary coffee producing cooperatives. The researcher used a five-point **Likert scale** anchored to measure the argument level which was denoted by 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree.

The study used participatory methods like Questionnaires' to collect quantitative data and interviews to collect qualitative data and other relevant information from the members.

They were translated the questioners from English to the Amharic and sidamic language . because the target population were below high school and above in their educational level. Thus, it was expected that had not been any difficulty to understand the questions.

### 3.7 Data Analysis Methods

The collected data from questioner were analyzed using descriptive and inferential statistics. As described earlier, quantitative research approach were used in the study. While descriptive statistics includes frequencies, percentages, means and standard deviations and inferential statistics include correlations and regression analysis. Product moment correlation coefficient was used to ascertain whether a statistically significant relationship exists between performance of primary coffee producing cooperatives. Multiple linear regressions were used to determine how performance of primary coffee producing cooperatives factors explains.

To analyze the data, different kinds of statistical methods including descriptive statistical tools like mean, and standard deviation were employed to illustrate the level of agreements of the respondents and its implication, regarding the demographic characteristics and the variables. In addition to descriptive statistical tools, inferential statistical tools like correlation analysis were used to statistically identify the significant relationship between the independent variable and the dependent variable.

The multiple linear regression analysis were to predict the performance of primary coffee producing cooperatives the dependent variable using the values of the independent variables and to test all hypotheses in the regression model. Furthermore Analysis of Variance (ANOVA) is used to test the significance of the regression model. All the analysis methods were assisted by the SPSS (Statistical Package for Social Science) software Version 21.

#### 3.7.1 Model Specification

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

**Where:** Y= PPCPC (Dependent Variable)

$\beta_0$  = Intercept

$\beta_1, \beta_2, \beta_3, \beta_4$  &  $\beta_5$  = Coefficients of the line

X1=Price

X2= Role of chain actor

X3=Access of market

X4=Market information

X5=Infrastructure problem

e= Sampling error

### 3.8 Reliability Test

Reliability was the extent to which data collection technique (s) would yield consistent findings, similar observation would be made or conclusions reached by other researchers (Saunders *et al.*, 2009). One of the common approaches in assessing reliability was internal consistence (Mitchell, 1996). Reliability could be calculated through the Cronbach's alpha where the measured variables were considered reliable if the alpha values are 0.7 and/ or higher. To test for reliability of obtained data, this study used the reliability test/ the Cronbach's alpha.

### 3.9 Validity Test

It was not adequate just to measure social science constructs using any scale that we prefer. We also must test these scale to ensure that: (1) these scales indeed measure the unobservable construct that we wanted to measure (i.e., the scales were "valid"), and (2) they measure the intended construct consistency and precisely (i.e., the scales were "reliable"). Reliability and validity, jointly called the "psychometric properties" of measurement scale, were the yardsticks against which the adequacy and accuracy of our measurement procedures were evaluated in scientific research (Bhattacharjee, 2012). So, the researcher checks for validity and reliability of the data collected through survey.

**Table 3. 2: Reliability Statistics**

<b>Variables</b>	<b>No of items</b>	<b>Cronbach's alpha value</b>
Price	4	.835
Role of chain actor	4	.796
Access of market facilities	4	.846
Market information	4	.856
Infrastructure problem	4	.819
<b>Over all Reliability</b>	<b>20</b>	<b>.834</b>

**Source:** *Researcher own survey result 2023*

### 3.10 Ethical Considerations

To conduct the study, an ethical clearance and supporting letter were obtained from the Ethical review committee of Hawassa University. An informed consent obtained from each study participants to participate in the study. The purpose and importance of the study explained to the participants and those who might refuse to participate in the study would not

be forced. Confidentiality was granted for information to be collected from each study participants.

Data were collect after full informed verbal consent was obtained. Moreover, confidentiality of the information was maintained by omitting their names and personal identification or privacy. Respondent were informed that the information obtained from them would not be disclosed to a third party. Some of the expected tenets (principles) of ethical behavior that were widely accepted within the scientific community were : voluntary participation and harmlessness, anonymity and confidentiality, disclosure, analysis and reporting (Bhattacharjee, 2012)

## CHAPETER FOUR

### RESULTS AND DISCUSSIONS

#### 4. Introduction

This chapter presents the results and discussions of the responses gathered from the respondents through questionnaire and interview. In this chapter, the data collected from respondents were analyzed and interpreted using quantitative analysis, which involves analysis of the demographical information of respondents, and the descriptive and inferential statistics employed to test the hypothesis and to investigate the effect of independent variables on dependent variable.

#### 4.1. Response Rate

A total 208 questionnaires distributed to selected kebeles respondents and the response rate was indicated in the Table 4.1 below.

**Table 4. 1: Response Rate**

Items	Response rate	
	No	Percentage
Sample size	208	100
Collected	202	97.1
Remain uncollected	6	2.9

Source: *Survey Result (2023)*

From the above Table 4.1, from 208 distributed questionnaire 202 (97.1%) were collected while 6 (2.9%) of the questionnaire remained uncollected .Therefore, analysis were made based on the responses obtained from 202 questionnaire.

#### 4.2. Background Characteristics of Respondents

This section summarizes the demographic characteristics of respondents, which includes gender, age, marital status, educational level and income level. The purpose of the demographic analysis in this research is to describe the characteristics of the sample respondents accordingly and the Tables below provide the demographic profile of the respondents.

**Table 4. 2: Demographic , Social and Economic Characteristics of Respondents**

<b>Variables</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Sex</b>	Male	139	68.8
	Female	63	31.2
	<b>Total</b>	<b>202</b>	<b>100.0</b>
<b>Age</b>	20-29	19	9.4
	30-39	60	29.7
	40-49	68	33.7
	50 and Above	55	27.2
	<b>Total</b>	<b>202</b>	<b>100.0</b>
<b>Marital status</b>	<b>Single</b>	<b>14</b>	<b>6.9</b>
	<b>Married</b>	<b>158</b>	<b>78.2</b>
	<b>Divorced</b>	<b>19</b>	<b>9.4</b>
	<b>Windowed</b>	<b>11</b>	<b>5.4</b>
	<b>Total</b>	<b>202</b>	<b>100.0</b>
<b>Education status</b>	<b>Illiterate</b>	<b>70</b>	<b>34.7</b>
	1-8	50	24.8
	9-12	57	28.2
	Diploma	19	9.4
	Degree	6	3.0
	<b>Total</b>	<b>202</b>	<b>100.0</b>
<b>Income status</b>	No off farm income	26	12.9
	<b>500-1000</b>	<b>59</b>	<b>29.2</b>
	<b>1001-1500</b>	<b>68</b>	<b>33.7</b>
	<b>1501-2000</b>	<b>38</b>	<b>18.8</b>
	<b>Above 2000</b>	<b>11</b>	<b>5.4</b>
	<b>Total</b>	<b>202</b>	<b>100.0</b>

Source ;-own survey result 2023

The above table 4.2 , indicated that the sex characteristics of sampled households opined as, 68.8% of the sampled households were male headed and 31.2% of them were female headed. This indicates that the majority of cooperative member households were male headed. However, one of the current and critical issues related to cooperatives movement in the country is enhancing female's participation in the cooperative to minimize gender inequality in terms of socio-economic participation.

Regarding the age group of the respondents Table 4.2, the larger portion of the respondents that is (33.7%) falls within the age group of 40-49. Age group from 30 to 39 and above 50 hold (29.7%) and (27.2%) number of respondents respectively. Respondents of age group 20 to 29 contain the least number of respondents, which are (9.4%). From this we can say that coffee marketing cooperatives is filled with most actively working age group that can be able to transform the mission and vision of the coffee marketing cooperatives into reality.

The marital status, 78.2% were married. While, 9.4%, 6.9% and 5.4% of the respondents were, divorce, single and widowed, respectively. Therefore majority of members were married. From this one can conclude that they carry out different activities responsibly.

As showed from the above Table 4.2, out of 202 of household head, 34.7% were illiterate. The rest 28.2% were attend 9 to 12, 24.8% were attend 1 to 8, 9.4% were diploma, 3.0% of the sampled households had attended degree respectively. Thus 65.4% farmer's respondents were literate. Consequently, they can easily understand and communicate with the principles and values of the cooperatives. Likewise, from the above Table 4.2 regarding income level, 33.7% of the respondents was 1001-1500 ETB. While, 29.2% of the respondents were 500-1000ETB, 18.8%, 12.9% and 5.4% of the respondents were, 1501 – 2000ETB, No off farm income, above 5000ETB are respectively. Therefore, majority of members were 1001-1500ETB.

### **4.3. Descriptive Statistics Analysis of the Study Variables**

This part of the study was analyzed by using descriptive statistics like the mean and standard deviation based on survey questionnaires gathered from 202 primary coffee cooperatives in study area. The items were measured by using Likert scales starting from 1=strongly disagree 2=disagree 3=neutral 4=agree and 5= strongly agree. The combined items are used to use both qualitative and quantitative collecting data methods. This is to illustrate the level o performance of primary coffee producing cooperatives agreement of the respondents.

The study has five independent variables: Price, Role of chain actor, Access of market facilities, Market information & Infrastructure problem performance of primary coffee producing cooperatives as dependent variable. Accordingly, the paper applies mean and standard deviation as the best measures for analysis based on the mean range developed by Al-Sayaad et al. (2006) of the Table 4.3 below:

**Table 4. 3: Mean range and response option**

No	Mean Range	Response Options
1	[1.00, 1.80]	Strongly Disagree
2	(1.80, 2.60]	Disagree
3	(2.60, 3.40]	Neutral
4	(3.40, 4.20]	Agree
5	( 4.20, 5.00]	Strongly Agree

Source: Al-Sayaad et al. (2006), Cited in Bassam, (2013)

#### 4.4 factors affecting the performance of primary coffee producing cooperatives

Respondents were asked to rate their perception on Likert scale ranging from 1=strongly disagree 2=disagree 3=neutral 4=agree and 5= strongly agree for their overall perception on the performance of primary coffee producing cooperatives

**Table 4. 4: Perception of Respondents on Price**

No	Items of price in performance of primary coffee producing cooperatives of the organization	No	Statistics	
			Mean	Std. Dev
1	Coffee selling price of the organization is different from other competitors' price	202	4.67	1.230
2	Cooperatives give fair price for coffee producers	202	3.30	1.347
3	Coffee price difference across different markets in your area	202	3.39	1.571
4	Members sell coffee at any time without any problem	202	3.54	1.376
<b>Overall mean (SD)</b>		<b>202</b>	<b>3.72</b>	<b>1.381</b>

Source: own survey result, (2023)

*N.B.* Mean value >3 high, mean=3 moderate and mean <3 low.

In the table 4.4 (in Item 1) the respondents were asked whether Coffee selling price of the organization is different from other competitors' price. Accordingly, their response showed the mean score is 4.67 and SD of 1.23 which falls within the range of 4.20 and 5.00, which is strongly agree. Based on this, it can be concluded that most of the respondents strongly agreed on that Coffee selling price of the organization is different from the competitors price.

In the table 4.4 (in Item 2) the respondents were asked whether Cooperatives give fair price for coffee producers. Accordingly, their response showed the mean score is 3.30 and SD of 1.34 which falls within the range of 2.60 and 3.40 which is neutral. Based on this, it can be concluded that most of the respondents replied neutral for not knowing whether cooperatives give fair price for coffee producers.

In the table 4.4 (in Item 3) the respondents were asked whether coffee price difference across different markets in your area. Accordingly, their respondent showed the mean score is 3.39 and SD of 1.57 which falls within the range of 3.40 and 4.20 which is agree. Based on this, it can be concluded that most of the respondents agreed on that coffee price difference across different markets in your area.

In the table 4.4 (in Item 4) the respondents were asked whether members sell coffee at any time without any problem. Accordingly, their respondents showed the mean score is 3.54 and SD of 1.37 which falls within the range of 3.40 and 4.20 which is agree. Based on this, it can be concluded that most of the respondents agreed on that members sell coffee at any time without any problem.

**Table 4. 5: Perception of Respondents on Role of chain actor's**

No	Items of role chain actor's in performance of primary coffee producing cooperatives	No	Statistics	
			Mean	Std. Dev
1	Each actor (Ejentes)play roles in the performance of primary coffee producing cooperatives	202	3.59	1.311
2	The relationship between actors (ajentes)in the performance of primary coffee producing cooperatives is good	202	3.50	1.411
3	Each actor regularly exchange information and knowledge with producers.	202	4.01	.951
4	Actors( Ejentes) play their role in performance of primary coffee producing cooperatives with producer.	202	3.81	1.028
<b>Overall mean (SD)</b>		<b>202</b>	<b>3.83</b>	<b>1.131</b>

**Source:** Survey result, (2023)

*N.B. Mean value >3 high, mean=3 moderate and mean <3 low*

As can be seen from in Table 4.5, the overall mean score of role of chain actor's variable is 3.83 with standard deviation of 1.181. The role played by each actor along the performance of primary coffee producing cooperatives

is important to facilitate effective achievement of activities. In this aspect, respondents were requested whether each actors play roles in the performance of primary coffee producing cooperatives .

Moreover, the mean value of the farmers'' respondents is 3.59 with 1.311 standards deviation. In addition all these values, was found from the document that there had always been different important activities which played by each actor along the chain. The same data obtained from the Key Informant Interview indicated that there is still negligence with some

actor in achieving the stated roles. From this finding one can deduce that actor play roles in the performance of primary coffee producing cooperatives .

According to the calculated value were 3.50 with the 1.411 standard deviation for farmers showed that respondents agreed to this concern. The mode of relationship is essential to the design of the performance of primary coffee producing cooperatives .

Hence the relationship between actors in the chain positively affects the performance of primary coffee producing cooperatives .

. However the interview results with the executive official of the cooperatives disagree to this concern. This result also agreed with finding of Porter (1985) that indicated the fundamental success of the performance of primary coffee producing cooperatives depend on the form of relationship between the members. A study by Alemayehu (2014) suggested that developing strong link between the value chain actors in chain is very important, increase coffee production, productivity, sales value and marketing by international level. As a result the cooperatives have to create conducive environment to minimize the risk which it may face.

Besides the mean response the moderate mean value ( $x=3$ ) which is 4.01 with the .951 standard deviation. Therefore it is possible to conclude that each actor regularly exchange information and knowledge with primary producers. The same results from Key Informant Interview are also agreed with such views of the respondents. Therefore each actors need to continue the smooth flow of information and knowledge along the value chain.

Moreover, the calculated mean value 3.81 with the 1.028 standard deviation that farmer agrees that the actors play their role in performance of primary coffee producing cooperatives with producers. Whereas data was gathered by interview from coffee marketing cooperatives officials agreed with such sights of the respondents. However the interview results with the executive official of the cooperatives agree to this concern. From this finding one can deduce that actors play their role in performance of primary coffee producing cooperatives with producers.

**Table 4. 6: Perception of Respondents on market facilities**

No	Items of access of market facilities in performance of primary coffee producing cooperatives	No	Statistics	
			Mean	Std. Dev
1	Members have places to sell coffee product	202	4.45	1.075
2	Members face problem with access to market	202	3.83	1.437
3	Members have access to market information for coffee marketing	202	3.69	1.286
4	Cooperatives are source of your information on demand, supply and price of other markets	202	3.87	1.260
<b>Overall mean (SD)</b>		<b>202</b>	<b>3.96</b>	<b>1.264</b>

**Source:** survey result, (2023)

*N.B. Mean value >3 high, mean=3 moderate and mean <3 low.*

In the table 4.6 in Item 1 the respondents were asked whether the members of cooperatives have their own places to sell coffee product. Accordingly, their response showed the mean score of 4.45 and SD of 1.075 which falls within the range of 4.20 and 5.00 which is strongly agree. Based on this, it can be implied that most of the respondents strongly agreed on that the members of cooperatives have their own places to sell coffee product. In relation to the above data, interview with the official of the cooperatives disclosed that farmers sell their coffee in the respective near market place. From these views one can be argued that members of cooperatives have their own place to sell coffee product.

In the table 4.6 in Item 2 the respondents were asked whether the members of cooperatives face problem with access to market. Accordingly, their respondent showed the mean score of 3.83 and SD of 1.43 which falls within the range of 3.40 and 4.20 which is agree. Based on this, it can be implied that most of the respondents agreed on that the members of cooperatives face problem with access to market. In supporting the survey the key informant interview result with officials support access to the market in one of the problem that the chain confront the smooth flow of goods. This is in accord with the finding of the study by Margaret ,(2013), in Githunguri District, Kenya suggested that marketing access is one factor

that affect the coffee production. From this finding one can deduce that members of cooperatives face problem with access to market.

In the table 4.6 in Item 3 the respondents were asked whether the members of cooperatives have access to market information for coffee marketing. Accordingly, their respondent showed the mean score of 3.69 and SD of 1.28 which falls with in the range of 3.40 and 4.20 which is agree. Based on this, it can be implied that most of the respondents agreed on that members of cooperatives have access to market information for coffee marketing. The same data collected from the Key Informant also confirmed the results from the respondents. From this finding one can deduce that members of cooperatives have access to market information for coffee marketing.

In the table 4.6 in Item 4 the respondents were asked whether cooperatives are sources of your information on demand, supply and price of other market. Accordingly, their respondent showed the mean score of 3.87 and SD of 1.26 which falls with in the range of 3.40 and 4.20 which is agree. Based on this, it can be implied that most of the respondents agreed on that the cooperatives are sources of your information on demand, supply and price of other market. The same data collected from the Key Informant also confirmed the results from the respondents.

**Table 4. 7: Perception of Respondents on Market Information**

No	Items of market information in performance of primary coffee producing cooperatives	No	Statistics	
			Mean	Std. Dev
1	Members know the nearby market price before selling coffee	202	4.28	.917
2	Relative advantage of price is one requirement to sell coffee	202	3.53	1.493
3	Cooperatives give training for the members	202	4.32	.908
4	Members have awareness about cooperatives value, definition and principles	202	3.92	1.081
<b>Overall mean (SD)</b>		<b>202</b>	<b>4.01</b>	<b>1.099</b>

**Source:** own survey result, (2023)

*N.B. Mean value >3 high, mean=3 moderate and mean <3 low.*

In the table 4.7 in Item 1 the respondents were asked whether members know the nearby market price before selling coffee. Accordingly, their respondent showed the mean score is 4.28 and SD of 0.91 which falls within the range of 4.20 and 5.00 which is strongly agree. Based on this, it can be concluded that most of the respondent strongly agreed on that the members know the nearby market price before selling coffee. In supporting the survey the key informant interview result with both officials support the respondent's agreement. From this finding one can deduce that the farmers aware the nearby market price before sold the coffee.

In the table 4.7 in Item 2 the respondents were asked whether relative advantage of price is one requirement to sell coffee. Accordingly, their respondent showed the mean score is 3.53 and SD of 1.49 which falls within the range of 3.40 and 4.20 which is agree. Based on this, it can be concluded that most of the respondent agreed on that the relative advantage of price is one requirement to sell coffee. The same data obtained from the Key Informant Interview confirmed the respondent agreements indicated that members of the cooperatives sold the coffee after checking the price advantage in different market in the Kebeles. From this finding one can deduce that relative advantage of price is one requirement to sell coffee.

In the table 4.7 in Item 3 the respondents were asked whether cooperatives give training for the members. Accordingly, their respondent showed the mean score is 4.32 and SD of 0.90 which falls within the range of 4.20 and 5.00 which is strongly agree. Based on this, it can be concluded that most of the respondent strongly agreed on that the cooperatives give training for the members. In supporting the survey, interview conducted with executives of area coffee marketing cooperatives pointed out that members add value to the cooperatives through washing, sorting cherries and drying of coffee before sell coffee to the cooperatives through district market in each Kebeles. From these views one can be disputed that cooperatives give training for the members.

In the table 4.7 in Item 4 the respondents were asked whether members have awareness about cooperatives value, definition and principles. Accordingly, their respondent showed the mean score is 3.92 and SD of 1.08 which falls with in the range of 3.40 and 4.20 which is agree. Based on this, it can be concluded that most of the respondent agreed on that Members have awareness about cooperatives value, definition and principles. In supporting the survey results, interview with the execute officials of the cooperatives point out that majority of

members were aware but cooperatives need to suit ways to create awareness for the new members. From these views one can be disputed that members have awareness about cooperatives value, definition and principles.

**Table 4. 8: Perception of Respondents on Infrastructure problem**

No	Items of infrastructure problem in performance of primary coffee producing cooperatives V	No	Statistics	
			Mean	Std. Dev
1	Coffee production and processing equipment supply is adequate	202	3.36	1.687
2	Members have access to telephone and mass media (TV, Radio etc.)	202	3.62	1.592
3	An extension agent visit the cooperatives	202	3.40	1.549
4	The cooperatives support the producer during infrastructure problem	202	3.48	1.477
<b>Overall mean (SD)</b>		<b>202</b>	<b>3.46</b>	<b>1.576</b>

Source: own survey result, (2023)

*N.B. Mean value >3 high, mean=3 moderate and mean <3 low.*

In the table 4.8 in Item 1 the respondents were asked whether coffee production and processing equipment supply is adequate. Accordingly, their respondent showed the mean score is 3.36 and SD of 1.68 which falls within the range of 3.40 and 4.20 which is agree. Based on this, it can be concluded that most of the respondents agreed on that coffee production and processing equipment supply is adequate. Whereas the interview with the officials of the cooperatives declare that the coffee production and processing equipment's supply of the cooperatives is insufficient because the fund the union distributed for each primary cooperatives is inadequate to buy equipment's. From these views one can be deduce that respondent's results agreed coffee production and processing equipment's supply is adequate and KII coffee production and processing equipment's supply of the cooperatives is insufficient because the fund the union distributed for each primary cooperatives is inadequate to buy equipment's.

In the table 4.8 in Item 2 the respondents were asked whether members have access to telephone and mass media (TV, Radio etc.). Accordingly, their respondent showed the mean score is 3.62 and SD of 1.59 which falls within the range of 3.40 and 4.20 which is agree. Based on this, it can be concluded that most of the respondent agreed on that members have access to telephone and mass media (TV, Radio etc.)

In the table 4.8 in Item 3 the respondents were asked whether extension agent assist the cooperatives. Accordingly, their respondent showed the mean score is 3.40 and SD of 1.54 which falls within the range of 3.40 and 4.20 which is agree. Based on this, it can be concluded that most of the respondent agreed on that extension agent assist the cooperatives.

In the table 4.8 in Item 4 the respondents were asked whether The cooperatives support the producer during infrastructure problem. Accordingly, their respondent showed the mean score is 3.48 and SD of 1.477 which falls within the range of 3.40 and 4.20 which is agree. Based on this, it can be concluded that most of the respondent agreed on that The cooperatives support the producer during infrastructure problem.

## 4.5. Results of Inferential Statistics

### 4.5.1 Analysis of correlations

Like the demographic factors, the scale typed questionnaire entered to the SPSS software version 21 to process correlation analysis. Based on the questionnaires which were factors affecting the performance of primary coffee producing cooperatives In study area the following correlation analysis was made.

**Table 4. 9: Rule of Thumb**

Range of coefficient	Descriptive of strength
+0.8 to + 1.00	Very strong
+0.61 to + 08	Strong
+0.41 to + 0.60	Moderate
+0.21 to + 0.40	Weak
+00 to + 0.20	No relation

Source: (Bhattacharjee, 2012)

Correlation measures the strength of the linear relationship between two variables. Thus, Pearson's correlation is used to identify whether there are relationships between the variables and to describe the strength and the direction of the relationship between two variables (Mohammad, *n.d*). According to Berndt et.al (2005), the level of association as measured by

Pearson’s co-efficient falls between -1.0 and +1.0, which indicates the strength and direction of association between the two variables.

The interpretation of the result is as follows; a correlation result between 0 to 1 implies positive relationship, 0 (zero) for no relationship, 1 for perfect positive relationship, -1 for perfect negative relationship and between -1 to 0 indicated that existence of negative relationship. Though it indicates the existence of a positive or negative relationship, the strength of such a relationship is not high when the results fall below  $\pm 0.61$  (Oogarah-Hanuman et. al, 2011). It is also supported by Berndt et. al (2005), the rules of thumb proposed by Burns & Bush (in van Heerden, 2001) suggests that “moderate” ends at  $\pm 0.60$ , and “strong” starts at  $\pm 0.61$

**Table 4. 10: Pearson Correlation Matrix**

Correlations							
		PPCPC	P	RCA	MF	MI	IP
<b>PPCPC</b>	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	202					
<b>P</b>	Pearson Correlation	<b>.771**</b>	1				
	Sig. (2-tailed)	.000					
	N	202	202				
<b>RCA</b>	Pearson Correlation	<b>.689**</b>	<b>.680**</b>	1			
	Sig. (2-tailed)	.000	.000				
	N	202	202	202			
<b>MF</b>	Pearson Correlation	<b>.715**</b>	<b>.710**</b>	<b>.603**</b>	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	202	202	202	202		
<b>MI</b>	Pearson Correlation	<b>.635**</b>	<b>.738**</b>	<b>.674**</b>	<b>.688**</b>	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	202	202	202	202	202	
<b>IP</b>	Pearson Correlation	<b>.740**</b>	<b>.774**</b>	<b>.681**</b>	<b>.690**</b>	<b>.756**</b>	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	202	202	202	202	202	202
<b>**.</b> Correlation is significant at the 0.01 level (2-tailed).							

Source: Own survey result, (2023)

**N.B:** performance of primary coffee producing cooperatives

(PPCPC), price (P), roles of chain actor's (RCA), access of market facilities (MF), market information (MI) and infrastructure problem.

As we can be seen the above Table 4.16, to examine the relationship between the independent foreman of primary coffee producing cooperatives

. nature of participation, roles of chain actor's, price, competition, access of market facilities, market information, infrastructure problem and government support. I.e. performance of primary coffee producing cooperatives was studied using Pearson correlation coefficient.

**Bivariate Correlation** indicates that whether the relationship between two variables is linear (as one variable increases, the other also increases or as one variable increases, the other variable decreases). Accordingly, as indicated in the above table, the correlation matrix, all of the independent variables were positively and most are strongly correlated with the dependent variable (performance of primary coffee producing cooperatives

. The first highest strong coefficient of correlation in this research is between price variable and performance ( $r=0.771$ ,  $p \leq 0.01$ ). It connotes that there is a strong, positive, and significant relationship between price and performance of primary coffee producing cooperatives

The second highest strong coefficient of correlation is with the infrastructure problem which has strong positive and significant with performance of primary coffee producing cooperatives

( $r=0.740$ ,  $p \leq 0.01$ ). Market facilities  $r=0.715$ ,  $p \leq 0.01$ , Role of chain actors;  $r=0.689$ ;  $p \leq 0.01$ , variables have also strong, positive, and significance relationships with dependent variable (performance of primary coffee producing cooperatives ) and market information  $r=0.635$ ,  $p \leq 0.01$ , moderate and significant.

**Sig (2-Tailed) value:** - This value tells that whether there is a statistically significant correlation between two variables or not. If the Sig (2-Tailed) value is greater than .05, the researcher can deduce that there is no statistically significant correlation between two variables. That means, increases or decreases in one variable do not significantly relate to increases or decreases in the second variable. If the Sig (2-Tailed) value is less than or equal to .05, the researcher can conclude that there are a statistically significant correlation between two variables. That means, increases or decreases in one variable do significantly relate to increases or decreases in the second variable (Pedhazur, 1982).

Hence, as indicated in the above correlation Table 4.16, the numbers next to Sig. (2-tailed) shows that all are (.000). The convention implies that, if this value is less than .05, then the correlation is considered to be significant (meaning that the researcher can be 95% confident that the relationship between variables is not due to chance). Therefore, the researcher can connote that there is a significant correlation between the independent variables (predictor variables) and dependent variable.

#### **4.6 Multiple Regression Analysis**

Regressions fit a predictive model to data and use that model to predict the values of dependent variable from one or more independent variables (Andy, 2005 as cited by Elsa Habte, 2014). Linear regression estimates the coefficients of the linear equation, involving one or more independent variables that best predict the value of the dependent variable.

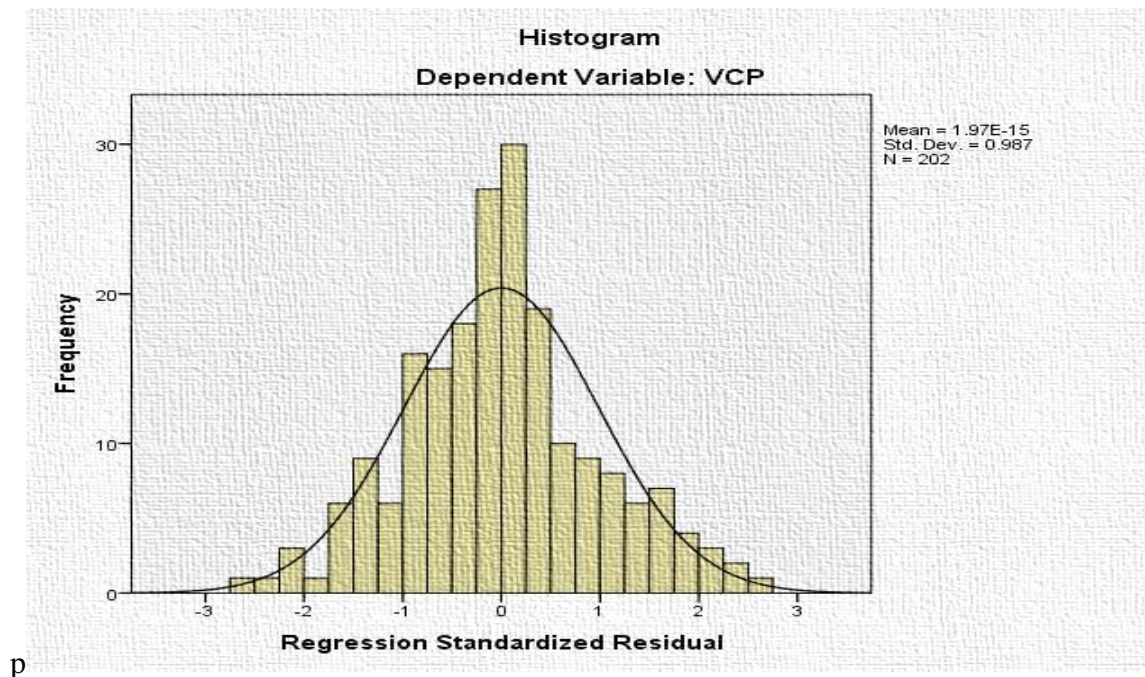
In this research, the regression uses performance of primary coffee producing cooperatives as independent variables against a separate measure of overall performance of primary coffee producing cooperatives.

A regression analysis examines the relation of the dependent variable to specified independent variables. Multiple linear regressions were conducted to identify the relationship and to determine the most dominant variables that influenced the performance of primary coffee producing cooperatives. The significance level of 0.05 was used with 95% confidence interval. The dependent variable was and the independent performance of primary coffee producing cooperatives

variables include the price, role of chain actor, access of market facilities, market information and infrastructure problem. The reason for using this multiple regression analysis was to examine the direct effect of this performance of primary coffee producing cooperatives and the output was shown in the Table below.

## 1 Normality. Test

**Figure 4. 1: Normality tests for PPCPC**



**Source:** Own survey result, (2023)

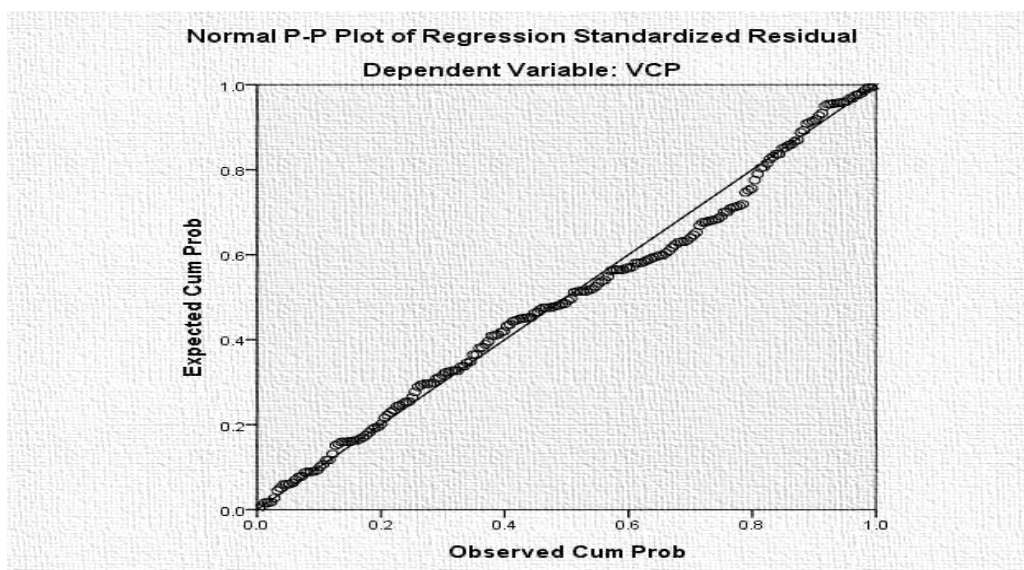
Normality of a data should be test before running the regression analysis because multiple regressions require that the independent variables in the analysis be normally distributed. According to Brooks (2008), as cited by Abate (2012) if the residuals are normally distributed, the histogram should be bell- shaped and thus this study implemented graphical methods to test the normality of data.

From the Histogram Figure 4.1, it can be noted that the distribution is normal curve, demonstrating that data witnesses to the normality assumption. As the assumption holds as the histogram was a bell- shaped and the residuals were normally distributed around its mean of zero. Besides, the normal probability plots were also used to test the normality assumption as shown by the Normal P P-Plot Figure 4.1 as we can be seen from the above. As shown in the Figures 4.1 from the above residuals were normally distributed around its mean of zero which indicates that the data were normally distributed and it was consistent with a normal distribution assumption. As the Figures 4.1 confirmed the normality assumption of the data, this implies that the inferences made about the population parameters from the sample statistics tend to be valid.

There is another useful graph that the researcher can inspect to see if a distribution is normally distributed is called a P–P plot (probability–probability plot). According to Hair et al. (1998), the plots are different from residuals plots in that the standardized residuals are compared with the normal distribution. In general, the normal distribution makes a straight diagonal line, and the plotted residuals are compared with the diagonal. If a distribution is normal, the residual line was closely following the diagonal (Hair et al., 1998). Therefore, as indicated in the figure below, the data were normally distributed.

## 2. Linearity test

**Figure 4. 2: Linearity test**



**Source:** Own *survey result*, (2023)

As we can be seen Figure 4.2, normal of P-P Plots of regression standardize residual the scatter plot reveals a linear relationship between DV and IV: for a given value of IV, the predicted value of DV was fallen on a line. As can be seen from the plot, the relationship between X and Y variables appears to be more or less linear, which satisfies the first assumption of linearity.

## 3. Multi-collinearity

Multi collinearity occurs when two or more of the independent variables are highly correlated that certain mathematical operations are impossible. The correlation between independent variables was such that multi collinearity is not a concern because multi collinearity was created while results of the correlation coefficients are above 0.80 and to be considered-very high (Hair et al. 2006). However, there are two general procedures for assessing collinearity,

including tolerance and variance inflation factor (VIF) (Pallant, 2007). The data were absence of multi collinearity while VIF is less than ten, and tolerance value of greater than 0.10 but less than one (Robert Ho, 2006).

Accordingly, as indicated in the collinearity statistics analysis of variance inflation factors (VIF) value ranges from 2.238 to 3.324 and Tolerance value ranging with 0.301 to 0.447. Likewise, as indicated in Table 4.17 of correlation analysis, the results of the correlation coefficient between independent variables were below 0.8. Therefore, these results indicated that there was no collinearity problem in this study.

**Table 4. 11: Collinearity Statistics**

Coefficients <sup>a</sup>			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	P	.304	3.292
	RCA	.447	2.238
	MF	.417	2.397
	MI	.332	3.012
	IP	.301	3.324

a. Dependent Variable: PPCPC

Source: survey result (2023)

**Table 4. 12: Multiple Regression analysis result of PPCPC**

**4.12.1. Model Summary**

The model summary shows the summary of the regression analysis as shown in the regression model. Below are the findings in the Table:

Model Summary <sup>b</sup>									
Model	R	R Squar e	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.839 <sup>a</sup>	.704	.699	.58574	.704	93.445	5	196	.000

a. Predictors: (Constant), IP, RCA, MF, MI, P

b. Dependent Variable: PPCPC

Source: Own survey result, (2023)

As it can be seen from Table 4.13.1, "R" has a score of .839a. It is multiple correlations coefficient between dependent and independent variables of the study. According to field (2005), "R" represent the value of multiple correlation coefficient between the predictor and the outcome .Therefore, "R" value represents the simple correlation between value chain performance and price, role of chain actor, access of market facilities, market information & infrastructure problem. And they all have strong correlation.

The value of R square (70.4%) indicates correlation of the five independent variables with the dependent variable value chain performance and the weighted combination of the predictor variables explained or affect adjusted R square (69.9%) of the variance of value chain performance as used for prediction was found to be significantly related to value chain performance as p-value is less than 0.05.and the remaining 29.6% is by extraneous variables that explained by other factors. This result also indicates that there may be other variables that could have been neglected by the current study in predicting PPCPC.

**Table 4. 13: ANOVA Test**

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	160.298	5	32.060	93.445	.000 <sup>b</sup>
	Residual	67.245	196	.343		
	Total	227.542	201			
a. Dependent Variable: PPCPC						
b. Predictors: (Constant), IP, RCA, MF, MI, P						

**Source:** Own *survey result*, (2023)

Table 4.20, the ANOVA test, it is noticed that Mean Square value of 32.060 is significant at the 0.000 level or significant at 1%. If the improvement due to fitting the regression model is much greater than the inaccuracy within the model then the value of F was greater than 1 and SPSS calculates the exact probability of obtaining the value of F by chance (Pedhazur, 1982). The F-ratio for the above model is 93.445, which is very unlikely to have happened by chance.

**Table 4. 14: Estimated Unstandardized and Standardized Regression Coefficient**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.114	.194		1.102	.007
	P	.442	.087	.358	5.083	.000
	RCA	.252	.067	.217	3.742	.000
	MF	.234	.054	.259	4.316	.000
	MI	.145	.068	.143	2.127	.005
	IP	.240	.069	.246	3.474	.001

a. Dependent Variable: PPCPC

Source: Own survey result, (2023)

The marked column B is the value for the intercept (a) in the regression equation on the first row, labeled (constant). The numbers below the column “beta” are the values for the regression coefficients for price, role of chain actor, access of market facilities, market information, & infrastructure problem. In the multiple regressions, the standardized regression coefficient Beta (β) is useful, because it allows us to compare the relative strength of each independent variable's effect on the dependent variable (Pedhazur, 1982).

The above coefficient table shows the constant beta value (β) and the p-value of the variables to examine the significance of the hypothesis. The significance level of each variable (P-value) is: .000, .000 .000, .005 &, .001 their unstandardized coefficients are .442, .252, .234, .145, & 0.240, respectively. The p-value of all the independent variables has a positive & significant relationship with the dependent variable (performance of primary coffee producing cooperatives).

Based on these results, the regression equation that predicts PPCPC effectiveness based on the linear combination of price, role of chain actor, access of market facilities, market information, & infrastructure problem as follows:

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

$$Y = .114 + 0.442X_1 + 0.252X_2 + 0.234X_3 + 0.145X_4 + 0.240X_5 + 0.114$$

Where: Y= Value chain performance (Dependent Variable)

$\beta_0$  = Intercept

$\beta_1, \beta_2, \beta_3, \beta_4$  &  $\beta_5$  = Coefficients of the line

X1=Price

X2= Role of chain actor

X3=Access of market facilities

X4=Market information

X5=Infrastructure problem

e= Sampling error

This result indicates, first, the intercept is .114 when all independent variables have a value of zero. Then, independent variables price, role of chain actor, access of market facilities, market information, & infrastructure problem on the performance of primary coffee producing cooperatives

#### **4.7 Hypothesis Testing and Discussion of the Result**

This study was aimed to examine the factors affecting the value chain of coffee product in primarily coffee producing cooperatives. The Price, Role of chain actor, Access of market facilities, Market information & Infrastructure problem on the performance of primary coffee producing cooperatives .

##### **H1: Price has significant effect on performance of primary coffee producing cooperatives**

The first hypothesis which states price has the positive significant effect on performance of primary coffee producing cooperatives is supported by the data collected on this survey likewise, the P-value =0.05 thus the ( $P < 0.05$ ;  $\beta = 0.358$ ) hence, the alternative hypothesis is accepted. Zekarias et al. (2012) conducted a study on determinants of forest coffee market supply in South Western Ethiopia. Result of multiple linear regression models pointed out that price, educational level of household, transportation cost and level of production have significant impact on the market supply of the coffee in the study area.

Therefore based on this finding one can conclude that price is one of the problem that prohibit the effective achievement of the actor's roles in the performance of primary coffee producing cooperatives

**H2: Role of chain actor has significant effect on performance of primary coffee producing cooperatives .**

The p-value for this coefficient is statistically significant ( $p < .05$ ), meaning that role of chain actor is a significant predictor of value chain performance. Accordingly, the finding revealed that the second hypothesis which states role of chain actor has the positive significant effect on the performance of primary coffee producing cooperatives

is supported by the data collected on this survey as ( $p\text{-value} < 0.05$ ;  $\beta=0.217$ ) hence, the alternative hypothesis is confirmed. This is in agreement with the result of the study by Bezabih, (2012) that indicated cooperatives play vital roles such as economic role (enhance production by providing inputs, fertilizer, improved seeds, pesticides, machinery ,etc.),creates employment and capacity building for members(social protection(price stabilization, protect members from exploitative price) and voicing).Therefore based on this finding one can conclude that role of chain actor is one of the problem that exclude the effective achievement of the actors roles in the performance of primary coffee producing cooperatives

**H3: Access of Market facilities has significant effect on value chain performance.**

The third hypothesis which state, access of market facilities has the positive significant effect on the performance of primary coffee producing cooperatives

is supported; hence access of market facilities has the significant relationship with the performance of primary coffee producing cooperatives

. Besides, the regression analysis shows that the P-value =0.000 of coefficient, thus access of market facilities has significant positive effect on the ( $\beta =0.259$ ;  $P < 0.05$ ); hence, performance of primary coffee producing cooperatives .

the alternative hypothesis is accepted. This is in accord with the finding of the study by Margaret Njeri Gathura,(2013) in Githunguri District, Kenya suggested that marketing is one factor that affect the coffee production. Therefore based on this finding one can conclude that access to market is one of the problem that prohibit the effective achievement of the actors roles in the PPCPC.

**H4: Market information has significant effect on performance of primary coffee producing cooperatives**

The sixth hypothesis which states, market information has the positive significant effect on the performance of primary coffee producing cooperatives is also supported because the P-

value is 0.005 which is less than 0.05; hence, market information has the significant relationship with v performance of primary coffee producing cooperatives

Besides, the egression analysis shows that, the market information has positive as well as the significant positive effect on the value chain performance ( $\beta = 0.143$ ;  $P < 0.05$ ); hence, the alternative hypothesis is accepted. This is in agreement with the paper presented by Kifle, (2015) at the National Conference Organized by Mekelle University and Federal Cooperative Agency (FCA) pointed out that the existence of clear and accommodating governmental policy and all-inclusive structures and the government's commitment to transform the subsistence economy have created conducive environment for the development of voluntary based cooperatives in the cou

ntry. Therefore based on this finding one can conclude that market information is one of the problem that prohibit the effective achievement of the actor's roles in the coffee PPCPC

**H5: Infrastructure problem has significant effect on.** performance of primary coffee producing cooperatives

The fifth hypothesis which states the infrastructure problem has positive significant effect on the value chain performance is also supported because the P-value of infrastructure problem is 0.001 which is ( $\beta = 0.246$ ;  $P < 0.05$ ) hence, the infrastructure problem has the significant positive effect on; thus the alternative hypothesis is accepted. Further an assessment of factors influencing the market performance of coffee farmers' cooperatives in Melka Balo Woreda in the Case of Kurtu Cooperatives Society,.

Ethiopia by Fethi Omer et al., (2016) specify that sample cooperatives were characterized by lack of marketing facilities, shortage of land, infrastructural problems and also traders business were lack of electric city, lack of road, lack of transportation, and also the constraints indicated by wholesalers and retailers with respect to coffee marketing. Therefore based on this finding one can conclude that infrastructure problem is one of the problem that prohibit the effective achievement of the actor's roles in the (PPCPC) Performance of piramary coffee producte cooperatives.

Finally, the regression coefficient finding indicates that price has a largest positive and significant effect on value chain performance ( $P < 0.05$ ;  $\beta = 0.358$ ). Hence, finding by Krishnaswami and Kulandaiswamy(2000): which stated cooperative leaders, most importantly management committee required to be competent in identifying main members' demand and needs, the key markets and marketing agents and planning accordingly, to use the limited cooperative resources effectively for producing goods or providing services in

order to accomplishing the organizational goals and objectives of the cooperative for satisfying members” need for which the cooperatives are established.

**Table 4. 15: Summary of Hypothesis Testing**

<b>Hypothesis</b>	<b>Analysis used</b>	<b>Finding</b>		<b>Result</b>
<b>H1</b>	Multiple Regression	$\beta = 0.358; p < .05$	Positive Significant	Supported
<b>H2</b>	Multiple Regression	$\beta = 0.217; p < .05$	Positive Significant	Supported
<b>H3</b>	Multiple Regression	$\beta = 0.259; p < .05$	Positive Significant	Supported
<b>H4</b>	Multiple Regression	$\beta = 0.143; p < .05$	Positive Significant	Supported
<b>H5</b>	Multiple Regression	$\beta = 0.246; p < .05$	Positive Significant	Supported

**Source:** Survey result, (2023)

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

#### 5.1 Summary of Findings

The study was aimed at factors affecting the performance of primary coffee producing cooperatives a case of Bensa Woreda Sidama Regional State, Ethiopia. The data were performance of primary coffee producing cooperatives

collected from both primary and secondary sources. The primary data were generated from farmers using questionnaires. The primary data for this study were collected from 208 primary coffee producers randomly selected from four Kebeles of primary coffee producing cooperatives (Bombe, Alo, Mokonise and Shantawene kebele) in Bensa Woreda. Also Key Informant Interview secondary data were used.

Descriptive and inferential statistics analyses were used for analyzing the data.

- Price is 78.15% of farm performance of primary coffee producing cooperatives
  - Farmers agreed
  - The role of each actor along in performance of primary coffee producing cooperatives
  - is 67.73% of farmers agreed
  - Access of market facilities in performance of primary coffee producing cooperatives
  - performance of primary coffee producing cooperatives
  - is 75.62% of farmers agreed.
  - Market information in performance of primary coffee producing cooperatives
  - PPCPC is 74.52% of farmers agreed.
  - Infrastructural problem in performance of primary coffee producing cooperatives
  - is 64.37% of farmers agreed.
- ✚ The result of the correlation analysis has shown that, the five independent variables: “price, role of chain actors, market facilities, market information & infrastructure problem were value chain performance of coffee” have the strong correlation with dependent variable “performance” with 95% confidence interval & at 0.01 p-value 2-tailed, by scoring a Pearson Correlation Coefficient “R-value” of 0.771\*\* strong, 0.740\*\* strong, 0.689\*\* strong & 0.635\*\*strong.

Likewise, all variables were correlated with the dependent variable. Accordingly, price had the highest strong relationship with performance of primary coffee producing cooperatives

✚ than the rest variables i.e.  $r=0.771^{**}$  at the  $p \leq 0.01$ .

✚ Finally, the regression analysis result revealed that all independent variables were statistically significant at  $p\text{-value} < 0.05$ . The score of the coefficient correlation determination ( $R^2$ ) is 0.704 which indicate, 70.4% of the variability of overall performance was explained by the five independent variables.

✚ The other variables that were not considered in this study contribute about 29.6% of the variability of **PPCPC**. In this study, the Beta ( $\beta$ ) weight score indicated that the effect of price is greater than other independent variable. According, the study model fits regression equation become:

$$Y = .114 + 0.442X_1 + 0.252X_2 + 0.234X_3 + 0.145X_4 + 0.240X_5 + e$$

## 5.2 Conclusions

Based on the major findings of this study, the conclusions were drawn. To put in a nutshell the outcome of this study:-

Price has the positive significant effect on the performance of primary coffee producing cooperatives

is confirmed ( $p\text{-value} < 0.05$ ;  $\beta = 0.442$ ).

**The Price** is the only elements that generate revenue.

**The role of chain actor's** has the positive significant effect on the performance of primary coffee producing cooperatives chain performance is confirmed ( $p\text{-value} < 0.05$ ;  $\beta = 0.252$ ).

This means,

**The role of chain actor's** paly great role on exchanging timely information, knowledge, skill and building good relationship.

**The access of Market facilities** has the positive significant effect on the performance of primary coffee producing cooperatives.

is confirmed ( $p\text{-value} < 0.05$ ;  $\beta = 0.234$ ).

**The market information** has the positive significant effect on the performance of primary coffee producing cooperatives

is confirmed ( $p\text{-value} < 0.05$ ;  $\beta = 0.145$ ) and

**The infrastructure problem** has the positive significant effect on the performance of primary coffee producing cooperatives

is confirmed (p-value <0.05;  $\beta=0.240$ ). The result of Pearson correlation analysis **all variables are positive & significant effects on dependent variable on performance of primary coffee producing .**

### **5.3 Recommendations**

Based on the findings and conclusions, the following suggestions were forwarded in order to improve the in the case of coffee cooperatives.

The findings of the study show that there was performance of primary coffee producing cooperatives

- ✚ product in primary coffee producing cooperative. Therefore, it is advisable to research and development organizations, traders and cooperatives, policy makers, extension service providers, government and non-governmental organizations by creating adequate awareness is first step for primary coffee producer in order to effective value chain. From this finding of the study show that there were fast flow of information and knowledge between actors in the chain facilitates the day to day value adding activities
- ✚ The cooperatives should that arranging and facilitating to give fair price for primary coffee producers. The coffee production and processing equipment's supply of the cooperatives is inadequate for the operations. Also in order to increase the quality of coffee to compete in the international market, minimize unnecessary costs which incurred during the production time and maximizing sales income.
- ✚ Concerning to the finding of the study, government assisting infrastructure by facilitating the road/transportation, telephone and electric power for primary coffee producers in order to increase production, improving communication channel and increasing coffee productivity.

### **5.4 Suggestions for further Research**

This research factors affecting. the performance of primary coffee producing cooperatives  
The study covered a single Woreda that is Bensa woreda in Sidama Region. To this end, the following areas for further researcher are suggested the similar studies to be conducted for the other Woredas, zone, and region in government and private coffee cooperatives in Ethiopia. I suggest for future researcher coffe performance of primary coffee producing cooperatives mainly largely coffee producer region in quality and profitability. Further research on the potentiality of coffee producers in poverty reduction and study on performance of primary coffee producing cooperatives.

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**RESEARCH QUESTIONNAIRE**  
**HAWASSA UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**  
**MBA in Marketing Management**

**Dear respondents:** This questionnaire is designed to collect data to carry out a research entitled factor affecting the performance of primary coffee producing cooperatives : A case of Bensa woreda, Sidama Regional State, Ethiopia.” The information that you offer me with this questionnaire is used as a primary data for the study which I am conducting as a partial fulfillment of the requirements for the degree of Masters in Business Administration (MBA) in Marketing Management at Hawassa University, Ethiopia. Therefore, I kindly request you to fill the questionnaire honestly and neatly assuring that the data were used solely for the intended academic purpose only. Any information you provide in this questionnaire were kept confidential and it were used only for the academic purpose. I cannot include any information that will make it possible to identify any respondents. Your response is very crucial to gather data for this study. I would like to express my deep appreciation for your generous time, honest and prompt responses.

Yours Faithfully

Hailu Yohannes

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Sidama, Ethiopia

### **General Instructions**

1. You are not required to write your name.
2. All questions are equally important for the completion of the study.

### **Part I**

Demographic profile of the Respondents

**Instruction:** Please answer by making a **TICK** (✓) in the box provided

**1. Age:**

- 1) Below 25     2) 26-35     3) 36-45     4) 46 -55     5) Above 56

**2. Gender:**

1) Male  2) Female

**3. Marital status:**

1) Single  Married  Divorced  4) widowed

**4. Level of education**

1) Primary cycle  2) Secondary cycle  3) Diploma   
4) Degree  5) other (specify): \_\_\_\_\_

**5. Income level**

1) Below 600  2) 750 - 1250  3) 1500 – 3000  4) 3200 –   
5000  
5) Above 5000

**PART II**

**Factors affecting the performance of primary coffee producing cooperatives .**

Please indicate your level of agreement with the statements so that your answers to these questions will enable the researcher to assess what you think about the factor affect the performance of primary coffee producing cooperatives where :-

**5= strongly agree 4=Agree 3= Neutral (neither agree nor disagree)**

**2= Disagree 1= strongly disagree**

**Factors hindering the effectiveness of** performance of primary coffee producing cooperatives

The following set of statements relates to the perceptions on the major factor that hinder effectiveness of value chain. Please read each statement carefully and show the extent of your agreement on the statements by putting a tick **mark** (✓) in the boxes against each rating scale of choice. The rating represents your level of agreement as follows:

5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=Strongly Disagree

No	Statement	5	4	3	2	1
<b>1</b>	<b>Price</b>					
	1.1 Coffee selling price different from others competitors' price (P1)					
	1.2 Cooperatives give fair price for coffee producers(P2)					
	1.3 Coffee price difference across different markets in your area (P3)					
	1.4 Members sell coffee at any time without any problem (P4)					
<b>2</b>	<b>Role of Chain actors</b>					
	2.1 Each actors play roles in the coffee value chain of the cooperatives (RCA1)					
	2.2 The relationship between actors in the coffee value chain is good (RCA2)					
	2.3 Each actors regularly exchange information and knowledge with producers (RCA3)					
	2.4 Actors play their role in coffee value chain with producer (RCA4)					
<b>3</b>	<b>Access of market facilities</b>					
	3.1 Members have places to sell coffee product (MF1)					
	3.2 Members face problem with access to market (MF2)					
	3.3 Members have access to market information for coffee marketing (MF3)					
	3.4 Cooperatives are source of your information on demand, supply and price of other markets (MF4)					
<b>4</b>	<b>Market information</b>					
	4.1 Members know the nearby market price before sold coffee (MI1)					
	4.2 Relative advantage of price is one requirement to sell coffee (MI2)					
	4.3 Cooperatives give training for the members (MI3)					
	4.4 Members have awareness about cooperatives value, definition and principles (MI4)					
<b>5</b>	<b>Infrastructure problem</b>					
	5.1 Coffee production and processing equipment supply is adequate (IP1)					
	5.2 Members have access to telephone and mass media (TV, Radio etc.) (IP2)					
	5.3 An extension agent visit the cooperatives (IP3)					
	5.4 The cooperatives support the producer during infrastructure problem (IP4)					

**The following questions were used to assess the performance of primary coffee producing cooperatives effectiveness**

<b>S.no</b>	<b>Statement</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1	Cooperatives have role to give fair price of coffee producing cooperatives effectiveness (PCE1)					
2	The cooperatives create competitive environment in producing cooperatives effectiveness (PCE2)					
3	Members have access to market information in producing cooperatives effectiveness (PCE3)					
4	Members have awareness about cooperatives value, definition and principles in producing cooperatives effectiveness (PCE4)					
5	Infrastructure is one of problem in coffee producing cooperatives Performance (PCP5)					

**Thanks for your cooperation!!!**

## **Interview Questions**

### **II. Interview with officials of the cooperatives and executives**

1. What is the nature involved performance of primary coffee producing cooperatives ?
2. How is each actor coordinated along the chain?
3. What are the roles of each actor take part in value adding process of coffee?
4. What are problems related to price, access of market facilities, market information, infrastructure problem and government support?
5. What is your suggestion to solve the above problems?

## LEDOTE XA'MO SIDAMIGNA

### XIINXALOTE XA'MO

#### HAWAASI YUNVERISTE

#### FULLANKETE ROSI MIN HUNDAANI

#### DIKKOTE GASHOOTE (MBA)

**Dawaraancho:-** Tini xa'mo qixaabinohu Bunu gumaamimma aana shiqote sufatto buna loosidhe galitinorinna buna shiqishaanori maaamarira abbitino hekko daafira xiinxalate taje ganba assirate yine qixeesinoonite. Ati aatoe kaimu taje horoonsire ani rosanni noomo rosira yaano layiki digree “Manaadu dadalu gashooti giddo dikkote gashootinni Hawassa Yuniveristenni xiinxalo wonshirate horoonsiremote. Konni daafira, xamuwa'ya hosanohu xiinxalote calla ikkitinohura mitturino huluulisikinni halaalaancho dawaro aatenni beeqatora amaneemohe, huluulamatorano dihasiisanno. Tenne xiinxalote dawaro aate baatooto yannara, halaalancho dawaro qolakira wodaninni kaino hagiire'ya xawisireemo.

Galateemo

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#### Xawishsha

1. Su'ma boreesa dihasiisanno
2. Wo'manti xa'mo taalo horo afidhino

#### Tara 1

Dawarannote ayiimasa xawiisha

Xawishsha woritanohu konni maalatini (✓) qiixabino doyicho gido

#### 1. Diro

- 1) 25 Diri woro      2) 26-35      3) 36-45      4) 46 -55      5) 56 Diri

ale

#### 2. K/Tee

1. Laabaha      2. Meyihata

#### 3. Maatete Gara

- 1) Calla      2. Adhino      3. Tirino      4. Reytino

**4. Rosu Deera**

1. Hoorontani rosinokihu    2) 1-8 Rosinohu    3) 9-12 Rosinohu    4) Dipoloma 5) Umi degree

**5. Aganunni afinanni eo deera**

- 1) Horonttanni                      2) 500 -1000                      3) 1001-1500  
 4) 1501- 2000                      5) 2000 ale

**Tara 2**

Shiqote sufatto bunu gumaamimma aana losidhe galtinorinna shiqishanno maamarara abbitino hekko

**5=Lowo Geeshshsa Sumuu Yeemo    4=Sumuu Yeemo    3=Merririmaho**

**2=Dilawinoe    1=Horontanni Dilawinoe**

Xawishsha woritanohu konni maalatin (√) qiixabino doyicho gido

<b>Kirro</b>	<b>Xa'muwa</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>1</b>	<b>Waagu</b>					
	1.1 Hirote badooshi hewisamanote ledno					
	1.2 Maamaru shiqishaanote ikkado waaginni hidhano					
	1.3 Bunu waagi qoxeesu qoxeesunkunni dikko badooshi noosi					
	1.4 Mi4lla woyim loosidhe galtinori buna hasidhano yannabaalate qarru nookiha hirtano					
<b>2</b>	<b>Meerershsha</b>					
	2.1 Mittu mitunku hala'lado asoote/xiiwon assanno					
	2.2 Qaru shiqote xiiwo ayiidi buna shiqishanori ledno noonsa xaadooshi danchaho					
	2.3 Baalunku qaru shiqote xiiwo ayiidi yanna yanatenni loosidhe galtionri ledno xaadano					
	2.4 Qaru shiqote xiiwo buna loosidhe galtinor ledno noosa					

	xaadooshi faayaho					
<b>3</b>	<b>Dikkote Injo</b>					
	3.1 Loosidhe galtinori bunu guma hirate baayicho noonsa					
	3.2 Loosidhe galtinori dikkote mitiima noonsa					
	3.3 Loosidhe galtinori woyim milla bunu dikko mashalage afidhano					
	3.4 Hassatto, shiqonna waagu maamaraho mashalqete buichoti					
<b>4</b>	<b>Dikkote Mashalage</b>					
	4.1 Milla dikkote waaga balaxxe affanno					
	4.2 Buna hirate afa umikki safaanchooti					
	4.3 Maamaru miillate qajeelisha aano					
	4.4 Millate woyimi loosidhe galtinori shiqote sufatora hedo noonsa					
<b>5</b>	<b>Latishu Qarri</b>					
	5.1 Bunu laalichimanna harinsho udinni shiqo noonke/no'e					
	5.2 millate xaadooshu bua(Tv, radione,w.k.l) no'e					
	5.3 Latishu loosaasine maamarra tooyaatanno					
	5.4 Maamaru bunu shiqishaanora kaimu qarrirra kaalo assitanno					

## SPSS Output Result

### Correlations

		VCP	P	RCA	MF	MI	IP
VCP	Pearson Correlation	1	.771**	.689**	.715**	.635**	.740**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	202	202	202	202	202	202
P	Pearson Correlation	.771**	1	.680**	.710**	.738**	.774**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	202	202	202	202	202	202
RCA	Pearson Correlation	.689**	.680**	1	.603**	.674**	.681**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	202	202	202	202	202	202
MF	Pearson Correlation	.715**	.710**	.603**	1	.688**	.690**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	202	202	202	202	202	202
MI	Pearson Correlation	.635**	.738**	.674**	.688**	1	.756**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	202	202	202	202	202	202
IP	Pearson Correlation	.740**	.774**	.681**	.690**	.756**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	202	202	202	202	202	202

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

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

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.839 <sup>a</sup>	.704	.699	.58574	.704	93.445	5	196	.000	.472

a. Predictors: (Constant), IP, RCA, MF, MI, P

b. Dependent Variable: VCP

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

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	160.298	5	32.060	93.445	.000 <sup>b</sup>
	Residual	67.245	196	.343		
	Total	227.542	201			

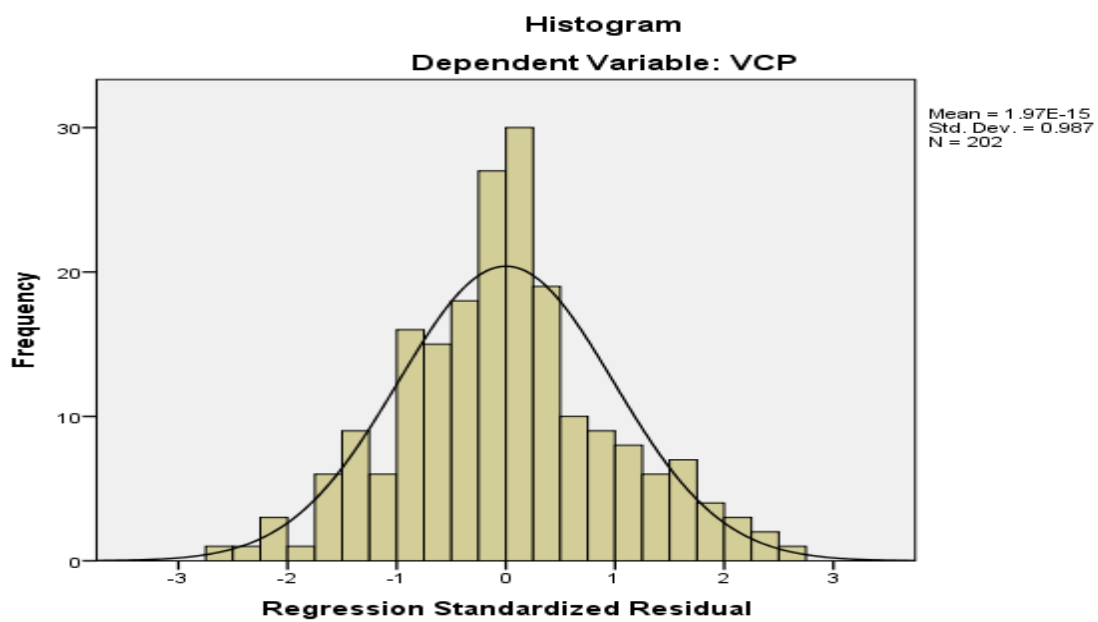
a. Dependent Variable: VCP

b. Predictors: (Constant), IP, RCA, MF, MI, P

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.114	.194		.102	.272
	P	.442	.087	.358	5.083	.000
	RCA	.252	.067	.217	3.742	.000
	MF	.234	.054	.259	4.316	.000
	MI	.145	.068	.143	2.127	.005
	IP	.240	.069	.246	3.474	.001

a. Dependent Variable: VCP



Normal P-P Plot of Regression Standardized Residual  
Dependent Variable: VCP

