COLLEGE OF SOCIAL SCIENCES

DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL STUDIES

GOVERNANCE AND UPGRADING IN COFFEE VALUE CHAIN: THE CASE OF DALE WOREDA, SIDAMA ZONE, SOUTHERN ETHIOPIA

BY:

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A THESIS SUBMITTED TO THE DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS OF ARTS IN GEOGRAPHY AND ENVIRONMENTAL STUDIES (specialization in Urban and Regional Development and Planning)

ADVISOR:

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NOVEMBER 2019

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Acknowledgment

Above all, I am thankful to the Almighty God. Then, I wish to express my special gratitude to my advisor Dr. Tebarek Lika for his constructive comments and advice throughout the preparation of this paper. I also want to express my gratitude to my family for their material and moral support. Most of all, I would like to express my heartfelt gratitude, especially, to Makeda Berihun, Dagmawi Ayele and Fasil Shimelis for all your contributions. I thank you very much!!

It is also my pleasure to extend my appreciation to my families and friends Asnake Yimer, Endris Asnake, Habiba Asnake, Erkihun Degu, Ambachew Shiferaw, Hayleyesus Wendim, Shiferaw Lake, Kebede Yichalewal, Getinet Mitiku, Senayit Bisrat, Getachew Rete and others for their contribution. I really thank you all!!

I am greatly indebted to the staff members of Ethiopia Coffee and Tea Development Authority, Ministry of Trade, Dale Woreda Agricultural and Natural Resource Office, Ethiopian Commodity Exchange, Sidama Coffee Farmers' Cooperative Union and others for their valuable support in giving data and other relevant documents.

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List of Acronyms/Abbreviations

AD	Anno Domini
AFCA	Agriculture and Food Council of Alberta
CIP	Coffee Improvement Program
CSA	Central Statistical Agency of Ethiopia
EC	European Commission
ECEA	Ethiopian Coffee Exporters' Association
ECFF	Environment and Coffee Forest Forum
ECRA	Ethiopian Coffee Roasters' Association
ECX	Ethiopia Commodity Exchange
EWEA	Ethiopian Women Exporters' Association
FAO	Food and Agriculture Organization
GO	Government
GPS	Global Positioning System
GTZ	German Technical Cooperation Agency
GVC	Global Value Chain
Ha.	Hectare
ICC	International Coffee Council
ICO	International Coffee Organization
IFO	International Financial Organization
ITC	International Trade Centre
JNCRC	Jimma National Coffee Research Center
MoFED	Ministry of Finance and Economic Development
MoSI	Ministry of Science and Innovation
MoT	Ministry of Trade
NGO	Non-Governmental Organization
OMFI	Omo Micro-Finance Institution
SCAA	Specialty Coffee Association in America
SCFCU	Sidama Coffee Farmers' Cooperative Union
SD	Standard Deviation

SMFI	Sidama Micro Finance Institution
SNNPRS	South Nation, Nationalities and People Regional State
UNIDO	United Nations Industrial Development Organization (UNIDO)
USA	United States of America
USAID	United States Agency for International Development
UTZ	Parts of Rainforest Alliance certification agency
WTO	World Trade Organization

ABSTRACT

The body of literature and research related to the value chain analysis has increased in recent years. This research attempted to analyze value chain of coffee in Dale Woreda (Southern Ethiopia) by using the value chain approach, focusing on constraints and opportunities of upgrading and governance structure along the chain. In order to attain the above objectives, the study followed a mixed-method approach which combined qualitative and quantitative analysis. The respondents such as farmers, cooperatives, processors, and exporters were selected by multistage sampling techniques. The study involved; survey with 214 coffee producers, in-depth interviews with 28 actors and stakeholders and focus group discussions with two farmers groups, each comprising of five people. Both primary and secondary sources of data were used for the study. Descriptive statistics and thematic analysis were used for analyzing the result. Value chain actors; producers, cooperatives, processors, exporters, importers and supporters/facilitators were identified with their role and function. The study revealed that local producers, in their interaction with buyers have the possibility to acquire new skills, knowledge and incentive. In addition, the implementation and compliance with standards provide opportunities for farmers to invest on their product. Focusing on this kind of interaction, the study indicates that local producers were engaged in upgrading to improve their benefits from the sector. The majority of the producers in the study area upgraded their product and internal processes. A limited number of producers engaged in functional and channel upgrading. Local institutions and producers' cooperatives have created programs to help small-scale coffee farmers adapt to the changes in the global marketplace and assist them in increasing their competitiveness but they have limited capacity. The result shows that the governance structure in the coffee market is often buyer-driven, mostly governed by international buyers. There is also a range of mechanisms of coordination at play in the chain between different stakeholders and segments of the chain. Captive forms of governance in this case study have fostered some degree of product and process upgrading. Therefore, a policy aimed to accelerate the coffee sector in the area could be successful if these opportunities and constraints are taken into consideration to improve the information flow through horizontal and vertical coordination of actors.

Keywords: Governance, value chain analysis, Coffee farmers

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Coffee is a major source of income for millions of smallholder farmers worldwide and is a significant source of export earnings to many nations. In Africa, coffee is mainly produced in Ethiopia, Uganda, Côte d'Ivoire, Kenya, Tanzania, Cameroon, Democratic Republic Congo, Rwanda, Guinea, and Burundi. Ethiopia is the top coffee producer in Africa. Total production in 2017/18 was about 7,650,000 bags (ICO, 2018). In these countries, coffee is the major commodity that supports the majority of rural households.

The coffee has been growing in Ethiopia for thousands of years, in the forests of southeastern Ethiopia. It is perfectly adapted to the climate. This is the immense advantage that Ethiopia has over all other coffee-producing countries. As the "origin of all origins," Ethiopia has another unique feature: hundreds of heirloom varietals. In many cases, farmers grow their own unique heirloom varietals, the majority of which grow nowhere else in the world. A great many of them have not even been classified (USAID, 2011).

The birthplace of coffee, Ethiopia is the home of the finest Arabica coffee in the world. Ethiopia is currently the second African coffee exporter next to Uganda and ranked ninth in the global market. Ethiopia exported 238,465.55 tons of coffee during the year of 2017/18, compared with 225,667.67 tons in 2016/17 (MoT, 2019). The major coffee-growing regions are Oromia and SNNPRS. Other coffee growing regions include Gambella, Amhara and Benshangul Gumuz. Coffee covers about 700,474 ha of land under cultivation in the 2017/18 production year. The average productivity of coffee also 6.17 quintals per hectares (CSA, 2018).

Ethiopia is not only the cradle of coffee, but it is the only country in the world with an estimated treasure of more than 10,000 genetically differentiated varieties. Coffee plays a fundamental role in the political, economic and social aspects of Ethiopia. The products represents one of the main export commodities, generate foreign currency, and stimulate the national economy by providing job opportunities for millions of people directly or indirectly engaged in the sector. In 2017/18 coffee exports generated foreign currency earnings of about 34 percent of the value of all exports and 43 percent share on the value of agricultural exports and it has been generating export earnings

of about US$ 838,152,167 in the 2017/18 and 882,473,754 in 2016/17 fiscal year (MoT, 2019). According to data from the Central Statistical Agency (2018), there are more than 5.27 million smallholder farmers involved in coffee production, and an additional 15 to 20 million people dependant on the industry.

In recent literature, the influence of ethnicity on the governance of the value chain becomes dominant in Ethiopia. According to Tebarek (2010), networking along ethnic lines can be a useful mechanism to mitigate economic and social problems, thereby leading to entrepreneurial success. Notwithstanding, the ethnic network gives compelling channels through which between firm linkages and value chains can be advanced or reinforced, they additionally make boundaries that can square trades between performing actors in the chain, or they may prompt the rejection of non-ethnic individuals.

Ethiopia has a natural abundance of indigenous coffee varieties, numbering in the thousands and bred over millennia of natural and human cultivation. This makes Ethiopia the recognized home of specialty coffee, where more market differentiation exists than possibly anywhere on the planet. It can be said that Ethiopia is endowed with a specialty advantage (USAID, 2010).

The potential of sustainable coffees in Ethiopia also deserves particular attention because of its increasing popularity. For example, Ethiopia has a natural advantage in markets for organic coffee as more than 90% of production is de facto organic. Moreover, it is the only country that produces natural forest Arabica coffee, providing scope for the sale of shade-grown coffees through the Rainforest Alliance Certification (Teshale, 2017; USAID, 2010). These important demands create opportunity to achieve higher prices as well as increased sales that can improve the benefit of smallholder farmers (ICC, 2017). Even though coffee contributes a lot to income generation of the farmers there were different constraints which avert the smallholders' farmers from upgrading to their product and benefit from participating in the international market.

Coffee has the country's economic, environmental and social significance. Ethiopia has suitable environmental conditions for coffee production, which is an excellent opportunity for producer farmers as well as traders. Among the wide array of cash crops, coffee holds a prominent position because of strong domestic demand and potential to contribute to the country's socio-economic development. Given these importance of coffee in Ethiopia, this study was carried out to assess the upgrading and governance of the coffee value chain.

1.2 Statement of the Problem

Ethiopia has tremendous potential to increase coffee production as it has given suitable altitude, soil fertility and temperature, indigenous quality planting materials, and ample rainfall in the country's coffee-growing belts. In the country smallholder farmers on less than two hectares of land produce and supply ninety-five percent of Ethiopia's coffee produces, while the remaining five percent is grown on modern commercial farms (Alemayew, 2014).

Besides, Ethiopia is the main producer of natural forest coffee Arabica, giving an extension to shade-grown coffees sale, for example, through the certification of Rain Forest Alliance. The administration's choice to enable cooperatives to straightforwardly send out is noteworthy in light of the fact that it opened a possibly new channel of the significant value chain for coffee (USAID, 2010).

A bunch of opportunities and weaknesses has characterized the coffee market. Coffee industry opportunities include a good policy setting, outstanding coffee quality character, coffee origination and strong local coffee culture, and availability of numerous coffee varieties. Other than these, the vast majority of the cooperatives are getting different certification schemes, which can be considered as a method for value addition (Grote et al., 2009 and Wissel et al., 2010 cited in Hewot et al., 2017). Notwithstanding the above circumstances and others, there are various difficulties identified with the coffee business. Some of the difficulties are an irregularity in the reliability of the supply, poor logistics network, limited public-private collaboration and fragile information system on the market (Alemseged & Yeabsira, 2014).

The post-harvest cycle influences the prices farmers can expect to receive. Wet-processed or washed coffee is a major world consumer premium. An empirical study in the case of Ethiopia found that washed coffee was priced 20% above dry-processed coffee. The share of washed coffee in Ethiopia has remained relatively stable at 30% from 2010 up to 2016, virtually all-Kenyan exported coffee was washed (ICC, 2017). Inaddition to this, global growth in demand for coffee and increased annual domestic consumption (in Ethiopia, 2.6 kg consumption per year) in coffee-producing countries and emerging economies have provided additional markets for growers. However, not all producing countries have benefitted on the same degree. Ethiopia is the leading coffee producer in Africa, but the country has not contributed a significant role in the global market due to poor value chain governance, coordination and upgrading (ICC, 2017).

The coffee supply chain linking coffee growers and coffee consumers comprise multiple stages, including exporters, traders, roasters, and retailers. Most of the upgrading in the coffee supply chain is created in importing countries. However, there are ways to add and or retain more value in producing countries (ICC, 2017; USAID, 2010).

Previous studies on coffee value chain have been focused on the performance of the chain (Girma, 2017; USAID, 2010),production potential and constraints (Zinabu et al., 2017), cooperative union (Beyenech, 2017; Muhaba, 2015), coffee quality (Kassaye and Luc, 2018; Birhanu & Daniel, 2013), coffee export business (Alemseged & Yeabsira, 2014), constraints and potentials of the chain (Teshale, 2017; Belay, 2017) and challenges and opportunities of value addition (Hiwot et al., 2017) in different angles. In addition to this, some of the researchers used gender-based analysis and market-oriented coffee products value chain approach and others not. There was no empirical study conducted on upgrading and governance of coffee value chain in Ethiopia.

This study was thus conducted against the context of insufficient knowledge on how upgrading within coffee value chains are generated and sustained horizontally and vertically, as well as a lack of research on coordination of actors in value chains, in particular the governance structure governing the coffee sector. Therefore, this study aims at examining the existing information gap to a certain extent on upgrading and governance of coffee value chain. The study can help to strengthen the coffee business in a sustainable way.

1.3 Objectives of the Study

1.3.1 General Objective

The overall objective of this research is to assess governance and upgrading of the coffee value chain in Dalle Woreda, Sidama Zone, Southern Ethiopia.

1.3.2 Specific Objectives

The specific objectives of this study are to:

- Identify the actors involved in the coffee value chain (value chain mapping);
- Examine the opportunities and constraints of upgrading in the coffee value chain; and
- Investigate the governance structure of the coffee value chain

1.4 Research Questions

- What are the actors involved in the coffee value chain?
- What are the main role and functions of actors in the coffee value chain?
- How local producers engage in the upgrading of coffee?
- What are the constraints and opportunities of upgrading in the coffee value chain?
- How is the Ethiopia coffee value chain governed?
- How the coffee value chain is coordinated from the producer to the exporter?
- In which governance structure the coffee value chain governed?

1.5 Significance of the Study

This study aims to identify the key players of the coffee sector involved in each section of the value chain, their interrelationships, and governance with other actors; and upgrading opportunities and constraints they face.

The information generated might help a number of organizations including research and development organizations, traders, policy makers, producers, extension service providers, government and non-government organizations to assess their activities and redesign their mode of operations and ultimately influence the design and implementation of policies and strategies. It is also important to promote the potential for income-generating options to meet national and global demand. Finally, it could also assist various actors in finding and evaluating new ways to improve the value chain.

1.6 Scope of the Study

This study is focused on the entire Coffee value chain from the input supplier to the exporter. Thematically, the scope of the study is delimited to analyzing the upgrading status of farmers in terms of vertical and horizontal coordination and the governance structure of actors from producer to exporter. The study does not cover the upgrading performance of the downstream participants of the chain. The coverage of this study is limited in Dale Woreda therefore, important information was collected from sample households and actors involved in coffee value chain.

1.7 Limitation of the Study

There are spatial as well as temporal limitations to make the study more representatives in terms of a wider range of area coverage and time horizon. Furthermore, since Ethiopia has a wide range of diverse agro-ecologies, institutional capacities, organizations, and environmental conditions, the result of the study may have limitations to make a generalization and make them applicable to the country as a whole. These limitations are mainly due to the shortage of time, budget and facilities.

1.8 Organization of the Thesis

The thesis has been structured as follows. Chapter one presents an introduction of the topic with a detail explanation, specifying research questions and justification of the research problem, explaining the general and specific objectives of the research, scope of the study and limitations of the study. Chapter two is about purifying the idea with regard to theoretical and empirical literature reviews of the governance and upgrading of the Ethiopian coffee value chain. Chapter three focuses on the research design and methodology and specification of data sampling, data collection, and analysis tools and techniques. Chapter four discusses the findings and the interpretation of data on the upgrading and governance of the coffee value chain. Finally, chapter five summarizes the conclusions drawn from the findings and suggests useful as well as applicable recommendations.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviews the literature in order to lay down research foundations for the study. It contains five sections. The first section reviews the literature on the concept of value chain analysis. In particular, it investigates the purpose and domains of value chain analysis. The second section examines the theoretical perspective of the value chain, with a focus on the concept of governance and upgrading. This section also describes the usefulness of global value chain (GVC) approach to identify the upgrading and governance of the value chain. The third section describes the overview of the coffee sector in global and Ethiopia. The fourth section critically reviews the literatures of the past research work in relevance to this study. The fifth section contains conceptual framework to analyze the main findings of the study

2.2 Basic Concepts and Definitions

2.2.1 Value Chain Analysis

Value chain: defined as the full range of activities that are required to bring a product (or a service) from conception, through the different phases of production, to delivery to the final consumer and disposal after final use (Kaplinsky and Morris, 2001). The value chain actors who actually transact a particular product as it moves through the value chain include input suppliers (e.g. seed suppliers), farmers, traders, processors, transporters, wholesalers, retailers and final consumers (Hellin and Meijer, 2006). A value chain is an alliance of enterprises collaborating vertically to achieve a more rewarding position in the market. The basic characteristic of a value chain is market-focused collaboration: different business enterprises work together to produce and market products and services in an effective and efficient manner (AFCA, 2004). On functional view, the value chain can be defined as a sequence of related business activities (functions) from the provision of specific inputs for a particular product to primary production, transformation, marketing, and up to the final sale of the particular product to consumers (GTZ, 2007).

The concept behind the value chain is the complete array of activities involved in carrying a product to the end market from the preliminary input-supply stage through several stages of production. It is an analytical tool that breaks a chain into its elements for comprehending their

organization and role by identifying the players at every phase and allocating costs and added value to each phase in order to help understand the complete system and point out intervention areas (UNIDO, 2015).

Value chain actor: is all individuals, enterprises and public agencies related to a value chain; in particular, undertakings performing the basic functions of a value chain, typical operators include farmers, small and medium-sized businesses, industrial enterprises, exporters, wholesalers and retailers and support service providers. Certain government agencies at the macro level can also be seen as value chain actors if they perform crucial functions in the business environment of the value chain in question (GTZ, 2007).

Value Chain Analysis: is a valuable instrument to figure out how the greatest possible value of a product can be created to its final consumers. The analysis answers a set of questions such as how the process of production is carried out; who are the actors at various steps; where do the actors interact and for what benefits, etc. Such information gathered is very pivotal to explore intervention for the enhancement of economic wellbeing of all the actors (Kattel, 2009).

Nine general activities can be identified in all companies, which interact together to achieve the goal. These nine activities should add value that exceeds the related cost. The company is profitable if the consumer finds the value of the product to be higher than the total production cost (Figure 1).

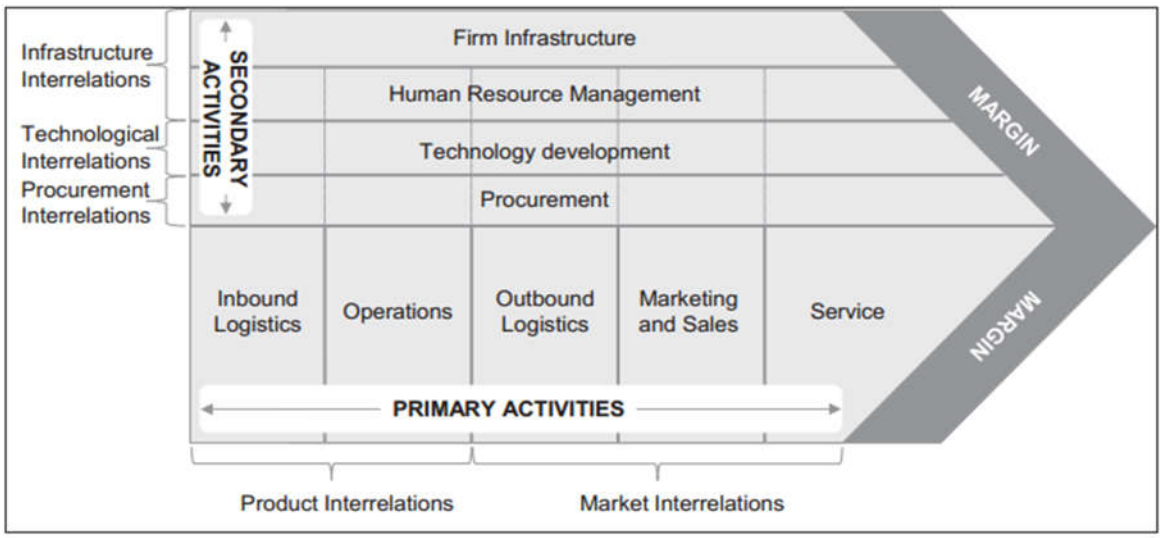

Figure 1: Porters model of the primary and support activities. (Porter, 1985, p. 37)

According to Porter (1985, p.39-43), there are five primary activities and four support activities as shown in Figure 1, these value activities are defined as followed:

- **Inbound logistics:** All events connected to the inflow of materials before it is used in the production, for example, transportation, warehousing, and control of goods.
- **Operations**: The activities where the inflow of materials are turned into a new product, which can be machining, assembling and testing.
- **Outbound logistics:** When the operations stage is done, the final product is ready to be delivered to the customer. This activity can include storage of the products before they leave for the customers, taking care of orders and distribution of the products.
- **Sales and marketing:** It is necessary to find and have contact with customers to sell the products. Activities in this category are for example advertising, pricing and sales.
- **Service:** After the product has reached the customer, it can be necessary to give service so that it keeps its functionality and value. Training and reparations are examples of activities in this category.
- **Firm infrastructure**: This is where activities that build up a firm are done. Accounting, finance, and planning are some of the important events within the firm infrastructure.
- **Human recourses management:** Human resources are needed in all value activities. Recruiting, training and pay salary to the workers are examples within this support activity
- **Technology development:** Technology of some kind is involved in all value activities. It might be a more simple technology and know-how or advanced machinery used in the production. This is an activity that aims to improve all kinds of technologies to make the process or product better.
- **Procurement:** This means purchasing of inputs needed in the company. The most obvious is raw material to the operations stage in the company, but all activities need purchased inputs, accounting tools required within the firm infrastructure stage is one example. This is an important activity since the cost for purchased inputs is a large post of a company's total cost.

All these value-adding activities and the events within them have to be analyzed to define a firm's value chain. Large functions should be divided into smaller activities to better understand the costs and value-added. For examples processing of raw material to the final product might hold a whole chain of steps where possibilities to improvements would not be seen if they were put together as one. When a value chain is defined, all activities and functions done by the company should be found and put into one of the primary or support activities category (Porter, 1985, p.45-48)

As described above, Porter used the term value chain for the activities performed within a firm while the term value system was defined as a network of companies interacting to produce and get a product to the market. However, this terminology introduced by Porter can be confused with later work and definitions in the field where a value chain often describes the whole chain from producer to consumer (Kaplinsky & Morris, 2001, p.6-7). This text will hereafter use the latter definition of a value chain whilst the porter definition is used to analyze the individual actors in the chain.

Value chain analysis has gained considerable popularity in recent years. Although many approaches are taken, value chains essentially represent enterprises in which different producers and marketing companies work within their respective businesses to pursue one or more end-markets. Participants in the value chain often collaborate to improve the overall efficiency of the final product, but may also be completely unaware of the ties between their activity and other participants upstream and downstream. Value chains therefore encompass all of the factors (Figure 2) of production including land, labor, capital, technology, and inputs as well as all economic activities including input supply, production, transformation, handling, transport, marketing, and distribution necessary to create, sell, and deliver a product to a certain destination(Keyzer, 2006)

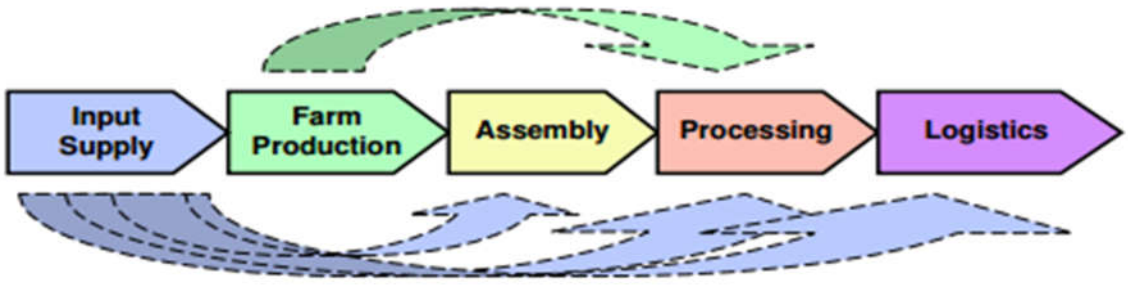

Figure 2: Stages of the Value Chain

It is useful to review some of the main activities that occur at each stage of the value chain. These include the following.

Input supply. This stage is concerned with the sourcing of raw materials required for agriculture production, processing, and trade. Inputs may be procured locally or imported. The final value of the input at its place of use includes all manufacturing costs, transportation costs, customs duty and tax, and unofficial payments incurred up to that point. The efficiency of a country has an input supply system, therefore, it has a major bearing on the performance of the entire value chain.

Farm production. This stage concerns the primary production of agriculture and ends with the sale at the farm gate of a raw commodity. These transactions can take place literally at the farm gate or at some other point where the farmer hands over the product's ownership to the next participant in the value chain. Depending on the crop, some type of primary processing (such as the shelling or bagging of dry grain) may take place at the farm level.

Assembly. This stage includes the gathering of agricultural products from numerous agriculturists and conveyance of the raw material to a production line for modern preparing or bundling. Because of domesticated animal's tasks, a gathering is characterized in a more extensive sense to incorporate the feedlot procedure for the conveyance of swelled creatures to an abattoir. Packing and basic grading of products can likewise happen at this stage contingent upon courses of action made at the primary purpose of offer.

Processing. The preparing stage includes the change of agricultural raw materials into at least one completed universally exchanged merchandise. Raw products, obviously, are likewise exchanged and this stage may not have any significant bearing to each yield.

Domestic and international logistics. The logistics stage includes shipping traded goods to their final destination on the market. This may either be a foreign market in the case of exports, or a local market for import substitutes. For import substitutes, the logistics stage ends at the domestic level, but the analysis is still concerned with the cost of importing a like product from the nearest or most competitive country.

Gereffi et al. (2005) further discuss the global value chain approach as the different ways to examine, how global production and distribution systems are integrated and how to improve possibilities of the position of developing countries firm in global markets. While this concept

encompasses the most relevant component of the value chain, it is also necessary to consider institutional and other factors such as the legal framework in the value chain.

2.2.2 Purpose of Value Chain Analysis

According to Kaplinsky and Morris (2001), there are three main reasons why value chain analysis is important in this era of rapid globalization. The first reason they raised is that with the growing division of labor and the global dispersion of the production of components, systemic competitiveness has become increasingly important. Second, efficiency in production is only a necessary condition for successfully penetrating global markets. Third, entry into global markets, which allows for sustained income growth, requires an understanding of dynamic factors within the whole value chain.

Value chain analysis is conducted for a variety of purposes. The primary purpose of value chain analysis, however, is to understand the reasons for inefficiencies in the chain and identify potential leverage points for improving the performance of the chain, using both qualitative and quantitative data. A study on the value chain promotes a better understanding of strategic dynamics, helps to define relationships and processes of collaboration, and helps to understand how chain players interact with power and influence and who controls and affects the chain. The value chain framework seeks to overcome these constraints by identifying different entry-points and linkages that small and medium enterprises can leverage in a given production or supply chain (USAID, 2008).

The promotion of value chains in agribusiness aims to improve the competitiveness of agriculture in national and international markets and to generate greater value-added within the country or region. In this context, the main criterion is a wide effect, i.e. growth that benefits the rural poor as much as possible or, at least, does not deteriorate their position in relation to other demographic groups. (GTZ, 2007).

2.2.3 Domains of Value Chain Analysis

A domain used in the analysis of the value chain depends on the question of research. (Kaplinsky and Morris 2001). Accordingly, four aspects of value chain analysis have been applied in agriculture:

I. **Value chain mapping:** An overview of the value chain systematically charts the actors involved in the production, distribution, processing marketing and consumption of a specific product (or products). This mapping assesses the characteristics of actors, profit and cost structures, and flows of goods throughout the chain, employment characteristics, and the destination and volumes of domestic and foreign sales.

II. **Identifying the distribution of benefits of actors in the chain**: Through the analysis of margins and profits within the chain, one can determine who benefits from participation in the chain and which actors could benefit from increased support or organization. This is particularly important in the context of developing countries (and agriculture in particular), given concerns that the poor in particular are vulnerable to the process of globalization.

III. **Examining the role of upgrading within the chain**: Upgrading can involve improvements in quality and product design that enable producers to gain higher value or through diversification in the product lines served. Upgrading process analysis includes an assessment of actors ' profitability within the chain as well as information on current constraints. Governance issues play a key role in defining how such upgrading occurs. Therefore, the regulatory structure, entry barriers, trade restrictions, and standards may further form and affect the environment in which improvements may take place. Possible forms of upgrading include process upgrading, product upgrading, and function upgrading.

IV. **Role of governance in the value-chain:** Governance in a value chain refers to the structure of relationships and coordination mechanisms that exist between actors in the value chain. Governance is important from a policy perspective by identifying the institutional arrangements that may need to be targeted to improve capabilities in the value-chain, remedy distributional distortions, and increase value-added in the sector by systematically understanding these linkages within a network, one can better prescribe policy recommendations.

2.3 Theoretical Perspectives in Value Chains

2.3.1 Theory of Value Chain Analysis

The theory of the value chain can be traced back to the 1960s when French scientists developed the filiere approach for studying contract farming and vertical integration in agriculture (Mitchell et al., 2009; UNIDO, 2009). They later applied it to cotton, rubber, coffee and cocoa production of export commodities in the former African colonies of France. The emphasis of this approach was analyzing how local production system was linked to the processing industry, trade, export and final consumption (Nang'ole et al., 2011). At the time, the focus of filiere approach was on production and marketing without the elements of governance, growth, and added value. (UNIDO, 2009).

In the 1970s a related concept 'sub-sector analysis' was developed which involved studying the networks and relationships linking suppliers, processors, transporters and traders in ways that connect producers and enterprises to final consumers of goods and services (Nang'ole et al., 2011). A sub-sector thus involves a set of activities, actors, and rules governing those activities.

The term value chain was first used and popularized by Michael Porter (1985) where he sought to assess the contributions of various primary and supportive firm activities to the overall added value of its business. The primary activities include inbound logistics, operations, outbound logistics, marketing, sales and service which can directly add value to the production of goods and services (Nang'ole et al., 2011). On the other hand, support operations include recruitment, human resource management, technology development, and firm infrastructure are necessary for the firm's productivity and performance (UNIDO, 2009). Porter's approach was aimed at highlighting actual and potential areas of competitive advantage and the interdependences and linkages between vertically arrayed actors in the creation of value for the firm (Rich et al., 2011). The weakness of Porter's approach to the value chain is that it restricts the analysis to the firm-level without considering upstream and downstream activities beyond the company (Fasse et al., 2009).

2.3.2 Global Value Chain (GVC)

In this study, GVC analysis is used to examine the governance and upgrading of the Ethiopia Coffee value chain. GVC provides a useful framework to examine linkages and power relations between agents in the value chain. To date, GVC analysis has been widely adopted by researchers,

industry and development practitioners to understand the political economy of contemporary global production (Neilson, 2008). GVC studies trace the shifting patterns of global production, provide an understanding of how chains work or are governed, and determine the role they play in developed and developing countries (Global Value Chains Initiative, 2017). Case studies of manufacturing and high-technology have been accompanied by case studies of agro-food commodities, services and transport and logistics (Ponte & Gibbon, 2005).

While the GVC approach was widely adopted by sociologists and geographers analyzing the international organization of industries as diverse as clothing, electronics, and tropical commodities, it has increasingly attracted interest from economists, anthropologists, and historians (Gibbon, et al., 2008). International agencies, such as UNIDO (2009), and GTZ (2007), have also embraced value chain analysis (Gibbon, et al., 2008).

The term 'global commodity chain' was later replaced by the more inclusive 'global value chains' to capture a wide variety of products and services while retaining the basic framework of analysis (Neilson & Pritchard, 2009). The word 'commodity' was considered problematic because it implied the framework was associated with undifferentiated products or primary products/raw materials, when in fact much of the early research focused on manufacturing (Neilson & Pritchard, 2009). Alternatively, the term 'value' captured the concept of value addition, which fits in well with the chain metaphor while focusing on sources of economic development (Sturgeon, 2008). As a result, the 'Global Commodity Chain' approach is now often referred to as 'Global Value Chain' (GVC) analysis, where 'global' refers to the global extent of the activities involved (Sturgeon, 2008).

As Blair (2005, p.157) explains: 'GVC analysis is principally concerned with understanding how global industries are organized. It consists of identifying the full set of actors (i.e. firms) that are involved in the production and distribution of a particular good or service and mapping the kinds of relationships that exist among them'.

Gereffi (1994) identified four dimensions to value chains: 1) an input-output structure, 2) territory/geographical coverage, 3) governance structure and 4) institutional framework. The first two dimensions are considered largely descriptive (i.e., how productive activities are organized along the chain and their geographical extent), while the latter two are more explanatory/analytical

in nature, providing reasons for the observed organizational and spatial features of the GVCs (Sturgeon, 2008).

However, the relevance of the Global Value Chain approach in developing countries is questionable as it emphasizes vertical integration with emphasis on international markets leaving behind many smallholder farmers who depend on local and regional markets. Integrating horizontal and vertical coordination is a requirement for developing the value chains of rural farmers (Mitchell and Coles, 2013). In addition, agricultural value chains are buyer-driven, meaning buyers have more powers in deciding what to produce (Mitchell et al., 2009). Developing country chain actors need to upgrade to reduce buyers ' power by building technological and managerial capacity that allows them to effectively participate in value chains (UNIDO, 2009). Value chain upgrading is, therefore, one of the focus in developing countries (Trienekens, 2011).

In the next section, the third dimension, 'governance' and other important issue value chain upgrading are considered in more detail; it has received the most attention to date (Sturgeon, 2008) and is the focus of this study within Ethiopia coffee value chain.

2.3.3 Upgrading in Value Chains

Upgrading is a key contribution of value chain analysis with regard to understanding how incomes of poor people can be augmented. It refers to the acquisition of technical, organizational and market skills that allow firms or communities to boost their competitiveness and move into activities of higher value (Mitchell et al., 2009). The purpose of upgrading is to enhance the rewards and or reduce the risks to actors in production and marketing. If the anticipated rewards gain or risk reduction is not realized, the actor may choose to revert to previous or fewer functions. Such a scenario is referred to as downgrading and is the opposite of upgrading (Khiem et al., 2010). Different upgrading strategies have been suggested in various studies (Kaplinsky and Morris, 2001; Mitchell et al., 2009; Mitchell and Coles, 2013; Trienekens, 2011) to help in the development of developing countries' value chains. Such strategies are briefly explained as follows:

2.3.3.1 Horizontal Coordination

One of the main obstacles facing small-scale enterprises in developing countries is the very fact that they are small-scale. Horizontal coordination is the process of firms (which can be as small as

individual actors) collaborating within a functional node (for example input supplies, production, processing, trading or retailing) to achieve a strategic balance between competition and collaboration (Mitchell and Coles, 2013). The purpose of horizontal coordination is to address shared constraints, interests and entry barriers associated with scale. These include high transaction costs, low and poor quality output, weak negotiating power and lack of capital and management of common property resources. According to Mitchell et al. (2009), horizontal coordination is often the first step in a sequence of interventions that ultimately result in access to the market, and is a prerequisite for other forms of upgrading. In developing countries, horizontal coordination takes the form of producer associations or cooperatives (Trienekens, 2011).

2.3.3.2 Vertical Coordination

The process of strengthening relationships between functional nodes of the value chain, involving the shift away from one-off spot transactions toward developing longer-term business connections for instance contract farming (Mitchell et al., 2009; Mitchell and Coles, 2013). Vertical coordination is often a slow and difficult process in practice because it requires building relationships of trust between buyer and seller. As such, it rarely takes place in isolation from other upgrading strategies. More formal contracts are often associated with higher performance requirements, such as goods of higher quality, larger volumes and more regular and consistent delivery schedules. Overcoming the barriers associated with these requirements may necessitate a preliminary step of horizontal coordination (Mitchell and Coles, 2013).

A. Functional Upgrading

This is also referred to as vertical integration; the mix of functions performed by actors in the value chain is modified. This can be through adding new activities by an individual or firm, for instance, agricultural producers starting to process some of their output to add value or starting to produce the inputs by themselves. In some instances, the individual or firm may decide to delete some activities (downgrading) if deemed necessary. The resulting distribution of functions among actors in the chain should maximize its efficiency and competitiveness by attaining the optimal level of specialization versus integration (Mitchell et al., 2009; Mitchell and Coles, 2013). Integrating functions vertically offers the possibility of transforming raw materials into new products and thereby increasing the proportion of value captured. Trienekens (2011) identifies functional upgrading as a key issue in developing country value chains as most exports are raw material form.

B. Process Upgrading

This means improving the efficiency of the value chain by increasing the volumes of output or reducing the cost of an output unit. Examples of this include improving agronomy to enhance yields that result in higher sales or own consumption or both. This can be the product of improved planting methods, planting materials and investments such as irrigation systems and technology, reducing losses from post-harvest (Mitchell et al., 2009). Process upgrading focuses on the one hand on upgrading the product and on the other hand on the optimization of production and distribution processes. The latter includes the adoption of new technologies such as automated production and packaging lines, cooling infrastructure and modern transport technology, as well as improved communication facilities in the supply chain such as internet access, GPS systems or the intensive use of mobile phones in manufacturing and transport planning (Trienekens, 2011).

C. Product Upgrading

This involves introducing new products or improving old products faster than rivals do. This involves changing new product development processes both within individual links in the value chain and in the relationship between different chain links (Kaplinsky and Morris, 2001). Along the same line, Mitchell and Coles (2013) define product upgrading as making better products that hold greater value and fetch higher prices. One of the most common and obstinate obstacles for rural poor is that, both in terms of quality and volume, their output does not meet market specifications. Raising product quality and increasing the efficiency of production are critical prerequisites to accessing and competing successfully and beneficially in markets (Mitchell and Coles, 2013).

Process and product upgrading are closely related because improving product quality often involves improvements to the production process (Mitchell et al., 2009).

D. Channel Upgrading

Channel upgrading is the entry of a firm into a pathway leading to a new, higher value-added end, such as a local, national, regional and/or global end market (USAID, 2006). Companies can operate simultaneously on one or more market channels. This is where chain actors introduce value-adding processes from other chains to offer, for example, a farmer entering tourism activities, new products or services (Trienekens, 2011). The new value chain is usually more

profitable than the previous one, for example, shifting from growing traditional commodities to high-quality export horticulture. Unfortunately, the upgrading process often has significant barriers to entry for the poor and vulnerable to access the more lucrative value chain (Mitchell et al., 2009).

2.3.3.3 Upgrading of the enabling environment

Although not an upgrading strategy in a strict sense, competitiveness of the enabling environment for value chains is a major contributing factor in the success of the operations of a value chain. Improvements to the support services, institutional, legal and policy frameworks in which value chains operate are often a productive area in which development agencies can intervene to improve the functioning of a chain (Mitchell et al., 2009; Mitchell and Coles, 2013). Such things as standards and certification, rules and regulations regarding contracts, etc. must be in place for successful upgrading in value chains to take place.

2.3.4 Governance in Value Chains

Governance is a widely used term and it can take various forms (Gereffi, et al., 2001). Within the GVC literature, governance is mainly used in reference to inter-firm or buyer-seller relationships (Humphrey & Memodovic, 2006) through which activities are coordinated within the chain. More specifically, 'governance' is used to express how powerful firms or 'lead firms' set and enforce parameters under which others in the chain operate (Gereffi, et al., 2001). It shows how corporate power can actively shape the distribution of profits and risks in an industry, and it identifies the actors who exercise such power (Gereffi, 2014). Lead firms are predominantly located in developed countries and include not only multinational manufacturers but also large retailers and brand name firms (Humphrey & Schmitz, 2001). Moreover, to have an operating value-chain, there should be some degree of governance at every stage in the chain (Holste, 2015).

At any point in the chain, the activities performed are defined by three key parameters (Humphrey and Schmitz, 2001), including:

I. **Product parameters**: What is to be produced? This question relates to product design and specification.

II. **Process parameters**: How is it to be produced? This question refers to the production process, which includes the technology, quality systems, labor, and environmental standards applied.

III. **Logistic parameters:** How much is to be produced?, when it is to be produced, and how it is to be transported.

To these, the price can be added as a fourth parameter, though prices are determined by supply and demand in an ideal market (Humphrey & Schmitz, 2001). Usually, major buyers require suppliers not only to meet product and process parameters but they also set prices (Humphrey & Schmitz, 2001). For example, lead firms in industrialized countries, such as supermarket chains, increasingly dominate the agro-food trade, and they essentially decide what food is grown, where, how, by whom, when it is shipped and at what prices (Fulponi, 2009). These firms not only dictate terms of participation with their first-tier suppliers but also manage to transmit these demands upstream in the chains, sometimes all the way to producers (Ponte, 2009), including farmers. Hence, value chain governance is said to arise when some firms in the chain work according to the product, process and logistics parameters set by lead firms. Governance of a value chain consists of not only defining the parameters but also supporting others in the chain to adhere to them, monitoring adherence and imposing sanctions when they are violated (Kaplinsky & Morris, 2001).

In terms of inter-firm linkages in the global economy, the most important parameters of value chain governance relate to 'product' and 'process' parameters (Humphrey & Schmitz, 2001), which can be specified at varying levels of detail. For example, in the case of 'product parameters', the buyer can provide different levels of specifications. That is, a buyer can set a design problem for the producer to resolve, giving the producer a free hand. On the other hand, the buyer can provide a particular design for the producer to work on, even to the extent of providing detailed drawings. The buyer can also specify 'process parameters' – that is, how a particular standard should be achieved by requiring or even helping the supplier to introduce particular production processes, etc. This has been more evident with buyers' specification of process parameters such as labor and environmental standards (Humphrey & Schmitz, 2001).

Though lead firms do not engage in production on their own, as Gereffi (1994) highlighted, they wield considerable purchasing power to coordinate activities within the chain (Sturgeon, 2008). Despite the fact that setting and/or enforcing parameters along the chain is not only inconvenient

but a costly exercise for lead firms (Humphrey and Schmitz, 2001), they continue to seek to govern their chains. In general, there are several reasons why this is so (ITC, 2011).

First, buyers have a better understanding of end-market requirements than suppliers, since they are closer to end-consumers (Humphrey & Schmitz, 2001). This is most likely to happen in fast-moving markets, such as in the garment industry, which is characterized by innovation and product differentiation. Second, buyers are increasingly pursuing a strategy of product differentiation through design and branding, which requires them to provide suppliers with precise product/process specifications and monitor whether these specifications are met. The more companies are involved in specifying these requirements, the more likely they will closely coordinate with suppliers (Gereffi, et al., 2001). Third, with the risk of supplier failure, there is increasing importance attached to non-price competition-based factors, such as quality, response time and reliability, together with concerns about product safety and quality. Buyers specify such process parameters along the chain in order to contain risks associated with supplier failures. The more they are exposed to risks as a result of suppliers' failures, the more they will directly intervene to coordinate and monitor the supply chain (Gereffi, et al., 2001; Humphrey & Schmitz, 2001).

While parameters are usually set and enforced by buyers, product and process parameters can also be set and enforced by agents outside the chain (Kaplinsky, 2000). Governments and international organizations, which are external to the chain, can regulate product and process parameters in order to ensure consumer safety and create transparent markets (Humphrey & Schmitz, 2001). An example is food safety standards, which are set and enforced by governments. These can be compulsory and legally binding (Humphrey & Schmitz, 2001). Standards may also be set by various non-governmental organizations (NGOs) and can be voluntary (WTO, 2005).

Parameters set from outside the chain can affect chain governance when lead firms enforce compliance with the parameters on others in the chain (Humphrey & Schmitz, 2001). This arises whenever the buyers are held responsible for suppliers in the chain.

The next few sections will focus on two forms of governance, starting with Gereffi's (1999) governance as driving, followed by the group of extended models (Gereffi et al. 2005) and their explanatory variables.

2.3.3.1 **Forms of Governance**

Gereffi (1994) broadly distinguished between two different types of governance structures, 'producer-driven value chains' and 'buyer-driven value chains', to capture variation in the way firms organized their cross-border production arrangements (Sturgeon, 2008). More importantly, he highlighted that there has been a shift in power within chains from producers to buyers over time. Gereffi later suggested that internet commerce is leading to the emergence of a third governance structure: an internet-driven commodity chain (Ponte & Gibbon, 2005).

In 'producer-driven' chains, firms set parameters that control key product and process technologies (Humphrey & Schmitz, 2008). Producer driven chains are usually found in sectors of high technological and capital requirements like automobiles, aircraft, and computers (Ponte & Gibbon, 2005), where chain governance is exercised by transnational companies that control key technology and production facilities. In these chains, producers tend to keep control of capital-intensive operations and sub-contract more labor-intensive activities (Ponte & Gibbon, 2005). Conversely, 'buyer-driven' value chains are found in more labor-intensive sectors such as garments, horticulture, and footwear (Gereffi, 1994), and the key parameters are set by brand name companies and retailers that focus on design, marketing and branding (Ponte & Gibbon, 2005)

While the distinction between the two types of global chains is relevant for a number of industries (i.e., clothing and automobiles), it has been argued that it does not adequately represent the range of governance patterns observed in some chains (Stamm & Drachenfels, 2011). The producer-driven/buyer-driven dichotomy has also been criticized on several counts (Ponte & Gibbon, 2005): buyer-driven governance patterns are increasingly emerging in almost all industries, including in previous producer-driven chains, making the buyer/producer-driven distinction redundant; buyers within buyer-driven chains are not all the same; and not all chains have clear drivers.

Gereffi, Humphrey, and Sturgeon (2005) developed a more coherent theoretical framework with satisfactory power to explain variations in value chain governance. They moved beyond the 'buyer-driven'/producer-driven' dichotomy and proposed fivefold governance types, ranging from 'market' to 'hierarchy' at either side of the spectrum with various forms of coordination (or 'networks') in between to provide a better description of chain relationships in global industries (see Table 1). As Neilson and Pritchard (2009, p.41) explains: '… the development of this fivefold categorization can be seen as marking a major evolution in this field. The dualistic heuristic of

producer versus buyer-driven chains has been recalibrated to match more realistically the findings of studies that apply the concept of governance to real-world cases'.

The five Models of Governance structures

A few years later, Gereffi, Humphrey and Sturgeon (Gereffi et al. 2005) introduced five different models of governance structure typology (Figure 3) that give a dynamic view on GVC's governance.

A. **Market:** Market governance prevails when information necessary for transactions is easily codified, the complexity of transactions is relatively simple and suppliers are capable of making products with little input from buyers. The market is the simplest form of governance, with price acting as the coordinating mechanism. Usually, goods produced are standard products and there is no collaboration between buyers and sellers.

B. **Modular:** Modular value chains arise when suppliers are competent, and information can be codified even though the information is complex. An example is contracted manufacturers in the electronics industry, which make products according to the needs of a particular customer. In this case, 'technical standards simplify interactions by reducing component variation and by unifying component, product and process specifications and... suppliers have the competence to supply full packages and modules, which internalizes hard to codify (tacit) information, reduces asset specificity and therefore buyers need for direct monitoring and control' (Gereffi, et al., 2005, p.86). As a result, switching costs for suppliers and buyers remain low. Codification means that buyers can shift relatively easily between suppliers even though the product supplied is customized and complex.

C. **Relational:** 'When product specifications cannot be codified, transactions are complex and supplier capabilities are high, relational value chains can be expected. This is because tacit knowledge must be exchanged between buyers and sellers and because highly competent suppliers provide a strong motivation for lead firms to outsource to gain access to complementary competencies' (Gereffi, et al., 2005, p.86). This mutual dependence makes the costs of switching high for both suppliers and buyers.

D. **Captive:** Captive value chain arises when products are complex and product specifications are codifiable but supplier capabilities are low in relation to buyer requirements. In this case, the

buyers need to monitor supplier performance closely and possibly invest in increasing supplier capabilities, making switching costs high for suppliers.

E. **Hierarchy**: 'When product specifications cannot be codified, products are complex and highly competent suppliers cannot be found, the lead firm will be forced to develop and manufacture products in-house' (Gereffi, et al., 2005, p.87). This is the case of vertical integration in the value chain.

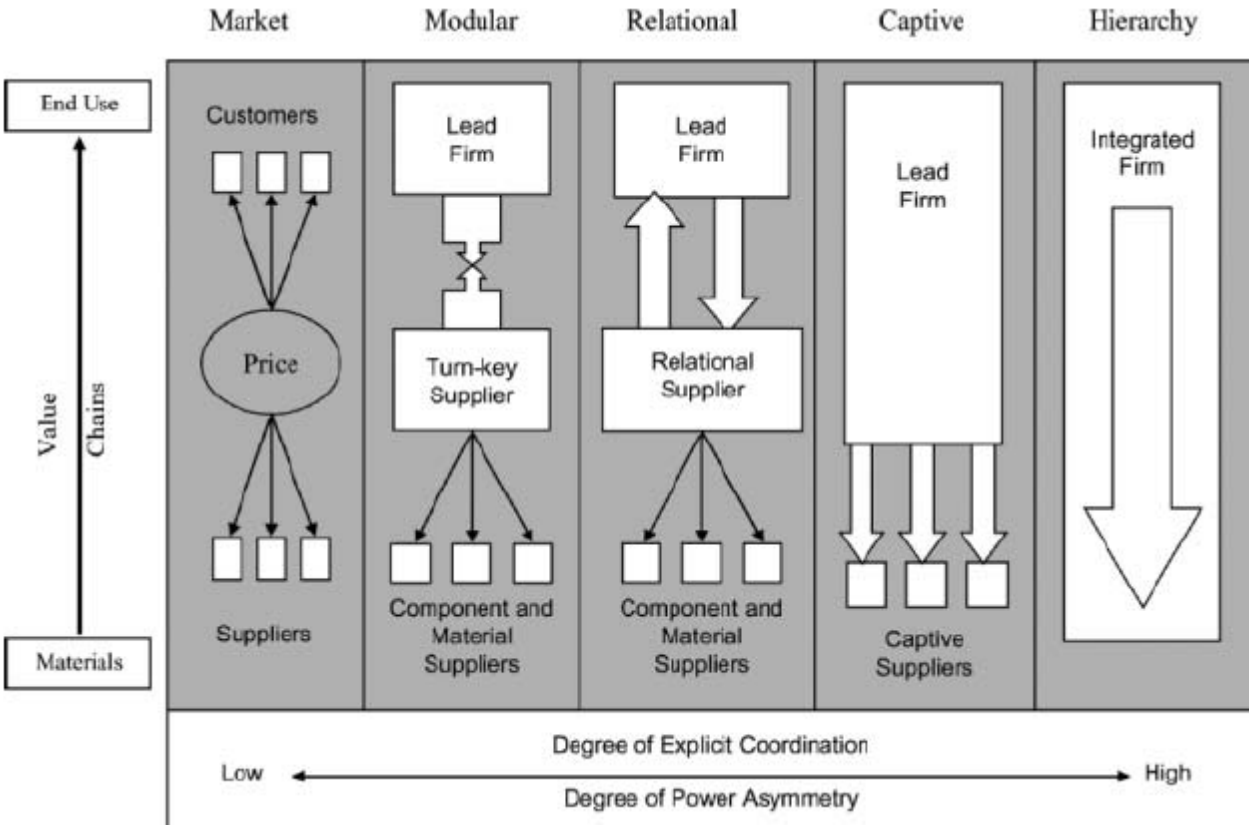

Figure 3: GVC governance types

Source: Adapted from (Gereffi et al. 2005, p.89)

In fact, Gereffi et al. (2005) proposed a value chain governance theory based on transaction costs, production network, and technical capability, as well as firm learning literature, arguing that five modes of governance (market, modular relational, captive, hierarchy) that vary depending on three main explanatory variables.

I. **The complexity of transactions**: More transactions that are complex require greater cooperation between agents in value chains and therefore stronger governance structures than a simple price-based one.

II. **Codifiability of transaction:** This refers to the extent to which complex information can be codified and transferred without the needs of investment in transaction-specific relationships.

III. **Capabilities of suppliers:** The ability to receive and act upon complex information from lead firms requires a high degree of competence on the part of suppliers.

The five global value chains and the three explanatory variables are summarized in Table 1, which also shows the degree of explicit coordination and power asymmetry associated with the different governance types. As the value chain moves from market to hierarchy, the level of explicit coordination increases, as does the power asymmetry between agents. They range from low levels of coordination and power asymmetry between buyers and suppliers in the case of 'markets' to high levels of explicit coordination and power asymmetry in the case of 'hierarchy'.

Table 1: Key determinants of global value chain governance

Governance Type	**Complexity of transactions**	**Ability to codify transactions**	**Capabilities of suppliers**	**Degree of explicit coordination and power asymmetry**
Market	Low	High	High	Low
Modular	High	High	High	
Relational	High	Low	High	↓
Captive	High	High	Low	
Hierarchy	High	Low	Low	High

Ponte and Gibbon (2005, p.3) also distinguish between 'forms of coordination' and 'modes of governance' and argue that 'a GVC may be characterized by different forms of coordination in various segments, yet a single and relatively coherent mode of overall governance'. They cite the example of the coffee value chain, where 'market' relations characterize the link between retailers and roasters, 'captive' relations in the link between roasters and international traders, and

'hierarchy' in the link between trader-exporters. However, the overall coffee value chain is 'buyer-driven', with roasters as the lead firms.

Value chains increasingly extend beyond national borders and a few buyers who specify what to produce, how to produce etc., to control them. This development has been accompanied by increasing stringency and proliferation of standards in the chains, especially in the agricultural and food sector as governments, especially in developed countries, respond to increasing consumer concerns, while buyers seek to safeguard and promote their business interests in a competitive market. The changes in the standards environment create not only opportunities and challenges for developing countries but are also likely to have significant implications for the way value chains are governed.

2.3.5 GVC as an analytical tool

At its simple version, GVC provides a heuristic framework—a description of the chain and how it works. In order to look deeply, scholars developed a more analytical approach that allows detail understanding. This approach used as an analytical tool to examine linkages and power relations between agents and upgrading in the Ethiopia coffee value chain.

2.4 Overview of the Coffee Sector in Ethiopia

2.4.1 Coffee in the Global Scenario

World coffee production is tremendously dominated by Latin America and Africa contributing about 70% of the global production[1] in 2017/18. The remaining 30% is shared by Asia and the Pacific region. Brazil tops the list of global coffee production with 32.2% share, which is followed by Vietnam (18.6%), Colombia (8.8%), Indonesia (6.9%), Honduras (5.3%) and Ethiopia (4.8%) (ICO, 2018). The contribution of major coffee-producing countries in global coffee production is illustrated in Figure 4.

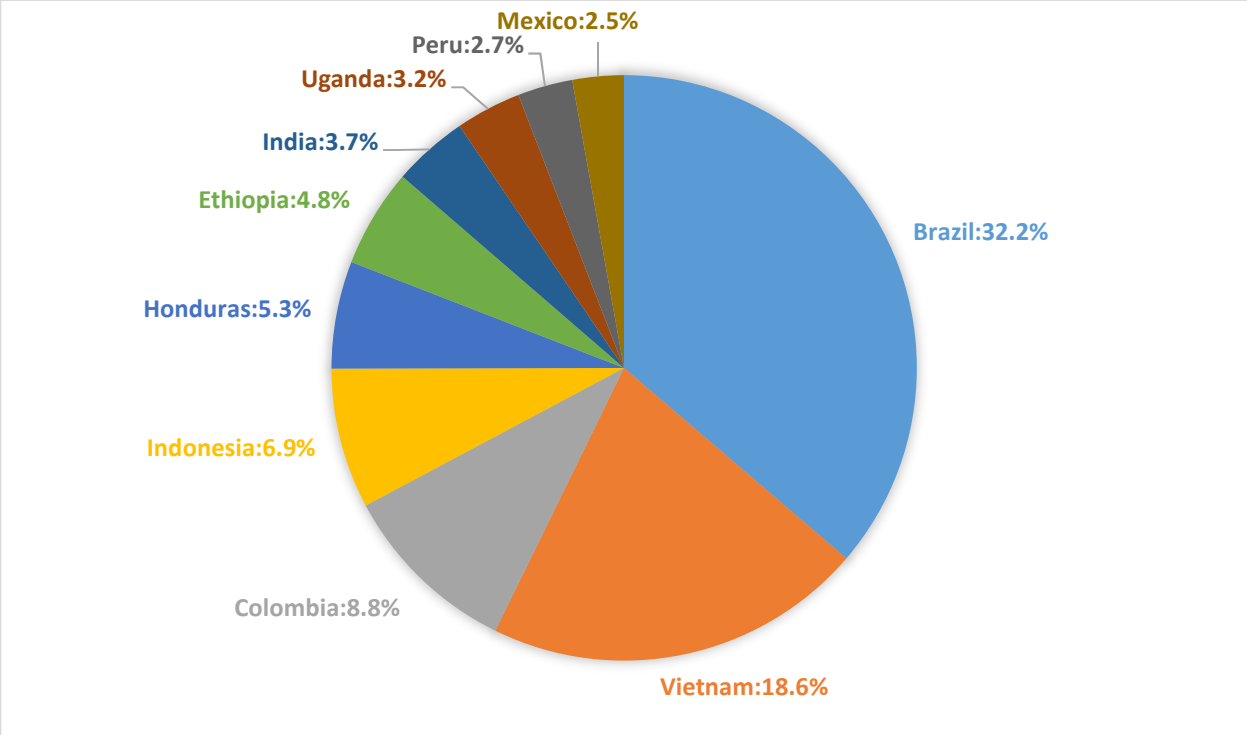

Figure 4: Contribution of major coffee-producing countries in global coffee production

Source: ICO (2018)

Latin America, eastern Africa including Ethiopia, Arabia, and some Asian countries produce Arabica coffee. On the other hand, western and central Africa, Southeast Asia, and to some extent in Brazil cultivate the Robusta coffee beans (ICO, 2018).

[1] 158,560,000 bags

According to the ICO database, the leading exporters of coffee in the global market are Brazil, Vietnam, Colombia, Indonesia, Honduras, India, Uganda, Peru, Ethiopia, and Guatemala respectively. Exports of all forms of coffee by leading exporter countries are presented in figure 5.

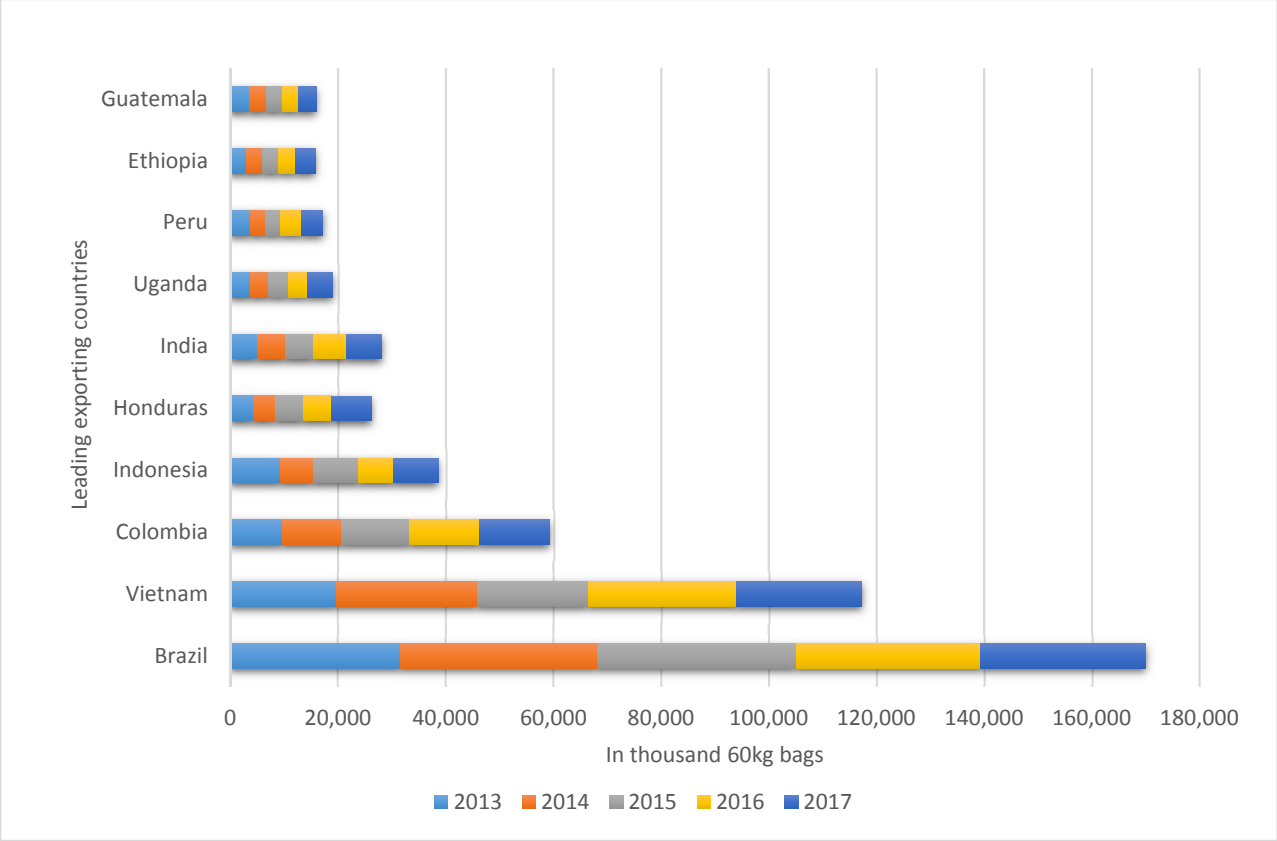

Figure 5: Exports of all forms of coffee by leading exporter's countries, in thousand 60kg bags

Source: ICO (2018)

2.4.2 Coffee in Ethiopia Scenario

Brief history

The story of coffee was beginnings in Ethiopia, and the country is the original home of the coffee plant, coffee Arabica, which still grows wild in the forest of the highlands of Ethiopia. While no one is sure how coffee was originally discovered as a beverage crop, it is believed that its production and use started in Ethiopia as early as the 9th century. Some authors claim that it was cultivated in Yemen earlier, around 575 AD. While, it originated in Ethiopia, from where it traveled to Yemen about 600 years ago, and from Arabia began its journey around the world (Alemayew, 2014).

Among the many legends that have developed concerning the origin of coffee, one of the most popular accounts is that of Kaldi, an Abyssinian goatherd, who lived around 850 AD. One day he observed his goats behaving in an abnormally exuberant manner, skipping, rearing on their hind legs and bleating loudly. He noticed they were eating the bright red berries that grew on the green bushes nearby. Kaldi tried a few for him, and soon felt a novel sense of elation. He filled his pockets with the berries and ran home to announce his discovery to his wife. Then she sides it" heaven-sent", and then she declared. Then the legends attempt to condense the discovery of coffee and its development as a beverage into one story, and it was believed that the monks of Ethiopia might have chewed on the berries as a stimulant for centuries before it was brewed as a hot drink (Selamta, 2014 cited in Alemayew, 2014). In addition, Coffee is vital to the cultural and socio-economic life of Ethiopians.

Ethiopia is unique among the world's coffee-producing countries in that around 50% of the coffee it produces stays within the domestic market, for consumption by Ethiopians (ICO, 2018). Drinking is not just part of everyday life; it is also deeply embedded in Ethiopian culture. Apart from the well-known Ethiopian coffee ceremony, coffee is used at major events such as marriage and birth, regionally-specific celebrations, and as a medium to build and sustain relationships between family, friends, and community (ECFF, 2017).

Coffee Producing Regions and Areas

Within Ethiopia, coffee is produced within specific agro-ecological zones over numerous political divisions. Most coffee is grown in areas of humid (moist) evergreen forest. This type of rainforest is found at 650–2600 m above sea level, with coffee mainly confined to altitudes of 1200–2100 m. These forests are cool-tropical, distinctly seasonal, and mostly comprise evergreen trees and shrubs, with a high diversity of other plants and associated fauna. In some highland areas, mostly at the higher range for Arabica coffee (1900–2100 m), coffee farming is undertaken in a drier type of vegetation, dominated by evergreen trees or shrubs, and common native coniferous species, particularly in the Harar coffee zone (ECFF,2017).

The main coffee growing areas are found within Oromia Region and Southern Nations, Nationalities, and Peoples' Region (SNNPRS), with modest production in Amhara Region and minor output in Benishangul-Gumuz Region (Table 2, Figure 6). In this document, coffee lands divided into five coffee zones, and 16 coffee areas (ECFF, 2017 and USAID, 2010).

The majority of coffee production is from the largely forested main coffee zone of the South West, followed by the Sidamo (including Yirgacheffe) coffee area in the South East coffee zone. Harar was once a major producing area but has declined considerably since the 1960s, and possibly decades before. The other coffee zones (Rift and North) are modest to minor producers compared to the South West and Sidamo (ECFF, 2017).

Table 2: Main coffee zones and areas within Ethiopia

Position in Ethiopia	Main coffee zone	Coffee area	Region (Administrative)
West of Rift Valley	North	Amhara	Amhara
		Benishaangul-Gumuz	Benishangul-Gumuz*
	South West	Wellega	Oromia
		Illubabor	Oromia
		Jimma-Limu	Oromia
		Tepi	SNNPR and Gambela*
		Kaffa	SNNPR
		Benchi-Maji	SNNPR
Rift Valley	Rift	Rift-North	SNNPR and Oromia*
		Rift-South	SNNPR
East of Rift Valle	South East	Sidamo(including Yirgacheffe)	SNNPR
		Bale	Oromia
		Central Eastern highland	Oromia
	Harar	Arsi	Oromia
		West Hararge	Oromia
		West Hararge	Oromia

Notes: * Minor part of the region.

Source: ECFF (2017)

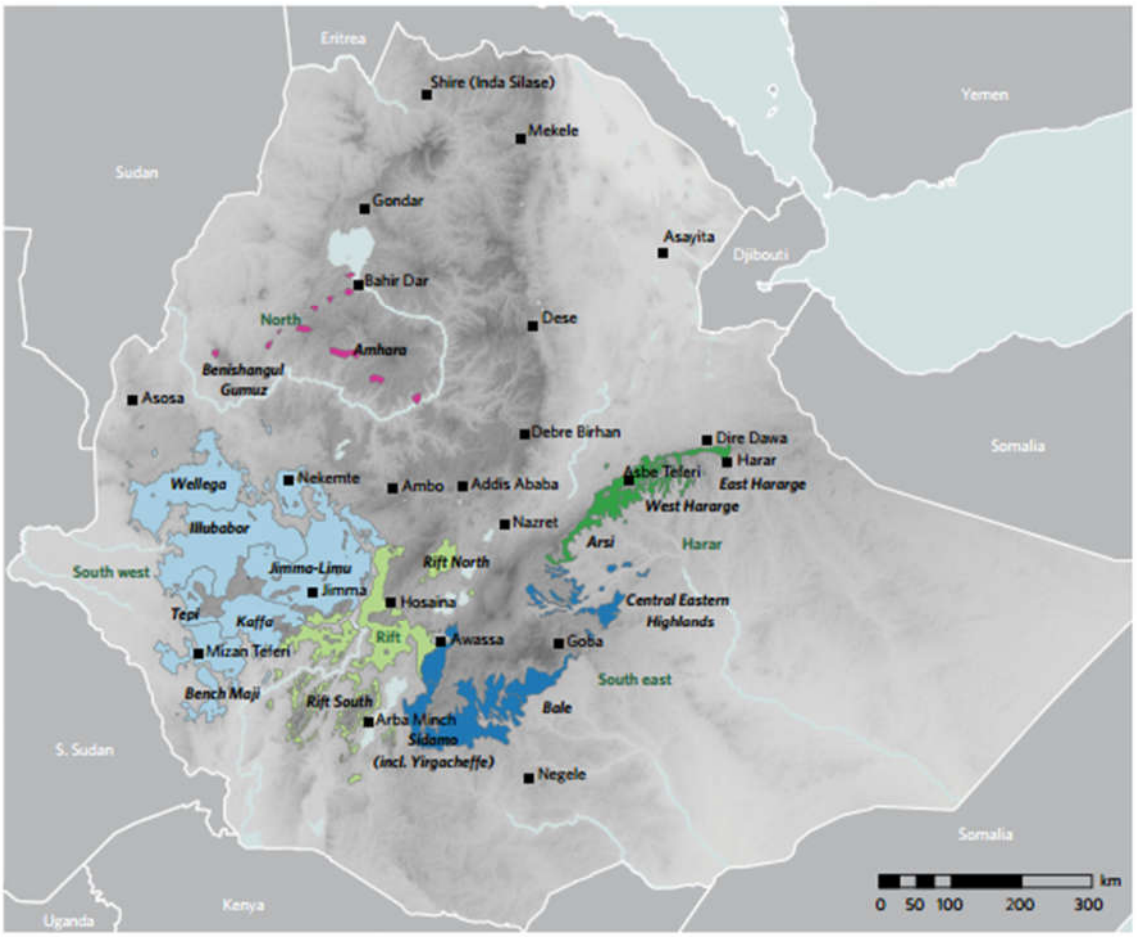

Figure 6: The main coffee growing zones and areas of Ethiopia.

The coffee zones represented by colored polygons: red/pink, North Zone; light blue, South West Zone; light green, Rift Zone; dark blue, South East Zone; dark green, Harar Zone.

Source*: ECFF (2017)*

Ethiopian Specialty Coffee

Ethiopian coffee has unique flavors: Spicy of Sidamo coffee, Winy of Limu coffee, Fruity of Nekemti Coffee, Floral of Yirgachefe Coffee, Mocha of Harar Coffee and many more. Detailed information on raw appearance, size, and taste of Ethiopian specialty coffee are presented below in Table 3. As shown in the table below, the raw appearance of Sidama specialty coffee is greenish small to medium size. The taste of this coffee is a spicy and flowery fragrance.

Table 3: List of Ethiopian specialty coffee

Brand Name	Raw Appearance	Size	Taste
Yirgacheffe	Bluish	Medium to Large	Flowery fragrance and lemony
Sidamo	Greenish	Small to Medium	The spicy and flowery fragrance
Harrar	Greenish	Small to Large	Mocha Fragrance
Limmu	Greenish	Small to Large	Spicy and Winery with Flower Aroma
Teppi(Highland)	Faded Greenish	Medium to Large	Spicy Fragrance
Tepi (lowland)	Faded Greenish	Medium to Large	Herbal
Bebeka	Grayish	Medium to Large	Herbal Flavor
Lekempty	Greenish	Medium to Large	Mild Fruity

Source: USAID (2011)

Production and productivity

Ethiopian coffee is cultivated in four distinct production systems. Forest Coffee is self-sown and grown naturally wild under full forest coverage mainly in southwestern Ethiopia, representing a tenth of total production. Semi-forest Coffee, also grown under the forest canopy in the same region has limited human intervention and accounts for a third of total production. Garden Coffee refers to the bulk of Ethiopian coffee (more than 50 percent). Grown by smallholder farmers it is inter-cropped with cereals, fruits, and vegetables, mainly in the southern and eastern regions. Finally, Plantation Coffee is grown on large state-owned or commercial farms, representing 5 percent of production. This cultivation system combined with the genetic wealth results in the production of a diversity of coffees, many with the potential to qualify as specialty coffees, by millions of small-scale producers. Coffee in other producer countries, in contrast, is mainly plantation or estate cultivated, with fewer varieties, and thus more homogenous (USAID, 2010).

Irrigation is mainly practiced in Amhara and Benishangul-Gumuz Regions, and the northeast part of Oromia Region in the Harar coffee zone. The use of chemical inputs, such as pesticides, fungicides, and artificial fertilizers is rarely practiced, and although certification is not common, Ethiopian coffee can often be considered as organic by default, and may indeed exceed the standards set for organic certification (ECFF, 2017).

Ethiopia ranks first in Africa and 6th in the world in coffee production (Figure 4) and is the ninth coffee exporter (Figure 5) about 238,465.55 tons in the 2017/18 production year. According to CSA, the total area under cultivation of coffee in Ethiopia is estimated at 725,961 hectares (Table 4 and Figure 7) with an annual production of 4,492,298.08 quintals and productivity of 6.19 quintals/ha in 2017/18 (Table 4). Even though, the total area covered with coffee is believed to be higher than what has been quoted.

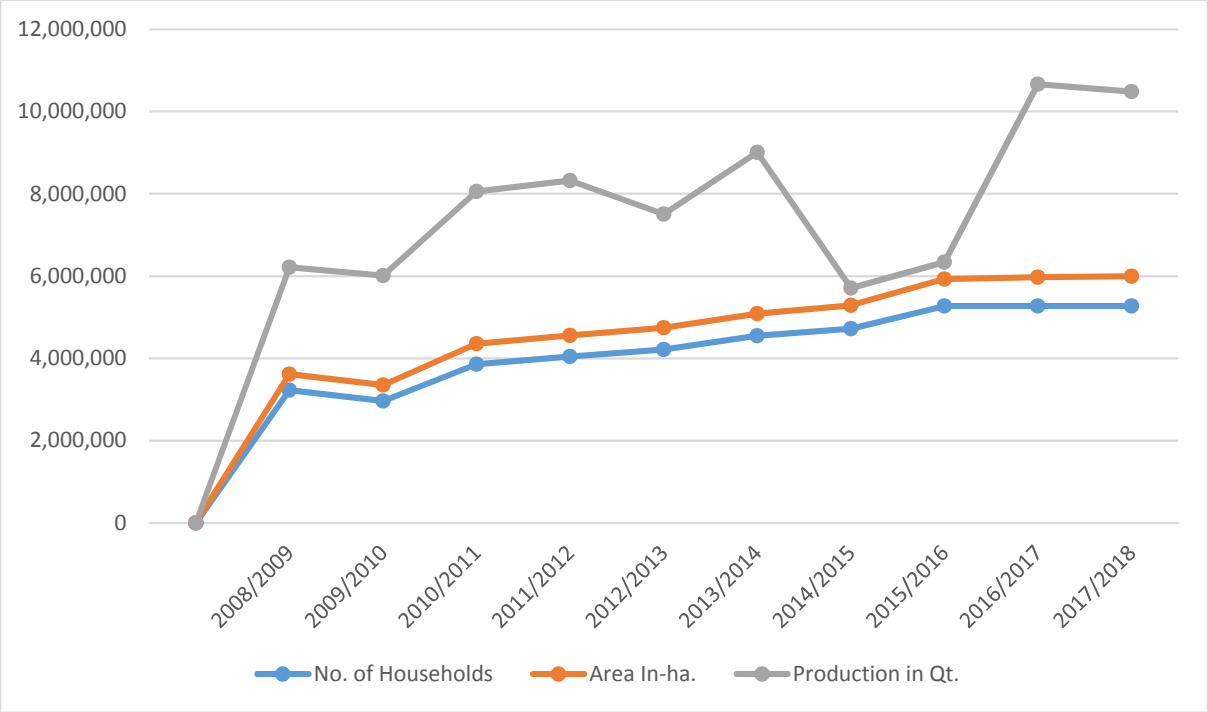

Figure 7: The production of Ethiopian coffee from 2000/01-2017/18.

Source: Source: CSA (2018)

The production of Ethiopian coffee has been constantly increasing since the 2000/01 harvest season (Figure 7). It is also believed that the surge in production is largely attributed to the increase in cultivated area from 250,000 ha in the early 2000s to roughly 725,961 ha in 2017/18.

Furthermore, a total of 5.2 million smallholders directly involved in coffee production, and about 15 million people directly or indirectly depend on the sub-sector for their livelihoods (CSA, 2018).

Table 4: Production, no. of household, area, and productivity of coffee in Ethiopia

Production year G.C	Production year E.C	No. of Households	Area In-ha.	Production in Qt.	Productivity Qt. per ha.
2008/2009	2000	3,223,355	391296	2,602,392	6.65
2009/2010	2001	2,959,093	395,003	2,654,693	6.72
2010/2011	2002	3,854,931	498,617	3,705,694	7.43
2011/2012	2003	4,042,234	515,882	3,768,231	7.3
2012/2013	2004	4,217,961	528,751	2,755,298	5.21
2013/2014	2005	4,546,785	538,466	3,920,062	7.28
2014/2015	2006	4,723,483	561,761	4,199,800	7.57
2015/2016	2007	5,270,777	653,909	4,145,960	6.3
2016/2017	2008	5,270,777	700,474	4,690,911	6.70
2017/2018	2009	5,270,777	725,961	4,492,298	6.19

Source: CSA (2018)

Coffee accounting for about 34 percent of the value of all exports in 2017/18. It also accounts 43 percent share on the value of Ethiopia`s agricultural exports and it has been generating export earnings of about US$ 838,152,167 in the 2017/18 and 882,473,754 in 2016/17 fiscal year (Table 5) to different counties and earned 838,152,167 USD.

Table 5: Six Years Coffee export

Production Year	Qt. (Ton)	Income(USD)	Number of active exporters
2012/13	199,001.12	746,126,067.10	203
2013/14	189,653.15	714,276,898.20	213
2014/15	183,781.23	780,026,897.53	240
2015/16	198,500.90	722,042,652.19	263
2016/17	225,667.67	882,473,754.48	277
2017/18	238,465.55	838,152,167.00	328

Source: MoT (2017 and 2019)

2.5 Empirical Evidence

2.5.1 Status of the Coffee Value Chain in Ethiopia

According to various literature (USAID, 2010; Teshale, 2017; Belay, 2017) in Ethiopian coffee value chain, the participants are numerous which include coffee farmers or state farms, primary collectors, suppliers, Miller/processors, ECX, service cooperatives, unions, exporters, consumers, and various governmental institutions.

As stated by USAID (2010) marketing of coffee starts on the farms by producers/farmers. Farmers are the main actors in the coffee value chain. They are involved in transporting their product to the purchaser's site or give information to collectors. The starting price for the red cherries is first announced by the washing stations owned by cooperatives or private individuals. Local collectors buy red cherries and send them immediately to washing stations. Since cooperatives are the owners of washing plants/station, they determine the starting price for a kilogram of fresh red cherries and are followed by private washing stations. The value addition and operational benefits in each stage of the value chain are determined in this study to identify possible intervention areas. This analysis was conduct only by considering the dry coffee export value chain from the area of coffee origin Keffa and Jimma.

Girma (2017) analyzed the performance of the coffee value chain in Ethiopia. This study indicated that Efficiency in production of coffee is still a drawback in value chain actors especially; farmers, due to high production costs like labor and investment costs that restrict Ethiopia's coffee production from reaching its maximum potential. Coffee production in Ethiopia is currently rainfed and labor-intensive. Higher possible coffee sales were not exhibited because of insufficient agronomic practices of coffee. The services provided by ECX also not reliable enough; there was also a lack of adequate support from non-government organizations in introducing innovations to improve production and marketing. Unavailability of government policy to create a conducive market structure was the main challenge in coffee-growing regions of Ethiopia.

As showed by Belay (2017), there is an increasing coffee production supply in the country and many actors are involved in the supply chain. However, Ethiopia is very slow in expanding and diversifying (in quality and form) and coffee exports to the world market. He concluded that there were less transparent and efficient operations in coffee marketing. Coffee quality problems occurred due to handling from harvest to the final point of sale. Almost all coffee is exported in

raw, there is little or no export of roasted coffee in Ethiopia that has additional value-added and is less promoted in the world market.

Alemayew (2014) assessed coffee production, processing, marketing, quality, pre, and post-harvest management practices with gender-based analysis. He concludes that women's participation in the value chain is low; to benefit them, it is essential to link women in the value chain.

Muhabie (2015) assessed the performance of coffee marketing of cooperatives in Yirgacheffe Woreda. He concluded that cooperatives in this Woreda have improvements from time to time; still, they are not financially strong enough. Distributing dividends, integrating smallholder farmers into a better market and the deployment of fair-trade premiums had recognized to be progressive and moderately successful as well.

Zinabu et al. (2017) also reviewed on coffee farming, production potential, and constraints in Gedeo Zone, Southern Ethiopia. This study showed that production and productivity were hampered by different constraints such as poor extensions services, limited access to market information, lack of physical infrastructure, lack of improved coffee variety, diseases and Pest. However, the high quality and demand of Yirgacheffe coffee on the world market, the coffee culture of the society, diversification of coffee processing industry, availability of network in a rural area, good indigenous knowledge on coffee production are the potentials of this area identified in this study.

Hiwot et al. (2017) assessed the challenges and opportunities of value addition in the Sidama coffee value chain. They concluded that the major challenges for coffee value addition were a disease, climate, theft, and capital. This study also stated the opportunities of the area; they are the availability of genetic diversity, convenient agro-climatic zone, indigenous knowledge, and known coffee brand at both the local and international markets. This study also recommends that agriculture office and research centers should focus on releasing new varieties, which resist the prevailing disease and they assign quality control experts to improve the quality of coffee and get a better price.

Teshale (2017) conducted a study on value chain analysis of coffee. The main opportunities identified in this study are availability of suitable agroecology to produce high-quality coffee, High

demand for natural Ethiopian coffee in importing countries, existence of coffee genetic diversities in nature to resist different risks, interest of the private investors in the sector, unexploited land and water resources and government and NGOs intervention to promote the subsector

He also identified the main problems faced in the coffee sector that is low-quality coffee production. Inadequate improved seedlings varieties, problem of pests and diseases, poor management practices (pruning, stumping weeding, fertilizing, moisture deficit from climate change, poor storage) and processing facility es for value addition and lack of infrastructure effects on-time delivery of the products are the core causes for low coffee quality production that outcome for low living standards of the coffee dependent society.

Beyenech (2017) also analyzed the coffee value chain in Yirgachefe farmers' cooperative union. Limited access to market, minimum financial ability to give credit for the members, inadequate coffee production, lack of processing equipment are the main constraints faced on farmers' cooperative union. She recommended that extension agents and government should increase their level of support for the cooperatives. Facilitate credit to their members and providing adequate modern processing machines that play a great role in the value-adding process of coffee are a possible solution to reduce the above-listed constraints.

Birhanu & Daniel (2013) analyzed the quality and value chain of Ethiopia coffee in a way to identify opportunities that maximize the benefit of the sector. As a result, he identified, the Ethiopian green coffee price in the international market is lower than other countries' prices. In addition, actors were not fairly priced because of quality and value addition. The causes for poor quality are mainly associated with harvesting and post-harvesting practice including collection, dry and wet processing, storage and transportation. He recommended that, in order to increase the share of the poor farmers as well as the countries share, the actors in the value chain (the primary processors, traders, and exporters) should jump into secondary processing.

Kassaye et al. (2018) assess the effects of cooperatives, certification, private trader, farmers, sorting and processing methods on Arabica coffee quality by experimental research method. This study, in general, showed that coffee beans managed by cooperatives had better quality scores than beans managed by private traders. Coffee certification, on the other hand, did not result in any quality improvement. Coffee beans from farmers, non-members of cooperatives had better quality than coffee beans of private traders. The study also revealed that the dry processing method

improved coffee bean quality and a high percentage of these beans fell under quality-1 grades than wash processing methods. Sorting of unripe and overripe coffee cherries also improved coffee quality and all sorted coffee samples of dry-processed coffee beans fell under quality-1 coffee. However, to enhance the coffee quality of dry processing method, proper coffee cherries e.g. ripe red and clean cherries need to be considered. With this challenge in mind, various literature suggests ways to forward the Ethiopian coffee industry. Such as increasing production/productivity and consistent quality through use of appropriate technologies and improved post-harvest technologies; Traceability and transparency along the value chain, better international promotion of Ethiopian coffee; Access to capital both for coffee purchase (working capital) and long-term investment; and Provision of special support to commercial coffee farms to enhance productivity as expansion.

The previous literature also suggested that to improve the coffee market and trade structure, the government could focus on the following measures. Improving the coffee grading system efficiency, ensuring a successful grading system between farm gate and wholesale, improving coffee quality and traceability as well as marketing system efficiency, creating a better connection between farm gate and exporters. Creating access to producers to get production technology packages like pruning, weeding, safe harvesting, drying coffee for right processing technologies as well as the promotion of product handling practices and value addition are measures to improve coffee sectors. In addition to these, the government should promote cooperative organizations to benefit from direct export opportunities from the market. There should be a clear policy to support the sector.

There is also a need for coffee quality inspection and certification activities, allowing and promoting private sector investors to participate in coffee plantations and processing. Promoting the best agricultural practices in harvesting and post-harvesting will increase the availability, quality, and consistency of supply in Ethiopia in the short term. Training in low productivity areas will help farmers collect sufficient coffees to have to leverage negotiation power with collectors and traders, thereby capturing better prices along the value chain.

2.5.2 Research Gaps

The literature shows that the concept of governance is fundamental in understanding these relationships, especially vertical relations. An important function of governance is reducing risk

in the transaction and bringing stability in relationships. Reduced transaction costs and risks provide incentives for the enterprise owners to upgrade their enterprises. Another important element in the chain governance is the 'power'. Empirical evidence suggests that power relationships among the value chain participants can significantly affect the firm's upgrading practices and competitiveness (Johnston et al., 2007). Value chain approaches consider the importance of upgrading as a source of competitiveness. Upgrading in the value chain is primarily attributed to the external linkages (Schmitz & Knorringa, 2000).

As shown by the literature, most of the coffee value chain studies focused on coffee farmer cooperative union, coffee market, coffee quality, constraints and exporter opportunities, the impact of production system on coffee quality, production constraints, potential, value-added challenges and chain performance in different angles. In addition to this, some of the researchers used participatory and market-oriented coffee products value chain approach. There was no empirical study conducted on upgrading and governance of coffee value chain in Ethiopia. However, what and how these dimensions are available for the coffee sector in Ethiopia has not been well examined. There is a need for a better understanding and identification of the coffee sector governance and upgrading to analyze the improvements and enhance its future performance. In this regard, value chain analysis is essential to explain the connection between all the actors in the coffee value chain of production and distribution as it shows who add value and where along the chain. In addition, going beyond the mere identification of commonly known value chain factors, understanding governance, and upgrading; and the extent of influence they put on the performance of coffee value chain was not among the topics the researcher came to read so far. In addition to these, no study has been conducted in Dale Woreda, Sidama zone, SNNPRS.

Therefore, according to the review, to improve the coffee value chain in Ethiopia, and to make the actors more benefiter, creating good governance, and improve upgrading between the value chain actors is very important. It is also important to increase coffee production, productivity, sales value and marketing by the international level. This study, therefore, tries to address the information gap on the upgrading and Governance of coffee value chain in Dalle, Sidama zone, Southern Nations Nationalities and Peoples Regional State (SNNPRS).

2.6 Conceptual Framework

A value chain comprises of all phases of a technical production process and of the interaction between these stages. The production procedure begins at the phase of input supply then covers production, processing, and marketing and ends with the consumption of a certain product. It can be seen as the hard skill of a value chain. The second part of a value chain, the interactions between the single stages, is the relationships and contractual linkages that not only determine the way the goods are traded between the different stages but are decisive for the overall character of the chain. The linkages between the stages leading to the supposed governance structure of a chain that can be viewed as its delicate expertise. Upgrading strategies in each stage is also the other aspects of the coffee value chain.

Besides, the framework helps in understanding the upgrading process and governance structures in the value chain of Ethiopia coffee. This includes different actors in either the national dimension or the worldwide dimension. The real driving factors in the local market is the profit margin, value-added practices, and security of income, while at the global markets more accentuation is on the nature of the quality of the products. Small producers need to follow these standards to get to the global markets. All things considered, income security and the profit margin are likewise the driving factors in the worldwide markets.

Poor quality and lower scale of production have been the factors hindering the poor farmers to reach the international markets easily while intensification and improved production level, upgrading activities in the suitable governance may help the farmers to have direct contact with the exporting markets. Also, it helps them to get a higher profit margin thereby improving their livelihood conditions. Figure 8 below depicts the conceptual framework of the study, which reflects the possible order of analysis of the coffee value chain. The methodology of this paper will be discussed in the next chapter.

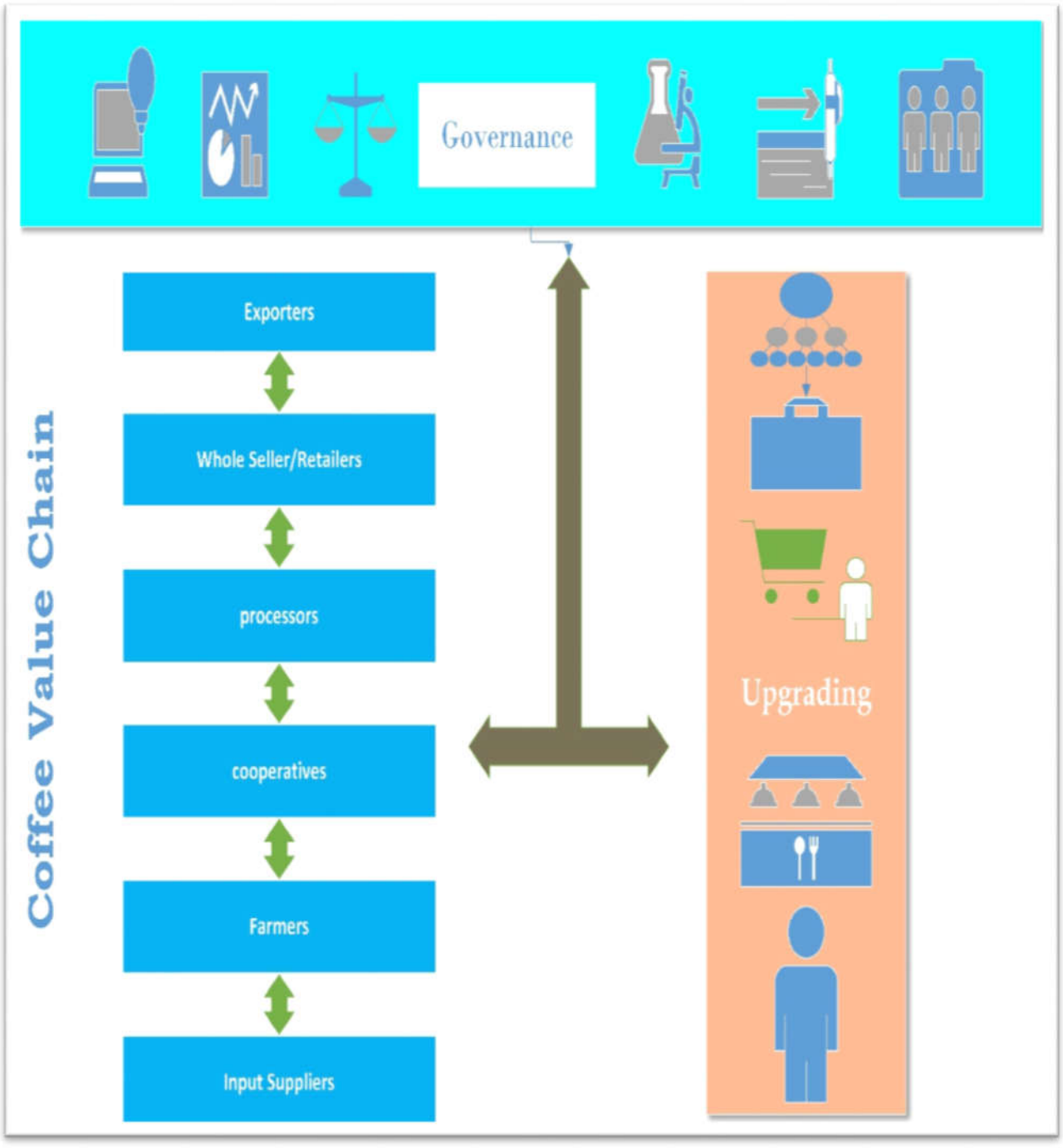

Figure 8: Conceptual Framework on Ethiopian Coffee value chain.

Source: Own illustration based on the literature and survey

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter describes the methodology and methods employed to address the research objectives and questions defined in chapter one. It is organized into five sections. The first section describes the location and population of the study area. The second section describes the methodological foundations of the study. The third section presents research design aimed at tackling the research questions. The fourth section discusses the research approach adopted for collecting and analyzing data, and the specific research methods used to collect and analyze data are detailed in the fifth section. The sixth section deals with validity, reliability and ethical issues and the final section contains the summary.

3.1 Description of the Study Areas

Dale is one Woreda of the Sidama Zone located in the Southern Nations, Nationalities, and Peoples' Region of Ethiopia (Figure 9). This Woreda is bordered on the south by Aleta Wendo and Chuko, on the west by Loko Abaya, on the northwest by Boricha, on the north by Shebedino, and on the east by Wensho. The major town in Dale Woreda is Yirgalem located 35km from Hawassa, the Regional and Zonal capital and 310km from Addis Ababa. Parts of Dale Woreda were separated to create Loko Abaya and Wensho Woredas. This Woreda has 36 Kebeles.

The elevation of this Woreda varies from about 1200 meters above sea level along the shores of Lake Abaya to about 3200 meters at its westernmost point. Rivers include the Gidabo. According to Dale Woreda Agricultural and Natural Resource Office, the survey of the land in Dale shows that 81.9% is arable or cultivable, none used for pasture, 2.7% forest, and the remaining 15.5% are considered swampy, degraded or otherwise unusable. Coffee is an important cash crop in Dale, with 14,762.1 hectares (80%) of land covered by this crop, which produced a total of 8,523754 and 21,068,722 kilograms of fresh cherry in 2017/18 and 2018/19 production year respectively. The other cash crops are corn, barley, haricot beans, local varieties of cabbage, and sweet potatoes.

According to Dale Woreda Agricultural Office, the coffee industry in this Woreda includes 57 coffee pulpers. Two micro-finance institutions operate in Dale: the Sidama Microfinance Institution SC (SMFI), established in 1998; and the Omo Microfinance Institution SC (OMFI), established in 1997. While OMFI is a regional organization, SMFI operates only in the Sidama

Zone. There are 8 coffee cooperatives in Dale, of which all are registered in accordance with the new cooperatives law, with about 29,295 members; all of them are members of the Sidama Coffee Farmers Cooperative Union.

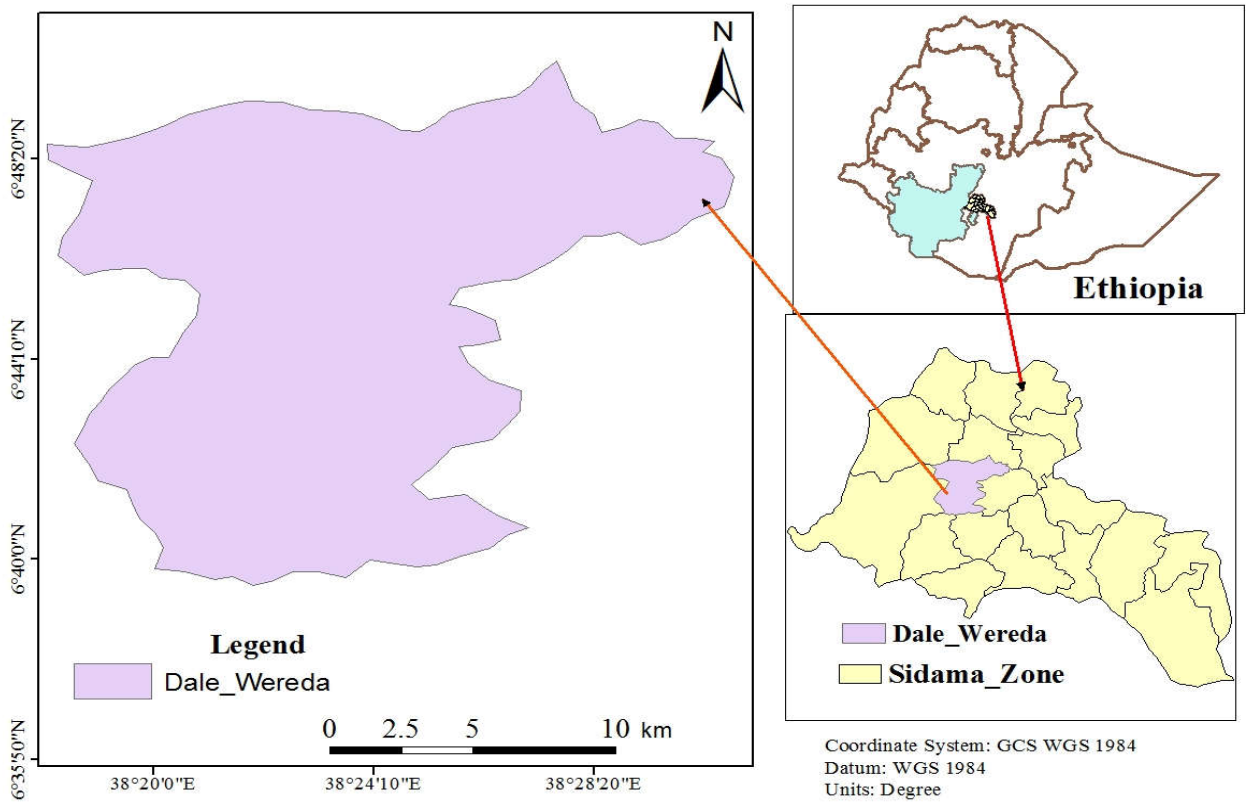

Figure 9: Study area map

Source: Adopted and manuplated from GADM (2018)

Population

Based on 2017 CSA population projection data, Dale Woreda has a population of 317,246, of whom 159,606 were men and 157,640 women; 64,507 or 20.3 % of its population were urban dwellers (CSA, 2013)

Based on the 2007 Census conducted by the CSA, this Woreda has a total population of 242,658, of whom 122,918 are men and 119,740 women; 30,348 or 12.51% of its population are urban dwellers. The majority of the inhabitants were Protestants, with 79.98% of the population reporting that belief, 8.04% practiced Ethiopian Orthodox Christianity, 4.69% were Muslim, 3.46% were Catholic, and 1.3% observed traditional religions (CSA, 2007).

3.2 Research Paradigms

In social sciences, research methodology is likened to a road map, or an overall sketch of the research process employed to deal with the research questions (Jonker & Pennink, 2010).). In an underlying research paradigm, an appropriate research methodology has its foundations that a researcher implicitly or explicitly attempts to solve the research problem (Blaikie, 2000). The researcher must, therefore, have conceptual clarity about the philosophical foundations of the research paradigm.

A research paradigm is a basic philosophy that guides a researcher to view, evaluate and interpret a situation, particularly a social phenomenon (Creswell, 2012). It is concerned with understanding the nature of reality and how to gain knowledge about it (Saunders et al., 2009). The philosophy of research paradigms is based on a hierarchy of three components – ontology, epistemology and methodology (Krauss, 2005).

Ontology is concerned with understanding the nature of reality, its constituents and their relationships (Blaikie, 2000; Creswell, 2012). Then, within a particular ontological perspective, epistemology refers to what constitutes acceptable knowledge (Blaikie, 2000; Saunders et al., 2009; Jonker & Pennink, 2010). Therefore, the ontological position of the researcher always leads to an epistemological stance. For example, an objective view of reality implying the existence of social phenomena independent of social actors leads to the use of quantitative methods and sources of knowledge. A subjective stance, on the other hand, might conclude that social reality is created by social actors and would lead to the use of empirical methods and knowledge sources (Saunders et al., 2009).

The ontological and epistemological stance of the researcher lays the foundation for the research methodology or the way in which knowledge is gathered (Krauss, 2005). Methodology deals with the logic of scientific inquiry and its underlying assumptions and limitations (Saunders et al., 2009). Thus, ontology, epistemology, and methodology shape and characterize various types of research paradigms. The literature on research methodology presents the following three broad types of research paradigms: positivism, constructivism, and pragmatism (Saunders et al., 2009; Jonker & Pennink, 2010).

A. Positivism

Positivists believe in the existence of a single reality in the form of objective truth, independent of its external environment or the perceptions of social actors (Gable, 1994). In social sciences, positivists pursue objectivism in inquiring into social phenomena through measurements and complete detachment of the observer from the reality being studied, in order to get neutral and unbiased results (Celo et al., 2008). This school of thought advocates the use of a deductive approach for cause and effect measurement by employing quantitative methods (Sale et al., 2002). Positivist critics see the total isolation of a researcher from social reality as a major weakness of this paradigm and argue that an accurate insight into any social phenomenon can not be obtained without the participation of the researcher. However, a major strength of positivism is seen in its ability to generalize findings to a larger population.

B. Constructivism

Constructivists or qualitative purists claim that reality has multiple faces, interrelationships, and interdependencies that can be interpreted through different mental constructs being created. (Maxwell, 2013). Constructivist research is by definition subjective and cannot be accomplished without incorporating the perspectives of all stakeholders in tackling a problem (Jonker & Pennink, 2010). This approach urges the complete involvement of the researcher in the social inquiry so as to generate a thick and rich understanding of reality (Celo et al., 2008). This school of thought finds inductive approaches and qualitative research methods appropriate to gain insight into research problems. The major strength of this approach is that it leads to a deep understanding of a research problem in a particular setting because of the close interaction of the researcher with the phenomenon (Baxter & Jack, 2008). However, the constructivist approach is criticized for its limited ability to generalize and the low predictive power of research findings.

C. Pragmatism

Pragmatists believe that both positivism and constructivism have certain limitations and strengths in their approach to viewing and understanding reality (Johnson et al., 2007). They argue that researchers should be pragmatic and utilize the strengths of both philosophies is to effectively address a research problem (Jeanty & Hibel, 2011). In their view, researchers need neither to remain detached nor to become fully a part of the research problem (Creswell & Poth, 2017). This

school of thought advocates mixed research methods (Denscombe, 2008). The use of this approach is very common in recent research studies.

This study's research paradigm

To analyze how the industry should be sustainably developed is a complex undertaking, due to interrelationships among stakeholders in the agriculture sector with the economy, society and the environment (Notarnicola et al., 2012). This suggests that it is possible to view agricultural development as a multiplicity of realities, with multiple relationships among its various dimensions (Baumgärtner & Quaas, 2010). Sustainable agricultural growth can, therefore, be seen in ontological terms as having more than one absolute reality; it can be considered as having several aspects that can be measured (Blaikie, 2000). Based on this ontological position, it can be reasoned that both objective and subjective information and sources of knowledge are epistemologically valid. That is, both qualitative and quantitative data are required, and should supplement each other, for a richer understanding and assessment of the dimensions of value chain development. For example, in order to examine governance within the chain, ideas about the distribution of income (quantitative data) and their underlying causes (qualitative data) are equally important. Given these perspectives, a pragmatic paradigm has provided the foundations for this study. It employs a case study research methodology and adopts mixed research methods to generate both quantitative and qualitative data, as advocated by Saunders et al. (2009).

3.3 Research Method

The literature suggests a wide range of research methodologies, such as case studies, surveys, simulations, field experiments and action research (Saunders et al., 2009). The agricultural value chain is a multidimensional and complex issue requiring in-depth exploration, so case study methodology was considered appropriate for this research with the context of a developing country. This approach will effectively deal with the study's research questions. For these reasons, a case study-based approach was well suited to the task of addressing the research problems of this study.

This study focuses on the case of the Ethiopian coffee industry. This sector was chosen as the case or unit of analysis because of its importance in the socio-economic development of the country, as explained in chapter one. This study aimed to capture the governance and upgrading of the coffee sector by focusing on major chain actors, includes input suppliers, farmers, processors, cooperative

union and exporters. NGOs, government organizations, research institutions, and other key stakeholders were included based on their importance to collected data on governance and upgrading issues.

3.4 Research Design and Approach

The study followed a descriptive and exploratory research design; the need to describe, analyze upgrading and governance in coffee sector and to depict study participants (value chain actors) in an accurate manner in order to provide an understanding of what exactly takes place at each node of the coffee value chain, and by which actors (participants).

Creswell (2009) suggests that analysis using a mixed approach is an inquiry technique that incorporates and blends qualitative and quantitative forms. Mixed methods (triangulation) uses as a quality control criterion that enables the study to obtain different views on the same research field and to compare the results. Whereby the qualitative and quantitative data can be merged into one large database or the results can be used side by side to reinforce each other, where qualitative materials support the quantitative results. This study was conducted based on a mixed approach.

3.5 Source of Data and Data Collection Techniques

3.5.1 Source of Data

Data required for this study were collected from primary and secondary sources. Published and unpublished Secondary were supported by the findings of primary data. This study employed various data collection techniques. These included questionnaires, in-depth interviews, focus group discussions and documents.

I. Primary Data

For this study, primary data were collected at each of the surveyed value chain stages (i.e. Coffee farmers, processors, cooperatives, and exporters) through a questionnaire, interview and focus group discussion. Inaddition to this, primary data was collected from farmer groups, processors, traders, government officials, and NGOs through interview and focus group discussions (Farmers).

II. Secondary Data

In order to support the efforts of primary data, published and unpublished data sources related to the Coffee value chain were collected and analyzed. These data were collected from Central

Statistics Agency (CSA), Ethiopia Commodity Exchange (ECX), Coffee and Tea Development Authority, International Coffee Organization (ICO), Local, Regional and National Agricultural Authorities, Federal Negarit Gazeta, etc.

3.5.2 Data Collection Techniques

Relevant data was collected through survey, indepth interview and focus group discussion.

A. Survey

Survey is particularly effective when the purpose is to obtain specific numeric information about trends, opinions, attitudes, and liking or disliking something from a relatively large number of respondents in a short time (Creswell, 2009). The instrument of a survey is a questionnaire that contains a set of questions, statements, scales and ranks relevant to the phenomenon under investigation (Stake, 2001). In this study, a survey was conducted to collect specific information on a questionnaire from 214 farmers (producers).

The researcher produced and distributes questionnaires. Originally, the questionnaire was prepared in English. Because of the fact that the majority of the respondents can speak Amharic language, so it was translated into the Amharic language to make the questionannre more undurtandable. The researcher also hired 4 data collectors.

B. In-depth Interviews

An in-depth interview is a purposeful discussion between a researcher and a respondent that provides direct access to deep, reliable and valid information related to research objectives (Saunders et al., 2009). According to Stake (2001), interviews are conducted to acquire unique information held by the interviewees that the researcher cannot glean by any other means.

Semi-structured in-depth interviews were employed in this study to seek information from 8 growers, 5 private processors (Suppliers), 2 cooperatives, 1 cooperative union, 5 exporters, and 7 stakeholders. Separate topic guides were prepared for different stakeholders by reviewing relevant literature before conducting the interviews. All of the interviews were recorded.

C. Focus Group Discussions

Focus group discussion is a technique for obtaining qualitative information from a group of people. Its main purpose is to collect information about a specific topic or topics (Saunders et al., 2009). Focus groups are considered as an effective tool when seeking an in-depth understanding of the dynamics involved in a complex phenomenon such as chain behavior (Krueger & Casey, 2015). Purposefully selected people are assembled to discuss an issue under investigation and the researcher acts as a moderator to guide the discussion (Creswell, 2009). Through free and interactive discussion, the participants express and reshape their opinions, attitudes, and beliefs and share their experiences (Halcomb et al., 2007).

In this study, Focus group discussions were carried out with 2 farmer groups each containing 5 people. These groups were selected from two kebeles. to explore their governance and upgrading situations. Two discussions were held with each group. A topic guide was prepared after reviewing relevant literature, to conduct these discussions.

3.6 Sampling Techniques and Sample Size

3.6.1 Sampling Techniques

The target population of the study was major actors (i.e. Coffee farmers, processors, cooperative unions, and exporters) which have direct involvement in the coffee value chain in the study area. This study employed a multi-stage sampling procedure. In the first stage, Dale Woreda has been selected purposively for the following reasons.

- It is the most organic (Sidama) specialty coffee producing area
- It has a high potential for coffee production
- Most value chain activities are taking place there.

In the second stage, two Kebeles (Goyda and Jula) were selected purposively based on area coverage and the number of farmers. To get representative information, respondents from two kebeles (coffee farmers) were selected by a systematic sampling technique.

In Ethiopia, detailed information relating to the numbers and activities of chain participants in the coffee industry are not available. This is true to all stages of the chain: processors, exporters, agents, and input suppliers. Therefore, a 'snowball sampling' technique (non-probability sampling, wherein there was zero probability of some of the population being selected in the sample) was

employed to identify and contact respondents (Mabuza et al., 2013). Snowball sampling identifies respondents through initial contact with one respondent who refers the researcher to others, and so on (Saunders et al., 2009).

This technique was employed in this study to identify private processors, cooperatives, exporters and cooperative union. Other stakeholders were interviewed last when an appreciation of the issues had been gained through interviews with chain participants.

3.6.2 Sampling Size

For this study, the total sample size for sample actors was determined based on the sampling formula provided by Yamane (1967). The formula used for sample size determination with 95% confidence level, 0.5 degrees of variability and 9% (0.09) level of precision is:

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

Where

n - *The sample size,*
N – *Population size*
e – *Level of precision*

According to Dale Woreda Agricultural and Natural Resource Office, there were 1316 coffee farmers in Goyda and 559 in Jula, which were the study population for the household survey. In this study, both quantitative and qualitative data were collected in order to deal with the research questions. These data were collected through questionnaire from 214 coffee producers in Goyda and Jula Kebeles (Table 6).

Table 6: Sample distribution of coffee producers in selected kebeles

No.	Kebeles	Total number of coffee producers	Number of sampled households
1	Goyda	1316	113
2	Jula	559	101
	Total	1875	214

Source: Dale Woreda Agriculture and Natural office (2019)

Qualitative data were collected from two farmers group through focus group discussions in which a total of 10 coffee producers took part. Qualitative data were generated through in-depth interviews with chain participants such as farmers, processors, cooperatives, cooperative unions, exporters and other stakeholders. The distribution of the participants around the study site was based on their linkage with coffee producers. The composition of the sample is shown in Table 7.

Overall, a sample of 252 respondents, comprising 10 farmers were in focus group discussion, 8 farmers were interviewed, 214 surveyed coffee producers, 13 chain participants, and 7 stakeholders were considered to address the research questions. Other factors that were considered in deciding upon this sample included the availability of time, financial resources and discussions with the academic advisor.

Table 7: Composition of the selected sample

Case study participants	Data collection method	Total respondents	Provincial distribution		
			Dale	Hawassa	Addis Ababa
Coffee farmers	Survey	214	214	-	-
Coffee farmers	Focus group Discussion	10	10	-	-
Coffee farmers	In-depth interviews	8	8	-	-
Cooperatives	In-depth interviews	2	2	-	-
Private processors	In-depth interviews	5	5	-	-
Cooperative Union	In-depth interviews	1	-	-	1
Exporters	In-depth interviews	5	1	-	4
Stakeholders(GO,NGO)	In-depth interviews	7	3	1	3
	Total	252	243	1	8

Source: Field Survey (2019)

3.7 Methods of Data Analysis

Data from survey were entered and analyzed using Statistical Package for Social Science (SPSS Version 20). Detection and removal of errors and inconsistencies were corrected to improve the

data quality. The study has employed descriptive statistics and thematic content analysis to generate research findings from the collected data. These techniques are discussed below.

A. Thematic Content Analysis

In this study, thematic content analysis was applied to qualitative data collected by survey, focus group discussions and in-depth interviews with value chain participants and other stakeholders. Important themes relating to governance, upgrading strategies, opportunities, and constraints were analyzed. These themes are important in understanding the underlying structure, performance and their relative importance at different stages of the chain. These ultimately led to the development of options for improving value chain performance so as to move towards sustainable development in Ethiopia's coffee sector.

Thematic content analysis is a well-established and widely used technique in qualitative research, particularly in case study methodology (Hsieh & Shannon, 2005). It involves the extraction of themes or categories from the data and then using these to explain phenomena under investigation (Fereday & Muir-Cochrane, 2017). This technique was used to analyze written and visual data and is a significant help in summarizing data related to particular themes and contents (Hsieh & Shannon, 2005). A major advantage of this technique is that it unearths silent themes at different points in the data.

B. Descriptive Analysis

The quantitative data obtained from survey were analyzed quantitatively by using both descriptive and analytical statistics. Simple statistics like sum, mean, relative frequency, maxima & minima and standard deviation were used for descriptive analysis of socioeconomic and farm characteristics of the respondents like family size, age, gender, occupational pattern, landholding size, economically active population, production, price, etc. Moreover, various graphs and charts were made by using relevant tools of MS Excel 2016.

C. Value Chain Mapping

Value chain map is a graphical depiction that displays the main players and their relationship together with the sequence of activities involved in the value chain. In order to show the link and operation of the chain from input supply to processing and marketing, it applied both qualitative

and quantitative methods (UNIDO, 2009). In order to understand the stages of the value chain players and the interrelationships among them, the value chain map of coffee sub-sector was prepared to make the chain easily comprehensible.

The functional analysis provides a detailed profile of the structure of the industry by identifying describing and quantifying the sequence of operations related to commodity production, processing marketing and final consumption in physical terms (Bellu, 2013). The main activities of agents were identified through functional analysis. Functional analysis was used to draw the value chain flow chart. It is useful to illustrate and report information regarding the physical flows of the commodity at different stages of the chain (Bellu, 2013). The value chain flow chart also prepared by Visio 2013.

3.8 Validity, Reliability and Ethics

Scientific inquiries should be conducted in a way that generates results that are both trustworthy and reliable. Issues relating to the validity, reliability, and ethics of this study were dealt with in the following way:

3.8.1 Validity

In this study, the validity issue was addressed by using a mixed-methods approach. The study employed focus group discussions, surveys and in-depth interviews for data collection. Relevant documents were also scanned to cross-check the study's findings.

3.8.2 Reliability

Due attention was paid to the reliability issue in this study. In sample selection, efforts were made to include representation from all categories of chain participants in order to enhance the reliability of the study.

3.8.3 Ethics

Social and business ethics were given the utmost consideration while approaching and seeking data from respondents. In the sampling procedure, only willing respondents were included and they were taken into full confidence by disclosing the purpose and nature of the study. The confidentiality and privacy of their responses also assured. The overall research design of the study is illustrated in Figure 10.

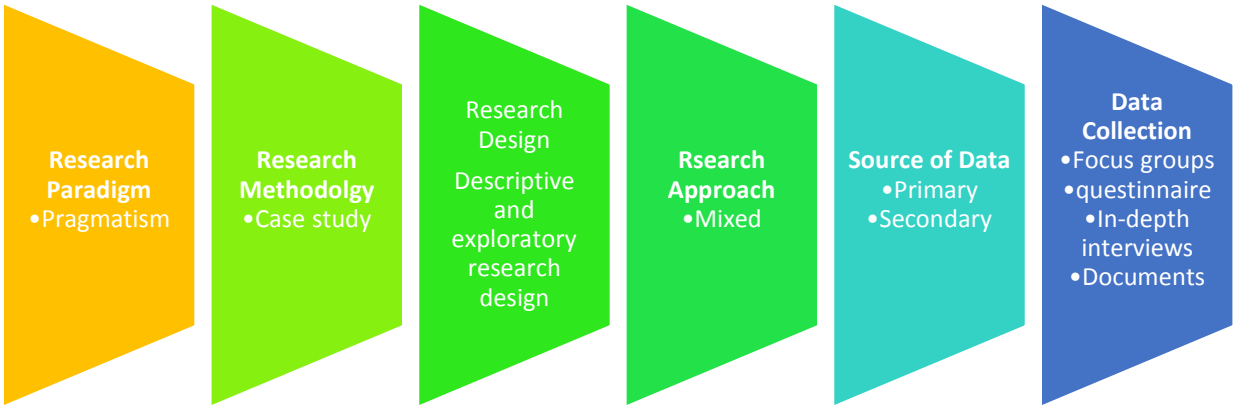

Figure 10: The research design of this study

Summary

In this chapter, the research methodology for investigating the research problem was described. The methodological foundations of the study rested on a pragmatic approach to reveal the realities of the problem. Considering the complex nature of sustainable development, a case study approach is believed to be the appropriate methodology. The coffee value chain was served as the case under study and chain participants and other stakeholders were selected as a case participant. Data were collected through focus group discussions, surveys, and in-depth interviews. Descriptive statistics and thematic content analysis were used to analyze the data and generate research findings. Adequate measures were used to ensure the study's validity, reliability, and ethical standards. The data collected by questionnaire, in-depth interview and focus group discussion will be analyzed and discussed in the next chapter briefly.

Tabular summary

Table 8: Tabular summary

NO.	Objectives	Methods of data collection	Target population	Sampling techniques	Method of data analysis
1	To identify the actors involved in the coffee supply chain	▪ Questionnaire ▪ In-depth interviews	▪ Farmers ▪ Cooperative ▪ Processors ▪ Exporters ▪ Stakeholders(GO,NGO)	Multi-stage sampling ▪ Purposive sampling ▪ Systematic sampling ▪ Snowball sampling	▪ Descriptive analysis
2	To examine the opportunities and constraints for upgrading the coffee value chain	▪ Questionnaire ▪ In-depth interviews ▪ Focus group discussion ▪ Documents	▪ Farmers ▪ Stakeholders(GO,NGO)	Multi-stage sampling ▪ Purposive sampling ▪ Systematic sampling ▪ Snowball sampling	▪ Descriptive analysis ▪ Thematic analysis
3	To investigate the governance structure of the coffee value chain.	▪ Questionnaire ▪ In-depth interviews ▪ Focus group discussion	▪ Farmers ▪ Cooperative ▪ Processors ▪ Exporters ▪ Stakeholders(GO,NGO)	Multi-stage sampling ▪ Purposive sampling ▪ Systematic sampling ▪ Snowball sampling	▪ Descriptive analysis ▪ Thematic analysis

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

This chapter presents the findings of the research. It is organized into four sections. The first section presents an overview of the socio-economic and demographic situation of the respondents. The second section identifies the main actors and their function in the coffee value chain. The third and four sections also present the findings on upgrading and governance in the coffee value chain.

4.1 Socio-economic and Demographic Analysis

4.1.1 Age and Gender of the Respondents

With respect to gender, 82.2% of the respondents were male and only 17.8% were female. The age distribution of the respondent by gender is presented in Table 9. The average age of the male respondent was 52.7 with maxima 73 and minima 18. Similarly, the average age of the female respondents was 45.8 with a range of 34 to 62.

Table 9: Age distribution of respondents by gender

Characteristics	Gender	Mean	Minimum	Maximum
Male	82.2%	52.7	18	73
Female	17.8%	45.8	34	62
Total	100%	49.25	18	73

Source: Field survey (2019)

4.1.2 Age Distribution and Family Size

The sampled population was classified based on three age groups: i) less than 15, ii) between 15 to 59 and iii) greater than or equal to 60. The government of Ethiopia has identified the second age group (15 to 59) as the economically active population.

Family size and age distribution of household members by gender are presented in Table 10. From the table, it is clear that 46% (male 20.5% and female 25.5%) were economically active population. The average family size of the coffee producers was 5.7.

Table 10: Family size and age distribution of household family members by gender

Age categories	Frequency	Percent
<15	221	18.1
15-59	250	20.5
≥ 60	43	3.5
<15	330	27.1
15-59	311	25.5
≥60	65	5.3
	1220	100

Source: Field survey (2019)

4.1.3 Ethnicity of Respondents

With respect to ethnicity, the majority of the respondents were Sidama (92.2%). It was followed by Amhara (4.3%), Oromo (1.6%) and others (1.9%). The ethnic composition of the sampled households is presented in Table 11.

Table 11: The ethnic composition of the sampled households.

Ethnicity	Frequency	Percent
Sidama	198	92.2
Amhara	9	4.3
Oromo	3	1.6
Others	4	1.9
Total	214	100

Source: Field survey (2019)

4.1.4 Education Level

In the study area, 24.4% of the respondents were illiterate. Only 22.5% of them had a secondary school certificate. The percentage of respondents who went to school for 1-4 years (first cycle) and 5-8 years (second cycle) was 7.9% and 45.2% respectively. The majority of the respondents have attended the second cycle of elementary school. The educational level of the respondents is illustrated in Figure 11.

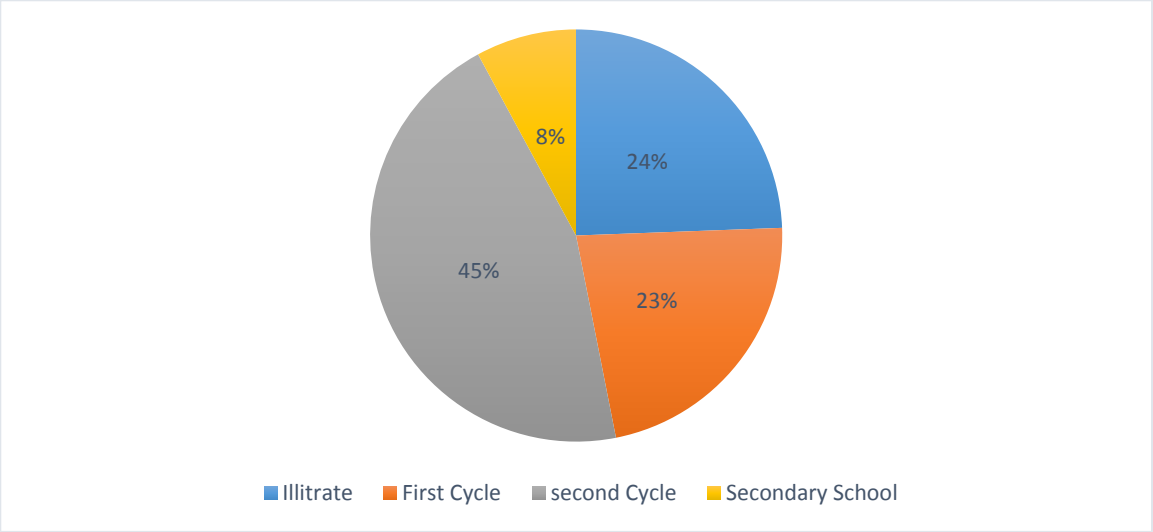

Figure 11: The education level of respondents

Source: Field survey (2019)

4.1.5 Occupation Besides Coffee

The majority of the sampled households cultivate coffee and others crops (83.7%), growing other crops besides coffee, as illustrated in Figure 12. 5.7% and 5.5% of the respondents respectively had some other business and engaged in service as well. The rest 5.1% only had multiple businesses. This indicate that, none of farmers were cultivate coffee only.

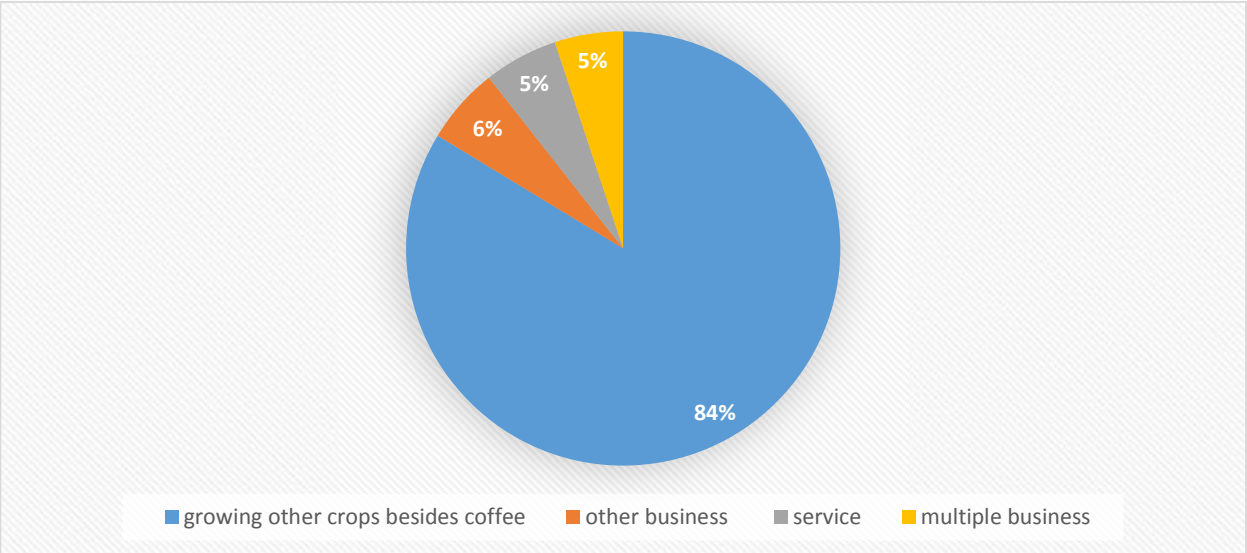

Figure 12: Occupation of household besides coffee farming

Source: Field survey (2019)

4.1.6 Involvement in Farmers' Organization

Getting the membership of farmers' organization influences the production process and marketing of coffee growers. The situation of farmers' group involvement is illustrated in Figure 13. The majority of the coffee farmers in the study area were organized in one or the other farmer's organizations. About 82 % of the coffee farmers were members of farmers group (cooperative) and 12 % had a private company, only 6 % had no membership. In the study area majority of farmers were organized in farmers' organization.

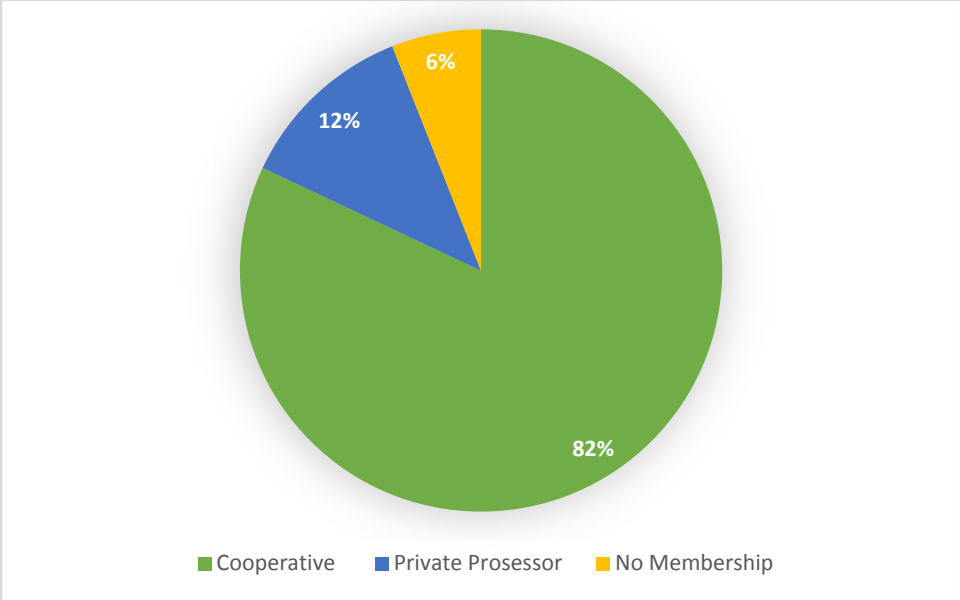

Figure 13: Membership of farmers' organization

Source: Field survey (2019)

4.1.7. Average Land Holdings of Sample Farmers

The size of the landholding is one of the important factors for determining the economic status of farmers. It is an indicator of the flow of human labor into agriculture. It is clearly seen from Table 12, there is inequity in the distribution of landholdings across different categories of farmers. The average landholdings range from only 0.26 hectares in the case of smallholder farmers to 3 hectares in medium holder farmers. Further, all of the farmers had rain-fed land. However, out of the total sample farmers, the majorities were smallholders (83 percent), and the rest were medium holders (17 percent) farmers.

Table 12: Classification of sample farmers according to farm size

Landholding	Farmers n=214	Irrigated area (ha.)	Rain-fed area (ha)	Total average area (ha.)
Small (< 1 ha.)	178(83%)	0	0.52	0.52
Medium (≥ 1 ha.)	36(17%)	0	2.9	2.9

Source: Field survey (2019)

4.1.8 Access to Training and Technical Service

Agricultural Offices, Starbuck, TechnoServe, Jimma National Coffee Research Center, processors, and buyers have been providing training and technical service to the coffee farmers. But there is variation between them. It is clear that 74% of the respondents said that they had received training in coffee production but only 42% of them said that the training is sufficient. Similarly, 72% of the respondents said that coffee technicians do pay a visit to their coffee farm. The average number of visits made by coffee experts was 0.83 times a year (SD=4.9). Most governmental officers visit high producer farmers up to 10 times per year. It shows that the coffee farmers in the survey area have access to training and technical services.

4.2 Value Chain Analysis of Coffee in the Study Area

4.2.1 Value Chain Mapping

The major actors of the coffee value chain were input suppliers, coffee producers, collectors, processors/cooperatives, exporters, cooperative unions, importers, domestic wholesalers and customers. The enabling environment providers were governmental organizations, NGOs, financial institutions, research institutions, development agencies, etc.

The value chain mapping of coffee in the study area is illustrated in Figure 14, which shows the interrelationship between the actors, their functions and the institutions, providing the enabling environment at each level. The functions of each actor are described below.

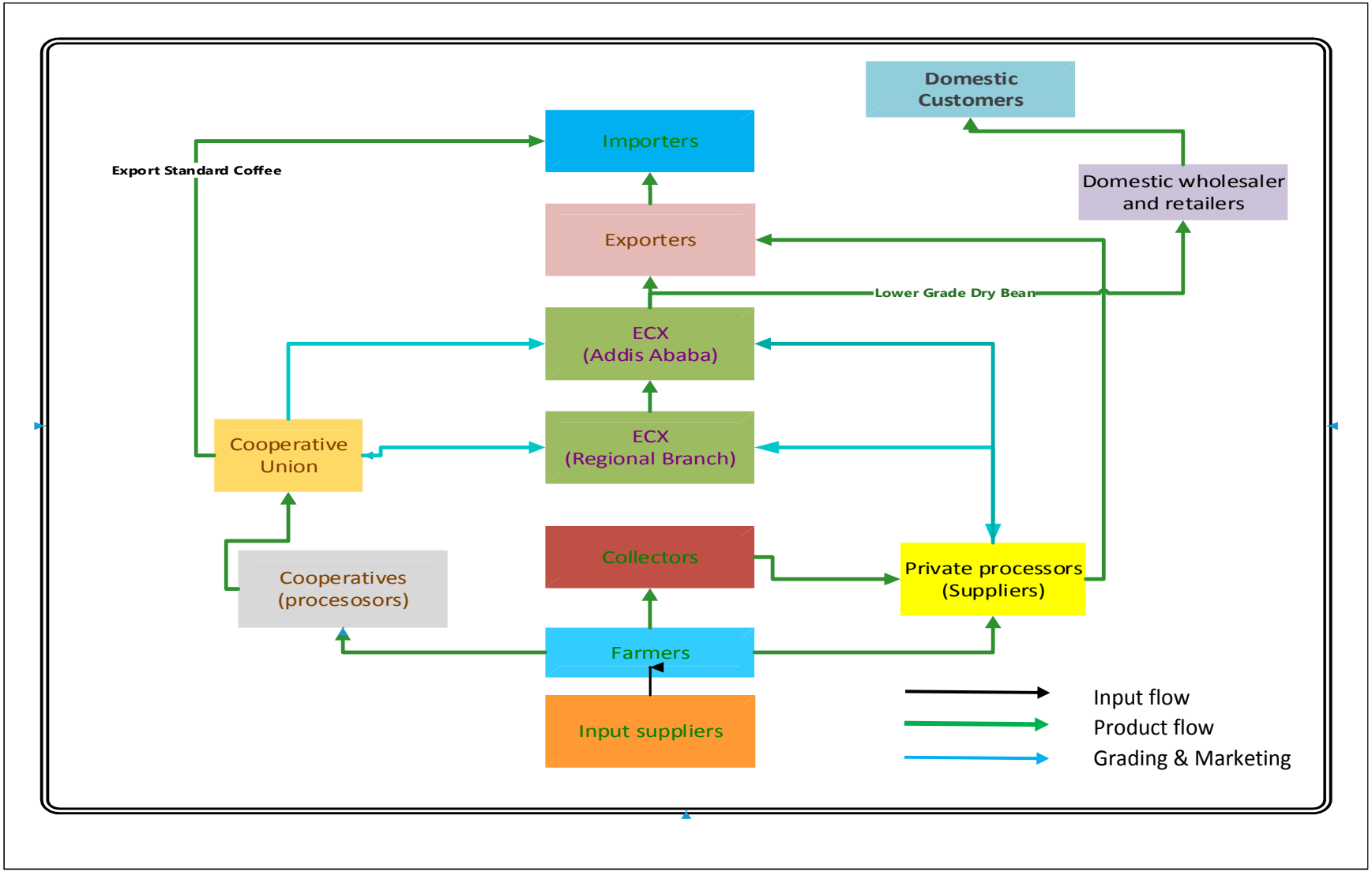

Figure 14: Value chain map of coffee in the study area

Source: Own illustration based on survey data

4.2.2 Functions of actors and their capacity

4.2.2.1 Input Suppliers

The major inputs used in the coffee farm are compost, seed/seedling, and tools and equipment. The source of these inputs is illustrated in Figure 15. For compost, a majority (182 out of 214) of the coffee farmers prepare and use from their own yard. Jimma National Agricultural Research Center, farmers, NGOs, agricultural office and processors provide seeds/seedlings to coffee farmers. Tools for pruning like pruning knife, saw, and secateurs and also provided by processors and purchased from local markets.

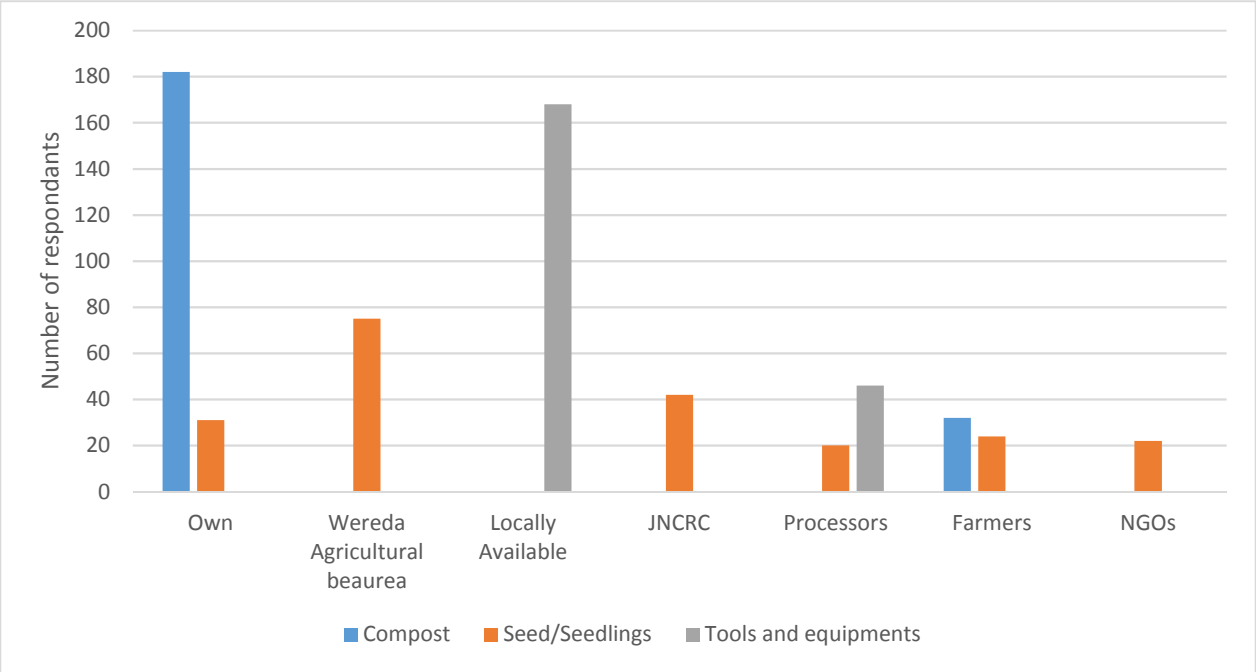

Figure 15: Source of input supplies in the coffee farm

Source: Field survey (2019)

4.2.2.2 Coffee Producers

Coffee producers refer to those actors who have coffee plants and harvest fresh cherry. Producers send the fresh cherry for primary processing within 24 hours of harvesting in order to maintain quality. Some middle-scale farmers were equipped with processing facilities. They collect fresh cherry from other farmers and from their farm. The value chain of such a producer was short. On

the other hand, the value chain of smallholder farmers is much more complex as illustrated in Figure 14. Smallholder farmers have three options to sell their fresh cherry. i.e. i) Local collector, ii) Primary Coffee Cooperatives and iii) Private processors

Figure 16: Fresh cherry supplied to processors

4.2.2.3 Collectors

Primary coffee collectors are traders that purchase coffee from individual farmers. They play an essential role of bringing coffee from very remote areas to the market. They have no warehouses of their own and therefore immediately transfer the coffee to suppliers. More often, they have no warehouses of their own and, therefore, immediately transfer the coffee in their possession to processors. They are little in number. A large amount of fresh cherry is collected by cooperatives and private processors. The collection status of fresh cherry produced by coffee farmers is illustrated in Table 13.

Table 13: The collection status of fresh cherry produced by coffee farmers

Type of collector	Frequency	Percent
Cooperative	103	48
Private processors	58	27
Cooperative and private processors	32	15
Local collector and cooperatives	21	10
Total	214	100

Source: Field survey (2019)

From Table 13 above, it is clear that 48% of farmers sold their fresh cherry to the collection center of cooperatives, which also had pulping facilities. About 27% of the farmers sold fresh cherry directly to the private pulper operators. 15% of respondents sold their product for private and cooperative and only 10% of the farmers sold to local collectors and cooperatives who eventually sell it to private processors. This implies that almost half of the product is collected by cooperatives.

4.2.2.4 Processors

Based on field survey, two types of processors were identified in the study area. They are primary cooperatives and private processors.

A. Primary Cooperative

They harvest fresh cherry coffee from member farmers in village growers and carry out some processing tasks like washing pulping, sorting. Dry parchment can be stored for a few months before it is transferred to the secondary processing facilities. Cooperatives only sell it to their respective unions.

B. Private Processors (Suppliers)

Private processors do the same processing techniques. But, some are selling their product to exporters through ECX or directly export to the foreign market.

Figure 17: Washing station of processors

Source: Field survey (2019)

4.2.2.5 Cooperative Unions

Cooperative union collects parchment coffee from primary cooperative members in bulk and add value to the product through hulling/processing, clearing, and sorting. Finally, further processed coffee packed, transported to their warehouse and make ready for the export market. Based on interview with marketin expert of SCFCU, cooperative sell directly to the international market and the lower grade coffee also sells to domestic wholesalers through ECX. The coffee unions contact to ECX for grading coffee and follow the rules and regulations of the government of Ethiopia. In addition, cooperative Union plays a significant role in the area of market linkages with international traders, collateral for cooperatives, and technical support to other cooperatives and represents members in the marketing process as well.

Speciality coffee and high grade washed/unwashed coffee are the export standard product for the international market. However, for the domestic market, the lower grade green beans sell to domestic wholesalers.

4.2.2.6 Exporters

After all the coffee production and processing activities are finished, it is exported to the international market by exporters. Exporters are found in Addis Ababa central market who received coffee from producers, private processors, to sell it to the international market. These exporters bought the coffee from the central auction market through ECX or directly from private processors. These coffee exporters do not get any coffee from the state producers, because state farm producers export coffee to foreign markets by themselves. Exporters play a significant role by searching a foreign market through the linkage they have with the importers outside the country.

The higher graded export standard dry parchment and sun-dried coffee are processed by exporters to produce final or intermediary products - green bean, roasted bean or powder coffee, depending on the market for which it is intended to be sold. However, Small-sized, uneven and broken dry parchment and dry beans are considered to be lower grade which is separated from the higher grade and sell to domestic wholesalers or process locally for domestic consumption. In addition to this, lower grade coffee undergo further processing called roasting to produce roasted bean or powder coffee. A little number of exporters have grinding machines, which makes the roasted coffee into powder form. The powder coffee is packed in a small amount and sold in the market.

4.2.2.7 Domestic Wholesalers

Other important actors in the coffee value chain in Ethiopia are wholesalers who directly buy lower grade dry bean from ECX. The small-scale farmers, harvest, dry and hull the coffee and transport to market. Sometimes the practice of hulling goes to retailers who add value to the coffee and finally sell to domestic consumers.

4.2.2.8 Importers

Imports are those actors outside the country who buy coffee from different exporters in Ethiopia. Based on the coffee export data in 2017/18, the principal export markets for Ethiopian coffee were

Germany (22 %), Saudi Arabia (16 %), United States of America (11%), Belgium (7 %), Sudan (6 %) and Italy (5 %) (MoT, 2019).

4.2.2.9 Consumers

In Ethiopia, drinking coffee is not just part of everyday life; it is also deeply embedded in Ethiopian culture. The consumption of coffee has increased in the domestic market (ICC, 2017; MoT, 2019). Ethiopia enjoys, not only a strong export demand but also has a healthy domestic market, which helps the country sustain the industry when demand abroad decreases. In the growing urban centers, consumers are increasingly turning to commercially roasted coffee and baristas rather than preparing coffee at home in a traditional way.

4.2.3 Supporting actors and their functions

Government organizations, international development agencies, research institutions, and financial institutions have been supported by the coffee sector by policy formulation, extension, research, and finance. The supporter and service providers in the coffee value chain are stated below.

4.2.3.1 Government Institutions

The major government institutions involved in the coffee sector are:

ECX's is founded on Proclamation No. 550/2007. This proclamation mandates ECX to develop its own rules for the governance of its various operations. The Ethiopia Commodity Exchange (ECX) commenced trading operations since April 2008. It is a marketplace, where buyers and sellers come together to trade. It also grades coffee and provides warehouse. ECX's is connected to all buyers and sellers in an efficient, reliable, and transparent market.

The Ministry of Agriculture (MoA) and its Regional, Zonal and Woreda equivalents, are the public regulatory institutions responsible for agricultural matters. They employ experienced professionals at all levels both for extension and to disseminate coffee processing services to all coffee producers. In particular, extension agents at the Regional and Woreda level pass on coffee harvesting and handling techniques, and they provide technical support by professional processing

experts at each plant. Furthermore, each year, before the start of wet-processing operations, training is given to all operators engaged in washing plants.

Ethiopian Coffee & Tea Authority: established under Council of Ministers Regulation No-364/2015 enter in to force on December 25th, 2015. The authority has mandated and responds to strength modern extension services to attain a higher level of production and increase the productivity of coffee and tea. It provides technical support on quality marketing systems of coffee. It also supports, supervises and regulates coffee processing industries.

The Ministry of Science and Innovation (MoSI) has the responsibility to supervise, regulate the value chain and the specific activities where the processing of coffee takes place. MoSI oversees the development of agro-processing in the country, as it promotes the Agricultural Development Led Industrialization (ADLI). Accordingly, coffee processing is the area of the interest and activity for this ministry.

The Ministry of Trade (MoT) is responsible for supervising, regulating and developing all activities involving marketing and trade, both within the country and with other countries. The ministry is mandated to supervise and coordinate other government institutions that are involved in the promotion and development of coffee trade.

4.2.3.2 Research Institutions

Researches are either undertaken or promoted by federal and regional institutes, as well as by institutes of higher learning in the country to ensure that the coffee industry is kept up to date with the latest developments in crop management and disease prevention. The Jimma National Coffee Research Center (JNCRC), which is a specialized branch of the Ethiopian Agricultural Research Institute (EARI), was established in 1967 in Jimma, and it is totally devoted to coffee research. This center focuses on improving the quality of coffee, disease resistance, nutrition improvement and the general improvement of the coffee industry. In addition, over 2,000 coffee accessions, collected for various purposes from different parts of the country, are maintained at the Centre. It disseminates its findings through extension services.

4.2.3.3 International/bilateral Donors and NGOs

Various international and bilateral donors, as well as non-governmental organizations (mostly international NGOs), are active in the coffee sector in Ethiopia. Their interests range from overall economic wellbeing to the social welfare of the growers, to environmental protection and conservation. The major supporters are:

The European Commission (EC) that, in the last 30 or so years, provided support for Ethiopia on the development of the coffee sector by virtue of the four phases of the Coffee Improvement Program (CIP I, CIP II, CIP III, and CIP IV). At present, in response to a specific request from the Ministry of Finance and Economic Development (MoFED), the EC has prepared a comprehensive coffee strategy for the country in 2015.

USAID's largest contribution to the Ethiopian coffee value chain is through Feed the Future Program. Feed the Future works to reduce poverty and hunger by improving the productivity and competitiveness of value chains that offer jobs and income opportunities for rural households.

TechnoServe has been implemented the "Coffee Initiative" project in Ethiopia. The project providing support to smallholders and their cooperatives on the improvement of coffee quality (increase of washing capacity and focus on specialty coffees) to boost their incomes. The goal of Technoserve is to facilitate relationships between Ethiopia's coffee producers and the international roasters who want to source high-quality coffee. Based on an interview with farmers and TechnoServe coffee experts, this project is highly performed in the study area, they support farmers on the techniques of pruning, input application, compost preparation, and harvesting.

OXFAM which has in the past led an unprecedented global campaign against the specialty coffee giant Starbucks, which helped Ethiopia to establish trademark protection for some of its specialty coffees.

Starbucks, the world's largest coffee house company, implements the Café practice program in Ethiopia. This program works to enhance the quality of Ethiopian fine coffee and improve the income of farmers and traders. This company directly supports coffee farmers through their experts in the study area.

4.2.3.4 Associations

There are four associations currently active on the Ethiopian coffee scene. The first is the Ethiopian Coffee Exporters' Association (ECEA) that was established in 1969 by about a dozen members upon whom most of them were foreigners with the objectives of: (i) encouraging the production of quality coffee, (ii) promoting coffee export globally and, (iii) resolving collectively problems encountered. Currently, all members of the ECEA are Ethiopian nationals.

The second association is the Ethiopian Women Exporters' Association (EWEA) that was established in the year 2000 to improve business opportunities for Ethiopian women entrepreneurs in coffee and other businesses. The third association founded in 2005 is the Ethiopian Coffee Roasters' Association (ECRA). It tries to improve Ethiopia's capabilities in the roasted coffee market. The focus at present is primarily on the domestic market, but the association is addressing itself to increase supply to better serve the export market. The fourth is the Ethiopian Coffee Growers and Exporters Association whose members include growers and exporters engaged in coffee growing and exporting activities.

4.2.3.5 Financial Institutions

There is a dearth of capital available for expansion by smallholders but the coverage and lending rules of these institutions are limited. The establishment of micro-finance institutions and the efforts of some donors (e.g. the "Coffee Initiative" implemented by the NGO TechnoServe) are changing the situation by providing finance not available from the established banking system.

A. Domestic Financial Organization

In the study area, micro finances and other governmental and private banks are available, that provides loan for coffee farmers.

B. International Finance Organization

IFO has been financially supporting finance for Coffee Farmers in Ethiopia. To support continued growth in Ethiopia's coffee industry, IFC operational collaborated with the country's Nib International Bank S.C.

Table 14: Supporters and their functions matrix

No.	Supporter Sectors	Functions/roles
1	Government organization • Agriculture and Natural Resource Offices • Ethiopian Coffee & Tea Development and Marketing Authority • The Ministry of Industry	➢ Provide a selected variety of seedlings support for producers ➢ Extension and technical advisory services such as production, package, quality aspects, proper compost use, etc. ➢ Provides production, sustainability, and market information ➢ Provide technical support on the development of agro-processing
2	University and Agricultural research institute • Jimma National Coffee Research Center	➢ Provision of selected high quality, high yield and disease-resistant variety seedlings to producers ➢ Giving scientific and innovative training techniques ➢ Conduct scientific research on the coffee sector
3	Non-Governmental Organizations • Techno serve • Oxfam, Starbucks	➢ Provide training and aid on market linkages, technical supports (e.g., women-headed poor farmers' groups) ➢ Provide support for training, innovation, business development, and capacity building ➢ Provide seed and seedlings
4	Ethiopian Commodity Exchange(ECX)	➢ It is a marketplace, that facilitates both export and domestic coffee trading by different actors ➢ Provide coffee grading service
5	Financial Institutions Development	➢ They provide loans to farmers, cooperatives, processors, unions, wholesalers, etc.
6	Associations • Ethiopian Coffee Exporters Association (ECEA).	➢ To improve the benefit of their members on the export of coffee ➢ It provides coffee trade information, lobbies on policies, and supplies technical support to its members
7	Logistics/Transporters, Donkey, trucks, motorcycles.	➢ Provide transportation service to bringing the product from field to market ➢ Supply inputs to farmers

Source: Field survey (2019)

4.3 Upgrading Opportunities and Constraints of Coffee Producers

The following section examines the upgrading opportunities and constraints of farmers through the framework developed by Kaplinsky and Morris (2001), Mitchell et al. (2009), Mitchell and Coles (2013) and Trienekens (2011).

4.3.1 Horizontal Coordination

Horizontal linkage, however, is also an important way for producers to share with each other experiences and useful information about production processes. When asked farmers in a survey to name their sources of useful technical advice, information or training related to enhancing coffee production, sampled farmers mentioned buyers, model farmers and cooperatives respectively.

Horizontal linkages may exist among a group of farmers. These linkages may be formal or informal. A large number of farmers organized in a cooperative as a forum for exchanging information on market prices and market demand. Initially, coffee marketing was done collectively through groups with the help of cooperatives. Trucks, often coordinated by cooperatives, would move to a village collection center to collect the fresh cherry and take it for washing station before selling to major buyers. Cooperatives pay to farmers depending on the amount of their fresh cherry. This coordination ensures the benefit of farmers to higher selling prices and lower market costs. They also share information during the meeting period of the cooperative. Farmers in the study area responded that cooperatives were not provided services related to advance, loan, training on production technologies. But, largely cooperatives are involved in the processing of coffee and they also create market opportunities for member farmers.

In addition to cooperatives, farmers in the study area are organized in 1 to 5 groups by the government. However, this group seemed non-existent as little activity was carried out in-group apart from training. Agriculture extension experts facilitate the activities of the group and the local authority can transmit information easily to all members. Agricultural and Natural Offices and other stakeholders provide training and technical assistance. Focus group discussion with farmers reveals that the community member was reluctant to organize in a 1 to 5 group because of their political reason. The function of this group becomes decrease, However, through this group, the farmers sometimes get training on the production, harvesting and weeding and disease management of coffee.

Sharing of knowledge and best practice through model (lead) farmers observed in the study area, lead (model) farmers shared their experiences with other farmers. The model's farmland use as a demonstration to initiate farmers to adopt new practices. The government facilitate these activities and intervene on this principle: that is the best tools on promoting new technologies, production techniques, and pest management system.

4.3.2 Vertical Coordination

There is a formal relationship between different chain actors in the coffee value chain. A large number of farmers coordinate on the marketing of coffee with processors. In collaboration with other development partners, the processors also provide different services to farmers. The vertical integration of actors in product, process, functional and channel upgrading is explained below.

4.3.2.1 Product Upgrading

Consumers have become more conscious of the origins of coffee and the social and environmental issues associated with coffee production. In response to this increasing demand, many coffee growers in the study area have exploited specialty coffee market opportunities by upgrading their product to meet specialty coffee requirements, such as global organic and fair trade certifications or leading company-developed standards such as CAFÉ practices from Starbucks. Such organizations provide funding to farmers to make changes that are needed to achieve higher standards. Through exercising its purchasing power to influence coffee producers to upgrade their product, the lead company can use a "stick" strategy by simply refusing to buy from them unless they upgrade.

Food safety concerns are growing, influencing the demand for products that meet certain standards. The international market often has its own standards. The lead firms test soil and water chemical content, chemical residuals and proper storage and handling of coffee. Some of the consumer demand information is passed through service providers (Starbucks, TechnoServe and government) to farmers, this process connects producers to end markets. This vertical linkage has the potential to provide the most accurate information about demand and specification.

In addition to service providers, intermediaries also play a central role in promoting product upgrading. In the study area, cooperative union and primary cooperatives act as intermediaries between lead firms and producers, passing products and information between the two. The

distribution of incentives distributed to farmers by cooperatives. This is not true for all producers, only farmers who sell their product to cooperatives were benefited for this incentive, based on their selling volume.

Producers must have knowledge about consumer preferences in order to respond to increasing demand in the end markets. One of the best ways to encourage business owners to invest in product upgrades is to give them higher prices for products of higher quality. If there are no benefits or rewards for producing products of higher quality, investments in product upgrades will not seem worthwhile to producers (Dunn & Sebstad, 2006). In the study, there are price incentives down to the producer in a timely manner through fair trade.

International buyers offer a price premium for organic specialty coffee. Providing this motivation for producers is the key opportunity to increase investment in coffee sector. In addition to offering price premiums for organic products, consumers can also provide non-price benefits such as technical and design assistance, training innovations in materials and advanced technical services. During focus group discussion, farmers stated that:‘’TechnoServe and Starbucks provide incentives and other services…… we are encouraged to invest more in our coffee business. we are also happy about this. These embedded services encourage product upgrading by reducing the costs and risks to farmers.

Table 15 presents a summary of the changes or improvements made through compliance of standards and the application of new varieties of seeds. Farmers in the study area are increasingly engaging in product upgrading to meet consumer demand for safer and healthier products and to improve their market opportunity. All farmers produced organic coffee without the application of chemicals based on certification standards. To improve productivity in the coffee farming system, more than half of the farmers (61%) in the survey area adopted the cultivation of new varieties of coffee, which resist disease and provide a high yield without the application of chemical fertilizer and pesticides.

Table 15: Changes in Product Upgrading

Response	Produce organic coffee N=214	Percent	New verities	Percent
Yes	214	100	131	61
No	0	-	83	39
Total	214	100	214	100

Source: Field survey (2019)

Producers were asked if and how the upgrading activities had influenced their performance, 78% said that they saw an improvement in profits through compliance of standards and application of new varieties of seed. In summary, product upgrading is driven primarily by consumer demand. To improve product upgrading, information about changing consumer preferences should reach to the producer in a timely way so that producers may respond to those signals appropriately.

4.3.2.2 Process Upgrading

The majority of the producers had implemented changes that would improve their production processes. These changes were oriented towards field practices (74%) and post-harvest management (68%). Coffee producers were less likely to implement changes that would result in improved logistical processes (16%) or new equipment (19%) in order to create a more efficient environment for production (Table 16).

Table 16: Activities to promoting process upgrading

Responses	Field Practices	Post-Harvest	Logistics	Equipment
Yes	158(74%)	146(68%)	34(16%)	41(19%)
No	56(26%)	68(32%)	180(84%)	173(81%)
Total	214(100%)	214 (100%)	214 (100%)	214 (100%)

Source: Field survey (2019)

One large coffee exporter firm in the study area provides embedded services to coffee farmers including seedlings, harvesting, and transportation. Farmers also learn basic pruning and natural

pest practices techniques from their buyers. The importers' technical assistance and services help producers to invest in process upgrading to maximize their efficiency and productivity.

In the study area, some small-scale coffee farmers commonly sign contracts with buyers to specify quality standards, area to be planted, harvest dates, approved application of compost, and product price. As part of this forward contract, lead firms agree to provide inputs, credit, technical advice and market services to enhance productivity. In this type of arrangement, producers repay the lead firm with the proceeds from the harvest and agree to sell exclusively to that buyer. Buyers often agree to provide the kinds of embedded services for their fresh cherry suppliers to promote process upgrading.

In a value chain such as coffee, which is extremely competitive and highly unstable for the farmer, this is particularly important for producers. In the study area, coffee producers were willing to invest money and effort in upgrading because they had contracts stipulating that their product would be purchased by the lead firm as long as it met the stated requirements.

In the study area, input suppliers are a primary source of information on the selection and application of agricultural inputs. This type of information exchange is very widespread. Input suppliers provide producer-specific information on an individual or group basis through formal and informal conversations. An example of this type of vertical information flow can be found with Jimma National Coffee Research Center, which provides information on recommended cultivation techniques for each particular type of variety. Likewise, agricultural extension expertise also provides information on the proper application of compost. The ability of smallholders to change this information into practice is an important factor for product upgrading.

By providing information and technical assistance in-group settings, buyers and suppliers of inputs can reduce delivery costs and expand support. In the study area, private processors form farmers' groups so to provide financial and non-financial services and can transmit information easily. These services help producers to engage in process upgrading by showing them how to use better seedlings and technologies for improved crop yield. Agricultural expertise and NGOs distribute seedlings with their detailed specifications. The problem arises when input suppliers have not to monitor and provide continuous information in each stage of production regularly from planting to harvesting.

As mentioned in the previous section, the formation of groups and being a member often help coffee producers to gain access to training, finance, information and advice from buyers, input suppliers, and government/NGOs expertise.

When process upgrading requires investment in long-term equipment such as machinery, heavy tools or irrigation equipment, then the availability of investment funding can become a critical factor in process upgrading. In the study area, there are few options for finance for farmers to purchase durable equipment.

In the study area, the lack of investment capital prevents many coffee producers from purchasing irrigation equipment, materials (for compost preparation), logistics and production machinery. Nevertheless, most producers have limited financial services to obtain the required capital to buy this equipment. Lack of investment capital is the main constraint for process upgrading.

Government and financial institutions are generally unwilling to provide credit for the construction of irrigation facilities. In the study area, there is a lack of affordable irrigation systems that would enable farmers to extend the growing season and thereby increase their productivity. Farmers also need credit to invest in process upgrading to increase their yields.

Vertical linkages are an important source of information and technical assistance for process upgrading in the study area. Vertical linkages in both directions—up to the chain to buyers and down the chain to input suppliers—provide valuable information and services to assist coffee producers with process upgrading. Such assistance is often given in the form of embedded services, delivering technical services as part of the transaction of the product

4.3.2.3 Functional Upgrading

There are two distinct ways in which functional upgrading can take place. One way is for an entire level or category of firms to be eliminated from the value chain, resulting in one less layer of firms between coffee producers and the end market. This type of functional upgrading changes the structure of the value chain and often improves the quality of information flowing to farmers (Dunn & Sebstad, 2006).

In the study area, there is a practice of bypassing intermediaries, this creates the opportunity for the producer to form direct linkages with international buyers. Producers and importers now

interact and negotiate, transact through Sidama Coffee Farmers' Cooperative Union. An important motivation for functional upgrading in this coordination was that it allowed market signals on prices, quality, varieties, and volumes to be transmitted more accurately and consistently. In addition to this, the chain becomes simple.

The other opportunity to strengthen this trend is currently the government allows exporting coffee from the ECX branch to the foreign markets. This implies that Sidama Coffee Farmers' Cooperative Union can export coffee directly from Hawassa after completed all export procedures through Hawassa ECX branch.

A second way for functional upgrading to occur is for a single producer or producer group to move to a higher level in the value chain. This often is motivated by the desire of producers to capture the rents paid to the intermediary and/or reduce the market power exerted by the intermediary. In this value chain, most farmers functionally upgrade by joining cooperatives and electing representatives to process their product and negotiate directly with exporters on behalf of the cooperative members. Cooperative unions reduce the costs of transactions and help farmers by overcoming obstacles related to lack of mobility, capital, and market information.

When an intermediary is removed, the roles previously performed by the intermediary (actors) are either taken by consumers, producers or split between the two. It is important to note that if an intermediary (actor) is eliminated and the buyer takes on all of the functions previously performed by the actors then a farmer's functional upgrading has not occurred. In the study area, the functions previously performed by exporters, processors, and brokers have been taken by cooperatives. Cooperative union leaders assumed responsibility for grading, processing, negotiating prices and other contract terms, transporting and clarifying export procedures.

Previously farmers were selling their fresh cherry to cooperatives, private processors and village collectors. This trend has recently changed, 3% of coffee farmers began to process their product (Table 17). This can be viewed as a form of functional upgrading as farmers are taking up the role of the coffee processor. These farmers turn fresh cherry to dry parchment before selling to exporters. They have also planned to add diversified products like green bean and powder coffee are underway by these farmers. Moving to a new level in the value chain also means establishing new vertical relationships that may require different lines of business.

On the other hand, farmers in the study area began to play a dual role. 92% of the respondents started to produce compost on their farms. However, 12% of respondents were producing their seedlings. One can observe from Table 17, the cases in which producers drop other activities (downgrading) performed before were rare (7%).

Table 17: New Activities Absorbed (Functional Upgrading)

Responses	**New Activities Absorbed within a chain**			
	Input supplier		**Processors**	**Downgrading**
	Compost	**seeds/ seedlings**		
Yes	197(92%)	26(12%)	6(3%)	15(7%)
No	17(8%)	188(88%)	208(97%)	199(93%)
Total	214(100%)	214(100%)	214(100%)	214(100%)

Source: Field survey (2019)

4.3.2.4 Channel Upgrading

Almost all farmers in the study area produced organic coffee by complying with environmental and quality standards. This trend improves the market access of farmers to a more reliable and higher value market channels. Higher prices, higher sales volumes, and incentives for farmers were the main reasons to enter into new market channels by their organic specialty coffee.

Most farmers sell their product in more than one market channel because cooperatives do not have the capacity to collect all fresh cherry produced by member farmers. On this basis, producers maintain flexibility and maximize risk-adjusted returns by selling to both market channels. The finding of the study also revealed that, there is limited market channel in the study area.

4.3.2.5 Crosscutting Themes

There is a link between product upgrading and channel upgrading, which may require product upgrading to enter a new market channel. Most coffee producers in the study area shifted from traditional to specialty and organic coffee in order to sell their product to international markets.

There is also the interplay between product and functional upgrading. Producers upgrade their coffee in response to opportunities in global markets. This improves the vertical integration with

buyers leads to bypassing intermediaries (actors) and linking directly to importers. The direct linkage between producers and importers facilitates the flow of information about the type and quality of the product, which helps producers to make more informed on product upgrading decisions.

4.3.3 Upgrading of the Enabling Environment

4.3.3.1 Farmers' Capabilities and Resources

Farmer's capability is the main factor for coffee upgrading. In doing so, training has been provided by government experts, NGOs and buyers to coffee farmers. This training program is mostly focused on input application, production techniques, plant disease management, and harvesting. Sampled farmers responded that they do not get training related to the processing of coffee. Regarding human resources, most producers hire workers in charge of maintenance practices and when it is time to harvest they get temporal pickers, although they and family members participate in the picking as a way of avoiding the hiring of pickers and increase their earnings.

In terms of personal characteristics, all producers were above 18 years old and some of them reached elementary school. 75.6% of producers stated that they can read, write and do some basic calculations. Lack of records, constraint them to be able to do better strategic decision in order to improve their production and profit. At the same time, the producers' ability to understand the reported coffee prices on the internet is limited because most farmers do not the ability to access the internet on their phones.

Information and communication technology can facilitate upgrading. Increased access to ICT will help farmers in the value chain to reinforce horizontal and vertical relationships with other firms and boost their prospects and incentives to develop through these relationships. In the study area, most smallholder farmers use a cell phone to access local market information. Cooperatives posted the purchasing price of fresh cherry on the notice board for farmers.

One-fourth of sampled farmers were illiterate. Illiteracy is the other impediment to upgrading because it stands in the way of learning and the acquisition of new skills that are needed for upgrading (Dunn & Sebstad, 2006). High levels of river pollution are also a major problem near coffee pulping and washing stations.

4.3.3.2 Farmer's Environment

All farmers in the study area concentrated in the same area but they have poor infrastructure availability in terms of roads, phone lines, and the internet. This makes difficult to transport their product and inputs. Producers need a standard road to transport their product to the collection centers. Reaching their product to processors is considered an obstacle to the producers, especially in the harvest season; fresh cherry must sell in 24 hours after harvesting to maintain their quality. Donkey and foot were the main transport means for transporting coffee 71% of sampled farmers have a mobile phone, and there is network access in the study area.

In terms of capital availability, all sampled producers responded that getting financial aid is difficult. There were different micro-financial institutions and banks. However, the requirement of these institutions to lend money is complicated and the interest rate is high (15%).

In the study area, members of private processors have been benefitted 'advance' credit to member farmers. The requirement to be a candidate for this credit is to register on members of a private processor and they must agree to sell their product to these processors.

Recent investment programs in Ethiopia led to an influx of Ethiopian farmers. The expansion of foreign and domestic investors brought skills and expertise that have stimulated the overall growth of the chain. However, the most prominent and enduring constraint to upgrading remains the lack of financial services tailored to the needs of the processing machinery and the farmers operating within it.

In this value chain, there are many promising opportunities for upgrading. Growing demand for organic coffee in the world market in recent years, the existence of mature trees on many smallholder farms, and export firms with links to Western and Middle Eastern markets create market opportunities for producers. Ethiopian smallholder organic coffee producers began to upgrade their product in response to these market opportunities by improving production techniques, introducing new coffee varieties, directly linking to exporters and diversifying market outlets. Improving innovation and using higher quality seeds are also opportunities for upgrading.

4.3.3.3 Legislative Body/rules and Regulation

For creating, a competitive enabling environment for the coffee value chain, rules and regulations is a major contributing factor. The amendment of proclamation number 287/2002, 602/2008 and 1051/2017 cited as "coffee quality control and marketing proclamation" came as one action taken to improve the enabling environment on the upgrading of coffee and to establish an improved system for coffee quality control and marketing. Coffee quality control and marketing proclamation related to upgrading are discussed below.

Proclamations 1051/2017 section 9, No. 1 ensure the benefit of farmers by obligating the exporter to export coffee with their specialty coffee brand name without mixing with other coffee products. In the study area, all farmers produced organic Sidama specialty coffee. This brand is recognized in the international market. This rule expands the entry to a foreign market for organic coffee producers. It states that 'purchase, process, transport keep the natural state and origin of red cherry coffee or coffee with pulp only in the area designated and shall not mix it with coffee of other agro-ecologies'.

Proclamation 602/2008 also encourages farmers to upgrade their products and allow the farmers to play as the role of the exporter. Section 11 No. 1 stated that 'Coffee farmers, have the right to directly export coffee from his own farm, only submitting the same to the coffee quality liquoring and inspection center for grading before and after processing export.' This law improves the functional upgrading that allows the farmer can perform as a processor and exporter.

Proclamation 602/2008 in section 11, No. 1 intended to enforce to comply with processing standards to produce quality coffee. It stated that: 'Processing coffee using technical procedures other than those issued by the ministry or the appropriate regional body is prohibited.'

This reform improves the quality and Product upgrading environment and improves the benefit of farmers. Section 15, no. 1 also stated that failure to comply with appropriate processing procedures will be penalized by a fined 20,000 Birr and imprisonment. Proclamation 1051/2017 amend this penalty to 10,000-40,000 Birr and 1-3 years imprisonment.

The Ethiopian legislative body also amends the payment of tax on coffee export on proclamation no. 287/2002. In section 2 No. 1 stated, "the rate of tax which has been 6.5 % (six and point five

percent) shall be zero. The amendment allows exporting coffee without tax. This leads to improve the bargaining power of exporters in the international market by fair price and enhance the benefit of exporters.

Interviewed exporters also stated the obstacle of the legislative rule on the upgrading of coffee. The proclamation 602/2008 stated in section 11, number. 5, 'selling, by any person in the coffee trading business, exporter standard unfrosted or roasted ground coffee in a domestic market.'

Most farmers in the study area were the producer of organic specialty coffee. The large volume of this coffee exported to the foreign market. Some processors need to sell this product in the roasted form in the domestic market at a high price. But this law prohibits to sell quality roasted coffee in the local market.

Table 18: Summary of opportunities and constraints of upgrading

	Strategies	Opportunities	Constraints
Product upgrading	• Complying standards • New varieties	• Market access/growing demand for organic coffee • Availability of support organizations • Premium price for organic coffee/High selling price • Availability of information • Technical support from buyers	• Lack of investment capital • Lack of educational background of farmers • lack of continuous training • lack of infrastructure
Process upgrading	• Field practice • Post-harvest • Standards • Logistics • Equipment	• Market access • Access to training and information • Access to technical assistance • Availability of farmers group(cooperatives) • Availability of support organizations • convenient agro-climatic zone, • indigenous knowledge • support and incentive from buyers	• Lack of investment capital • Lack of technical knowledge • Lack of educational background • Lack of irrigation facilities • The high cost of machinery

Functional upgrading	• Producing inputs • Process their product by their own pulper machine	• Availability of input (compost and seedlings) inputs • Low cost of inputs(compost and seedlings) • Availability of farmers group(cooperatives) • Government support • Elimination of intermediary actors	• The high cost of processing materials • Lack of technical knowledge to produce input • Lack of educational background • Difficulty on acceptance of new technology • Shortage of infrastructure(road, network, electricity) • Lack of finance, credit for processing
Channel upgrading	• Produce organic coffee	• The incentive for organic coffee • higher-value market • known coffee brand in the local and international market	• The limited capacity of cooperatives • The high cost of processing materials • Lack of knowledge of marketing
Enabling environment	• Infrastructure • Training • Financial support	• Promising rules and regulation • Access to training • Network access • Certification of specialty coffee	• Difficulty on acceptance of new technology • Shortage of infrastructure(road, network, electricity) • Lack of finance, credit

Source: Field survey (2019)

4.4 Governance in the Coffee Value Chain

The first section analyzes how the coffee value chain is coordinated from farmers to point of export and their relationship with one to another. The second section identifies the governance structure of the coffee value chain through the lens of Gereffi et al. (2005) and finally, the main findings are presented in the last section.

4.4.1. Relationship Between Actors in the Coffee Value Chain

4.4.1.1 Relationship between Farmers to Cooperatives

Most interviewed producers had few buyers, on average only 3 buyers. It seems that most farmers are dependent on just a few clients. They sold more than 80% of their total production for 2 clients. Those producers that have a more diversified client base are few; they sold less than 50% of their production to more than 3 clients.

Most farmers have longstanding and close personal relationships with cooperatives especially in their vicinity. They supply fresh cherry on a regular basis and in some cases, they have been supplying for private processors and collectors. There is considerable loyalty towards the cooperatives. Cooperatives need the fresh cherry from producers to run their washing station while farmers need a buyer for their fresh cherry. In this respect, the chairperson of Goyda cooperative stated that;

"We have a very important symbiotic relationship with member farmers. They need us and we need them. Without their raw material, we cannot survive. And they also cannot survive without this processing machine."

This shows that both actors are mutually dependent and there are strong relations and a lot of trust between them. However, Interviewed farmers complained about the capacity of cooperatives because cooperatives have limited capacity to collect all coffee produced by member farmers. Almost all cooperatives use outdated technology to process their coffee. This leads farmers to sell their products to other buyers.

In terms of price, cooperatives are fixed the lower farmgate price of fresh cherry. If they sell for a better price, the extra profit will share to member farmers. As the Chairman of Ganne farmer's cooperative explained:

"International buyers determine the market price of coffee, so we have to fix a lower purchasing price for fresh cherry. If we export with a high price, profit share is distributed to member farmers."

Nevertheless, cooperative member farmers said that they have a meeting with their representatives 2-3 times per year (Table 19). The main agenda of the meeting focused on profit share, the delivery period of fresh cherry and requirements on the quality of fresh cherry. Private processors also have more contact with their client farmers. The study reveals that, there is limited horizontal coordination of member farmers in different issues.

Table 19: Frequency of Contact between farmers to processors per year

Buyers	Mean	Min	Max
Cooperatives	3.4	2	5
Private processors	6.2	3	11

Source: Field survey (2019)

Farmers also received benefits from their relationship with cooperatives. Farm-level benefits could potentially occur through a number of pathways, including dividend profit based on membership and Fairtrade premium payment. However, cooperatives did not provide input, credit, advance for their members.

In the 2018/19 production year, the cooperatives in the study area collected fresh cherry for 9 Birr/kg (farm gate price). Fresh cherry then processed and sold for the international market through a cooperative union. After that, the cooperatives were paid an extra 6 Birr/kg from dividend payments and premium for member farmers. While most private processors paid the only farm gate price of 11 Birr/kg (Table 20). There is a difference in the selling price of fresh cherry. Farmers were benefited if they sell their product to cooperatives. The average purchasing price of cooperatives was higher than private processors.

Table 20: Price of fresh cherry

Buyers	n	Farmgate price (Birr/Kg)	Dividend profit (Birr/Kg)	Premium (Birr/Kg)	Total (Birr/Kg)
Cooperatives	103	9	1.5	4.5	15
Private processors	58	11	-	-	11

Source: Field survey (2019)

Cooperatives also informed the quality of fresh cherry they received to their members and they monitor the collection center by experts. If the fresh cherry is not on the standard, they reject it. Buyers give great effort to the quality of fresh cherry. Therefore, the quality of fresh cherry is the basic requirement, farmers must be fulfilled.

4.4.1.2 Relationship between Farmers to Private Processors (Suppliers)

Moreover, the farmers prefer to supply fresh cherry for private processors that are well established and fair in their dealings to deliver large volume products. According to interviewed farmers, there have been a number of private processors going to collect fresh cherry and they immediately pay the price of the product.

Most farmers said that the price is always fixed by buyers but some private processors pay a better price in order to get better quality as well as large volume. It appears that the producers in the study area have limited bargaining power, especially those smallholder farmers. 86% of producers had accepted the purchaser's offer, even if that price was lower than the average coffee market price. But farmers with medium-size land have more bargaining power with buyers as they are higher volume suppliers and they agreed that the prices were high or market-based (Table 21).

Table 21: Price Determination

Buyers	Price Negotiation						Total	
	Farmers		Buyers		Market-based			
	n	Percent	n	Percent	n	Percent	n	Percent
Cooperatives	-	-	214	100	-	-	214	100
Private processors	6	3	184	86	24	11	214	100

Source: Field survey (2019)

The frequency of contact between the private processors and farmers was studied. Most of the private processors have contacted 6.2 times per year with client farmers to provide finance, training and technical support (see Table 19).

Farmers tend to sell their product to private processors received the lowest total price per kilogram of fresh cherry (Table 20), but offered better services like immediate payment, credit, advance, technical assistance, etc. compared to farmers who sell fresh cherry to cooperatives.

In order to ensure a regular supply of fresh cherry and have a hold over their suppliers, private processors assist farmers in a number of ways. They support producers by providing inputs, technical assistance, transportation of fresh cherry, etc. They also provide advance and interest-free loans to farmers whenever they required. Interviewed buyers in the study area stated that "by providing these services, we can create a secure relationship with farmers". But the interview with sample farmers revealed that, because of farmer's limited financial capacity, they have little bargaining power and dependent on their buyers.

Many smallholders with less than a hectare rely on such facilities, which bind them to the private collectors. However, middle holder farmers do not generally seek such arrangements because of their social standing/status and financial capacity.

One private exporter company in the study area provides technical assistance to their clients through their extension services and training programs. This company hired extension officers to work closely with client farmers to advise and educate them on good agricultural practices. The company also provides training programs on a regular basis at the collection center. According to the company's coffee expert, this company involved in numerous social initiatives such as road maintenance and community development projects such as electricity, water supply, etc. to raise the living standards of the community.

Smallholders and collectors are informed about the buyer requirements when they deliver the fresh cherry or through their extension officers, as explained experts of the company during the interview:

"We send our staff …. They convey the message of the type of fresh cherry that is required. We tell them what is exactly required for the process. They have been giving instructions that if the fresh cherry is not up to the standard, we will not accept that."

This shows that buyers set the requirement of the standards on the quality of fresh cherry. This company also control the activities of farmers on all process of coffee production. During focus group discussions with farmers, they agreed on it. They said that ‘’our production process from planting to harvesting is controlled by buyers’’. It is clear that farmers receive advance and credit from buyers, this leads to reduce the bargaining power of farmers. In this coordination, buyers have more market power.

Most farmers, especially those with the medium extent of land and high production, supply to different buyers do at a time. This situation creates more than one outlet of sale for their product; it makes them less dependent on one buyer. Given that, most farmers mainly rely on income gained from coffee cultivation to cover their day-to-day living expenses, by selling fresh cherry to more than one buyer. They also get a continuous flow of income, because different buyers pay at different times. Farmers during the interview and focus group discussion said ‘If we sell to three buyers (cooperatives, collectors and private processors), we get money at different times. In addition, they can obtain other benefits like loans and credit from private processors’. Moreover, buyers of fresh cherry have different requirements in terms of coffee type and they pay accordingly.

Processors control the fresh cherry they receive. They physically inspect the condition of the fresh cherry. If the processors find that the quality standard is lower than what it requires, they separate from the good one and reject the lower graded fresh cherry.

4.4.1.3 Relationship between processors (Suppliers) and Exporters

Given that, dry parchment coffee is largely sold through the auction center in ECX, most private processors do not have a direct relationship, let alone any form of agreement, with their buyers (exporters). During the interview, one processor stated that;

‘’We do not communicate directly with exporters. We will never talk to buyers. Always we go through ECX. The quality of coffee tested by ECX and then sell in an open bid. The transaction of money also passed through ECX.’’

Coffee supplied and traded in the local market through ECX. The quality of coffee checked by Q graders within ECX that they receive from suppliers. The Cupper in ECX has a certificate, knowledge, and experience on cupping and grading of coffee. According to Hawassa ECX branch

manager, Ethiopia has a high number of licensed Q graders and it can be beneficial to involve one or more Q-graders to perform a preliminary Q-grading and cupping. Quality of coffee is the main requirement of buying at the auctions in ECX. As the manager at ECX Hawassa branch stated; ‘’…when the buyers come and bid, they simply look at the quality. They do not look other things… the majority of the buyers are worried about the quality and the price.’’ This view was equally shared by buyers; they give due attention to the quality of coffee at the auction center.

All coffee exporters buy export standard coffee, specialty grade washed coffees (Q1 and Q2) and commercial grade washed coffees (Grade 3-9) recommended by governments. Some exporters catering to look for specific standard certifications relating to food safety, social and environment issues at the request of their international buyers and they focus on particular certified coffee. In this respect, a marketing expert in Trakon trading explained that some clients require organic certified coffee, so we have to buy coffee sold by on the specification of organic certified specialized coffee at the auction. Some exporters also required letters of guarantee from processors certifying that they do not use certain banned agrochemicals during the cultivation and processing of coffee. This is to reassure their international buyers, namely western and Japanese customers, who are more concerned about chemical residues. But this is more an exception to the rule. Generally speaking, most buyers do not insist on such certifications because the coffee sells in ECX through their quality specification and origin. Thus, most buyers do not require certification at present but that might change in the future.

Processors also closely follow what is happening at the auctions on a weekly basis. Therefore, they are aware of what the market requires and offers in terms of price. They want to process coffee with minimal cost to get better profit but lack of foreign exchange and expensive cost of modern processing machines are the main constraints.

During the interview with ECX Hawassa branch manager, he stated that since 2017 the government of Ethiopia allows the direct coffee trade between actors without ECX auction center. This opportunity allows exporters, directly buy coffee from processors through a contractual agreement. In this coordination, the task of ECX is grade coffee quality.

In this vertical coordination, exporters provide advance payment to their suppliers. They pay up to 100% advance by predicting the quantity and market price of coffee. In addition, exporters provide

services such as credit, information, technical assistance, and recommendation if needed. However, most exporters do not control the activity of their suppliers.

However, few numbers of exporters control the activities of processors, what they are doing. They visit suppliers' washing stations and provide processing advice: they go through the processing unit and tell them where they are going wrong, what they should be doing to make a better quality coffee. As a result, they have a meeting to obtain feedback on the quality of coffee that they have produced, and how the quality can be further improved; this ensures close and the trust relationship between them.

There were close relations and a lot of trust between processors and exporters. The processors obtain information with regard to quality requirements from exporters. As one processor operator in the study area said that; "Our managers go and meet them. They inquire how their coffee is and what kind of coffee they like and whether any improvements they require."

Sometimes processors have difficulties in meeting the requirements of their buyers. There were quality claims made by buyers. In such cases, they meet and resolve the issue by replacing the coffee or refunding the money. During the interview, one exporter said that;

"I can safely say that generally, we do not have big problems other than sometimes quality claims; the bag is damaged in the store and things like that. Sometimes they might say there is some grit. Those are run of the transport problems… But by and large, I can say that in the last 1 year we haven't had problems."

This study also found that most exporters do not monitor the activities of processors, that is, they do not visit and inspect the washing station, with the exception of a few large exporters who are increasingly engaging with processors from which they regularly buy.

4.4.1.4 Relationship between Exporters and International Buyers

Buyers abroad include coffee company, importers, wholesalers, coffeehouse, etc. that participate in the Ethiopian coffee value chain. Most exports bought coffee in bulk amounts. Interview with exporters revealed that they have more than one buyer: there are many buyers in different countries. Some exporters have up to 10 buyers; contrary to this, some exporters are highly dependent on one buyer.

The overall view of exporters shows that they maintained ‘little coordination’ and ‘short term’ relationship with their buyers, especially with their principal buyers who buy on a regular basis. In little cases, they have been working with their principal buyers since the inception of the company. While there have been instances of companies losing their buyers, this is common. Given the shortstanding relationship, there is a little of trust in the relationship between the exporters and their overseas buyers: they said that ‘our relationship is based on the quality of coffee world market situation’.

In the case of label names (brand) owned by the exporters, most exporters sell their coffee by using the brand name of the coffee origin. For example, the coffee produced in the Sidama zone exported by the brand name of ‘Sidama specialty coffee’. The interviewed exporters stated that ‘the international buyers have provided little or no input in the development of the product.

Exporter first send preferably two pounds of green beans from the actual lot that is offered and the location of the beans is disclosed to the buyer so that a possible inspection can be arranged. This sample is also called the “pre-shipment” sample. Then the buyer performs a cupping and grading of the sample to verify the actual characteristics of the coffee. The buyer‟s agent or the buyer him/herself can perform an inspection of the coffee lot and draw additional samples for cupping review. In general, the coffee is stored at this point still as parchment. Most exporters will not start processing the coffee until the purchase contract has been signed and the Letter of Credit (LC) has been issued by the buyer. In most cases, most exporters have a short-term agreement with their buyers.

Interview with exporters also shows that exporters cooperate with their buyers in a number of ways. However, there is a little flow of information between exporters and buyers. In fact, both buyers and exporters visit one another to share information and discuss how to improve the product quality and thus to build their relationship.

According to interviews, buyers do not closely monitor the exporter’s activities: exporters said that ‘’they come frequently, but not to inspect. Their main intention is to establish a relationship and strengthen it’’. The study found that few numbers of buyers specify what it requires in terms of the product and process specifications, including internationally accepted standards and other certifications. A few numbers of large importers visit warehouses and processing factories and recommend improvements to the product and production process.

Most exporters stated that, ‘we are not benefited from the international market because of our low bargaining power, the price we received is also low when we compare with domestic price. The government restrict to sell the export standard coffee in domestic market’. Some exporters compensate their income by importing other commodities after selling their coffee.

4.4.1.5 Relationship between the Cooperative union and International Buyers

The relation between the cooperative union and international buyers is different from the previous one. Most buyers of Sidama specialty coffee are large and well-known western companies. The main requirement of these buyers is quality. Cooperative unions must fulfill quality standards such as health, safety, environmental and social standards to export coffee. Sidama Coffee Farmers’ Cooperative Union marketing officer said that;

“To meet this standard, we have organic, FLO (Fairtrade labeling), UTZ, rainforest alliance, and SCAA (specialty coffee association in America) certificate. This improves our market access to international buyers”

He continued as follows, "these are voluntary standards but they are increasingly necessary compliance requirements to sell coffee to specific international buyers and markets in developed countries. In response to standards, we (Sidama Coffee Farmers’ Cooperatives Union) meet specialty coffee specifications, such as international organic and fair trade certifications or leading company developed standards such as Starbucks CAFÉ standards”, to achieve these standards, buyers provide support for cooperative unions and farmers. They control most processes of the product; some buyers visit the farmland, storage and washing station and they also test soil on the production area to check chemicals residuals.

There is a strong relation between buyers and cooperative unions. Buyers provide training, technical assistance, and recommendations. Based on the interview with cooperative union marketing experts, buyers contact frequently with cooperative unions. These relationships have the potential to provide the most accurate information about the requirement and compliance of standards.

The interview with Ethiopia Coffee and Tea Development Authority officer explained that the awareness of the various public and private stakeholders on standards is ‘very high’ in the industry across the value chain from smallholders to exporters. Given that there are a number of government

organizations (Ministry of Agriculture and Natural Resource, Ethiopia Coffee and Tea Development Authority, etc.) and private associations (Starbucks, Technoserve, etc.) supporting the industry. These organizations regularly disseminate information about standards. In addition, overseas buyers are an important source of information on standards, together with the certification agencies (Fairtrade, Organic, etc.) and consultants (Jimma National Coffee Research Center) operating in Ethiopia. However, Interview with actors reveals that the coffee industry in Ethiopia is 'less competitive' but 'outward-looking', and adds less value on the coffee product other than complying standards. In this context, the stakeholders need more up-to-date information with developments in the international coffee trade, including emerging standards relevant to the industry.

Fairtrade coffee has received permission from the Ethiopian Coffee and Tea Authority to bypass the auction and be directly exported through Djibouti, with the benefit of avoiding intermediaries to get a higher price. They also offer a price premium for specialty coffee. In addition to offering price premiums for organic coffee, buyers also provide non-price incentives, such as technical assistance, training, and inputs to meet the requirements of buyers; farmers also produced organic coffee by complying with international standards.

4.4.2 Governance Structure in Coffee Value Chain

According to the framework developed by Gereffi et al. (2005), the governance structure of the value chain is classified into five. They are market, captive, relational, modular and hierarchy. The following section examines the governance structure between existed actors in the coffee value chain.

The complex interaction of value chain from producers (coffee farmers) to buyers is reflected in the presence of different coordination mechanisms in the same nodes (Figure 18). The node between farmers and cooperatives is characterized by relational. While the relationship between smallholders to private processors (buyers) is characterized by captive or market relationships. The node between processors and exporter is dominated by market-type relationships. Market or captive governance characterizes the relation between exporters and importers. In the case of the cooperatives and cooperative union, the processing and exporting of coffee are both undertaken by the same organization. Here the relationship can be best described as hierarchical because the two stages are directly owned under the management of the same farmer's group.

Coffee farmers sell their fresh cherry to cooperatives and private processors. As explained in section 4.4.1.1, most of the farmers have a long-standing and personal relationship with cooperatives that they supply. These strong ties created a mutual trust between the members of the cooperatives. They have rules and regulation to govern the activities takes place on it. Member farmers supply their products on a regular basis for cooperatives. Moreover, their relationship is bounded by geographical proximity; fresh cherry transported to the washing station as soon as possible for processing before the quality deteriorates. Thus, because of limited capacity of cooperatives, farmers sometimes have little choice about whom to sell their fresh cherry, this creates dependency of farmers for a little number of the buyer. Nevertheless, some can sell their products to private processors and collectors around the village.

Close working partnerships with suppliers play a key role in the survival and success of a firm in turbulent environments. Joint planning, joint problem solving, collaborative communication and legal contract are the most important elements of relational governance (Gereffi et al., 2005). Based on the main findings, it can be concluded that there is relational governance between farmers and cooperatives.

The relationship between farmers and private processors is characterized by market or captive relationships, depending on the flow of information and their market power. This study has found captive relationships between smallholder farmers and their buyers. This governance presents when debt and credit linkages create ‘lock-in' mechanisms. As stated in section 4.4.1.2 most private processors provide financial support to smallholder farmers intended to create long-term relationship. The cost of switching to other suppliers/buyers is also high. Smallholder farmers are dependent on a few buyers who often wield a great deal of power and control. Smallholder farmers link to their buyer under conditions that are often specific to that particular buyer. To meet quality standards of coffee, buyers invest in the product and process upgrading of and control the activities of smallholder farmers on the process of coffee production.

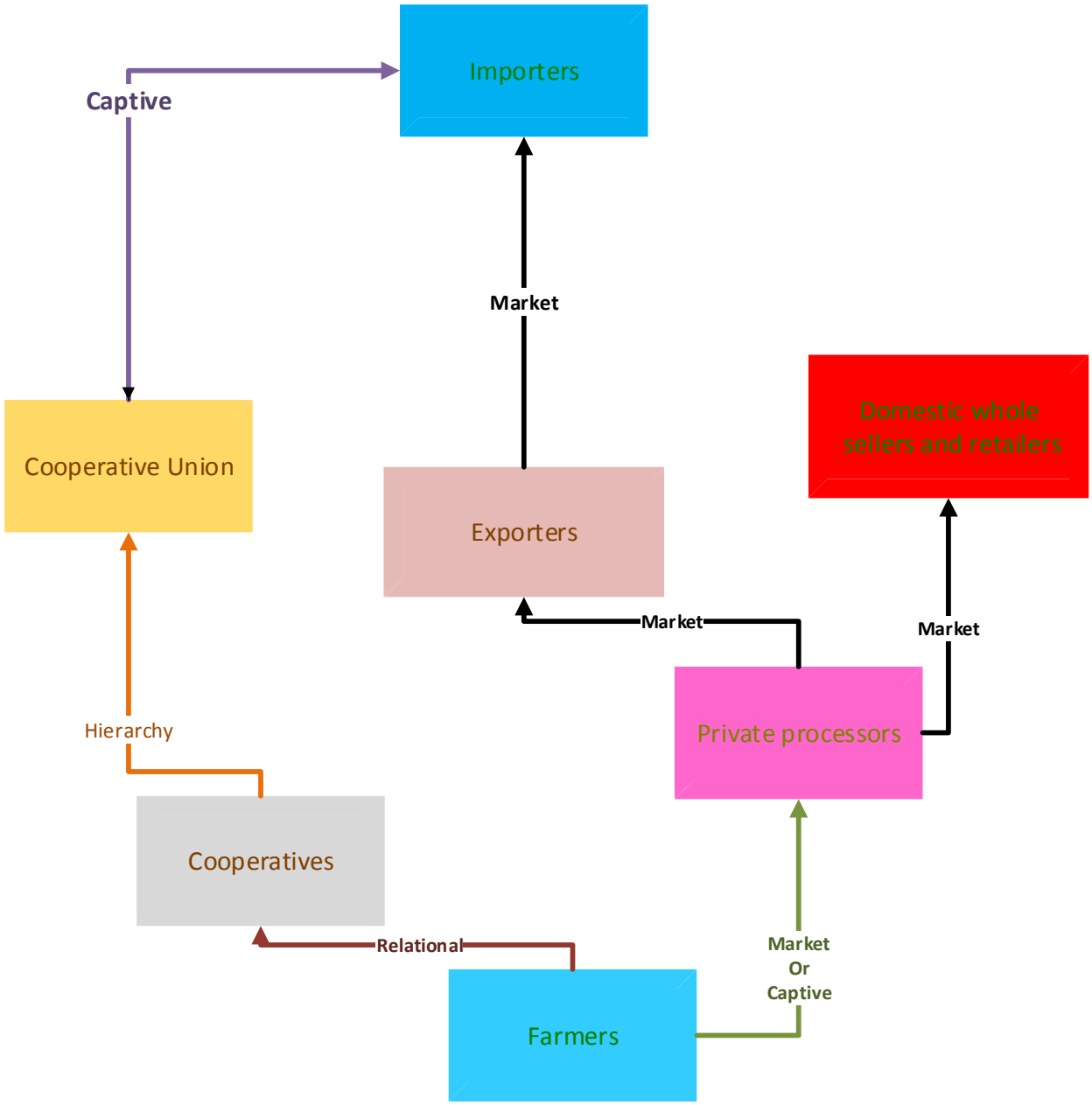

Figure 18: Governance structure of the coffee value chain

Source: Own illustration based on survey data

Middle holder farmer's relationship with buyers is characterized by market governance. As shown in section 4.4.1.2, there is little or no formal cooperation between two coffee value chain participants. They have less dependent on one buyer and the cost of switching to new partners is low for both producers and buyers. The buyer also has no controlling interest in the production process. Interactions between actors are limited and no technical assistance to suppliers is

provided; farmers produce their product by using their own knowledge and finance. There is also little information exchanged between them, both participants practice their activity solely. Based on the above findings, it can be concluded that there is market governance between middle holder farmers and their buyers.

Private processors' relationship with exporters is characterized by arm's length transactions or market governance. As explained in Section 4.4.1.3, the transaction between the two is simple, because dry parchment is sold and bought through the auction center in ECX. There is little or no cooperation between these two stakeholders because quality and marketing processes are passed through ECX. Even the information on the product requirement is relatively simple and easily transmitted and available. The cost of switching is low for both processors and exporters since neither one is dependent on each other. At any given auction, coffee from hundreds of processors (suppliers) is sold in the ECX auction center, and there are hundreds of buyers participating and bidding at the auctions.

The central governance mechanism in the auction is price, determined by demand and supply, rather than one or several powerful buyers. Though there are large buyers who participate and buy substantial quantities of coffee at the auction, they have to bid in open competition.

Similar to the above, the vertical relation between processors and exporters transact without ECX with the contractual agreement is characterized by market governance. In fact, much of the information comes from other stakeholders (support organization) rather than buyers, who provide processing advice and information, etc. The questions of 'what coffee to produce', and 'how to produce and process' are determined by each processor without the advice from exporters. The cost of switching is low for both processors (suppliers) and exporters since neither one is dependent on each other, given that the dry parchment sold by the competition. They can easily switch to another buyer selling their product.

Exporters recently buy from certain processors on a regular basis; based on their contractual agreement. As explained in section 4.4.1.3, little numbers of exporters provide financial assistance such as advance and credit for creating long-term clients in the coffee business due to competition between exporters.

Exporter's relationships with their international buyers are characterized by market and captive governance. As explained in section 4.4.1.4, Buyers abroad specify their requirements but the

requirement is simple that is they need import green bean coffee and the exporter merely buy the coffee from the auction or processors and ships it without much value addition. Here the product specification is quite simple and easily transmitted. In addition, exporters can supply green bean coffee with minimal input to their buyers. This transaction requires little cooperation between exporters and bulk buyers. The cost of switching to alternative supplier/buyers is also low: the buyer can find an alternative exporter in Ethiopia to source the green bean from the auction in ECX, while the exporter can coordinate to another buyer, since it is a matter of buying at the auction or processor and shipping the coffee with little processing involved. Thus the relationship is best characterized as a market.

Nevertheless, the cooperative union interaction with buyers abroad is much more substantial than under market governance, since there is a high level of coordination in terms of information flow and the buyer monitor cooperative union and farmers to ensure that the product and production process meets specifications. The relationship between the cooperative union and international buyers is asymmetrical because the buyers have more power. Thus, in the case of cooperative unions, the relationship can be best described as captive, because the buyers wield more power over cooperative unions.

Based on the above findings, it can be concluded that the value chain of the Ethiopian coffee sector is characterized by a buyer-driven type of relationship. The lead firms are exerting a high degree of power to their suppliers.

4.5 Links between Governance and Upgrading

The partitioning of value chains in the coffee sector according to end-market and product quality is reflected in the presence of different coordination mechanisms in the same nodes of the value chain. The governance structure between farmers and processors is characterized by market, relational or captive relationships, depending on the bargaining power of farmers and on which channel the farmer supplies. Hierarchical coordination also existed between in cases of cooperative with cooperative unions (see Figure 18). The node between processors and exporter is dominated by market-type relationships, but the growing focus on high-end customers on food quality, safety and sustainability are moving the overall value chain towards more captive forms of coordination. This situation is observed in the study area between cooperative unions and importers. The prevalence of captive relationships between farmers and processors and cooperative unions and

importers seems to have induced substantial outcomes for farmers in product and process upgrading. Market-type coordination in the node between farmers and processors coincided with functional upgrading in the sense that farmers had engaged in upstream and downstream activities. However, in captive governance, due to long-term credit, advance and dependency between farmers with private processors have not opened possibilities for functional upgrading.

To summarize, the relationship between forms of coordination and upgrading opportunities is not straightforward in the coffee value chains. Based on the above findings, it can be concluded that limited upgrading coincides with the presence of market governance. Successful upgrading also associated with captive coordination. As there are multiple coordination mechanisms at work in any value chain node, and as mechanisms may differ between different nodes, it is not possible to generalize the relationship between types of governance structure and upgrading opportunities in the same manner. Nevertheless, it does appear that most captive forms of coordination in this case study have fostered some degree of product and process upgrading and that market coordination has led to some functional upgrading at the farmers level. The next chapter addresses the conclusions and recommendations of the study.

CHAPTER 5

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary and Conclusion

The study shows that the key players of the coffee value chain were input suppliers, coffee producers, processors/cooperatives, exporters and cooperative unions. The enabling environment providers were governmental organizations, NGOs, financial institutions, research institutions, development agencies, etc.

The value chain of coffee in Ethiopia is long and stretched; different stakeholders are involved. The smallholders are involved in the cultivation/harvesting of fresh cherry, which is processed into dry parchment by private and cooperative owned washing station. Dry parchment is primarily sold through the ECX Auction. The buyers at auction include exporters, who buy and ship coffee abroad in green bean, as well as local traders supplying lower grade coffee to the domestic market. Exporters and cooperative unions sell the coffee to buyers abroad, who may be retailers, traders, brand-owners, distributors, etc. depending on their market.

Most producers had already engaged in some type of upgrading activity, such as product, process, channel or functional upgrading. Most farmers were improving their product by the compliance of standards and new varieties of seeds, because they were aware of the importance of standards and requirements had to be met by those producing for differentiated coffee markets The majority of the producers had implemented process upgrading by improving field practice, post-harvesting management and logistics. There is also functional upgrading, bypassing intermediaries, this creates the opportunity for the producer to form direct linkages with international buyers. Producers and importers now interact, negotiate and transact each other through Coffee Farmers' Cooperative Union. The functions previously performed by exporters, processors, and brokers have been taken by cooperatives and cooperative unions. Almost all farmers in the study area produced organic specialty coffee by complying with environmental and quality standards. This trend improves the market access of farmers to a more reliable and higher value market channel.

End markets are the main drivers of the process, product, and channel upgrading through market and product information. Changes in consumer preferences provide the impetus for product

upgrading. Vertical linkages are the primary channel in which information transmitted between actors. Horizontal linkages through cooperatives (farmers group) facilitate upgrading by helping owners to overcome marketing constraints. However, the lack of cooperative capacity to collect fresh cherry and lack of technical training is a constraint to benefit all member farmers.

The key opportunities for improving the coffee value chain are the market access and demand for organic coffee, availability of support organizations, a premium price for organic coffee, availability of information on standards and technical support from consumers, availability of genetic diversity, convenient agro-climate region, indigenous knowledge, and established coffee brand both on local and international market.

Lack of investment capital and educational background of actors is upgrading obstacles in this sector. Within the enabling environment, some of the major impediments to coffee upgrading come from infrastructure barriers. Transportation and communication infrastructures are poor.

Complex inter-firm linkages with buyer-driven governance characterize the coffee value chain in Ethiopia. There is a range of mechanisms of coordination at play in the chain between different stakeholders and segments of the chain. At the production level, smallholders are linked to cooperatives and private processors under a relational, market or captive form of governance. In the case of the cooperatives and cooperative union, the processing and exporting of coffee are both undertaken by the same organization. Here the relationship can be best described as hierarchical because the two stages are directly owned and under the management of the same farmer's group. At the processor level, the governance structure between processors and exporters is characterized by market structure, because dry parchment is mainly sold and bought through the auction center in ECX. At the level of export, the relationship between exporters and international buyers is either market or captive, depending on their interaction. Thus, the coffee chain cannot be described by a single governance structure.

The main findings show that upgrading can and do play an important role in helping farmers compete in wider markets. Upgrading can benefit smallholder coffee farmers through increased profits in the short term. It also can open the door to future opportunities for farmers by bringing about new knowledge, skills, and relationships that shift power and information asymmetries in favor of smallholders. Producer groups and other organizational structures that promote horizontal

cooperation among farmers can reduce the transaction costs of working with small producers and help to bridge the physical and social distance between and among producers and buyers.

From the perspective of producers, incentives to upgrade are enhanced when the risks associated with the upgrading are mitigated through better information on prices and market demand, access to supporting markets (finance, business services, and technology), cooperation with other firms both horizontally and vertically, and a supportive enabling environment. Development programs can play an important role in facilitating producers' competitiveness by strengthening the incentives and reducing the risks associated with upgrading.

Even when farmers do upgrade, it should not be assumed they will always benefit. The benefits of upgrading depending on the growth potential of the value chain and the number of farmers that can participate. Due to competition between producers and changes in the end markets, initial gains may not be sustained over time. For example, farmers may have to invest in order to upgrade to meet standards and other export certification, but the returns may not be higher if they are competing with large numbers of producers in many other countries. In another example, certain types of product and process upgrading are more easily accessible to farmers because costs are low and they receive encouragement and assistance in the form of embedded services or other support from buyers. As more and more producers enter a value chain, heavy competition with few barriers to entry can set more buyer-driven structure. Some types of upgrading opportunities, such as in functional upgrading, are more limited in number and often more accessible to farmers with certain advantages: larger enterprises; owned by people who have more resources, power, and greater risk tolerance; or businesses owned by people with the higher skill levels.

However, upgrading is not always the answer. Other factors often are at play which affects the competitiveness (or potential competitiveness) of smallholder farmers in a particular value chain. They may be more competitive in seasonal industries that provide only a portion of their income. A diversified income base, in some cases, helps farmers to manage risk by providing greater flexibility in coping with market fluctuations. Moreover, farmer-level competitiveness among each other may not always be enough. The competitiveness of the overall value chain is a critical factor to benefit farmers.

In the sense of dynamic supply chains where producers have a competitive advantage, recognizing incentives and disincentives for upgrading may help to identify ways of reducing risks for smallholders, improving income and job opportunities for poor people and fostering economic growth.

With respect to the results of less coordinated chains, this research has clearly pinpointed that problems occur in information sharing and aligning chain activities horizontally at the farmers' level and vertically from producer to exporters when conducting postproduction and marketing activities. In market forms of governance, the flow of information is limited, but there is more bargaining power between actors. Contrary to this captive form of coordination facilitate the flow of information but it decreases the bargaining power and, also lock the multiple market opportunity of smallholder farmers. The main causes of these problems, as identified in this research, there is limited information flow from different actors, cooperative support is less in information sharing.

5.2. Recommendations

From the results of upgrading and governance in coffee value chains, several lessons have emerged. These suggest ways to facilitate upgrading and governance and increase the benefits to smallholders by reducing many of the costs, risks, and constraints to upgrading. Governments can facilitate upgrading and governance of the coffee sector by fostering an enabling policy, legal and regulatory environment and by providing public goods such as basic infrastructure, education and information services. The following are the point of recommendation.

Improve the transmission of market information and price signals to producers. Coffee producers will have little incentive to upgrade if there are "weak links" in the flow of market information and price differentials related to quality. To increase benefits to farmers in value chains, it is important to strengthen vertical information flows and to ensure farmers receive a price premium for higher quality. This, along with the payment of higher prices, can help to improve a strong product upgrading response. Federal and regional agricultural office should collect information on the requirements of lead firm standards and their specification to unlock the limited market channel of producers.

Increase the bargaining power of coffee farmers. Increased bargaining power provides greater incentives to upgrade by increasing the risk-adjusted returns to upgrading. The bargaining power

of farmers relative to their buyers can be enhanced by improving farmer's knowledge of markets, prices, and quality. Horizontal collaboration among farmers for purposes of collective bargaining can play a key role in improving profits in the short run. It can also open the door to future opportunities for cooperatives and cooperative union members by bringing new ideas, skills and relationships in favor of farmers that change power and information asymmetries.

Farmers have less bargaing power because of the small volumes of coffee they individually provide to the market and their limited financial capacity.To raise their bargaining power there is need for horizontal coordination and aggregate their product before selling. Smallholder farmers can form groups aimed to joint production and marketing. However, marketing and financial support receives less attention and is supported by few agencies. The government should support technically in terms of group formation, trust, management and marketing skills is required. Different stakeholders should improve the accessibility of loan for farmers. The formation of these groups may improve the bargaining power of farmers.

Promote effective collaboration between farmers. Horizontal collaboration among farmers can take a number of forms. It can involve a large group of farmers or just two or three. It can be either formal or informal. Horizontal cooperation can facilitate upgrading in several ways. It can increase bargaining power, reduce buyers' transaction costs of dealing with large numbers of farmers, and provide a platform for sharing information and demonstrating new products, processes or technologies. Producer groups and other structures that promote horizontal cooperation among farmers can help to bridge the physical and social distance among individual producers and between groups of farmers and buyers. Horizontal collaboration can facilitate access to support services such as training, extension or finance; it can provide a platform for buyers to provide embedded services to larger numbers of farmers.

Develop financial markets for farmer's investment capital. Process and product upgrading often require long-term investments for which farmers must seek outside sources of capital. In addition to buyer's support, other existing sources of formal and informal finance for smallholder farmers (banks and microfinance institutions; savings and credit associations; and loans from friends, relatives, and moneylenders) are mostly short-term working capital loans.

Inaddition to this, provision of credit facilities to farmers can enable them to purchase equipment and machinery needed for washing stations and provide training on how to process coffee would address functional upgrading.

Expand the market channels for producers. Dependence on one market channel can reduce the risk management options available to farmers. The more a household depends on one buyer as its main source of income, the higher the income risk to the household. Diversification of market channels helps farmers to manage risk and is a rational response to dynamic markets. The government should encourage the citizens to participate in coffee trade to improve market channel for farmers as well as the country.

Improve productivity (Process upgrading). Farmers in the study area need more training on producing coffee more efficiently using good agricultural practices. These include the use of improved technologies such as improved varieties and improved production facilities.

Functional upgrading or vertical integration. At present, majority of farmers are just mere producers of fresh cherry. They have minimal involvement in other marketing activities such as processing and exporting. Therefore, it is recommended that farmers be involved in collecting and processing before selling to buyers and other middlemen. Farmers should be informed on the importance of linkages with other actors through value-adding activities including processing, storing and packaging.

Strengthening groups or associations of farmers. The precondition for farmers to be fully and effectively active in chain management activities is that they need to be organized into strong groups or cooperatives in order to gain good bargaining leverage in marketing decision-making. In the study area, there is limited capacity of cooperatives interms of technology and finance, the government and other stakeworker should work to allivate the above stated obtscales.

Bolstering the linkage/interaction among value chain actors. There is a need to change the outlook of actors, by developing ground rules that will bind the relationship between producers and traders. Positive attitudes towards partnership, interaction, networking and learning among key players in the value chain need to be developed in particular. The chain actors should, therefore, work to improve production in an integrated manner.

Improve institutional efficiency. Institutions do not have sufficient human resources at present to monitor stakeholders, not only this they have no condensed data on coffee sector. The government should provide special extension services for growers to improve their skills and knowledge on coffee upgrading aspect and improve the livelihoods of households. In order to meet the export requirements, a respective public organization will work on the development of the sector.

Improve the degree of coordination and infrastructure. The observed problems on governance can be mitigated by removing the causes of these problems, which can improve infrastructure and degree of coordination in those stages of the chain, as well as in the overall chain.

At last, It must also seek to expand the best development practices appropriate for coffee farmers in Ethiopia. This study can provide insights for policymakers, and assist them to make necessary adjustments in policies and support that can increase the information flow and improve relationships between actors in supply chains. Further studies on the value chain are recommended to identify the best upgrading and governance practices.

References

Alemayehu Asfaw. (2014). Coffee Production and Marketing in Ethiopia. *European Journal of Business and Management*, *6*(37).

Alemseged, A., & Yeabsira, Z. (2014). Coffee export business in Ethiopia. Business start-up and operational manual.

Bair, J. (2005). *Global Capitalism and Commodity Chains: Looking Back, Going Forward*. *Competition & Change*. https://doi.org/10.1179/102452905x45382

Baumgärtner, S., & Quaas, M. (2010). *What is sustainability economics? Ecological Economics*. https://doi.org/10.1016/j.ecolecon.2009.11.019

Baxter, P., & Jack, S. (2008). *The Qualitative Report Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers*. *The qualitative reportualitative report*. https://doi.org/citeulike-article-id:6670384

Belay Kinati (2017). Constraints and Opportunities in the Coffee Supply Chain: Value Chain Analysis from Coffee Farmers to Exporters- Case of some selected Districts of Ilu Aba Bor Administrative Zone, Oromia, Ethiopia. *International Journal of Scientific and Research Publications*, *7*(8).

Bellù, L. G. (2013). *Value Chain Analysis for Policy Making Methodological Guidelines and country cases for a Quantitative Approach*. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, FAO.

Beyenech Yilma. (2017). *Value Chain Analysis of Coffee The Case of Yirgacheffe Coffee Farmers Cooperatives Union (YCFCU)*. Addis Ababa University.

Birhanu, B., & Daniel, K. (2013). Quality and Value Chain Analysis of Ethiopian Coffee. *Journal of Agriculture and Social Research*, *13*(No.2), Addis Ababa.

Blaikie, N. (2000). *Designing Social Research*. *Polity Press*. https://doi.org/10.1177/0957926512440660

Bryman, A. (2012). *Social research methods Bryman*. *OXFORD University Press*. https://doi.org/10.1017/CBO9781107415324.004

Burton, D., & Kent, G. (2012). *Ethical Principles*. *Research Training for Social Scientists*. https://doi.org/10.4135/9780857028051.d11

Celo, O., Braakmann, D., & Benetka, G. (2008). *Quantitative and qualitative research: Beyond the debate*. *Integrative Psychological and Behavioral Science*. https://doi.org/10.1007/s12124-008-9078-3

Central Statistical Agency (CSA). (2007). *Population and Housing Census 2007*. *Central Statistical Agency*. Addis Ababa, Ethiopia.

Central Statistical Agency (CSA). (2013). Population Projection of Ethiopia for all Regions at Wereda Level from 2014-2017 Addis Ababa: Ethiopia

Central Statistics Agency (CSA). (2018). *Coffee production Data of Ethiopia (1999-2017) cropping years*. Addis Ababa, Ethiopia: Central Statistical Agency.

Creswell, J. W. (2012). *Qualitative inquiry and research design: choosing among five approaches*. SAGE Publications.

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Approaches*. *SAGE Publication*. https://doi.org/10.2307/1523157

Creswell, J. W., & Poth, C. N. (2017). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (Fourth Edi). SAGE Publications, Inc.

Crittenden, V. L., Crittenden, W. F., Ferrell, L. K., Ferrell, O. C., & Pinney, C. C. (2011). *Market-oriented sustainability: A conceptual framework and propositions*. *Journal of the Academy of Marketing Science*. https://doi.org/10.1007/s11747-010-0217-2

Denscombe, M. (2008). *Communities of practice: A research paradigm for the mixed methods approach*. *Journal of Mixed Methods Research*. https://doi.org/10.1177/1558689808316807

Dietz, M. (2009). *Value Chain Governance that Benefit the Poor*. HELVETAS Swiss Intercooperation.

Dunn, E., & Sebstad, J. (2006). Lessons learned on MSE upgrading in value chains. *USAID, Washington, ….*

Environment and Coffee Forest Forum (ECFF). (2017). Coffee Farming and Climate Change in Ethiopia Impacts, Forecasts, Resilience and Opportunities: Summary Report 2017. Royal Botanic Garden.

Fase, A., Grote, U., & Winter, E. (2009). *Value chain analysis methodologies in the context of environment and trade research. Discussion paper No. 429*.

FDRE Ministry of Trade(MoT). (2019). *Export Trade Data*. (Export trade Information and Conseltation Services Directorate, Ed.). Addis Ababa, Ethiopia.

FDRE Ministry of Trade(MoT). (2018). *Export Trade Data*. (Export trade Information and Conseltation Services Directorate, Ed.). Addis Ababa, Ethiopia: FDRE Ministry Of Trade.

Federal Negarit Gazeta. (2008). Coffee quality control and marketing proclamation No. 602/2008.

Federal Negarit Gazeta. (2017). Coffee Marketing and Quality Control Proclamation No. 1051/2017.

Federal Negarit Gazeta. (2002). Tax on Coffee Export from Ethiopia(Amendement), Proclamation No. 287/2002.

Fereday, J., & Muir-Cochrane, E. (2017). *Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development*. *International Journal of Qualitative Methods*. https://doi.org/10.1177/160940690600500107

Fulponi, L. (2009). *The globalization of private standards and the agri-food system. Global supply chains, standards and the poor: how the globalization of food systems and standards affects rural development and poverty*. https://doi.org/10.1079/9781845931858.0005

Gable, G. (1994). Integrating case study and survey research methods: an example in information systems.

Gereffi, G. (1994). The Organization of Buyer-Driven Global Commodity Chains: How U.S. Retailers Shape Overseas Production Networks. *Commodity Chains and Global Capitalism*.

Gereffi, G. (1999). International Trade and Industrial Upgrading in the Apparel Commodity Chain. *Journal of International Economics*, *48*(1).

Gereffi, G. (2018). *The Organization of Buyer-Driven Global Commodity Chains: How US Retailers Shape Overseas Production Networks*. *Global Value Chains and Development*. https://doi.org/10.1017/9781108559423.003

Gereffi, G. (2014). *Global value chains in a post-Washington Consensus world*. *Review of International Political Economy*. https://doi.org/10.1080/09692290.2012.756414

Gereffi, G., Humphrey, J., Kaplinsky, R., & Sturgeon*, T. J. (2009). *Introduction: Globalisation, Value Chains and Development*. *IDS Bulletin*. https://doi.org/10.1111/j.1759-5436.2001.mp32003001.x

Gereffi, G., Humphrey, J., Kaplinsky, R., & Sturgeon, T. J. (2001). Introduction: Globalisation, Value Chains and Development. *IDS Bulletin*, *32*(3).

Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). *The governance of global value chains*. *Review of International Political Economy*. https://doi.org/10.1080/09692290500049805

Gereffi, G., Korzeniewicz, M., & Korzeniewicz, R. (1994). *Introduction: Global Commodity Chains*. *Commodity Chains and Global Capistalism*.

German Technical Cooperation (GTZ). (2007). *Value Links Manual. The Methodology of Value Chain Promotion*.

Gezahagn, B., & Chemeda, A. (2015). Influence of Coffee Production Systems on the Occurrence of Coffee Beans Abnormality: Implication on Coffee Quality. *Asian Journal of Plant Sciences*. https://doi.org/DOI: 10.3923/ajps.2015.40.44

Gibbon, P. (2001). *Upgrading primary production: A global commodity chain approach*. *World Development*. https://doi.org/10.1016/S0305-750X(00)00093-0

Gibbon, P., Bair, J., & Ponte, S. (2008). *Governing global value chains: An introduction*. *Economy and Society*. https://doi.org/10.1080/03085140802172656

Girma Bayu. (2017). *Analysis of Determinants of Coffee Value Chain Performance in Ethiopia*. Addis Ababa University.

Global Value Chains Initiative. (2017). *Concept and tools*. Duke University Global Value Chains Center.

Halcomb, E. J., Gholizadeh, L., DiGiacomo, M., Phillips, J., & Davidson, P. M. (2007). *Literature review: Considerations in undertaking focus group research with culturally and linguistically diverse groups*. *Journal of Clinical Nursing*. https://doi.org/10.1111/j.1365-2702.2006.01760.x

Hellin, J., & Meijer, M. (2006). *Guidelines for value chain analysis*. *Food and Agriculture Organization of the United Nations*. https://doi.org/10.1057/9781137373755.0007

Hillebrand, J. D., & Berg, B. L. (2006). *Qualitative Research Methods for the Social Sciences*. *Teaching Sociology*. https://doi.org/10.2307/1319429

Hiwot, A., Yitna, T., Yaynabeba, A., & Tesfaw, W. (2017). Assessment of Challenges and Opportunities of Value Addition in Sidama Coffee Value Chain: The Case of Dale District, Southern Ethiopia. *Journal of Poverty, Investment and Development*, *40*(ISSN 2422-846X).

Holste, J. H. (2015). *Data and Data Analysis*. *Local Firm Upgrading in Global Value Chains*. https://doi.org/10.1007/978-3-658-09768-4_4

Hsieh, H. F., & Shannon, S. E. (2005). *Three approaches to qualitative content analysis*. *Qualitative Health Research*. https://doi.org/10.1177/1049732305276687

Humphrey, J., & Schmitz, H. (2001). *Governance in global value chains*. *IDS Bulletin*. https://doi.org/10.1111/j.1759-5436.2001.mp32003003.x

Humphrey, J., & Schmitz, H. (2008). *Inter-firm relationships in global value chains: trends in chain governance and their policy implications*. *International Journal of Technological Learning, Innovation and Development*. https://doi.org/10.1504/ijtlid.2008.019974

International Coffee Council (ICC). (2017). Value addition in the African coffee sector, (Yamoussoukro, Côte d'Ivoire).

International Coffee Organization (ICO). (2017). *Exportable production by all Exporter Countries*.

International Coffee Organization (ICO). (2018). *Exportable production by all exporting countries*.

Johnson, R. B., & Onwuegbuzie, A. J. (2007). *Toward a Definition of Mixed Methods Research*. *Journal of Mixed Methods Research*. https://doi.org/10.1177/1558689806298224

Jonker, J., & Pennink, B. (2010). *The Essence of Methodology*. *The Essence of Research Methodology*. https://doi.org/10.1007/978-3-540-71659-4_2

Joskow, J., & Yamane, T. (2006). *Statistics, an Introductory Analysis. Journal of the American Statistical Association*. https://doi.org/10.2307/2282703

Kaplinsky, R. (2000). *Globalisation and unequalisation: What can be learned from value chain analysis? Journal of Development Studies*. https://doi.org/10.1080/713600071

Kaplinsky, R., & Morris, M. (2001). *A HANDBOOK FOR VALUE CHAIN Research*. *Prepared for the IDRC*.

Kassaye, T., & Luc, D. (2018). Analysis of coffee quality along the coffee value chain in Jimma zone, Ethiopia. *African Journal of Agricultural Research*. https://doi.org/10.5897/AJAR2018.13118

Kattel, R. (2009). The impact of Coffee Production on Nepal Smallholders in Value Chain.

Kelley, K., Clark, B., Brown, V., & Sitzia, J. (2003). *Good practice in the conduct and reporting of survey research*. *International Journal for Quality in Health Care*. https://doi.org/10.1093/intqhc/mzg031

Keyser, J. (2006). Description of Methodology and Presentation in Value chain Analysis.

Khiem, N. T., Bush, S. R., Nguyen, M. C., & Loc, V. T. T. (2010). *Upgrading small-holders in the Vietnamese Pangasius value chain: Final Report*. *Final Report, ODI grant number RO334*.

Krauss, S. E. (2005). *Research paradigms and meaning making: A Primer*. *The Qualitative Report Online Journal*. https://doi.org/10.1176/appi.ajp.162.10.1985

Krueger, R. A., & Casey, M. A. (2015). *A Practical Guide for Applied Research*. *Sage Publications, Inc.* https://doi.org/10.1002/j.1556-6678.2007.tb00462.x

Mabuza, M. L., Ortmann, G. F., & Wale, E. (2013). Socio-economic and institutional factors constraining participation of Swaziland's mushroom producers in mainstream markets: An

application of the value chain approach. *Agrekon*. https://doi.org/10.1080/03031853.2013.847037

Maxwell, J. A. (2013). *Qualitative Research Design: An Interactive Approach*. *Qualitative Research Design: An Interactive Approach*. https://doi.org/10.3724/SP.J.1042.2015.01869

Mitchell, J., & Coles, C. (2013). *Markets and rural poverty: Upgrading in value chains*. *Markets and Rural Poverty: Upgrading in Value Chains*. https://doi.org/10.4324/9781315067230

Mitchell, J., Coles, C., & Keane, J. (2009). *Trading up: How a value chain approach can benefit the rural poor*. *Overseas development institute (ODI)*.

Muhabie, M. (2015). Assessing the performances of coffee marketing cooperatives in Yirgacheffe woreda, Gedeo Zone, SNNPRS, Ethiopia. *International Journal of Community and Cooperative Studie*, *3*, 30–43.

Nangole, E., Mithöfer, D., Franzel, S., Nang, E., Mithöfer, D., & Franzel, S. (2011). *Review of Guidelines and Manuals for Value Chain Analysis for Agricultural and Forest Products*. *ICRAF Occasional Paper No. 17* .

Neilson, J. (2008). *Global Private Regulation and Value-Chain Restructuring in Indonesian Smallholder Coffee Systems*. *World Development*. https://doi.org/10.1016/j.worlddev.2007.09.005

Neilson, J., & Pritchard, B. (2009). *Value Chain Struggles: Institutions and Governance in the Plantation Districts of South India*. *Value Chain Struggles: Institutions and Governance in the Plantation Districts of South India*. https://doi.org/10.1002/9781444308723

Notarnicola, B., Hayashi, K., Curran, M. A., & Huisingh, D. (2012). *Progress in working towards a more sustainable agri-food industry*. *Journal of Cleaner Production*. https://doi.org/10.1016/j.jclepro.2012.02.007

Petersen, L. M., Moll, E. J., Hockings, M. T., & Collins, R. J. (2015). *Implementing value chain analysis to investigate drivers and sustainability of Cape Town's informal economy of wild-harvested traditional medicine*. *Local Environment*. https://doi.org/10.1080/13549839.2014.887667

Ponte, S. (2009). *Governing through quality: Conventions and supply relations in the value chain for South African wine*. *Sociologia Ruralis*. https://doi.org/10.1111/j.1467-9523.2009.00484.x

Ponte, S., & Gibbon, P. (2005). *Quality standards, conventions and the governance of global value chains*. *Economy and Society*. https://doi.org/10.1080/0308514042000329315

Porter, M. E. (1985). *Creating and sustaining superior performance*. *Competitive Advantage*. https://doi.org/10.1182/blood-2005-11-4354

Rich, K., Rose, R., Beker, A., & Negassa, A. (2011). Quantifying value chain analysis in the context of livestock systems in developing countries. *Food Policy*, *36*.

Sale, J. E. M., Lohfeld, L. H., & Brazil, K. (2002). *Revisiting the quantitative-qualitative debate: Implications for mixed-methods research*. *Quality and Quantity*. https://doi.org/10.1023/A:1014301607592

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students Fifth edition*. *Research Methods for Business Students Fifth edition*. https://doi.org/10.1017/CBO9781107415324.004

Schmitz, H., & Knorringa, P. (2000). Learning from global buyers. *Journal of Development Studies*.

Soosay, C., Fearne, A., & Dent, B. (2012). *Sustainable value chain analysis - a case study of Oxford Landing from "vine to dine." Supply Chain Management*. https://doi.org/10.1108/13598541211212212

Stamm, A., & Drachenfels, C. (2011). Value Chain Development: Approaches and Activities by Seven UN Agencies and Opportunities for Interagency Cooperation.

Stake, R. (2001). *Qualitative research: How things work. Qualitative research: Studying how things work*. https://doi.org/10.1119/1.2343635

Sturgeon, T. J. (2008). *From Commodity Chains to Value Chains : Interdisciplinary theory building in an age of globalization*. *Frontiers of Commodity Chain Research*. https://doi.org/10.1017/CBO9781107415324.004

Tebarak Lika. (2010). Inter-firm relationships and governance structures: A study of the Ethiopian leather and leather products industry value chain. *Bayreuth International Graduate School of African Studies (BIGSAS), University of Bayreuth, Germany*.

Teshale Fikadu. (2017). Value Chain Analysis of Ethiopian Coffee (Coffea arabica). *Archives of Current Research International*. https://doi.org/10.9734/acri/2017/31486

Trienekens, J. H. (2011). *Agricultural value chains in developing countries a framework for analysis*. *International Food and Agribusiness Management Review*. https://doi.org/103987.html

UNIDO. (2015). *Global Value Chains and development; UNIDO's support towards inclusive and sustainable industrial development*. *United Nations industrial development organization*.

UNIDO. (2009). *Agro-Value Chain Analysis and Development: The UNIDO Approach*. *Technical report prepared by the Agri-Business Development Branch of UNIDO.*

USAID. (2010). Ethiopian Coffee Industry Value Chain Analysis: Profiling the actors, their interactions, costs, constraints and opportunities. *Chemonics International Inc.*

USAID. (2011). *Ethiopian Coffee Buying Manual: Practical Guidelines for Purchasing and Importing Ethiopian Speciality Coffee Beans*. Addis Ababa, Ethiopia: USAID's Agribusiness and Trade Expansion Program.

Value Chain Initative. (2004). *Value Chain Guidebook. A Process for Value Chain Development*. *Education And Training*. https://doi.org/10.1017/CBO9781107415324.004

World Trade Organization (WTO). (2005). *World trade report 2005: Trade, standards and the WTO*. *World Trade `Report*.

Zinabu, W., Admassu, T., Selamawit, Y., & Tigistu, G. (2017). A Review on Coffee Farming, Production Potential and Constraints in Gedeo Zone, Southern Ethiopia. *Journal of Natural Sciences Research*, *7*(ISSN 2225-0921 (Online)), No.23.

Appendix-I

Questionnaire for coffee producer

Questionnaire No.		**Date entry no**	

Governance and upgrading of Coffee Value Chain analysis in Ethiopia

The main objective of the research is to analyze the governance and upgrading of Coffee value chain in order to enhance economic growth of the producers, processors and traders. To achieve this objective of the research, the researchers would kindly like to ask for your cooperation. We assure you that all information you give during the interview will be kept strictly/confidential. Data will be used for scientific purpose only and will not give to any other outside person.

Date of Survey:		**Location of interview:**	

A. General Information

1. Code of Respondent: ……
2. Gender: ..... A. Male, B. Female
3. Age of Respondent: ..... (in years)
4. Is he/she HH head: ..... A. Yes, B. No
5. Address: Region: …..... Zone: ……Wereda: .....…...
6. Ethnicity: ..... Religion: .....
7. How many family members do you have? (Record number in each category by gender)

Male			Female			Total
<18	18-59	=>60	<18	18-60	=>60	

8. Are you literate? ..... A. Yes, B. No

If yes, what is your education level? ..... (Years in school)

9. Do you have any other occupation besides coffee business? ..... A. Yes, B. No

If yes, which one of the following is applicable? .....

A = Agriculture (Farming other crops as well) D = Service,

B = Self-employed, E = Remittance

C = Multiple occupation

10. Are you member of any of the following producer organizations?

Name of Organization	Membership A. Yes, B. No	If yes, is membership helpful to you? A. Yes, B. No	Number of meetings attended per year
Farmers' group(Cooperative)			

11. What are the main benefits that you get from cooperative union?

No.	Support	Rank (1,2,3,4 or 5)
1	Input	
2	Credit	
3	Training (production, marketing…)	
4	Information	
5	Marketing access	
6	Higher income	

Others please specify _____

12. What are the main challenges that you face from your cooperative unions? _____
_____

13. Have you received any training and support from the following stockholders? Mark √ on the space.

Stockholder	Input	Production techniques	Harvesting and post-harvesting	Processing	Marketing
GOs					
NGOs					
Universities					
Research centers					
Buyers					
Cooperatives					
Others					

Is the training are sufficient? ..... A. Yes, B. No

14. Do coffee technician visit your home and farm? ..... A. Yes, B. No
If yes, what's the number of visit per year: …….

B. Coffee Production

15. What is the area of land you own? (in hectare)

Size of Land	Owned	Rented	Total

16. Do you have irrigation facilities in your coffee farm? ..... A. Yes, B. No
If yes, in how much hectare? .....

17. From where did you learn about the coffee cultivation at first? .....

A. Family/ Relatives/ Neighbors/Self, B. Extension training /Visit,

C. Formal education, D. NGOs,

E. GOs, F. More than one source

18. Specify the sources from where you bring inputs for coffee cultivation.

A. Own, B. Agro extension, C. Cooperatives/groups, D. locally available, E. GOs/NGOs,

Inputs	Source (1,2,3,4,5)
Manure/Fertilizer	
Seeds/Seedling	
Pesticides	
Tools and equipment	

19. How did you finance for the coffee farming?
    A. Own, B. Government subsidy, C. Grant from project,
    D. Loan from Bank, E. Credit from neighbors F. Farmer's group/cooperatives'

20. Where do you sell your coffee? A. near the farm for buyers B. In wereda market C. In zone market D. Cooperatives washing station E. ECX
21. What is the yield and at what price did you sell your coffee in 2011 E.C?

	Yield (kg)		Price (Birr /Kg.)	
	Fresh Cherry	Dry Cherry	Fresh cherry	Dry Cherry
Cooperatives				
Private processors				

22. How to sell your product?
    A. By phone B. face to face in farm C. contractual agreement D. Others, please specify
23. How many clients/buyers do you have?
    A. Local trader, B. Cooperative, C. ECX, D. Company E. whole seller, 6. Processors
24. How many are your principal clients_____? Are they paid better price than other clients? A. Yes B. No
25. Do your clients/buyers change frequently? A. Yes B. No If yes what are the main reasons for changes with buyers?
26. Is there cooperation between you and your clients?
A. Independent B. Close/collaborative C. Difficult D. Considerable information exchange E. others, specify_____
27. Do you have a contract agreement with your buyers? A. Yes B. No If your answer is yes what are the main points that you agreed?

Contents of agreement		
Price	Who decide?	
Quality	Grade	
Amount	In Kg	
Delivery time	When do you deliver?	
Transport and other cost	Who cover the cost?	
Information	Which information you receive?	
Financial support	Loan/free	
Equipment	What materials provide form?	

Length of contract	In year?	
Risk share	Is your clients share your risk?	
Profit share	Is your clients share extra profit after sale?	
Technology		

Others, please specify _____

_____

28. Is that your relation with clients? A. a lot of trust B. there is some trust C. there is trust
29. Do your clients monitor your activity? A. Yes B. No If your answer is yes, how do they monitor?_____
30. Do you receive any assistance with your clients?
    A. credit B. information C. Input D. technical assistance E. others
31. From where you know the market price of coffee beans?
    A. Radio/FM, B. Newspaper, C. TV, D. Cooperatives, E. Traders, F. More than 1 source
    If yes, do you get the information in time? ..... A. Yes, B. No
32. Who fix the price of your product? A. Own B. Buyers C. Both D. Others
33. What is your opinion on the price of fresh cherry/dry cherry you've received? .....
    A. High, B. low, C. appropriate D. do not know
34. Is your coffee organic certified? ..... A. Yes, B. No
    If yes, what is the year of certification …….. Certified in which standard?
    …….....
    If yes, who bears the certification cost? .....
    A. Self, B. Cooperative, C. Government subsidy, D. NGO/INGO, E. Buyers

C. Upgrading

35. Do you participate coffee value chain other than selling in fresh cherry/dry bean? A. Yes B. No If yes please specify

	Yes	No
Produce compost		
Produce seed/seedling		
Process coffee/pulping or washing		
Exporting coffee		
Others, please specify		

36. Do you resume any activities with in coffee chain? A. Yes B. No If yes what was the activities?
    A. Coffee trade B. Process C. Produce input D. Export E. Others
37. Do you improve the production volume of coffee? A. Yes, B. No If yes how can you improve?
    A. production techniques/field practice C. improve investment on logistics (E.g. Irrigation…)
    B. improved the production materials D. Reduce harvesting/post-harvesting losses
38. Do you improve your selling volume? A. Yes B. No If yes, how
    A. using new varieties of seeds B. producing organic coffee
39. Is your market channel expand? A. Yes B. No If yes, how

40. Are you benefitted for these? A. Yes B. No
41. Is your coffee is: A. organic B. convectional?
42. **What is your opinion about organic production as compared to that of conventional in following aspects?**

Aspects	**Opinion (1,2,3,4)**
a. Yield	
b. Time investment	
c. Cost investment	
d. Price premium	
e. Quality of coffee	
f. Ease of farming practices	
g. Infestation of pest and disease	

43. Rate the following production problem into following scales.
A. Severe, B. Moderate, C. Slight, D. No problem

Production Problems	Scale (1,2,3,4,4,5,6,7,8,9,10)
a. Infestation of insects and diseases	
b. Lack of credit facilities	
c. Lack of irrigation facilities	
d. Lack of quality inputs (seeds, seedlings, manure, Bordeaux mixture)	
e. Supply of inputs in appropriate time	
f. High cost of inputs	
g. Unavailable farm labor	
h. High labor wage	
i. Lack of technical knowledge (via training, etc.)	
j. Inadequate government support	

What are other production problems, if any?.....

……

44. Rate the following upgrading problem in the following scales.

Upgrading Problems	Scale (1,2,3,4,5,6,7,8,9)
a. Difficulty on acceptance of new technology	
b. shortage of infrastructure(road, network,	
c. lack of training	
d. lack of finance, credit	
e. lack of land	
f. lack of labor	
g. lack of input	
h. High cost of processing materials	
I. Inadequate government support	

What are the other upgrading constraints? _____

45. Rate the following marketing problem into following categories.
A. Severe, B. Moderate, C. Slight, D. No problem

Marketing Problems	Scale (1,2,3,4)
a. Low farm gate price	
b. High price fluctuation	
c. No timely payment	
d. Insufficient processing facilities	
e. Insufficient storage facilities	
f. Transportation problem and inaccessible market	
g. Insufficient market information (about price and quality)	
h. Rejection of crop by traders/cooperatives reasoning low quality	
i. Presence of middleman	
j. Low production	

46. What are other marketing problems, if any?
.....
47. Do you feel happy with your life being a coffee farmer? .....
A. Yes, B. More or less, C. No, D. Do not know
48. Do you have any plan to extend coffee in future? ..... A. Yes, B. No
49. What do you think government should do for development of coffee in your area?(Rules and Regulation, Support…)
.....
.....

Thank you for your kind support!!!

Appendix-II

አዲስ አበባ ዩኒቨርሲቲ
የማህበራዊ ሳይንስ ጥናቶች ኮሌጅ
ጅኦግራፊና አካባቢ ሳይንስ ት/ክፍል

ለቡና አምራች አርሶ አደሮች የተዘጋጀ መጠይቅ

Questionnaire No.		Date entry no	

የቡና ሠንሠለት በኢትዮጵያ

ይህ መጠይቅ የተዘጋጀው እኔ ጋሻው አድሴ በአዲስ አበባ ዩኒቨርሲቲ በማህበራዊ ሳይንስ ጥናቶች ኮሌጅ ጅኦግራፊና አካባቢ ሳይንስ ት/ክፍል ለማደርገው የሁለተኛ ዲግሪ ትምህርት ማሟያ ጥናትይሆን ዘንድነው፡፡ የዚህ መጠይቅ ዋና አላማ በቡና አስተዳደርና እሴት ላይ የሚታዩ መልካም እድሎችንና ተግዳሮቶችን በመለየት ቡና አምራቾችን፣ ነጋዴዎችንና ሌሎችን በቡና የእሴት ሰንሰለት ውስጥ የሚሰማሩ ባለድርሻ አካላትን ተጠቃሚነትን የሚጨምሩና አሰራሮችን የሚያሻሽሉ መፍትሄዎችን ለመጠቆም ነው። እርስዎም በዚህ ጥናት እንዲሳተፉ ሲመረጡ የሚሰጡት ትክክለኛውን መረጃ ለጥናቱ ውጤታማነት በጣም አስፈላጊ መሆኑን በመገንዘብ መጠይቁን በጥንቃቄ እንዲሞሉ በአክብሮት እጠይቃለሁ፡፡ ተሳትፎዎ በእርስዎ በጎ ፈቃደኝነት ላይ የተመሰረተ ነው፡፡ በመጨረሻም የሚሰጡት መረጃ ሚስጥራዊነቱ የተጠበቀና ለዚህ ጥናት ዓላማ ብቻ እንደሚውል አረጋግጣለሁ፡፡ የማንኛውም መልስ ሰጪ ማንነት በማንኛውም መልኩ የማይታተምና የማይሰራጭ ይሆናል፡፡ ሁሉም መረጃዎችለትምህርታዊ ዓላማ ብቻ ይውላሉ፡፡ ጊዜዎን ሰውተውስ ለሚያደርጉልኝ ትብብር በቅድሚ ያአመሰግናለሁ፡፡

ማሳሰቢያ፡-

- ♣ በመጠይቁ ላይ ስም መፃፍ አያስፈልግም፡፡
- ♣ ትክክለኛ መልስ የያዘዉን ፊደል በማክበብ ይመልሱ፡፡
- ♣ ባዶ ቦታዎችን ትክክለኛ መልስ በመጻፍ ይመልሱ፡፡

መጠይቁ የተሞላበት ቦታ		መጠይቁ የተሞላበት ቀን	

ክፍል 1፡ የግል መረጃ

1. የጥናቱ ተሳታፊ: .....
2. ጾታ: ..... ሀ. ወንድ, ለ. ሴት
3. ዕድሜ: .....
4. የቤት አስታዳዳሪ ነዎት: ..... ሀ. አዎ ለ. አይደለም
5. አድራሻ: ክልል: ..... ዞን: ..... ወረዳ: .....
6. ብሄር: ..... ሃይማኖት: .....
7. የቤተሰብ ብዛት? (ሰንጠረዡ ላይ በጾታ በመለየት ይሙሉ)

ወንድ			ሴት			ድምር
<18	18-60	>60	<18	18-60	>60	

8. የተማሩ ነዎት? ..... ሀ. አዎ ለ. አይደለም

መልስዎ አዎ ከሆነ የትምህርትደረጃዎን ቢገልጹልን? .....

9. ከቡና ማምረት ውጭ በሌላ ስራ ይሳተፉሉ? ..... ሀ. አዎ ለ. አይደለም

መልስዎ አወ ከሆነ በምን አይነት የስራ ዘርፍ ተሰማርተው ተጨማሪ ገቢ ያገኛሉ?

ሀ. እርሻ (ሌላ ምርት ማምረት)

ለ. የመንግስት ስራ

ሐ. የተለያዩ ስራዎችን''

መ. በአገልግሎት ዘርፍ

ሠ. ከውጭ/ከሀገር ውስጥ በሚላክልኝ ገንዘብ

ረ. ሌላ ካለ ይጥቀስሉን ----------

10.የቡና አምራቾች ማህበር አባል ነዎት?

የማህበሩስ ስም	በአባላነት የቆዩበትግዜ (በአመት)	የማህበሩ አባል በመሆንዎ ተጠዋሚነዎት? ሀ. አዎ ለ. አይደለም	በአመት ስንት ግዜ ትሰበሰባላችሁ?
1.			
2.			

11.የማህበሩ አባል በመሆንዎ የሚገኙት ጥቅሞች ምንድን ነው?

ቁጥር	የድጋፉ አይነት	ደረጃ(1,2,3,4,5,6)
1	የምርት ግብአት	
2	ብድር	
3	ስልጠና (የቡና አመራረት, ገበያ...)	
4	መረጃ	
5	የገበያ እድል	
6	የተሻለ የቡና ዋጋ	

ሌላካለይግለጹልን _____

_____

12.የማህበሩ አባል በመሆንዎ ያጋጠመዎ ችግር ካለ ይግለጹልኝ? _____

_____

13.ቡና ላይ ከተሰማሩ ባለድርሻ አካላት ስልጠና አግኝተው ያውቃሉ? ሀ. አዎ ለ. አይደለም

መልስዎ አዎ ከሆነ የሰለጠኑት የስልጠና አይነት ላይ የ√ ምልክት ያድርጉ?

የባለ ድርሻ አካላት ዝርዝር	የምርት ግብአት	የአመራረት ዘዴ	የምርት አሰባሰብ/ድህረምርት	ምርት ቅንብር	ገበያ
መንግስት					
መንግስታዊ ያልሆኑ ድርጅቶች					
ዩኒቨርሲቲዎች					
የጥናትና ምርምር ማዕከል					
ከደንበኞች					
ከማህበራት					
ከሌላ					

ስልጠናው በቂ ነበር ብለው ያስባሉ? ሀ. አዎ ለ. አይደለም

14. የቡና ባለሙያወች(ኤክስፐርቶች) የቡና ማሳዎን ጎብኝተውት ያውቃሉ? ሀ. አዎ ለ. አይደለም
መልስዎ አዎ ከሆነ በአመት ለስንት ግዜ ይጎበኛሉ? ----------

ክፍል 2፡ ቡና ምርትን የተመለከቱ ጥያቄዎች

15. ምን ያህል የቡና ማሳ አለዎት? (በሄክታር)

የመሬት ስፋት	የራስ	የከራይ	ድምር

16. ቡና ለማምረት መስኖ ይጠቀማሉ? ሀ. አዎ ለ. አይደለም
መልስዎ አዎ ከሆነ ምን ያህል መሬት(በሄክታር) በመስኖ ቡናን ታመርታለህ?

17. ቡናን ለማምረት የሚያስፈልጉ ግብኣቶችን ከየት ያገኛሉ?

ሀ. ከራሴ ለ. ከግብርናኤክስቴንሽኖች ሐ. ከማህበራት መ. ከአካባቢ ሠ. መንግስታዊ/መንግስታዊ ካልሆን ድርጅቶች

የግብዓት አይነቶች	ምንጭ (ሀ,ለ,ሐ,መ,ሠ)
ማዳበሪያ	
ምርጥ ዘር	
ጸረ-አረም	
የማምረቻ መሳሪያወች	

18. ቡናን ለማምረት የሚያስፈልገውን ወጭ ከየት ያገኛሉ?
ሀ. ከራሴ ለ. በመንግስት ድጎማ ሐ. በፕሮጀክት ድጋፍ
መ. በባንክ ብድር ሠ. ከግለሰቦች በብድር ረ. ከዐርሶ-አደሮቸ ከማህበራት

19. ከቡና ምርት ጎን ለጎን ሌላ አዝዕርት ያመርታሉ? ..... ሀ. አዎ ለ. አይደለም
መልስዎ አዎ ከሆነ ምን እንደያመርቱ ቢገለጽ? _____

20. የቡና ምርትዎን የት ነው የሚሸጡት? ሀ. የእርሻ ማሳየ ላይ ለ. ወረዳ ላይ ሐ. ዞን ላይ መ. ለማህበራት ሠ. ለቡና ማጠቢያ ማዕከሎች ረ. ለኢትዮጵያ ምርት ገበያ

21. በተከታታይ 2 አመታት ምን ያህል ምርት አገኙ እንዲሁም በምን ያህል ዋጋ ሸጡ?

	የምርት መጠን (ኪ.ግ)		የመሸጫ ዋጋ (ብር /ኪ.ግ)	
	ሉሎ/ቀይ ቡና	ደረቅ ያልተፈለፈለ	ሉሎ/ቀይ ቡና	ደረቅ ያልተፈለፈለ
ለማህበራት				
ለግል አቅራቢዎች				

22. የቡና ምርትዎትን እንዴት ይሸጡታል?
ሀ. በስልክ ለ. ፊት ለፊት በመነጋገር ሐ. በኩንትራት መ. ሌላ ካለ ቢገለፅ

23. ያመረቱትን ቡና ለማን ይሸጡታል?
ሀ. በአካባቢ ለሚገኙ ገዝዎች ለ. ማህበራት ሐ. ለኢትዮጵያ ምርት ገበያ መ. ለግል ድርጅቶች ሠ. ለጅማላ ነጋዴዎች ረ. ለቡና ማጠቢያ ማዕከሎች

24. ምን ያህል ቋሚ ደንበኞች አለዎት?_____? ቋሚ ካልሆኑ ደንበኞች የተሻለ ክፍያ ይከፍላሉ? ሀ. አዎ ለ. አይደለም
25. ደንበኞችዎን በየግዜው ይቀያይራሉ? ሀ. አዎ ለ. አይደለም መልስዎ አዎ ከሆነ ለምን ይቀይራሉ
26. ከደምበኛዎ ጋር ያለወት ግንኙነት ምን ይመስላል?
ሀ. ምንም ለ. የጠበወ ግንኙነት ሐ. ጥሩ ያልሆነ መ. መረጃ መለዋወጥ ብቻ ሠ. ሌላ ካለ ቢገለጹ_____
27. ከደምበኛዎ ጋር የንግድ ስምምነት አለዎ? ሀ. አዎ ለ. አይደለም መልስዎ አዎ ከሆነ የተስማማቹህባቸው ነጥቦች ምን ምን ናቸው

የስምምነት ነጥቦች		
ዋጋ	ማን ይወስናል?	
ጥራት	ደረጃ	
መጠን	በኪ.ግ	
ምርቱን የማስረከቢያ ግዜ	መቸ?	
የማጓጓዣና ሌሎች ወጭወች	በማን ይሸፈናሉ?	
መረጃ	ምን አይነት መረጃ ትለዋወጣላችሁ?	
የገንዘብ ድጋፍ	ብድር በወለድ/ያለወለድ	
የማምረቻ መሳሪያ ድጋፍ	የመሳሪያወች አይነት?	
ስምምነቱ የሚጸናበት	ለምን ያህል አመት?	
ኪሳራን መጋራት	ምን ያህል?	
ትርፍ ክፍፍል	ምን ያህል?	
የቴክኖሎጅ ድጋፍ	ምን አይነት	

ሌላም ካለ ቢገለጽ _____
_____
28. ከደንበኛዎ ጋር ያለወት ግንኙነት ምን ይመስላል? ሀ. መተማመን ያለበት ለ. የተወሰነ መተማመን ሐ. መተማመን የለለበት
29. ደንበኞችዎ የርስዎን የስራ እንቅስቃሴ ይቆጣጠራሉ? ሀ. አዎ ለ. አይደለም መልስዎ አዎ ከሆነ እንዴትና ለምን ይቆጣጠራሉ?_____
30. ከደንበኛዎ ምን አይነት ድጋፍ ያገኛሉ?
ሀ. ብድር ለ. መረጃ ሐ. ግብኣት መ. ቴክኒካዊ ድጋፍ ሠ. ሌላ
31. የቡና ገበያ መረጃ ከየት ያገኛሉ?
ሀ. ከሬዲዮ ለ. ከጋዜጣ, ሐ. ከቴሌቪዥን መ. ከማህበራት ሠ. ከደንበኛዎ
የሚያገኙት የቡና ገበያ መረጃ ትክክል ነው ሀ. አዎ ለ. አይደለም
32. የሚሸጡትን ዋጋ የሚወስነው ማን ነው? ሀ. እኔ ለ. ገዢው ሐ. ሁለታችን መ. በሌላ መንገድ
33. ምርትዎን የሚሸጡበት ዋጋ ምን ያስባሉ?
ሀ. ከፍተኛ ነው ለ. ዝቅተኛ ነው ሐ. ተመጣጣኝ ነው መ. አላውቅም
34. የቡና ምርትዎ ኦርጋኒክ ነው? ..... ሀ. አዎ ለ. አይደለም
መልስዎ አዎ ከሆነ ደረጃው……. ማስረጃ/ሰርተፊኬት ያገኙበት አመት ……. ሰርተፊኬቱ ምንድን ነው?…….
የጥራት ማረጋገጫ የሚሰጠው አካል ማን ነው? .....
ሀ. እኔ ለ. ማህበራት ሐ. መንግስት አካላት መ. መንግስታዊ ያልሆኑ ድርጅቶች ሠ. ድርጅቶች ረ. ገዥው

ክፍል 3፡ የቡና እሴት

35. ቀይ ቡና አሸት ከማምረት ውጭ በቡና እሴት ሰንሰለት ውስጥ በምን ላይ ትሳተፋለህ ሀ. አዎ ለ. አይደለም መልስዎ አዎ ከሆነ በየትኛው?

	አወ	አይደለም
የተፈጥሮ ማዳበሪያ ማምረት		
የቡና ችግኝ ማምረት		
ቡና ማጠብ		
ቡናን ማላክ		
ሌላ ካለ ይጥቀሱልኝ		

36. ከዚህ በፊት የቡና ሰንሰለት ውስጥ ይሰተፉ ነበር? ሀ. አዎ ለ. አይደለም መልስዎ አዎ ከሆነ ምን ነበር?
ሀ. ቡና ንግድ ለ. ቡና ማቀነባበር ሐ. ግብዓት ማምረት መ. ወደ ውጭ መላክ ሠ.ሌላ ካለ.....

37. በዚህ የምርት ዘመን የሚያመርቱት ምርት ጨምሯል? ሀ. አዎ ለ. አይደለም መልስዎ አዎ ከሆነ እንዴት
ሀ. አመራረት ዘዴ በመቀየሬ ሐ. የተሻለ ኢንቨስት ስላደረኩ በሎጅስቲክ (ምሳሌ. መስኖ...)
ለ. የተሻለ የማምረቻ መሳሪያ በመጠቀሜ መ. ደህረ ምርት ብክነትን በመቀነሴ

38. የምትሸጠውን የቡና መጠን ጨምረዋል? ሀ. አዎ ለ. አይደለም መልስዎ አዎ ከሆነ እንዴት
ሀ. አዲስ ዘር መጠቀም በመጀመሬ ለ. ኦረጋኒክ ቡና በማምረት

39. የገበያ አማራጭ ሰፍትዋል? ሀ. አዎ ለ. አይደለም መልስዎ አዎ ከሆነ እንዴት

40. ከላይ የተጠቀሱትን በመተግበርዎ ተጠቃሚ ነዋት? ሀ. አዎ ለ. አይደለም

41. ቡና ማምረት ላይ የሚያጋጥሙ ችግሮች ምን ከታች በተቀመጠው ደረጃ ይመድቧቸው?

42. ኦረጋኒክ ቡና በማምረትዎ ምን ተጠቃሚ ሆንዋል?

	ደረጃ (1,2,3,4)
የተሻለ የምረት መጠን	
የማምረቻ ግዜ ቀንሶልኛል	
ለማምረት የማወጣውን ወጭ ቀንሶልኛል	
ክፍ ያለ ዋጋ አግኝቸበታለው	
ጥራት ያለው ምረት አምርቻልው	
ሰራየን ቀለል አድርጎልኛል	
ቡናው በበሽታ የመጠቃት አደሉን ቀንሶታል	

43. ቡና ማምረት ላይ የሚታዩ ችግሮች

ቡና ማምረት ላይ የሚታዩ ችግሮች	ክብደት (1,2,3,4) 1. ከፍተኛ 2. መካከለኛ 3. ዝቅተኛ 4. ችግሩ የለም
ሀ. ቡናውን የሚያጠቁ በሽታዎች	
ለ. ብድር አለማግኘት	
ሐ. የመስኖ እጥረት	
መ. የግብአት እጥረት	
ሠ. በግዜው ግብአት አለመድረስ	

ረ. የግብኣት ዋጋ መናር	
g. የሰው ሃይል እጥረት	
h. የሰው ሃይል ዋጋ መጨመር	
i. ሥልጠኘተና አለማግኘት	
j. የመንግስት ድጋፍ ዝቅተኛ መሆን	

ሌሎች ችግሮች ካሉ ቢጠቀሱ?.....

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44.እሴት መጨመር ላይ የሚያጋጥሙ ችግሮችን ባላቸው ክብደት ያስቀምጣቸው?

እሴት መጨመር ላይ የሚያጋጥሙ ችግሮች	ክብደት (1,2,3,4) 1. ከፍተኛ 2. መካከለኛ 3. ዝቅተኛ 4. ችግሩ የለም
ሀ. አዳዲስ ቴክኖሎጅ መላመድ አለመቻል	
ለ. የመሰረተ ልማት እጥረት	
ሐ. የስልጠና ማነስ	
መ. የገንዘብ እጥረት/የብድር ማጣት	
ሠ. የመሬት እጥረት	
ረ. የሰው ሃይል እጥረት	
ሰ. የግብኣት እጥረት	
ሸ. የማቀነባበሪያ መሳሪያወች ዋጋ ውድ መሆን	
ቀ. የማቀነባበሪያ መሳሪያወች ዋጋ ውድ መሆን	
በ. የመንግስት ድጋፍ ዝቅተኛ መሆን	

ሌላ ካለ ይጥቀስሉኝ? _____

_____

45.በቡና ገበያ ላይ የሚያጋጥሙ ችግሮችን ባላቸው ክብደት ያስቀምጣቸው

ቡና ገበያ ላይ የሚያጋጥሙ ችግሮች	ክብደት (1,2,3,4) 1. ከፍተኛ 2. መካከለኛ 3. ዝቅተኛ 4. ችግሩ የለም
ሀ. የመሸጫ ዋጋ ዝቅተኛ መሆን	
ለ. የዋጋ መቀያየር	
ሐ. በግዜው ክፍያ አለማግኘት	
መ. የማጋዘን እጥረት	
ረ. የትራንስፖርት እጥረት	
ሸ. የዋጋ መረጃ አለማግኘት	
h. በምርት ጥራት መጓደል ምክንያት ገዥ አለማግኘት	
i. የደላላ መብዛት	
j. ዝቅተኛ ምርት ማምረት	

46.ሌላ ችግር ካለ ቢጠቅሱኝ? ……

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……

47. የቡና አምራች በመሆንዎ ደስተኛ ነዎት? .....

ሀ. አዎ ለ. በመጠኑ, ሐ. አይደለውም መ. አላውቅም

48. የቡና ቡዝነስዎትን የማስፋት እቅድ አለዎት? ..... ሀ. አዎ ለ. አይደለም መልስዎ አዎ ከሆነ እንዴት

49. የቡና ተጠቃሚነትን ለማሳደግ መንግስት ምን ማድረግ አለበት ብለው

ያስባሉ.....

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ለትብብርዎ በጣም እናመሰግናለን

Appendix-III

A. Topic guide for in-depth interviews– Exporters/Cooperative Unions

This interview is completely a voluntary process. If you do not want to take part on it, you may withdraw your participation at any time. You also deserve the right not to answer any of the questions that will be asked during our conversation.

I. Introduction of the researcher, purpose of the research and importance of the input of the interviewee
II. Briefing about the interview length and topics of discussion
III. Brief introduction of the interviewee (age, gender, family size and education)

Section 1: Background

1. When was your business established?
2. What are the main activities that you perform?
3. Are you involved in activities other than exporting coffee? (Produce, trade, process…)
4. What are the types and forms of coffee do you export? (Green bean, roasted, powder)
5. Under whose brand do you export the product? How much do you export under your brand?

Section 2: Relationship with Buyer/Client

6. What are your major markets? (Local, export markets) How important are domestic sales and exports (percentage)?
7. How many clients/buyers do you have? How many are principal buyers? How much do they account for?
8. How frequently do the buyers/clients change? What are the main reasons for the changes in buyers/clients?
9. What are your clients/buyers main requirements? (Quality, price, reliability, standards etc.)?
10. Do you have a contract/agreement with your buyers/clients? What do these contracts/agreements specify?
11. In thinking about one or two of your principal clients, how long have you been dealing with them?
12. How would you characterize your relationships with your principal clients in terms of level of cooperation? (Independent, close/collaborative, difficult, considerable information exchange, client is in charge)

13. Would you say that in your relations with your clients there is a lot of trust, there is some trust or there is no trust? Why?
14. What are the main difficulties that you face in dealing with clients/buyers?
15. Do your buyers/clients monitor your activities?
16. Do you receive any assistance/help from your clients/buyers (advances, credit, information, inputs, technical assistance, recommendations….)

Section 3: Relationship with Suppliers

17. Who are your main suppliers (Cooperatives, farmers, own farm, processors, traders)
18. How many suppliers do you work with? How many are your principal suppliers?
19. How frequently do the buyers/clients change? What are the main reasons for the changes in buyers/clients? What are your requirements when you buy coffee?
20. How do you communicate information to your suppliers regarding your requirements, in terms of quality, volume, delivery dates, standards, etc.? Do you specify them?
21. Do you have a contract/agreement with your suppliers? What do these contracts/agreements specify?
22. How would you characterize your relationships with your principal suppliers, in terms of levels of cooperation? (Independent, close/collaborative, difficult, considerable information exchange, client is in charge)
23. Would you say that in your relationship with your supplier there is a lot of trust, there is some trust or there is no trust? Why?
24. What difficulties do your suppliers have in meeting your requirements?
25. Do you monitor your suppliers' activities?
26. Do you provide give any assistance/help to your suppliers? (Advances, credit, information, inputs, technical assistance, recommendations)
27. What are the standards relating to food safety and product quality that is required when exporting? Who requires them?
28. What are the main advantages and disadvantage of compliance?

Section 4: Map of coffee chain in Ethiopia

29. Show and explain the coffee value chain map. What do you think of this illustration? How does it seem to you? What changes/improvements do I need to make to improve it?

Interview Guide – processors

Section 1: Background

1. When was the business established and who owns it?
2. What are the main activities that you perform?
3. Are you involved in activities directly related to the coffee industry other than processing coffee?
4. What are your major inputs into your production process?
5. What are the types and grades of coffee do you produce?
6. Is the product sold under your brand name in the final market?

Section 2: Relationship with Buyer/Client

7. What are your major markets? (Local, export markets?) How important are these markets? Do you know where the coffee that you sell ends up? If so, what are these markets?
8. Who are your clients/buyers (exporters, importers, local traders, etc.)? How do you market your products? Have these changed over the last 5 years? If so, how and why?
9. How many clients/buyers do you have? How many are principal clients/buyers? How much do they account for?
10. How frequently do buyers/clients change? What are the main reasons for the changes in buyers/clients?
11. What are your clients/buyers main requirements? (Quality, price, reliability, standards etc.)?
12. Do you have a contract/agreement with your buyers/clients? What do these contracts/agreements specify?
13. How would you characterize your relationships with your principal clients/buyers in terms of level of cooperation? (independent, close/collaborative, difficult, considerable information exchange, client is in charge)
14. Would you say that in your relations with your clients there is a lot of trust, there is some trust or there is no trust? Why?
15. What are the main difficulties that you face in dealing with clients/buyers?

16. Do your buyers/clients monitor your activities?
17. Do you receive any assistance/help from your clients/buyers (advances, credit, information, inputs, technical assistance, recommendations, etc.)

Section 3: Relationship with Suppliers

18. What are all the ways in which you source your coffee supplies from? (Own farm, collectors, smallholders from the surrounding areas)
19. How many collectors/smallholders do you work with? How many are your principal suppliers? On what basis, are they principal suppliers?
20. Do you frequently change collectors/smallholders? If so, how frequently? What are the main reasons for the changes in collectors/smallholders?
21. How do you communicate information to collectors/smallholders regarding your requirements, in terms of quality, volume, delivery dates, standards, etc.?
22. Do you have a contract/agreement with collectors/smallholders? What do these contracts/agreements specify?
23. How would you characterize your relationships with your principal collectors/smallholders, in terms of levels of cooperation? (Independent, close/collaborative, difficult, considerable information exchange, client is in charge)
24. What is the level of trust in your relationship with your collectors/smallholders?
25. What difficulties do collectors/smallholders have in meeting your requirements?
26. Do you monitor collectors/smallholders' activities?
27. Do you provide give any assistance/help to collectors/smallholders? (advances, credit, information, inputs, technical assistance, recommendations)
28. What are the standards relating to food safety, product quality, social and environment required by buyers when producing coffee?
29. Who requires them? (clients/buyers, import/export regulations)
30. Where do you obtain information on these requirements? (buyers/clients, industry organizations, government, consultants, etc.)
31. Who inspects and certifies the standards?

Section 4: Map of coffee chain in Ethiopia

32. Show and explain the coffee value chain map. What do you think of this illustration? How does it seem to you? What changes/improvements do I need to make to improve it?

Interview Guide – Coffee producers

Section 1: Background

1. How long have you been growing coffee?
2. Do you own land? If yes, how much of land do you own and how much coffee do you cultivate on the land?
3. How much coffee tree do you produce? How old are the coffee bushes planted in your land?
4. Do you hire workers to work on the land? If yes, how many people do you hire? (Permanent, casual)
5. What are the main activities that you perform? (cultivation, harvest, collect, storage, transport)
6. Are you involved in any activities other than growing coffee? Is coffee cultivation the main source of income?
7. What are your major inputs into growing coffee natural/artificial fertilizers, pesticides, weedicides, etc.)? Where do you get these?
8. How far away are you from the processor that you supply?

Section 2: Relationship with Buyer/Client

9. Who are your clients/buyers (coffee collectors, Processors, cooperatives, etc.)? How much of coffee do you sell to these clients/buyers? Has this changed over the last 5 years? Why?
10. How many clients/buyers do you have (coffee collectors, Processors, cooperatives, etc.)?)? How many are principal clients/buyers? How much do they account for?
11. What are your clients/buyers main requirements? (Quality, price, reliability, standards, etc.)?
12. How do you learn about your client's/buyer's preferences? (probes: quantities, quality, standards, delivery dates)
13. Do you have a contract/agreement with your buyers/clients? What do these contracts/agreements specify?
14. Is there cooperation between you and your buyers? How would you characterize your relationships with your principal clients/buyers in terms of level of cooperation?

(Independent, close/collaborative, difficult, considerable information exchange, client is in charge)

15. Would you say that in your relations with your clients there is a lot of trust, there is some trust or there is no trust? Why?
16. What are the main difficulties/problems that you face in dealing with clients/buyers?
17. Do your buyers/clients monitor your activities? If yes, how do they monitor?
18. Do you receive any assistance/help from your clients/buyers (advances, credit, information, inputs, technical assistance, recommendations, etc.)?

Section 3: Relationship with Suppliers

19. What are the different ways in which you source your inputs (seeds, fertilizers, pesticides, etc.)? (Coffee collectors, buyers, factories, cooperatives, etc.)
20. Who are your main suppliers (coffee collectors, factories, cooperatives, etc.)? Have supplies from these different sources changed over the last 5 years? If so, how and why?
21. Do suppliers change frequently? If so, how frequently? What are the main reasons for the changes in suppliers?
22. Do you communicate information to your suppliers regarding your requirements, in terms of quality, volume, delivery dates, standards, etc.?
23. Do you have a contract/agreement with your suppliers? What do these contracts/agreements specify?
24. How would you characterize your relationships with your principal suppliers, in terms of levels of cooperation? (Independent, close/collaborative, difficult, considerable information exchange, client is in charge)
25. Would you say that in your relationship with your supplier there is a lot of trust, there is some trust or there is no trust? Why?
26. What difficulties do you face in dealing with your suppliers?
27. Do you receive any assistance/help from your suppliers? (advances, credit, information, inputs, technical assistance, recommendations)
28. Are you are aware of the standards relating to food safety, product quality, social and environment required?
29. Do any of them affect you? If so, how?
30. Who requires them? (Coffee collectors, processors, government, etc.)

31. Where do you obtain information on coffee trade requirements? (buyers/clients, exporters, government, etc.)
32. What specific problems/difficulties did you experience in meeting these standards? What did you do to address the problem/difficulty?
33. How adequate do you consider your capacity to meet the standard requirements?
34. Have any of your supplies been rejected because of non-compliance with any of the standards? What were the reasons? How often does this happen?
35. Who monitors the standards? How are you monitored?
36. How frequently are you monitored? Who pays for the monitoring?
37. In your opinion, what are the main advantages and disadvantages of compliance with the standards?

Section 4: Upgrading

38. Do you process your coffee product other than selling in fresh cherry or dry bean? how to process?
39. Do you produce input? What are the main inputs you produce?
40. Do you resume/began any activities with in coffee chain other than producing coffee? What are that activities?
41. Do you improve the production volume of coffee? how
42. Do you improve the selling volume of coffee? how
43. Is your coffee is organic or convectional? What are the main benefits exporting organic coffee?
44. Who provide assistance for upgrading of coffee?
45. What are the main opportunities and constraints on the governance of coffee value chain?
46. What is your suggestion to improve the governance and upgrading of coffee value chain in Ethiopia?

Section 5: Map of coffee chain in Ethiopia

47. Show and explain the coffee value chain map. What do you think of this illustration? How does it seem to you? What changes/improvements do I need to make to improve it?

Interview Guide – Private Associations/Cooperatives/Cooperative Union

Section 1: Background

1. How long has the association/institute been in existence?
2. What are the major objectives of the association/institute?
3. What are the main activities of the association/institute? What are the benefits for its members/stakeholders?

Section 2: Relationship with members/beneficiaries

4. Who are your members/beneficiaries? How many members/beneficiaries do you have?
5. How do you communicate information with your members/beneficiaries?
6. How would you characterize your relationships with your members/beneficiaries in terms of level of cooperation?
7. How has the relationship with members/beneficiaries changed over time?
8. What are the main difficulties the association/institute faces in dealing with its members/beneficiaries?
9. Do your monitor your members'/beneficiaries activities?
10. Do you provide any assistance to your members/beneficiaries?
11. What are the rules, regulations and standards relating to food safety and product quality that is required when exporting coffee?
12. Who requires them? (Clients/buyers, import/export regulations)
13. Are they mandatory? For which markets are they mandatory?
14. Where do exporters obtain information on rules and regulation? (buyers/clients, industry organizations, government, consultants, etc.)
15. When did your members/beneficiaries adopt them? Are they planning to adopt any other in the future? Why?
16. Do you think the rules, regulations and standards of coffee are justified/necessary?
17. Do you require them to comply with rules, regulations and standards? Why?
18. How adequate do you consider exporters' capacity to meet rules, regulations and standards requirements?
19. Have any coffee exports been rejected because of non-compliance with the standards? How frequently does this happen?
20. How frequently are you inspected and audited?
21. What are the main advantages and disadvantages involved in complying with the standards?
22. What are the main opportunities and constraints on the upgrading of coffee value chain?

23. What is your suggestion to improve the governance and upgrading of coffee value chain in Ethiopia?

Section 6: Map of coffee chain in Ethiopia

24. Show and explain the coffee value chain map. What do you think of this illustration? How does it seem to you? What changes/improvements do I need to make to improve it?

Interview Guide –Research institution/GOs, NGOs

Section 1: Background

1. How long has the organization been in existence?
2. What are the major objectives of the organization?
3. What are the main activities of the organization?
4. Who are your customers in the coffee industry?
5. How do you communicate information with actors in coffee sector?
6. How would you characterize your relationships with the coffee industry in terms of level of cooperation? (Independent, close/collaborative, difficult, considerable information exchange, client is in charge)
7. What are the main difficulties that the organization faces in dealing with the coffee industry?
8. Do you provide any assistance/help to the coffee industry? If so, how do you provide such assistance?
9. What are the rules, regulations and standards relating to food safety and product quality that is required when exporting coffee?
10. Who requires them? (Clients/buyers, import/export regulations)
11. Are they mandatory? For which markets are they mandatory?
12. Where do producers, processors, exporters obtain information on standards, rules and regulation?
13. What are the main opportunities and constraints on the governance of coffee value chain?
14. What is your suggestion to improve the governance and upgrading of coffee value chain in Ethiopia?

Appendix-IV

Checklist for Focus Group Discussion

Participants: Producers of Coffee in selected kebele

This interview is completely a voluntary process. If you do not want to take part on it, you may withdraw your participation at any time. You also deserve the right not to answer any of the questions that will be asked during our conversation.

I. Introduction of the researcher, purpose of the research and importance of the input of the interviewee

II. Briefing about the interview length and topics of discussion

III. Brief introduction of the interviewee (age, gender, family size and education)

Section 1: Coordination/Governance

1. Who are your clients/buyers (exporters, importers, local traders, etc.)? How do you market your products? Have these changed over the last 5 years? If so, how and why?
2. How frequently do buyers/clients change? What are the main reasons for the changes in buyers/clients?
3. What are buyers main requirements? (Quality, price, reliability, standards etc.)?
4. Do you have a contract/agreement with your buyers/clients? What do these contracts/agreements specify?
5. How would you characterize your relationships with your principal clients/buyers in terms of level of cooperation? (independent, close/collaborative, difficult, considerable information exchange, client is in charge)
6. Would you say that in your relations with your clients there is a lot of trust, there is some trust or there is no trust? Why?
7. What are the main difficulties that you face in dealing with clients/buyers?
8. Do your buyers monitor your activities?
9. Do you receive any assistance/help from your clients/buyers (advances, credit, information, inputs, technical assistance, recommendations, etc.)

Section 2: Upgrading

10. Do you process your coffee product other than selling in fresh cherry or dry bean? How? Do you produce input? What are the main inputs you produce?
11. Do you resume/began any activities with in coffee chain other than producing coffee? What are that activities?
12. Do you improve the production volume of coffee? how
13. Do you improve the selling volume of coffee? how
14. Is your coffee is organic or convectional? What are the main benefits exporting organic coffee?
15. Who provide assistance for upgrading of coffee?
16. What are the main opportunities and constraints on the upgrading of coffee value chain?

Appendix-V

List of key informants (Stakeholders)

No.	Organization	Position of interviewed people
1	Ethiopia Coffee and Tea Development Authority	Agricultural Expert
2	Ethiopia Commodity Exchange (Addis Ababa)	Coordinator
3	Ethiopia Commodity Exchange (Hawassa)	Branch Manager
4	Ministry of Trade	Export promotion director
5	Dale Woreda Agriculture and Natural Resource Office	Coffee marketing officer
6	Starbucks	Coffee expert
7	TechnoServe	Coffee expert