



SCHOOL OF GRADUATE STUDIES
MARKET CHAIN ANALYSIS OF RED PEPPER: THE CASE OF
ABESHGE WOREDA, GURAGE ZONE ETHIOPIA

MASTER OF SCIENCE IN DEVELOPMENTAL ECONOMICS

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Market Chain Analysis of Red pepper: The Case of Abeshge Woreda,
Gurage Zone Ethiopia

**A Thesis Submitted to the School Of Graduate Studies, In Partial
Fulfillment of The Requirements For The Degree Of Master of Science In
Developmental Economics.**

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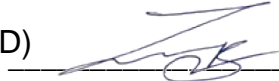
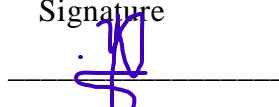
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Abbreviations

SNNPRS	South Nation Nationality and people Regional state
SMES	Small micro enterprises
OLS	Ordinary least square
CSA	Central Statistical Agency of Ethiopia
EEPA	Ethiopian Export Promotion Agency
EIAR	Ethiopian Institute of Agricultural Research
FAO	Food and Agriculture Organization of the United Nations
FGD	Focused Group Discussion
GDP	Growth domestic product
GMM	Producers Marketing Margin
KII	Key Informant Interview
TGMM	Total Gross Marketing Margin
VIF	Variance Inflation Factor
SSA	Sub-Saharan African
NMM	Net Marketing Margin
CC	Contingency coefficient
NGO	Non-government organization

Table of Contents

ACKNOLOGEMENT	iv
Abbreviations	v
List of tables	viii
List of figures	ix
Abstract	x
CHAPTER ONE	1
INTRODUCTION	1
1.1. Background of the study.....	1
1.2. Statement of the Problem	3
1.3. Objectives of the Study	4
1.4. Research question.....	5
1.5. Significance of the Study	5
1.6. Scope and limitation of the study.....	6
1.7. Organization.....	6
CHAPTER TWO	7
REVIEW OF RELATED LITERATURE	7
2.1. Basic concepts	7
2.2. Fundamental Approaches to Study Marketing	8
2.3. Empirical literature review	11
CHAPTER THREE	16
Research Methodology	16
3.1. Description the study area	16
3.2. Sampling Technique and Methods of Data Collection.....	17

3.3. Study design	17
3.4. Data types and source	18
3.5. Data Analysis Methods.....	21
CHAPTER FOUR.....	29
RESULTS AND DISCUSSIONS	29
4.1. Socio-Demographic Characteristics of Sample Farmers and Traders	29
4.2. Structure, Conduct and Performance of the Red pepper Market.....	34
4.3. Cost and profitability analysis of red pepper production for farmers	41
4.4. Marketing channels.....	43
4.5. Factors Affecting Quantity of Red pepper Supplied to the Market.....	45
4.6. Major Production and Marketing Constrains and Opportunities.....	48
CHAPTER FIVE	51
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	51
5.1. Summary and conclusion.....	51
5.2. Recommendation and policy implication	52
Reference	53
Appendix.....	57
Appendix A	57
Appendix B	58
Appendix c	59
Appendix D.....	60

List of tables

Table 1: producers sampling.....	19
Table 2: Traders, processors, and consumers sampling.....	20
Table 3: Description of dependent and independent variables used in the model.....	28
Table 4: Demographic characteristics of sample farmers.....	30
Table 5: Resource ownership.....	31
Table 6: Access to services.....	32
Table 7: farm input utilization.....	33
Table 8: demographic characteristics of trader.....	34
Table 9 producer price setting strategy.....	38
Table 10: trader price setting strategy.....	39
Table 11 Red pepper marketing margin and profit along all the channels.....	40
Table 12: Cost and profitability analysis of red pepper production for producers.....	41
Table 13: Cost and profitability analysis of red pepper collectors.....	42
Table 14: Cost and profitability analysis of red pepper retailers.....	43
Table 15: Factors Affecting Quantity of Red pepper Supplied to the Market.....	45
Table 16: Producer constraint.....	48
Table 17: Traders marketing problems.....	49
Table 18: Constraints, initiatives and possibilities of the value chain of Peeper.....	50

List of figures

Figure 1: Conceptual Framework of the Study.....	15
Figure 1 Map of the study area	17
Figure 2 red pepper marketing channel	45

Abstract

The objective of this study was to conduct market chain analysis, to examine the red pepper, market structure, conduct and performance, analyze profitability of red pepper production, identify the determinants of households marketable surplus and Identify the major constraints, opportunities of production and supply of the red pepper to the market using primary data collected from households through semi structured questionnaire. The producers' survey result revealed that large proportion of farmers supply the product to the market. The producers and traders survey result revealed that even the red pepper value chain suffers from low production, low quality, less value addition and irregularity of supply red pepper production was profitable for both producers and traders. The actors were producer, collector, wholesaler, retailer, processor and consumer. Hence the structure of the red pepper market in the study area was somewhat competitive. The profitability analysis also indicates that red pepper production was profitable. The average amount of red pepper supplied to the market per producer was 377.25kg with minimum amount of 0kg and maximum of 1050kg. The variables that influenced the marketable supply positively were farm size, price, family size and extension contact. Among the significant variables farm size, price and extension contact were highly significant at 1% significant level and family size at 10% significant level. The variables that influenced the marketable supply negatively were non-farm income, credit access and red pepper diseases affect market supply of red pepper negatively at 1 % level of significant. The major problems identified are diseases and pest, low product, need high men power and land selective behavior of red pepper. To solve these problems the government should be increase production by management of agronomy and pest, increase access to diseases management education and training, and the producers should be establish storage and processing facilities are recommended.

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Value-added agriculture is a back bone of growth and development for one country, recently as a means of increasing household income and motivating the rural economy. Agriculture and the food sector are supposedly the embodiment of the competitive paradigm, but even in developing countries their structures evolve to favor some degree of market concentration. Much of the economic activity is determined beyond markets by value chains that evolve over time introducing new products, new exchange arrangements, and new markets (Barrett et al., 2020)

In Ethiopia Vegetable production is becoming an increasingly important activity in the agricultural sector following the development of irrigation and increased emphases given by the government to small scale commercial farmers. A report indicated that the major share of an estimated 1.4 million tons of vegetable and fruits is consumed locally and only 4.5% of the total is exported (Haji, 2008).

Value chain is the full activity starts from farms pass through firms and their subsequent coordinated value-adding tasks that produce specific raw agricultural materials and transform them into specific products that are sold to final consumers to gain more profit (Knorr & Augustin, 2021).

The appropriate description of a red pepper value chain is the entire range of individuals and organizations, as well as their coherent value-added practices that produce and transform red pepper products for sale to end users in a cost-effective manner with benefits. Whether transactions take place at a local market or at the farm-gate, the bargaining position of farmers is usually weak, particularly for perishable vegetable products this could be due to the existence of large number of farmers (sellers) and limited number of merchants (buyers) in these markets (Mossie et al, 2020).

Besides the market structure, farmers and merchants may not have equal price information from the central market, which is used as a reference point to set prices at local markets or farm-gate

transactions. A difference in price information results into different product valuations between the selling farmers and the buying merchants. The level of disparity in these valuations might depend on the level of information asymmetry as well (Jaleta, 2007).

Red pepper has its origin in Mexico and Central America regions. Nevertheless, the name stuck and he introduced the crop to Europe, and it was subsequently spread into Africa and Asia (Votava et al., 2000). In SSA, the issue of income, food security and welfare gains to farm households from participation in agricultural markets and value chains has acquired much significance in recent times (Barrett et al., 2020). The fruit sub-sector is vital in providing fresh and nutritious food to consumers worldwide.

As (Abay, 2010), the analysis of marketing channels is intended to know the alternative routes the product follows from the point of origin to final destination. 7 main alternative channels were identified for red pepper marketing. The main marketing channels identified from the point of production until the product reaches the final consumer through different intermediaries.

According to (Ashinie et al., 2019), Ethiopia with diverse soil and climate comprising several agro-ecological regions provides ample opportunity to grow a variety of horticulture crops. Increasing the yield and production of horticultural crops is an important factor in ensuring Ethiopian food and nutrition security. Even the contribution for growth is very less Ethiopia has a great potential for vegetable production and marketing, mainly due to fertile farm land, abundant working population, a favorable policy and its geographical location for the international market to the different locations.

The major marketing factors that affect the red pepper are the existence of unlicensed traders buy the product with equally with licensed traders and they sell at lower than the licensed one because they did not pay tax, information gap especially producers did not have adequate information about the quality and quantity of the produce, this is due to infrastructural barriers, lack of using communication, different adulterations such as soil, gravel, water is added with the red pepper product during selling for the sake of increasing weight, lack of credit access even if the financial institution wants to provide credit the borrower should have to provide collaterals otherwise difficult to get it. The production factors that affect red pepper are prevalence of diseases, method of planting, water requirement, fertilizer requirement, seed varieties, farmyard

manure, harvesting period, and drought. These factors are affecting both the quantity as well as the quality of the red pepper product, and in addition, producers did not confidence to produce red pepper product continuously due to the fluctuation of price (Gobie, 2019).

1.2. Statement of the Problem

Unregulated markets in developing nations can discourage smallholder farmers from actively participating in domestic and international value chains (Barrett, et al., 2020). Thus Ethiopia has a great potential for horticultural crops production. However, out of the country's total potential areas of horticultural crop production, the contribution of horticultural crops both to the diet and income in Ethiopians is insignificant. A number of factors may have affected the amount of marketable supply of fruits at farm level in the country (Yimer, 2015).

According to (Ashinie et al., 2019), Ethiopia with diverse soil and climate comprising several agro-ecological regions provides ample opportunity to grow a variety of horticulture crops. Increasing the yield and production of horticultural crops is an important factor in ensuring Ethiopian food and nutrition security. Even the contribution for growth is very less Ethiopia has a great potential for vegetable production and marketing, mainly due to fertile farm land, abundant working population, a favorable policy and its geographical location for the international market to the different locations (Yigezu, 2021).

Majorities of agricultural products in Southern Nation and Nationalities Peoples Region (SNNPR) are small holders, and are not producing and selling their produce and agricultural inputs in an organized manner so that some of their benefit may transfer to the middlemen. Farmers in Ethiopia in general and in SNNPR in particular are affected by low producer's price, on one hand, and high consumer's price, on the other hand because of lack of developed transportation facility access to market information in producer side and use producer information gap on the other side (Dessie, et al, 2017).

The most important factor which increases marketed surplus significantly is the increased production or output followed by consumption and payments in kind which should be reduced to keep up the quantity of marketed surplus of food grains (Thakur et al, 1997).

The major production constraints in red pepper production supply in Abeshge woreda are both natural (rain distribution) and manmade such as poor access to agricultural inputs (fertilizer, improved seed and chemicals, access to credit, land size), diseases and pests (aphids, white flies and soil borne diseases), access to market information, imperfect pricing system of traders, access to transport services (Birara, et al, 2019).

Producers in Abeshge woreda face so many interlinked problems such as poor market information and infrastructural problems (storage, transport and processing). Unregulated markets also discourage smallholder farmers from actively participating in domestic and international value chains. Therefore, to solve production and marketing problems and increase the contribution of red pepper to generate additional income for producers and traders, it is important to undertake this study (Dessie, et al, 2017).

Some research conducted on red pepper marketing participation of smallholder farmers in different red pepper producing areas. (Abay, 2010) (Wosene, et al, 2018) (Dessie, et al, 2017) (Mussema, 2006) conducted their study on market chain analysis of red pepper, factors affecting market outlet choice of red pepper producer, market chain analysis of red pepper, and analysis of red pepper marketing respectively. But they fail to study the farmer's major factor of red pepper supply diseases of red pepper as determinant of quantity of red pepper supply to the market. This study therefore, has attempted to contribute in filling the information gap by identifying factors affecting red pepper market supply of farmers in Abeshge woreda.

Even though the nature of red pepper marketing structure, market conduct of red pepper and performance of red pepper market studied by (Dessie, et al, 2017) in this study area in addition to the researcher finding this red pepper analyze the market structure, conduct, and performance in red pepper marketing to fill the time gap or update the finding, Identify the major constraints, opportunities of production and supply of the red pepper to the market, analyze determinants of household's red pepper supply to markets by adding the major factor of quantity and quality of red pepper "red pepper diseases" and analyze profitability of red pepper production in the study area this red pepper. Therefore, to identify production and marketing problems and increase the contribution of red pepper to generate additional income for producers and traders, it is important to undertake this study.

1.3. Objectives of the Study

The main objective of the study was to conduct market chain analysis of red pepper in Abeshge woreda

The following specific objectives are:

- To analyze the market structure, conduct, and performance in red pepper marketing
- To analyze determinants of household's red pepper supply to markets
- To analyze profitability of red pepper production in the study area
- Identify the major constraints, opportunities of production and supply of the red pepper to the market

1.4. Research question

The following research questions were addressed in this study.

- ✓ Who are the actors in the market chain of red pepper and what roles (functions) do they play in the market chain?
- ✓ What does the market structure, conduct and performance of Pepper markets look like at the study area?
- ✓ What are the determinants of household's to improve red pepper supply to markets?
- ✓ Is red pepper producer profitable?
- ✓ What are the major constraints, opportunities of production and supply of the red pepper to the market?

1.5. Significance of the Study

Being an empirical study this study contributed to the empirical literature of market chain analysis of red pepper in Ethiopia. Analyzing the challenges in red pepper marketing would indicate the gaps to improve red pepper production and marketing and benefit policy makers and implementers in the area to fill the gaps. In addition to this it also help to make appropriate marketing decisions by the producers, consumers, traders, investors, and others. The study also suggested strategies for smooth integration among production and marketing by referring to root causes for supply and marketing problems starting from production till the consumption of the

product. The other benefit that could be anticipated is that its significance as a source material for further studies, which could be a major input to formulate appropriate marketing policies.

1.6. Scope and limitation of the study

1.6.1. Scope of the study

The study focused on the overall market chain analysis of red pepper in Abeshge Woreda and major regional intermediate markets. The area coverage was limited to Abeshge Woreda with additional study in Wolkite to investigate the market integration between the spatially separated markets in the region. The study concentrated on the areas of Abeshge Woreda with potential red pepper producer kebeles. The major market participants (producers, intermediaries and consumers) supporting institutions assessed thoroughly in relation to the different marketing mix in the production and marketing of red pepper (marketing channels, market direction, price formulation and, buying and selling strategies, storage, transport, information and finance).

1.6.2. Limitation of the study

Lack of record keeping by chain actors was a challenge to collect relevant information in the channel. Most of the time traders are reluctant to give appropriate information as they link it with tax fees. Thus, key informants and secondary sources are widely used to complement preliminary information and to understand rationality behind the status of the market chains.

1.7. Organization

This thesis was containing five chapters. The first chapter deals with the introductory part. The second chapter deals with review of literature where the basic marketing concepts and relevant empirical studies are discussed. The third chapter of the thesis deals with a brief description of the study area and methodology of the research (data collection and analysis method) and the fourth chapter deals with results and discussion. The final chapter summarizes the findings of the study with some recommendation and policy implications.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Basic concepts

In this part of the study the basic concept of market, marketing, marketable supply, market chain, market structure, conduct and performance have been discussed. In relation to these issues, the chapter highlights about the production and marketing of pepper in the World, Africa and Ethiopia.

Market: a market is a place where parties can gather to facilitate the exchange of goods and services. The parties involved are usually buyers and sellers. The market may be physical, like a retail outlet, where people meet face-to-face, or virtual, like an online market, where there is no physical presence or contact between buyers and sellers. (Rosenbaum, 2000).

Market Supply: Market supply is the total amount of an item producers are willing and able to sell at different prices, over a given period of time. Whereas, the marketable surplus is the residual with the producer after meeting the requirement of seed, payment in kind, and consumption by farmer (Alagh, 2014).

Market chain: is the term used to describe the various links that connect all the actors and transactions involved in the movement of agricultural goods from the producer to the consumer (Setegn, 2015). A marketing chain is used to describe the numerous links that connect all actors and transactions involved in the movement of agricultural products from the farm to the consumer. Commodity chain is the chain that connects smallholder farmers to technologies that they need on one side of the chain and to the product markets of the commodity on the other side (Angula, 2014).

Marketing: is an institution or mechanism which brings together buyers and sellers of particular goods and services. As a basic definition, marketing is the process of satisfying human needs by bringing products to people in the proper form and at the proper time and place. Marketing has an economic value because it gives form, time, and place utility to products and services. Marketing is a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with other (Bickhoff, et al, 2014).

Marketing is the process of bringing sellers and buyers together for the purpose of exchanging title to goods and services marketing is defined as a social and a managerial process where by individuals and groups obtain what they need and want through creating and exchanging products and value with others. Marketing has basic productive value, in that it adds time, form, place and possession utilities to products and commodities. Through the technical functions of storage, processing and transportation, and through exchange, marketing increases consumer satisfaction from any given quantity of output (Abebe, 2009). It is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large (Qi & Roe, 2018).

Marketing system: the totality of product channels, market participants and business activities involved in the physical and economic transfer of goods and services from producers to consumers operates through a set of intermediaries performing useful commercial functions in chain formations all the way from the producer to the final consumers as cited in Muhammed Urgessa 2011 (Eslam et al., 2001)

Marketing channel: Are the people, organizations and activities that make goods and services available for use by consumers. It transfers the ownership of goods from the point of production to the point of consumption. Examples include trade shows, industry events, targeted emails, outbound calling, display advertising and direct sales (Pelton et al., 1997).

2.2. Fundamental Approaches to Study Marketing

The most important characteristics of a marketing function is that its physical process or facilitating service which must be performed one or more times within the marketing system. The main marketing physical functions are assembling, grading, storing, processing, packaging, distributing and transporting. There are also facilitating functions (market research, product research and development, demand development, exchange services, finance and risk bearing and market information) Carson et al., (2001).

Commodity

The approach follows the commodity along the path between producer and consumer and is concerned with describing what is done and how the commodity could be handled more

efficiently. In a commodity approach, a specific commodity or groups of commodities are taken and the functions and institutions involved in the marketing process are analyzed.

Under this approach a particular product is selected and then a detailed study is made regarding the various sources of its supply, quality of the product, its characteristics, its uses, limits of the market for the product, the intervening middleman engaged in the work of distribution, the various means of transport which actually carry the goods to the consumers and after sales service (Venkatesh & Peñaloza, 2015).

Commodities may be classified under various groups such as agricultural, minerals and industrial products. Marketing problems have to be studied separately in respect of each product for they differ widely in their characteristics. Commodity approach has its own merits and demerits.

The merit of this approach is that it gives full insight into the inherent problems underlying the marketing of each particular product. But the greater disadvantages of this approach are that it takes a long time to study the marketing process (Gilbert, 2006).

Institutional:

Institutional approach is concerned with the number and kinds of business firms, various institutions that perform the marketing activities. These organizations or people are middlemen who perform the operations necessary to transfer goods from the producer to consumer and inputs to the product. It covers all market participants (producer, assembler, transporter, wholesaler, retailer and consumer) (Birhanu & Fitamo, 2015).

Under this approach the functioning of various institutions engaged in the task of marketing is studied scientifically. There are the days of mass production and the consumption is made by the people spread over throughout the world. Actual marketing is done by specialized institutional.

Their help is vital in the marketing process. There are wholesaler's retailers, advertising agencies, transport agencies, marketing research institutes, commercial banks, insurance companies, warehousing, etc. All these institutions help in one or the other way to take the goods to the hands of actual users.

The selection of these institutions depends on the nature of product. For example for industrial products direct selling is preferable through wholesalers and retailers. For consumer goods like soap, cloth, etc. the help of the wholesalers, retailers is essential for distribution work.

The main thing about the consumer goods is that they are purchased by the consumers generally in small quantities and not in bulk. Therefore their direct sale by the producers to the sellers is not economic. It entails higher costs and involves other difficulties. The great merit of the institutional approach is that it provided complete knowledge of each institution engaged in particular part of marketing North et al., (1994).

Functional:

Under this approach we study the marketing functions right from the production stage of the goods and services up to their reaching the hands of consumers. These marketing operations include purchase, classification, standardization and gradation transport storage, advertisement, financing and risk bearing, etc.

A marketing function is a major specialized activity performed in marketing. Functional approach, therefore, splits down the field of marketing into a few functions which are to be performed by doing marketing work. Through such a study of functions, changes in the structure of marketing caused by shifting, combining or eliminating activities from one agency to another could be made easily understandable as a means of classifying the various phenomena of marketing under a small number of categories (Marinov et al, 1993).

This approach is definitely an improvement over the former ones in two respects. But this approach is also not free from defects. Undue emphasis on functions of marketing does not permit one to know how these functions are applied to specific business operations. Secondly the marketing functions are so numerous that it is difficult to eliminate the unnecessary from the necessary functions. Finally this approach is also repetitive to some extent (Govers, 1996)

Managerial or Decision Making:

A process where by management systematically identifies the needs of customers and then creates a marketing program that was satisfying those needs. The approach was developed in

school of business and has become the accepted methodology for studying the marketing of consumer products. Among the above mentioned approaches, since the study focus on a specific product, commodity approach has been used and the functions and institutions involved in the production and marketing of the commodity was analyze (Armstrong et al, 2014).

This approach which is of recent origin combines certain features of the commodity, institutional and functional approaches. In this approach, the focus of marketing study is on the decision making process. The study encompasses discussion of the different underlying concepts, decision influencing factors, alternative strategies and techniques and methods of problem solving (O'Connor, 1998).

The main approaches to study marketing are:

Functional approach

In functional approach we look for the basic activities that have to be performed in marketing of agricultural commodities and the marketing of inputs for agricultural production. Functional approach studies marketing in terms of the various activities that are performed in getting farm product from the producer to the consumer. This approach helps to compare cost and benefits of different functions (Jebesa, 2019). Exchange (buying and selling), Physical (processing, storage, and transportation), Facilitating (standardization, financing, risk bearing, and market information) performed in the marketing of nearly all commodities. Marketing of agricultural products consist primarily moving products from production sites to points of final consumption. In this regard, the market performs exchange functions as well as physical and facilitating functions (Meulenberg & Kool, 1994).

2.3. Empirical literature review

Total vegetable supplied to the market increases the average cost of wholesalers decreases and vice versa. Thus, there is an entry barrier for smaller wholesalers. The existence of economy of scale for Woreda wholesalers also implies large firms market their products at considerably lower average costs than smaller firms Hailegiorgis et al., (2016).

Traders capture a major proportion of the marketing surplus due to market power and the audacity to absorb output price risk. It is also shown that traders' share is higher for the most perishable vegetables than others. Marketing margins widen as supply increases, supporting the argument that large volume of shipment of perishable commodity reduces farm prices. The substantial share of marketing surplus allocated to traders due to the absorption of risk might be related to the less severe punishments traders receive for breaching contracts. The building of societal norms, cooperatives, strong public and/or private institutions, adequate marketing and information networks are consequently needed to improve the marketing performance of vegetables in Ethiopia (Haji, 2008).

A case study in the highlands of Central Kenya revealed that the higher awareness of issues related to marketing of horticultural produce in Kenya is probably due to the existence of farmers groups. Farmers are aware of the existence of markets in major towns such as Nairobi and Mombassa. They are also aware of the major marketing companies who buy their produce for export Kilungo et al., (2001). The Ethiopian Institute of Agricultural Research (EIAR) has released five red pepper varieties namely Marakofana, Bakolocale, Melkazala, Melkadema and Eshete. Among these species Marakofana and Bakolocale are widely used by farmers. Marakofana is about 19 cm height, it has a thick cover and irritating nature. This variety is highly demanded by spice factories like Ethiopian Spice Factory. Bakolocale variety has also red color and thin cover it is highly irritating and it has a total height of about 13 cm.

The marketing problems were low produce price, lack of market and transport constraints Kilungo et al., (2001). Market distance, quantity of red pepper produced, frequency of contacts with extension agents and access to market information are major factors that affect marketable supply of red pepper (Mussema, 2006).

(Kindie, 2007) identified major factors that affect marketable supply of sesame in Metema woreda using cross-sectional data. His study revealed that the amount of productivity of sesame, number of oxen owned, number of languages spoken by the head of the household, modern inputs used, sesame area, and time of selling of sesame influenced marketable supply positively. Similarly, (Takele, 2010) identified the major factors that affect the supply of rice at Fogera Woreda using multiple linear regressions as a model to study the relationship between the determining factors of supply and the marketable supply of rice. His study revealed that the

current price, lagged price, total amount of rice production in the farm, consumption in the household and weather had affected marketable supply of rice. Hence, difference in the marketing system of these commodities, type of commodities, and location of the study area can result in differences in factors affecting marketable supply of the commodities.

(Mussema, 2006) identified that the major factors affect marketable supply of red pepper at Alaba and Siltie of SNNPRS using cross-sectional data with both dummy and continuous independent variables. To identify the variables, (Mussema, 2006) study revealed that market distance, quantity of red pepper produced, frequency of contacts with extension agents and access to market information influenced marketable supply of red pepper.

(Abay, 2010) Identify that the major factors that affect marketable supply of red pepper at Bure woreda, west gojjam zone, Amhara National Regional state using primary data collected from households through semi structured questionnaire with both dummy and continuous independent variables. To identify the variables, He found out that variables influenced the marketable supply positively are agricultural experience, access to credit, yield, land size, current year and lagged prices. Among the significant variables yield and access to credit are highly significant at less than 1% significant level.

(Dessie et al., 2017) identify the marketing channel of Red pepper production in Abeshge district. They carried out Farmers-Collectors-Wholesalers-Processors-Consumers channel stands first in terms of the volume red pepper transacted (35.7%), followed by Farmers-Wholesalers-Processors-Consumers channel (27.6%) they also investigate the determinant of red pepper market supply econometric analysis result age of the household head, education level of the household head, average output price of red pepper have positive and significant influence whereas distance from market, average input price, diseases and drought affect negatively and significant relationship with volume of red pepper marketed.

(Wosene, et al, 2018)Factors affecting market outlet choices of red pepper producers in Wonberma district, Northwest Ethiopia by using multivariate probit approach They found that quantity of red pepper produced, red pepper farming experience, extension contact, year of schooling, bargaining power of the producer; post-harvest value addition, market distance, and livestock ownership had a statistically significant influence on choices of the market outlet. They

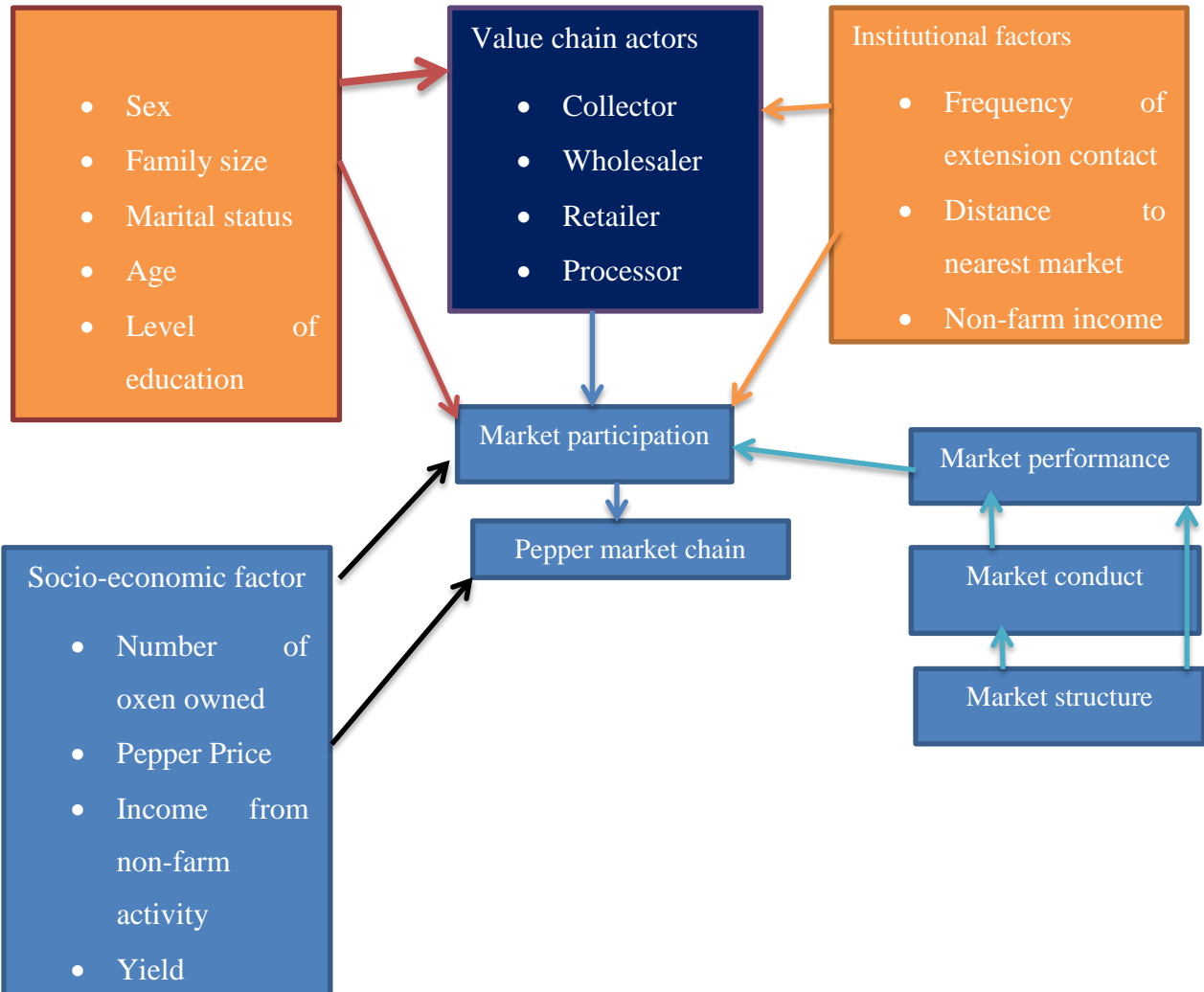
underscores that increasing productivity of red pepper; enhancing post-harvest value addition practices, improve farmers bargaining power through cooperative; strengthen institutional services and infrastructure development like road and transportation facility for policy implication.

(Gobie, 2019) by His seminar review on red pepper (*Capsicum*) production and marketing in Ethiopia revealed that the major marketing factors that affect the red pepper are the existence of unlicensed traders buy the product with equally with licensed traders and they sell at lower than the licensed one because they did not pay tax, information gap especially producers did not have adequate information about the quality and quantity of the produce, this is due to infrastructural barriers, lack of using communication, different adulterations such as soil, gravel, water is added with the red pepper product during selling for the sake of increasing weight, lack of credit access even if the financial institution wants to provide credit the borrower should have to provide collaterals otherwise difficult to get it. And He also found out the production factor of red pepper in Ethiopia and conclude red pepper is prevalence of diseases, method of planting, water requirement, fertilizer requirement, seed varieties, farmyard manure, harvesting period, and drought are affecting both the quantity as well as the quality of the red pepper product, and in addition, producers did not confidence to produce red pepper product continuously due to the fluctuation of price.

According to (Ashinie et al., 2019) the main problems for red pepper supply in Ethiopia are low productivity, lack of storage facilities during the oversupply period, inadequate market access and distribution, high post-harvest losses, diseases and pests, impoverished access to transport and strong competition between producers.

Jaleta, (2007), investigated the role of markets in the smallholder farmers' resource allocation for subsistence food crops and commercial cash production. The results revealed that limited marketing outlets and lack of price information were the major factors that hindered the move from subsistence farming to cash crop production.

Figure 1: Conceptual Framework of the Study



Source: Owen design (2022)

CHAPTER THREE

Research Methodology

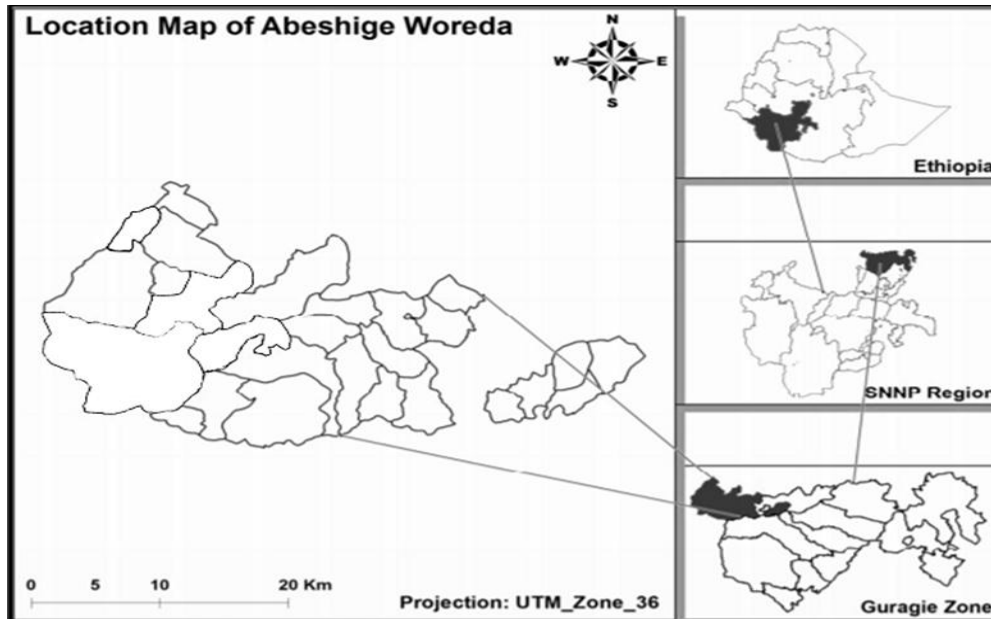
3.1. Description the study area

This study was conducted in Abeshge woreda is one of the woredas in the Southern Nations, Nationalities, and Peoples' Region of Ethiopia. Part of Gurage Zone located about 155 km south west of Addis Ababa along the Addis Ababa to Jimma asphalt highway Abeshge is bordered on the south by the Wabe River which separates it from Cheha district, on the west and north by the Oromia Region, and on the east by Kebena district. According to the Ministry of Agriculture (MoA 1998), the agro-ecology of the area is classified into two agro-ecological zones (midland and lowland areas). The area lies at a latitude and longitude of 08°19'N 37°28' E and 07°56'N 37°37' E, respectively, at 1500–1800 masl. Abeshge woreda has generally a midland climate with an altitudinal rage of 1100–2300 masl, although there are some lowland areas (1100–1500 masl). It covers an area of 61,016 ha of which the middle and lowlands constitute roughly 85 and 15 %, respectively. Based on information obtained from the Abshege woreda Agriculture and Rural Development Office, the area is characterized by a unimodal rainfall pattern with heavy and erratic distribution. 'Kiremt', the main rainy season, extends from June to September with the peak rainfall occurring during July and August. The short rainy season called 'Belg' stretches from March to May. The mean annual rainfall is 801–1400 mm. However, the short rains are highly erratic in nature that farmers do not rely on them for grain production. Its mean annual temperature is 23.2°C, with mean annual minimum and maximum temperatures of 18.0 and 28.3°C, respectively.

The current land utilization in the area is dominated by traditional subsistence mixed livestock-crop rain-fed farming. In mixed farming systems, livestock and crop production are complementary in that livestock, among others are used for nutrient recycling while crop production provides residues for animal feed. Crop production from smallholder farmers is the basic production unit, mainly carried out under rain-fed conditions using traditional farming system. Farmers use oxen to pull the local plough 'Maresha'. The major crops and vegetation grown in the area include red peppers, bean, maize, wheat, barley, teff, sorghum, onion; root and tubers including enset, and potato; fruits (banana, papaya, mango and avocado); stimulants, such

as coffee, and khat. A very small fraction of farmers produces vegetables mainly in homestead gardens or where irrigation exists.

Figure 2 Map of the study area



Source: Abeshege woreda agricultural office

3.2. Sampling Technique and Methods of Data Collection

Study Site and sample household's selection

This study was conducted in Abeshige woreda which is known for its red pepper production. In this study a Two-stage sampling technique was used to select red pepper producers. The woreda has three urban and 26 rural Kebeles. In the first stage Gebebare, Boketana serete, Hudad4 and Quliti2 purposively selected in consultation with district agriculture office experts due to the high potentials of production and best smallholder farming experience in red pepper production and marketing were selected purposively based on their potential for red pepper production and marketing. In the second stage among the households that exist in the four Kebeles red pepper producers were selected using random sampling technique.

3.3. Study design

This research paper were mainly relies on quantitative data with a supporting role in qualitative data. Quantitative data are based on ‘one-round cross-section surveys. Qualitative data are gathered as part of the initial investigation and tools for data collection was develop prior to the actual survey. This stage of data gathering was centered on a visit to all study kebeles (i.e., for deep-understanding the areas) with general questions. This has contributed to the development of even more critical questions needed for the actual collection of data. Following the design of the data collection tools, the instruments were a pilot to determine whether the questions are easy to understand. Data obtained through a pilot questionnaire survey was use to verify entry and analysis

3.4. Data types and source

Both qualitative and quantitative data types were collected from primary and secondary data sources.

3.4.1 Sampling procedure

For this particular study, Abeshge Woreda was selected purposively based on the Pepper production potential and marketing practice. The study has been employed two-stage sampling techniques to draw sample of household heads.

Accordingly, from 26 kebeles in the Woreda in the first stage 4 potential kebeles in Pepper production and marketing was selected purposely for this study based on woreda information. These selected kebeles were Gebebare, Boketana serete, Hudad4 and Quliti2. In the second stage, the number of sample households from each sample Kebeles was determined from the recent lists of households using proportional to size. Therefore, given the relative homogeneity of households in terms of their socio- economic characteristics and livelihood style sample households was drawn using simple random sampling method from each kebele.

3.4.2. Sample size determination

To determine the appropriate producers sample size, the basic factors to be considered were the level of precision required by users, the confidence level desired and degree of variability. Thus, it was determined using a simplified formula provided by (Kothari, 2004).

$$n = \frac{z^2 * p * q * N}{e^2(N-1) + z^2 p * q} \quad \text{Equation 1}$$

Where:

n : is the sample size for a finite population,

N : Size of population which is the number of pepper producer households in the Woreda,

P : population reliability (or frequency estimated for a sample of size n), where p is 0.5 which is and $p + q = 1$ $q = 0.5$.

e : Margin of error considered was 5% for this study.

$z (\alpha/2)$: normal reduced variable at 0.05 level of significance z is 1.96. The sampling unit here was households and sampling frame was all the 4 kebeles pepper producers household lists which has been available in the kebele. Accordingly, sample size was determined as follows:

$N = 1,730$ HHHs

$$n = \frac{1.69 * 1.96 * 0.5 * 0.5 * 1730}{(0.05 * 0.05 * 1729) + (1.96 * 1.96 * 0.5 * 0.5)} = 314 \quad \text{Equation 2}$$

3.4.3. Methods of data collection

Formal and informal methods of data collection tools were implemented to acquire primary data. Among the informal data collection tools key informant interview and focus group discussion with pre-defined social groups were conducted before formal survey to collect general information about the study area, pepper production and marketing. A checklist was also used to guide the informal discussion conducted to generate data that cannot be collected from individual interviews. Formal data collection was employed with the help of pre- tested structured questionnaire. In this study, both secondary and primary data were used from different sources.

Primary data was collected from a total of 314 pepper producer sample households, 11 wholesalers, 6 processors, 4 retailers, 10 collectors about their buying and selling strategies, source of market information, demographic characteristics and other relevant information.

Table 1: producers sampling

Kebeles	Total number of Households	Sample size of households
Gebebare	140	26
Boketana serete	557	101
Hudad 4	684	124
Quliti 2	349	63
Total	1730	314

Source: Own design based on information from woreda agricultural offices (2022)

ii) Traders, processors, and consumers sampling

For this study, the sites for the trader surveys were market towns in which good samples of red pepper traders exist. Accordingly, based on the flow of red pepper, five markets (Addis Ababa, Woliso, Wolkite, Dargie and walga) was select as the main red pepper marketing sites for the study areas. Here population is unknown and rare sampling is a very difficult task due to the absence of a recorded list of the population of traders and the opportunistic behavior of the traders.

Therefore, a snowball sampling (chain-referral sampling) method was used to interview the available number of collectors, wholesalers, and retailers, and processors from specified markets.

The consumers' survey was taken from the customers of major retail shops and wholesalers from specified towns by distributing questionnaires at the time of purchase.

Table 2: Traders, processors, and consumers sampling

Name of Market/address	Trader sample				
	Wholesaler	Retailer	Collector	Processor	Total
A.A	4	0	0	0	4
Wolkite	2	3	1	4	10
Woliso	1	1	1	2	5
Dargie	2	0	4	0	6
Walga	2	0	4	0	6

Total	11	4	10	6	31
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Source: Owen design (2022)

3.5. Data Analysis Methods

Two types of analysis, namely descriptive and econometric analysis are used for analyzing data collected from farmers and traders in the study area.

3.5.1. Descriptive analysis

This method of data analysis refers to the use of ratio, percentages, means and standard deviations in the process of examining and describing marketing function, facilities, services, role of intermediaries, market and traders characteristics.

Structure Conduct Performance

The model examines the causal relationships between market structure, conduct, and performance, and is usually referred to as the structure conduct and performance. Identification of pepper marketing channel, and the role and linkage of marketing agents in this study; the S-C-P framework was used to meet this objective.

A. Structure of market

Structural characteristics like market concentration, industry maturity, government participation, product differentiation, barriers to entry, and diversification, will be some of the basis to be considered. The perfect competition model will be used as a standard to study the structure of the market.

Degree of market transparency

Accurate and timely market information enhances market performance by improving the knowledge of buyers and sellers concerning supply and demand. Exclusive access to market information or the control or concentration of information asymmetry and concentration of capital at the disposal of very few traders is important sources of monopoly which affects the nature of horizontal and vertical relations. More balanced knowledge of the markets provides a fair distribution of the gains from efficient market price formation (Mussema, 2006)

Barriers to entry

The potential participants can enter various functions is commonly used as a means of assessing the degree of competition in an industry four points that can create barriers to entry: legal barriers (license and patents), economies of scale, superior resources, and pace of entry. The modes of entry into trade, means of building capital, means of acquiring marketing skills and contacts, periods of apprenticeship, trader's perceptions of barriers, the origins and levels of initial capital required for traders of different sizes (functions, or commodities), and the degree of mobility between functions and commodities can be used as centre of data to see the barriers to entry.

B. Market conduct

Market conduct refers to the practices or strategies of traders in maximizing their profits.

Among these practices are the use of regular partners, long-term relations with clients, and suppliers, the use of intermediaries, and trade within personalized networks (Abay, 2010) it is a systematic way to detect indication of unfair price setting practices and the conditions under which practices are likely to prevail. Price setting strategy for producers and traders was analyzed.

C. Market performance

The two approaches to measure marketing performance are: marketing margin and the analysis of market channel efficiency.

Marketing Margin

In a commodity subsystem approach, the institutional analysis is based on the identification of the marketing channels. When there are several participants in the marketing chain, the margin is calculated by finding the price variations at different segments and by comparing them with the final price to the consumer. The consumer price is then the base or the common denominator for all marketing margins.

Marketing margin is most commonly used to refer to the difference between producer and consumer prices of an equivalent quantity and quality of a commodity. The size of marketing margins is largely dependent upon a combination of the quality and quantity of marketing services, and the efficiency with which they are undertaken and priced.

The quality and quantity of marketing services depends on supply and demand of marketing services and/or the degree of competition in the market place. The costs of service provision depend on both exogenous and endogenous factors and the efficiency is determined by the extent of competition between marketing enterprises at each stage.

Large gross margins may not express high profit; this is because size of marketing margins largely depends upon a combination of the quality and quantity of marketing services, and the efficiency with which they are undertaken and priced. The quality and quantity of marketing services depends on supply and demand of marketing services and/or the degree of competition in the market place.

The total marketing margin is given by the formula shown below

$$\text{Total Gross Marketing Margin} = \frac{(\text{Consumer price} - \text{Producer price})}{\text{Consumer price}} \dots\dots\dots \text{Equation 3}$$

$$\text{Producer Gross Marketing Margin} = \frac{(\text{Consumer price} - \text{Marketing gross margin})}{\text{Consumer price}} \dots\dots\dots \text{Equation 4}$$

$$\text{Net Marketing Margin} = \frac{(\text{Gross Margin} - \text{Marketing Cost})}{\text{Consumer price}} \dots\dots\dots \text{Equation 5}$$

The marketing margin was compared with marketing service costs and the results were interpreted. Margins at each stage were calculated and the shares also were compared.

Econometric analysis

This method of data analysis refers to the use of multiple linear regression model to identify factor affecting quantity of red pepper supply.

3.5.2. Econometric Model Specification

In this study the factors that affect the supply of red pepper to the market is estimated using the Multiple Regression Model. The main reason multiple linear regression model was used is to identify the most important factors that are associated with the amount of red pepper supplied by producer households in the area, and hence it enables to estimate how the included variables are related. The estimated coefficients indicate the effect of a change in the independent variables on the dependent variable

As the dependent variable, quantity of red pepper supply is a continuous variable the appropriate model is the OLS.

OLS regression is specified as:

$$Y_i = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \dots + \beta_i x_i + \varepsilon \dots \dots \dots \text{Equation 6}$$

Where

Y_i = quantity of red pepper supplied to market

α = Intercept

β = Coefficient of i^{th} explanatory/independent variable

x = Vector of explanatory variables

ε = Disturbance term

3.5.3. Diagnostic test

Before fitting important variables into the regression models for analysis it was necessary to test multicollinearity problem among continuous variables.

1) Variance Inflation Factor (VIF) to measure the amount of multicollinearity in a set of multiple regression variables. Mathematically, the VIF for a regression model variable is equal to the ratio of the overall model variance to the variance of a model that includes only that single independent variable. This ratio is calculated for each independent variable. A high VIF indicates that the associated independent variable is highly collinear with the other variables in the model. For association among the continuous explanatory variables and Contingency Coefficients (CC) for dummy variables. To detect multicollinearity problem for continuous variables, variance inflation factor (VIF) defined as:

$$(VIF) = 1 / (1 - R_j^2)$$

As a rule of thumb, if the VIF value of a variable exceeds 10, which were happen if R_j^2 (explained variation) exceeds 0.90, then, that variable is said to be highly collinear. Therefore, for this study, variance inflation factor (VIF) is used to detect multicollinearity problem for continuous variables. On the other hand,

2) Contingency coefficient is used to check multicollinearity of discrete variable. The value ranges between 0 - 1 , with 0 indicating no association between the row and column variables and value close to 1 indicating a high degree of association between variables.

$$cc = \sqrt{\left(\frac{x^2}{n+x^2}\right)} .$$

Were:

- χ^2 is the chi-square statistic,
- N is the total number of cases or observations in our analysis/study,
- cc is the contingency coefficient

3.5.4. Study variables

The main hypothesized variables expected to influence marketable supply of red pepper in the study area are explained in the following manner:

Dependent variable

Quantity Supplied (QUA SUPP): It is a continuous variable which represents the amount of red pepper supplied by the household to the market measured in quintals in 2021/2022.

Independent variables

The following explanatory variables were hypothesized to influence the marketable supply of red pepper in the study area.

1. Farm size (LAND): The total land used for red pepper production was measured in terms of number of hectares the household owns and it was expected to affect the household level of red pepper marketable supply positively because, a producer who owns a large area of land for red pepper production than a producer who own less area of land and under the same input utilization condition can produce more.
2. Price (PRICE): Current year price was expected to affect the marketable supply of red pepper positively because prices stimulate marketable supply. If the current market prices are low producers store the produce until the price rises after meeting their immediate needs.
3. Access to credit (CREDIT): Access to credit is measured as a dummy variable taking value of 1 if the farmer had access to credit and 0 otherwise. This variable was expected to influence the marketable supply of red pepper positively on the assumption that producers use the credit for production purpose.
4. Market information (MKT INFO): This variable was measured as a dummy variable taking a value of 1 if the farmer had access to market information and 0 otherwise. It has been hypothesized to affect marketable supply of red pepper positively. Producers that

have access to market information are likely to supply more red pepper to the market than informed producers.

5. Family Size (FAM SIZE): A household with more number of family members is assumed to supply less amount of red pepper to market than those households with relatively less number of family members because of the increase in consumption. Households with large family size may produce more and supply more. Hence, in this study either positive or negative relation between family size and marketable supply of red pepper was expected.
6. Education (EDU): This variable is a dummy variable taking a value 1 if the household head has a formal education and 0 if a farmer has no formal education at all. Education increases farmers' ability to get and use information. Since households who have better knowledge are assumed to adopt better production practices, this variable was assumed to have positive relation with marketable supply of red pepper.
7. Extension service (EXTN): This variable was measured as a dummy taking a value of 1 if the household head has contact with a development agent and 0 otherwise. Extension service was expected to have positive effect for market participation through its stimulation of production and productivity. Farmers that have frequent contact with DAs have better knowledge to produce and market their product.
8. Agricultural experiences (EXP): This continuous variable measured by number of years stayed in red pepper production which is different from age influence market participation positively. Household with better experience in red pepper production was expected to produce more amount of red pepper than those with only less experience and, as a result, it is expected to supply more amounts to market. Therefore, experience in red pepper production was expected to have a positive relation with marketable supply.
9. Number of oxen owned (OXEN NO): It is a continuous variable which is expected to influence production participation then by supply positively. It was expected that participation probability of farmers to supply red pepper would increase as farmers increased their number of oxen because even if there is a limited land there were proper and timely land preparation then by increase in productivity.
10. Access to the market (SOLMKTDI): It is a continuous variable measured in walking time (minute) which farmers spend time to sell their product to the market. If the farmer is

located in a village or distant from the market, he is poorly accessible to the market. The closer to the market the lesser would be the transportation cost and time spent. Therefore, it is hypothesized that this variable is negatively related to market participation and marketable surplus. A similar study was conducted by Holloway et al (1999) milk-market development in the Ethiopian highlands. His result indicates that distance-to market causes market surplus to decline. Similar issue was studied by (Takele, Analysis of rice profitability and marketing chain: The case of Fogera Woreda, South Gondar Zone, Amhara national regional state, Ethiopia (Doctoral dissertation, Haramaya University),., 2010) on food grain market in the case study of Alaba Siraro, he identified that poor market access has significant and positive effect on quantity of food grain supplied.

Previous findings by Habtamu (2015); and Tufa et al. (2014) supports this result.

11. Income from non-farming activity (NONF_INC): It is a dummy variable that show obtained from non-farming activities by the household head. This income may strength farming activity or reluctant to produce red pepper to generate money from red pepper rather than getting income from non-farming activities. However, getting income from non-farming activity is assumed to have direct or inverse relation with market participation and marketable surplus.
12. Sex of household head (SEX): It is a dummy variable; both men and women participate in production of pepper. Male households have been observed to have a better tendency than female household to enter into pepper market and volume supply.
13. Age of household head (AGE): It is a continuous variable and measured in years. Age is a proxy measure of farming experience of household. Aged households are believed to be wise in resource use, and it is expected to have a positive effect on market participation and marketable surplus.
14. Marital status (MAR_STATUS) it is dummy variable contain single, married, divorce and widowed.
15. Pepper disease (D_PEPPER) pepper diseases are a dummy variable this variable expected to affect marketable supply of pepper negatively.
16. Fertilizer (FERTILIZER) fertilizer is continuous variable measured in kg and it expects a positive impact on pepper supply to market.

Table 3: Description of dependent and independent variables used in the model

Variables	Explanation	Category	Value	Expected sign
SOLD_QUAN	Quantity supplied	Continuous	Kg	
Independent variables				
FARM_SIZE	Size of land for red pepper production	Continuous	Ha	+
PRICE	Price of red pepper in 2022/23	Continuous	Birr	+
CRED_ACC	Access to credit	Dummy	0=no 1=yes	+/-
MRKT_INF	Access to market information	Dummy	0=no 1=yes	+
MKT_DI	Distance to market	Continuous	walking minutes	+/-
FAM_SIZE	Number of family members	Continuous	Man equivalent	+
EDU_LEV	Education level of HHH	Dummy		+
EXT_CONT	Extension service	Dummy	0=no 1=yes	+
EXP	Experience in red pepper production	Continuous	Year	+
NONF_INC	Income from non-farm activity	Dummy	0=no 1=yes	+/-
AGE	Age of HHH	Continuous	Number of years	+/-
SEX	Sex of HHH	Dummy	0=Female 1=Male	
D_PEPPER	pepper diseases	Dummy	1=Male	-
OXE	number oxen owned	Continuous	0=no 1=yes	+
FERTILIZER	fertilizer used	Continuous	No	+
MAR_STATUS	marital status of HHH	Dummy	Kg 0=single 1= married 2= divorce	

CHAPTER FOUR

RESULTS AND DISCUSSIONS

This chapter summarizes the major findings of the study. Both descriptive statistics and econometric analysis were used. The data collected from sample 314 red pepper producers and sample red pepper traders (Wholesaler, retailer, collector and processor 11, 4, 10, 6 respectively total 31) to analyze the primary data. Descriptive statistics were employed to describe the demographic characteristics of red pepper producer and red pepper traders.

Moreover, market structure, conduct, and performance in red pepper marketing, Identify the major constraints, opportunities of production and supply of red pepper to the market and profitability of red pepper production in the study area analyze.

Econometric analysis was used to test of association among the dependent and independent variables to analyze determinants of household's red pepper supply to markets.

4.1. Socio-Demographic Characteristics of Sample Farmers and Traders

In this part of the thesis, sampled farmers and traders' socio-demographic characteristics (sex, age, marital status, education level, family size, resource ownership and others) are discussed.

4.1.1. Demographic characteristics of sample farmers

This subsection investigates the important demographic data from the sample households in order to gain an overview of the images of the research site in relation to their level of determinant. Age, sex, marital status, education level and family size summarized.

Almost 92 percent of the respondents were male and 8% of respondent household heads are female. The average age of the sample households was 39.47 years with a range of 21- 71 years where largest proportions of the household head lie with in a productive age. The available data indicates that average family size in each household is 5.11 with minimum 1 and maximum 12. Education level of household head 23.67 percent illiterate, 48.33 percent read & write, 16.33 percent Primary and 11.67 percent Secondary & above education level. Marital status of the

household head single household heads is 1 percent, married household heads are 95.33 percent, divorced household heads are 2.33 percent, and widowed household heads are 1.33 percent of respondent.

Table 4: Demographic characteristics of sample farmers

Variables	N=300	Percent
Age of HHH		
Mean	39.47	
Sex of HHH		
Male	276	92
Female	24	8
Marital status		
Single	3	1
Married	286	95.33
Divorced	7	2.33
Widowed	4	1.33
Education level		
Illiterate	71	23.67
Read & write	145	48.33
Primary	49	16.33
Secondary & above	35	11.67
Family size		
Mean	5.11	

Source: Own field survey data (2022)

4.1.2. Resource ownership

Household's access to productive resource such as land, livestock and oxen is essential for agricultural production and marketing. Livestock is the farmers' most important source of income, food and draft or traction power for cultivation of land in the study area. Hence, households with larger livestock holding have better access to draft power than those with less. Livestock holding is also one of the main cash sources to purchase agricultural inputs. To assess

the livestock holding of each household, the Tropical Livestock unit (TLU) per household was calculated (cow=1, calf=0.25, weaned calf=0.34, heifer=0.75, donkey young=0.35, donkey adult=0.7, sheep and goat young=0.06, sheep and goat adult=0.13, chicken=0.013 and horse=1.1) (Ahmed, M.H & Mesfin, H.M, 2017). The livestock holding of sample households ranged from 0 to 14 TLU with mean 4 for red pepper producers. The available data indicates that average landholding of sample red pepper producers is 4 hectare with minimum 0.5 hectare and maximum 10 hectare

Table 5: Resource ownership

Variables	N=300		
	Mean	Min	Max
Total livestock	4	0	14
Oxen	2.6	0	5
Land holding	4.5	0.5	10

Source: Own field survey data (2022)

4.1.3. Access to services

Access to different services has important contribution in improving production and productivity and thereby increasing marketable surplus and ultimately for increasing the income of smallholder farmers. The most important services that are expected to promote production and marketing of red pepper in the study area include distance to markets, access to credit, access to extension service, and access to market information.

Access to extension service access to agricultural extension services is expected to have direct influence on the production and marketing behavior of the farmers. The higher access to the extension service, the more likely that farmers adopt new technology and innovation. 80 percent of the respondent has one or more extension contact in 2014/2015 farming season according to red pepper product maximization.

Distance to markets regarding the distance taken to travel from home to the nearest market place where they sold their product, sample red pepper producing farmers reported that they had to travel an average of 40.7 minute with standard deviations 10.14 minute. The minimum and the

maximum distance that sample red pepper producing respondents had to travel to access nearest market centers were 20 and 60 minutes, respectively.

Access to credit: even access to credit is one way of improving smallholder farmers' production and productivity for any crop by adding farmers' ability to purchase inputs by the high risky behavior of red pepper production by households caused by natural and manmade red pepper diseases producers doesn't use their income from credit to produce red pepper rather they produce other less risky and less profitable crops. Thus, it is expected that access to credit increase the production of agricultural crops in general but not red pepper in particular. In the study area, credit was made available to farmers through the woreda office of Agriculture and Rural Development and Service Cooperatives. Only 35 percent of red pepper producing farmers reported that they had access to credit while the remaining majority 65 percent of red pepper producing sample respondents reported that they had no access to credit.

Access to market information the amount of marketable surplus primarily depends on access to market information and the willingness and ability of farmers to use the information. The role of market information in decision making process is to reduce risks and uncertainties related to market and enable farm households to make the right decision in sales and price of the product produced and inputs used in the production process. It is assumed that producers and traders with access to market information can make better decision on how much to produce and market. However, there was no organized market information system to support farmers in the study area. According to sample red pepper producing farmer report, about 37 percent of red pepper producing sample households revealed that they search the price information of nearby market before they sold their product. About 63 percent of red pepper producing sample households revealed that they have not market information before they sold their product.

Table 6: Access to services

Variables	N=300	Percent
Access to credit		
Yes	104	65.33
No	196	34.67
Extension service		
Yes	113	37.67

	No	187	62.33
Access to market information	Yes	242	80.67
	No	58	19.33
Distance to market (walking distance in minutes)	Mean	43.83	

Source: survey result, 2022

4.1.4. Farm Inputs utilization

Fertilizer application is one of the most important agricultural practices that are used by red pepper growers in the study area. Moreover, proper application of the recommended fertilizer rate is important to obtain the required production and marketable supply.

Sample respondents rate of application of DAP ranged from 75kg to 100kg per hectare and the average application rate of DAP fertilizer by Red pepper producer was 81.5 kg per hectare to produce red pepper. UREA is also one of the fertilizer type used in the study area as an input to produce red pepper. Although, application of UREA has several advantages beside production increment, all red pepper producing sample respondents applied UREA fertilizer in the production. The average application rate of UREA fertilizer by Red pepper producer was 120.75kg per hectare and the rate of application of UREA ranged from 100kg to 150kg per hectare.

Table 7: farm input utilization

Variables	N=300		
	Mean	Min	Max
DAP kg/hectare	81.5	75	100
UREA kg/hectare	120.75	100	150

Source: survey result, 2022

4.1.5. Demographic characteristics of traders

The demographic characteristics of total 31 traders (Wholesaler, retailer, collector and processor 11, 4, 10, 6 respectively) summarized in terms of age, sex, marital status, education level and

average experience in red pepper trading. The age of traders ranged from 26 to 42 with an average age of 30 years old. The survey result indicates that, 87.1 percent sample red pepper traders are males, 12.9 percent are female and about 93.55 percent were married, 6.45 percent are divorced. About 64 percent and 21.4 percent of the sample traders were within the level of Primary and Secondary School education, respectively, and only 14.3 percent of the traders have some kind of tertiary education. The finding also indicates that the average trader's years of experience on red pepper trading was 6.3year.

Table 8: demographic characteristics of trader

Variables	N=31					Min	max
	Wholesaler/11	Retailer/4	Collector/10	Processor/6			
Age of HHH							
Mean	28.9	33.25	31.1	28.17	26	42	
Sex of HHH							
Male	11	4	10	2			
Female	0	0	0	4			
Marital status							
Single	0	0	0	0			
Married	11	4	10	4			
Divorced	0	0	0	2			
Widowed	0	0	0	0			
Education level							
Illiterate	0	0	0	0			
Read & write	0	0	0	0			
Primary	8	4	7	1			
Secondary & above	3	0	3	5			
Experience							
Mean	6.82	4.5	7.1	5.17	2	16	

Source: survey result, 2022

4.2. Structure, Conduct and Performance of the Red pepper Market

Production of spices crops like red pepper requires efficient marketing system. The efficiency of the market could be in the speed with which the product reaches the ultimate consumer, prices and quality. The number and sizes of enterprises within the system, how the market behaves and the overall performance of the market are analyzed.

4.2.1. Market participants, their roles and linkages

In this study different pepper market participants were identified in the exchange functions between farmer and final consumer. Market participants in the study area include producer, collector, wholesaler, retailer, processor and final consumer of the product. Based on major activity undertaken the sampled market participants were categorized in to different categories.

Producers: Producers are the first link in the marketing chain. Producers have linkage with input suppliers (Ethiopian Improved Seed Agency, Office of Agriculture, cooperative and traders to by inputs), financial institutions such as OMO micro finance to get a credit, Trade and Industry Office to get market information, Woreda and kebele administration to secure land and solve administrative problems in their localities. The buyers of the product were mainly retailers and collector. The buyer and sellers have no any quality measurement rather they develop experience to do this. They measure quality by its color, odor, shape, absence of foreign matter and origin. As soon as they agreed, weighing and loading would start.

Collector: They mainly used to buy small lots of red pepper directly from farmers and sell it to wholesalers and retailers in Darge and Walga market based on the agreement made prior.

These are farmers or part time traders in the collector markets who collect red pepper from farmers in village markets for the purpose of reselling. Their sources of money and market information are mainly their clients (retailers and wholesalers).

Wholesalers: The wholesale buyers were found in Wolkite. They got red pepper from collector and sell to retailer, processor and the end user consumer.

Retailers: The retailer buyers were found in Walga, Darge and Wolkite they buy red pepper from producer directly or from collector and wholesalers to sell for the end user consumer or processor. All retailers have mobile telephone to exchange current information. Retailers use rented and their own store because some traders store is not found in front of the main road to

attract sellers. They are very numerous as compared to wholesalers and collector and their function was to sell to consumer and processor in pieces after receiving larger volumes from wholesalers, collector or producers.

Processor: These are the final link in the marketing chain who delivers red pepper to end users or consumers after cleaning, over drying, grading, grinding and packing.

4.2.2. Pepper market structure

The structure of pepper marketing system should be evaluated in terms of the degree of market transparency and barrier to entry. In this study the structure of the pepper market is characterized using degree of market transparency and entry conditions.

4.2.2.1. Degree of market transparency

Accurate and timely market information enhances market performance by improving the knowledge of buyers and sellers concerning supply and demand. In the *Woreda* the trade and industry office disseminate market information, but, it is not consistent and uniform to all pepper traders Exclusive access to market information or the control or concentration of information asymmetry and concentration of capital at the disposal of very few traders is important sources of monopoly which affects the nature of horizontal and vertical relations.

Even though market information plays such a crucial role in improving the marketing system, there was no organized system to provide reliable market information to all market participants in the study area. Hence, traders used different approaches to access market information. According to the survey result, about 73% obtained price information through telephone and 11% of sample traders obtained price information from other traders in the market the remaining 16% of traders reported that they obtained price information from market.

4.2.2.2. Barrier to entry

Licensing: In many business activities licensing is a major barrier. As a rule, a trader who has license in one business is not allowed to perform any other businesses other than the business for which he/she is licensed. But the survey made with traders there are no restrictions to enter in the pepper markets with respect to license.

Capital: Even though pepper trade does not require huge investment capital the price of the commodity is highly volatile to be engaged in the business confidentially which is an entry barrier because only those who can take such risks will join the business.

From the survey result, it was observed that average initial working capital of red pepper traders during the survey period was estimated to be Birr 20,000(wholesaler, retailer, collector and processor was 25000, 37500, 11400 and 13500 respectively) and Birr current working capital of red pepper traders (wholesaler, retailer, collector and processor was 181,812.2, 150,000, 272,500, 91,200 and 108,000 respectively). With regard to the sources of working capital, 50 percent of red pepper traders(wholesaler, retailer, collector and processor) reported that their source of current working capital was own saving and 50 percent of red pepper traders current working capital was credit in OMO micro finance institution.

Lack of trading experience: Trading experience increase accessibility of accurate and timely market information mechanisms to minimize traders loses regarding pepper price fluctuation; during the marketing of the product both traders and farmers cheat each other. Traders minimize the volume of the product during weighing, which was the major activity they usually did taking the advantage of the knowledge of farmers. On the other hand, farmers cheat traders by watering red pepper and adding other foreign matters so as to increase weight that had a great impact on the quality of the product trading experience increase knowledge how to know and control those cheatings.

4.2.3. Market conduct

Market conduct refers to the patterns of behavior of firms. There are no agreed upon procedures for analyzing the elements of market conduct. Rather, some points are put to detect unfair price setting practices and the conditions under which such practices prevail. In this study conduct of the red pepper market is analyzed in terms of the traders' price setting, purchasing and selling strategies.

4.2.3.1. Producers' Market Conduct

Red pepper is the most important cash income generating crop in the study area. During the survey, farmers pointed out that supply of red pepper to the market occurs mainly January February March and April, lack of modern post-harvest handling practice and lack of facilitated

storage facilities have forced producers to sell the product of red pepper at trader setting price. Starting from production up to marketing, every farmer produces and sells on individual basis this affecting their bargaining power during the sale of red pepper product.

Producer price setting strategy

The descriptive statistics indicated that among all respondents 84.33% red pepper producer farmers are reported as they don't negotiate on price to sell their product (set by traders), 9.66% respondents supply their product based on market information from farmers and traders and 6% respondent red pepper producers take their price after supply their product to the market when price reaches the expected price by producers. Even the selling strategy of the respondent farmers was open to any buyer (all producers sell their product to anybody as far as they offer better price) large proportion of red pepper producers are price taker.

Table 9 producer price setting strategy

Producer selling price	No of respondent trader	percent
Set by traders	253	84.33
Supply based on market price information	29	9.66
Take price after supply the product	18	6

Source: Owen survey result 2022

4.2.3.2. Traders' Market Conduct

The survey result indicated that the transactions made on red pepper marketing of the study area takes place with direct contact between sellers and buyers. There were no observed operational brokers in the red pepper marketing channel during the survey period. The red pepper retailers were found to purchase red pepper either directly from farmers at the local/district market or from red pepper collectors.

Trader price setting strategy

Based on the data from sample trader's survey, about 58.065% and 29.032% of respondents reported that buying price was set by the market and discussion with other traders respectively. The rest 12.903% of sample traders reported that market price was set by negotiation with suppliers and traders.

Table 10: trader price setting strategy

Trader buying price	No of respondent trader	percent
Market	18	58.065
Discussion with other traders	9	29.032
Negotiation with suppliers and traders	4	12.903

Source: Owen survey result 2022

4.2.4. Performance of the market

Methods employed for the analysis of red pepper market performance were marketing margins by taking into account associated marketing costs for key marketing channels. Hence, on the consideration of 2022/23 production year, costs and purchase prices of the channel actors, margin at farmers, retailers, and red pepper collectors' level was conducted.

Marketing performance of Pepper markets were analyzed by estimating the marketing margin, by taking into consideration associated marketing costs for key marketing channels. Based on production costs and purchasing prices of the major market participants along the chain, margins at farmer, collector, wholesalers, and retailer and processor levels were estimated and analyzed.

Marketing Margin

Table: 11 gives an overview of the marketing margin among different actors in different channels. The total gross marketing margin (TGMM) is highest in four channels (Channel VII, channel IX, channel V and channel III) which accounts for 27.5% of the consumer's price. Of all pepper traders retailers and processors get the high gross marketing margin which they account for 27.47% and 22.1% of consumer's price respectively.

TGMM is lowest which accounts 0% of the consumer's price and producers share (GMM_{prod}) is highest (100%) in consumers' price in Channel I.

Among different traders Processor obtain relatively highest net marketing margin, followed by retailers.

Table 11 Red pepper marketing margin and profit along all the channels.

Actors		Channels								
		I	II	III	IV	V	VI	VII	VIII	IX
Producers	Production cost	183	183	183	183	183	183	183	183	183
	Selling price	246.6	246.6	246.6	246.6	246.6	246.6	246.6	246.6	246.6
	NMM(profit birr/kg)	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6
	GMM _(Prod)	100	95.6	91.96	95.6	91.9	96.14	95.6	91.1	91.9
Collectors	Buying price				246.6	246.6	246.6	246.6	246.6	246.6
	Marketing cost				4	4	4	4	4	4
	Selling price				265	265	265	265	265	265
	NMM(profit birr/kg)				14.4	14.4	14.4	14.4	14.4	14.4
	GMM _C						3.99	5.86	22.1	22
Wholesaler	Buying price						265	265	265	265
	Marketing cost						3.5	1.25	3.5	1.25
	Selling price						276	276	276	276
	GMM _W						3.98	5.86	22.1	22
	NMM(profit birr/kg)						7.5	9.75	7.5	9.75
Retailer	Buying price		246.6	246.6	265	265		276		276
	Marketing cost		4.35	4.35	4.35	4.35		4.35		4.35
	Selling price		281.5	281.5	281.5	281.5		281.5		281.5
	NMM(profit birr/kg)		30.55	30.55	12.15	12.15		1.15		1.15
	GMM _R		12.4	27.47	5.86	22.06		1.4		18.8

Processor	Buying price			281.5		265			276	281.5
	Marketing cost			5.25		5.25			5.25	5.25
	Selling price			340		340			340	340
	NMM(profit birr/kg)			53.25		69.75			58.75	53.25
	GMM _(Proce)			17.21		22.1			18.82	17.21
consumer price		246.6	281.5	340	281.5	340	276	281.5	340	340
TGMM		0	12.4	27.47	12.4	27.47	10.65	12.4	27.5	27.5

Source: Owen survey result 2022

4.3. Cost and profitability analysis of red pepper production for farmers

This section of the study focused on activities related to producing red pepper at farm household. This shows an indication about the performance of red pepper market. Average costs and sales prices of the producers were used

Table 12: Cost and profitability analysis of red pepper production for producers

Cost items	Average cost(Birr/ha)	Min	Max
Rent for land per year	40,000	34,000	48,000
Land preparation per crop season	5,000	3,500	5,500
Fertilizer (DAP and urea)	7,000	4,500	7,500
Improved seed	2,000	1,200	3,000
Labour costs			
Sawing/transplanting	18,000	12,000	19,500
Weeding	45,000	27,000	48,500
Harvesting	15,000	8,5000	17,000
Transport from farm to home	6,000	2,000	6,500

Packing materials	1,500	850	1,850
Total variable cost (Birr/ha)	139,500		
Yield (kg/hectare)	762		
Average Selling price of producers (Birr/kg)	246.567		
Total value of red pepper production/year (Birr/ha)(762*246.567)	187,884.054		
Average gross margin (Birr/ha) (187884.054-139,500)	48384.054		

Source: Own computation, 2022

As Table9 indicates, cost and profitability analysis of red pepper production for 2022/23 production year in the study area was encouraging regarding its profitability. This shows that a farmer with 762kg average production of red pepper per hectare with average market price of red pepper 246.567 Birr at farm gate would generate annual return of ETB 48,384.054 per hectare.

4.3.1. Cost and profitability analysis of red pepper production for red pepper collectors

Cost and profitability analysis of red pepper collectors was summarized in Table 8. Average costs and sells prices of red pepper collectors were under taken in the analysis.

Table 13: Cost and profitability analysis of red pepper collectors

Cost items	Cost per kg (Birr)	Percent from total cost	Min	Max
Red pepper collectors' purchase price =A	246.57	98.4036397	220	280
Labor cost	2	0.798180149	1.25	2.5
Transport cost	.75	0.299317556	.50	1.25
Tax paid	.50	0.199545037	0	1.25
Red pepper container	.50	0.199545037	.33	.587
Other costs	.25	0.099772519		
Total operation cost =B	4	1.596360299		
Total cost =C	250.57	100		

Gross sales = D	265			
Profit/Loss = D-C	14.43			

Source: Own computation

The result of Table 10 shows that red pepper collectors of the study area during the survey period were obtained a profit of ETB 14.43 per kg of red pepper. This indicates that the performance of marketing of red pepper collectors for the specified year 2022/23 was showing positive figure even though the amount of profit was a small number per kg basis.

4.3.2. Cost and profitability analysis of red pepper production for retailers

Cost and profitability analysis of red pepper retailers was summarized in Table 11 Average costs and sales prices of retailers were under taken in the operation.

Table 14: Cost and profitability analysis of red pepper retailers

Cost	Cost per kg (Birr)	Percent	Min	Max
Retailers' purchase price =A	260	98.02073516	220	290
Labor cost	2.5	0.942507069	1.54	2.88
Transport cost	1	0.377002828	.63	1.44
Tax paid	0.5	0.188501414	0.27	0.66
Rent of retail shop	0.75	0.282752121	0.47	1
Other cost	0.5	0.188501414		
Total operation cost =B	5.25	1.979264844		
Total cost =A+B	265.25	100		
Average retail price Birr/kg =D	285			
Traders profit/loss E=D-C	20.25			

Source: Own computation

With regard to the cost and profitability analysis of the sample red pepper retailer's found in the sample markets, as the Table 11 clearly shows retailers were found to be profitable. This indicates that a retailer can obtain a profit of ETB 20.25 per kg at retail level which was higher by 5.82Birr than profit of red pepper collectors.

4.4. Marketing channels

Value Chains is defined on a number of organizations working together to add value and deliver a product and/or service to a customer or market. This Value Chain concept is best developed in the manufacturing industries and is commonly known as the Supply Chain. The latest thinking in Supply Chain Management and consequently Value Chain Management has led to developments of performance management and measurement frameworks for the entire supply chain.

The analysis of marketing channels is intended to know the alternative routes the product follow from the point of origin to final destination. 9 main alternative channels were identified for red pepper marketing. The main marketing channels identified from the point of production until the product reaches the final consumer through different intermediaries.

Channel-1: producers →consumers

Channel-2: producer → retailer →consumers

Channel-3: producer → retailer → processors →consumers

Channel-4: producer →collectors →retailers →consumers

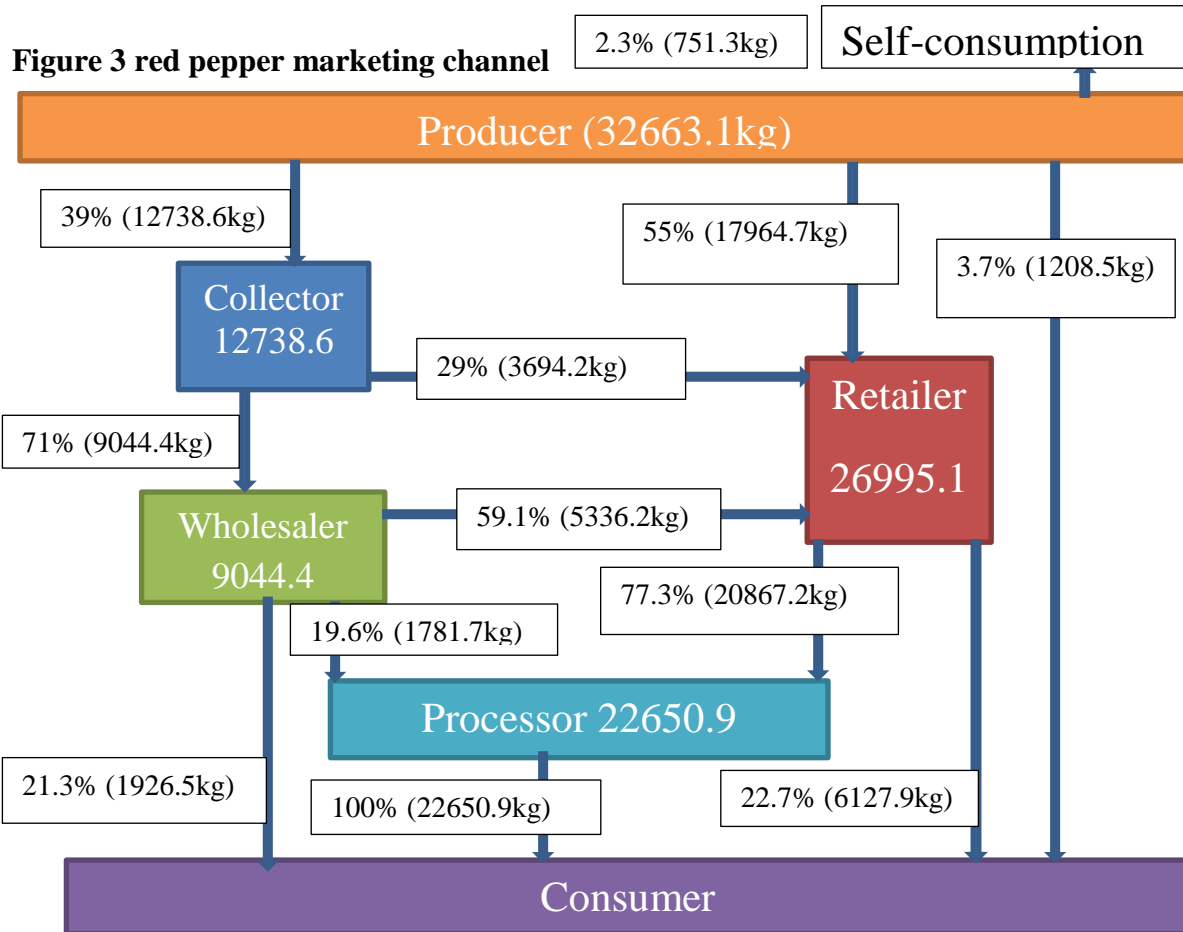
Channel-5: producer →collectors →retailers →processors →consumers

Channel-6: producer →collectors →wholesaler →consumers

Channel-7: producer →collectors →wholesaler →retailers →consumers

Channel-8: producer →collectors →wholesaler →processor →consumers

Channel-9: producer →collectors →wholesaler →retailers →processor →consumers



Source: Source: Own computation

4.5. Factors Affecting Quantity of Red pepper Supplied to the Market

The result of the econometric analysis indicates that among 16 hypothesized variables only 7 variables (farm size, price, family size, non-farm income, credit access, extension contact and red pepper diseases) significantly affect the household marketable supply as

Table 15: Factors Affecting Quantity of Red pepper Supplied to the Market

Variables	Coefficients	Robust Err.	Std. t	P-value
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<i>MKT_DI</i>	-.5466474	.4601714	-1.19	0.236
<i>AGE</i>	-.7462314	.9381348	-0.80	0.427
<i>FARM_SIZE</i>	115.2307	26.26859	4.39	0.000
<i>PRICE</i>	1.216534	.0968232	12.56	0.000
<i>FAM_SIZE</i>	6.94714	3.349369	2.07	0.039
<i>OXEN</i>	-6.217167	8.489507	-0.73	0.465
<i>SEX</i>	29.20944	30.25176	0.97	0.335
<i>EDU_LEV</i>	.6917906	7.560019	-0.09	0.927
<i>NONF_INC</i>	-62.92737	16.00258	-3.93	0.000
<i>CRED_ACC</i>	-66.8038	14.85389	-4.50	0.000
<i>MRKT_INF</i>	11.5553	18.26295	0.63	0.527
<i>EXT_CONT</i>	82.38841	18.0787	4.56	0.000
<i>D_RED PEPPER</i>	-298.8026	18.7061	-15.97	0.000
<i>MAR_STATUS</i>	16.49103	26.85067	0.61	0.540
<i>FERTILIZER</i>	.065493	.2016437	0.32	0.746
<i>EXP</i>	49.670846	5.453803	1.77	0.077
<i>_cons</i>	217.1273	70.7442	3.07	0.002

Farm size (*FARM_SIZE*): As hypothesized farm size affect marketable supply of pepper positively at 1 percent level of significance. On average a 1 hectare increase on farm size increase quantity of pepper supply by 115.2 kg.

Price (*PRICE*): As hypothesized the multiple linear regression output the variable was affect the marketable supply of pepper at 1% level of significant positively because prices stimulate marketable supply. On average a 1 birr increase on price increase quantity of pepper supply by 1.22 kg. If the market prices are low producers store the produce until the price rises after meeting their immediate needs which is consistent with the general expectation.

Family size (*FAM_SIZE*): As hypothesized family size positively affects the quantity of pepper supplied by 5 percent level of significant. On average family size increase by 1 pepper supply to the market increase bay 6.9kg. Family size increases the quantity of pepper supply to market by adding the labor force to the family which is consistent with the general expectation.

Income from non-farming activity (NONF_INC): Non-farm income of the household heads negatively affected quantity of pepper supplied to market at 1 percent significant level. On average, if a pepper producer gets non-farming income causes a 62kgs reduction in the quantity of pepper supply relative to those producers without non-farm income. Income obtained from non-farming activities by the household head reluctant to produce pepper to generate money from pepper rather than getting income from non-farming activities.

Access to credit (CREDIT): Access to credit was influence the marketable supply of pepper negatively at a 1 percent level of significance. A pepper producer gets access to credit the amount of pepper supplied to the market decrease by 66.8kg on average relative to those producers without credit access. Even though pepper was profitable for producers unlike other crops the risk of farmers to loose was very high because of pepper diseases the production of pepper decreased year to year by this reason pepper producer produce other less risky crops rather than pepper.

Extension service (EXTN): extension contact was affected positively at 1 percent level of significance the quantity of pepper supply to market. On average if a pepper producer gets extension contact the amount of pepper supplied to market increases by 82.288kg relative to those producers without extension service. This suggests that access to get extension service avails information regarding technology which improves production that affects the marketable surplus which is consistent with the general expectation.

Pepper diseases (D_PEPPER): As hypothesized pepper diseases affect the quantity of pepper supply negatively at 1 percent level of significant by decreasing total yield of pepper product. On average a household affected by pepper diseases decreases pepper supply by 298.8kg which is consistent with the general expectation.

On the other hand, age of the household head, sex of the household head, experience of the household head on farming, marital status of the household head, oxen number owned by the household, distance to the nearest market, fertilizer added on pepper farming, level of education and access to market information did not have statistically significant influence on the quantity of pepper sold in the study.

According to $R^2=0.8885$ the proportion of the variance in the dependent variable explained by the independent variable was 88.85 percent and adjusted $R^2=0.8822$ the model goodness of fit was well.

The Breusch-Pagantest p value =0.000 we have an evidence to reject the null hypothesis that the variance was constant means (the variances are homogeneous and that the errors of the model are identically distributed).

The degree of multicollinearity among the explanatory variables has been tested using VIF for continuous variables and CC for dummy variables. The results for all VIF were ranging between 1.05 and 2.16. The result of the contingency coefficient was also less than 0.75. Therefore, Since VIF is less than 4 and contingency coefficient less than 0.75 multicollinearity cannot be suspected and would not be a problem. The variables that influenced the marketable supply positively as expected were experience in pepper production, access to credit, yield, land size, current year and previous year prices.

4.6. Major Production and Marketing Constrains and Opportunities

4.6.1. Producer constraint

Production constraints: The major production constraints mentioned by the sampled farmers were both manmade and natural. The natural problem was, Red pepper damage by unknown disease corresponding to the rainfall distribution the other constraints identified were poor access to agricultural inputs such as fertilizer, improved seed and chemicals.

Table 16: Producer constraint

Constraints	No of respondent(300)			
	selected 1 st	selected 2 nd	selected 3 rd	selected 4 th
Disease and pest	95	64	11	130
Law product	67	77	132	24
High man power	87	96	56	61
Land selective	51	63	101	85

Source: Own computation

4.6.2. Traders marketing problems

The basic problems identified and prioritized by sample traders. As the finding indicates the basic problems faced by red pepper traders during the survey were quality problem, competition

with unlicensed traders, and shortage of finance and unfair tax fee. Quality problem is the priority problem identified by red pepper traders. Improving the quality of red pepper has to do with production, harvesting and storing by farmers. The other problem for the poor quality of red pepper that traders noted is that there are unlicensed traders/red pepper collectors who might be mixing red pepper with water and other red powder.

Table 17: Traders marketing problems

Constraints	No of respondent 31 (Wholesaler, retailer, collector and processor 11, 4, 10, 6 respectively)			
	selected 1 st	selected 2 nd	selected 3 rd	selected 4 th
The absence of unlicensed trader	11	9	8	3
The absence of alternative markets	5	7	7	12
Adding water for weight	14	8	8	1
The absence of supply	1	7	8	15

Source: Own computation 2022

4.6.3. Constraints, initiatives and possibilities of the value chain of Peeper

One of the benefits of value chain analysis would be that it allows to properly identifying inefficiencies in the chain's development from input supply all the way up to consumption.

Analysis of the value chain is to define constraints, interventions, and opportunities, and possibilities. Since the study of the value chain helps in determining restrictions in an extreme and concise way in each of the value chain components.

Although there were several studies which focused on identification of constraints and opportunities in the vegetables value chain, no known study was found to determine the socioeconomic, demographic and institutional vegetables value chain constraints separately depending on the essential value chain functions: (the input supply stage, the production stage, the marketing stage, and the consumption stage) in Ethiopia. As a result, Red pepper value chain actors clarify a variety of constraints and opportunities via focus group discussion and questionnaire. According to this study finding, the major constraints currently impeding the expansion of the Red pepper value chain can be divided into four essential functions: the input supply stage, the production stage, the marketing stage, and the consumption stage. Table in the

below provides a description of the opportunities/initiatives and constraints for each of the players in the Red pepper value chains and highlights potential areas of action to address the constraints.

Table 18: Constraints, initiatives and possibilities of the value chain of Peeper

Functions	Constraints	Opportunities	Suggested solutions
Input supply	<ul style="list-style-type: none"> • Lack of improved supplies of seedling quality • Low quality seedling lack of farming instruments • and chemicals 	<ul style="list-style-type: none"> • High seeding demand • High fertilizer demand 	<ul style="list-style-type: none"> • Establish model nurseries as sources of seedling and information • Organize cooperative societies to provide farm supplies
Production	<ul style="list-style-type: none"> • Disease and pest • High man power • Low product • Land selective 	<ul style="list-style-type: none"> • Capacity for generating rural income • High price • High product demand 	<ul style="list-style-type: none"> • Increase production by management of agronomy and pests • Enhance quality and decrease waste
Trading/marketing	<ul style="list-style-type: none"> • The presence of unlicensed trader • Adding water for weight • The absence of alternative markets • The absence of supply 	<ul style="list-style-type: none"> • Strong demand for Red pepper on the market • Less risky than producers 	<ul style="list-style-type: none"> • Boost production • Control unlicensed traders

Consumption	<ul style="list-style-type: none"> • Limited supply • Financial constraints • inflated costs • Poor quality 		<ul style="list-style-type: none"> • Improve the supply • Provide knowledge on price and nutrition • Boost efficiency
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CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary and conclusion

The study was conducted in Abeshge woreda the area is known for its surplus production of agricultural commodities. However, analysis of market chain of agricultural crops in general and red pepper in particular are not well understood. The study attempted to investigate marketing chain of red pepper in the area. Selection of the crop was mainly based on their relative importance and Marketability. The study was conducted in order to identify production and marketing support services, structure-conduct-performance of the market, determinants of supply of red pepper in the area. Production of red pepper in the study area is mainly for market. Hence,

the commodity is important source of cash for smallholder farms'. Nationally, the area is known for its surplus production. In the area, the average land allocated for the production of red pepper per household was 0.66 hectare and the average production of red pepper per hectare was 762kg. The estimated farmers average production cost per hectare was 139,500 ETB for red pepper production. The major costs incurred by the farmers in the study area in order of importance for the production of red pepper were for land rent minimum 34,000, maximum 48,000 because of the land selective behavior of red pepper and the average profitability of farmers per hectare from production of red pepper was 48,384.054 ETB.

Disease and pest, high man power, Low product and land selectiveness of red pepper were some of the production problems faced by farmers. Besides, unfair pricing and weighing, lack of institutions providing market information, high input prices and lack of chemical herbicide adulteration were farmers marketing problems.

The study also identified the main marketing agents through whom red pepper were channeled from producer to final consumers, such as producers, collectors, retailers, wholesaler, processors and consumer.

Regarding structure of the market, the four firms concentration ratio Barrier to entry in terms of licensing and years of trade experience did not hinder entry into red pepper market, but capital requirement did. Market information system is not transparent among farmers and traders. However, all traders have information from different informal sources.

Concerning conduct of red pepper market, generally, trading is mainly on eye –appraisal and exchange takes place on bargaining. Traders are highly mobile and purchased from different market per week.

5.2. Recommendation and policy implication

Red pepper production provides job opportunities for youth and the landless and for traders and poor urban households engaged in its processing activities. Regardless of its contribution, however, its production and productivity is decrease year to year and low compared to world and regional average. As a result, institutional support provided to the sector such as market, diseases management system information and extension services were below the expected level. These factors together with several household demographic and socio-economic factors greatly affected the marketable supply of red pepper and consequently the production and productivity of the

sector. Based on the research findings of this study, the following points are recommended to improve marketing chains of red pepper so as to enhance its production and productivity.

1. Farm size is one of the determinant factors that affect volume of red pepper supplied to the market positively. Therefore, government policy proposed should focus on increasing production and productivity of the sector by motivating farmers to increasing land size covered by red pepper production.
2. The result of this study has shown that access to extension contact affected the quantity of Red pepper supplied positively and significantly. Farmers in the study area do not get timely extension service up on which to base their farming decision on red pepper production like wedding control management, pest control and diseases management regional government should delivered timely and properly extension service for producers.
3. The presence of crop diseases created frequent yield reduction of the sector and it affected the efficiency of production and decreases the supply development of red pepper significantly. In order to avoid the frequent reduction in output and increase supply, government policy, in short run, major diseases should be controlled by strengthening the present crop protection services through availing important chemicals required to prevent the disease at reasonable price. In the long run, development of high yielding and disease resistant varieties is a solution to the prevalence of crop disease.

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Appendix

Appendix A

Source	SS	df	MS	Number of obs = 300		
Model	26721720.1	16	1670107.51	F(16, 283) = 140.99		
Residual	3352186.11	283	11845.1806	Prob > F = 0.0000		
Total	30073906.3	299	100581.626	R-squared = 0.8885		
				Adj R-squared = 0.8822		
				Root MSE = 108.84		

SOLD_QUAN	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
MKT_DI	-.5466474	.4601714	-1.19	0.236	-1.45244	.3591456
AGE	-.7462314	.9381348	-0.80	0.427	-2.592839	1.100376
FARM_SIZE	115.2307	26.26859	4.39	0.000	63.52408	166.9373
PRICE	1.216534	.0968232	12.56	0.000	1.025949	1.407119
FAM_SIZE	6.94714	3.349369	2.07	0.039	.3543019	13.53998
OXEN	-6.217167	8.489507	-0.73	0.465	-22.92776	10.49343
SEX	29.20944	30.25176	0.97	0.335	-30.33757	88.75645
EDU_LEV	-.6917906	7.560019	-0.09	0.927	-15.5728	14.18921
NONF_INC	-62.92737	16.00258	-3.93	0.000	-94.42656	-31.42817
CRED_ACC	-66.8038	14.85389	-4.50	0.000	-96.04193	-37.56568
MRKT_INF	11.55534	18.26295	0.63	0.527	-24.39313	47.50381
EXT_CONT	82.38841	18.0787	4.56	0.000	46.80262	117.9742
D_PEPPER	-298.8026	18.7061	-15.97	0.000	-335.6234	-261.9818
MAR_STATUS	16.49103	26.85067	0.61	0.540	-36.36135	69.34341
FERTILIZER	.0654934	.2016437	0.32	0.746	-.3314183	.4624052
EXP	9.670846	5.453803	1.77	0.077	-1.064323	20.40601
_cons	217.1273	70.7442	3.07	0.002	77.87569	356.3789

Appendix B

```
. vif
```

Variable	VIF	1/VIF
PRICE	2.16	0.463469
EXT_CONT	1.86	0.538176
SEX	1.69	0.590016
EXP	1.54	0.649924
MAR_STATUS	1.51	0.664126
MRKT_INF	1.32	0.757231
FERTILIZER	1.31	0.765317
FARM_SIZE	1.25	0.801654
CRED_ACC	1.24	0.803515
EDU_LEV	1.21	0.828757
OXEN	1.20	0.835008
NONF_INC	1.17	0.857679
FAM_SIZE	1.08	0.929912
MKT_DI	1.05	0.948217
AGE	1.05	0.952258
Mean VIF	1.37	

Appendix c

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of SOLD_QUAN

F(1 , 298) = 17.36
Prob > F = 0.0000
```

Appendix D

I. Interview Schedule for Small-Scale Red pepper Producer

Dear Respondents,

The primary goal of this survey questionnaire is strictly academic, and it is primarily intended to:

- Identify and characterize (mapping) actors involved in the Red pepper value chain;
- Analyze the market performance of Red pepper along the value chain;
- explain the determinants of farmers' participation in the Red pepper value chain;
- Examine the welfare effects of farmers' participation in the Red pepper value chain.
- Investigate the food security effects of farmers' participation in the Red pepper value chain.

Furthermore, the knowledge gained will be beneficial to stakeholders and will aid in the development of policies and programs to improve production and marketing in the study districts and/or regions. As respondents, you are cordially requested to participate in responding to the questionnaire, and you are guaranteed that any information you share will be kept strictly confidential.

Instructions for Enumerators:

- ❖ Begin by greeting farmers warmly in accordance with local culture.
- ❖ Give a brief introduction before beginning any question, and make the purpose clear.
- ❖ Inform him/her that he/she has the right to ask questions at any time before, during, or after the interview.
- ❖ Please fill out the interview schedule based on the farmers' responses (Do not include your own feelings).
- ❖ Please ask each question patiently and clearly until the farmer understands what you're saying.
- ❖ Before you begin asking questions, please identify any unclear questions and seek clarification from the researcher/survey supervisor.
- ❖ Please circle/put the correct answer.

General Information

Questionnaire Serial No. (Code): _____

Woreda: _____ Kebele: _____ Village/Locality Name: _____

Date of Interview: Date: _____ Month: _____ Year: 2022

Name of Enumerator: _____ Signature: _____

Part 1. Respondents Characteristics (please tick with “v” symbol or encircle your answers)

1.1. Sex: Male Female

1.2. Age: _____(years)

1.3. Marital status: Single Married Divorced Widowed

1.4. Education level of the household head (Number of years in school

1 None/Illiterate 2 Read and write 3 4 Up to 4th 5 Up to 8th
 6 Up to 10th 7 Up to 12th 8 College Certificate 9 College Diploma 10 University

1.5. Occupation/Livelihood (encircle the best match/es)

1= Farming; 2= Trader; 3= Farming + Trader; 4= other (specify) _____

1.6. Farming experience of household head: _____ years

1.7. Land holding (in “hectar”) during the 2022 cropping year (last cropping year)

- 1) Total land holding owned _____ (Hectar)
- 2) Total land rented in _____ (Hectar)
- 3) Total land rented out _____ (Hectar)
- 4) Cultivated area _____ (Hectar)
- 5) Red pepper growing area _____ (Hectar)

Part 2. Household Resources (Asset Ownership)

Section 1: Production equipment’s and major household furniture

Section 2. Present **livestock possession** and sale by households (please fill the table below)

Type of livestock	Number of animals owned	Price per unit	Number of animals sold in 2022/23
Horn cattle			
Gamma cattle			
Chicken			
Other _____			

Section 3. Household Income from Crop sales during 2022 cropping year (please fill the table below)

Type of major crop	Quantity produced In quintal	Quantity sold In Kg	Price per kg	Total sales in Birr
Teff				
Maize				
Wheat				
Sorghum				
Charcoal				

Potato				
Onion				
Barley				
Others,				

Section 4. Household Non-farm Income

4.1. Do you participate in non-farm income generating activities? 1. Yes 2. No

4.2. Non-farm Income during 2022 cropping year

Sources	Total income
1. Salaried employment	
2. Trading income	
3. Safety net or food for work	
4. Other business net income (sales of beverages, etc)	
5. Remittances (sent from nonresident family and Relatives living elsewhere)	
6. Petty trade	
7. sale of crop residues	
8. Hand craft	
9. house rent	
10. oxen rent	

Part 3. Production Aspects

1. Do you produce Red pepper last year? 1. Yes 2. No

Quantity Produced(qt)	Quantity consumed(qt)	Quantity sold(qt)	Price (Birr/kg)

2. **Red pepper farming experience** of household head: _____ years

5. Do you currently use a better Red pepper/ variety? (1) Yes (2) No

6. Do you have awareness about improved variety of Red pepper that is important for market?

1. Yes 2. No

6. Where do you get Red pepper seedlings?

(1) From own nursery (2) From agri. Office (3) from NGOs (4) from Market

(5) Others (specify)_____

7. How do you use your Red pepper products?

- (1) For home consumption only
- (2) For sale (3) Both 1 and 2 (4) other (*specify*)_____

8. How much was the start-up capital for the Red pepper production? _____ (in Birr)

9. Did you have **access to irrigation technologies** for Red pepper production? 1= Yes 2= No

Part 4. Agricultural Extension Service

1. Have you ever been advised by agricultural extension agents? 1. Yes 2. No

2. How **frequent do you have** contact with agricultural extension agents?

- 1. Twice a week 2. Once a week 3. Twice in a month
- 4. Once in a month 5. Twice in a year 6. No any contact

3. If there is no any contact with extension agents, what is the reason?

- 1. No need for extension services 2. Availability of contact farmers in the area
- 3. I don't know the presence of extension agents in the area 4. I don't know the reason

4. What is the most common place you usually contact extension agents?

- 1. In your farm field 2. In your home 3. In his office
- 4. At demonstration centre 5. At church/mosque

7. Have you ever attended any **training** regarding Red pepper production? 1. Yes 2. No

8. If "yes" who provides the training? (Multiple responses are possible)

- 1. Development agents 4. Research centers (*specify*)_____
- 2. NGOs (*specify*)_____ 5. Neighbors and friends
- 3. Woreda agri. experts 6. Others (*specify*) _____

9. How frequently did you get the training? 1. once per month 2. once in three month 3. once in six month 4. once per year 5. others (*specify*)-----

Part 5. Credit Service

1. Do you use **credit**? 1. Yes 2. No

2. Have you received formal credit last year (2022)? 1. Yes 2. No

3. If yes, how much did you take? _____(Birr)

4. For what purpose did you take the credit?

- 1. To rent in land to extend Red pepper production
- 2. To purchase seed/seedlings of Red pepper
- 3. To purchase transporting animals
- 4. To purchase motor pump/irrigation equipment 6. Others _____

5. From whom did you get credit?

(Multiple responses are possible)

1. Relative 2. Micro finance institution 3. Friends 4. Traders
5. Cooperatives 6. Others (specify) _____

Part 5. Marketing Aspects

1. Did you have **access to market information** for Red pepper produce? 1= Yes 2= No
2. Which one is/are your source of information on price of Red pepper markets??
 1. Other Red pepper farmers 4. Mobile phone 6. Newspaper
 2. Personal observation 5. Extension agents
 3. Radio or TV
6. To whom did you sell your Red pepper produce? (Multiple responses is possible)
 1. Consumers 2. Collectors 3. Processor 4. Retailers 5. Wholesalers
 6. Cooperatives 7. Hotel & Restaurant 8. Gov't organization, (specify) _____
7. Which one is more profitable for you? (Multiple responses is possible)
 1. Selling to consumers 4. Selling to Retailers
 2. Selling to collectors 5. Selling to Wholesalers 6. Selling to Cooperatives
 3. Selling to Processor 7. Hotel & Restaurant 8. Selling to Gov't organization
8. Where do you sell Red pepper produce?_____
 1. at the farm level 3. on the main road
 2. at the local market 4. at the district market 5.

Others/specify_____
9. What did you have done to higher (value addition) your product price?
 - 1) Packing 2) sorting 3) washing, separating quality product 4) Others

specify_____
10. If you pack the product what is your packaging material?
 - 1) Plastic box 2) Plastic sack 3) Pot 4) Others (specify)
11. Do you have your **own transportation means** like equines or cart?
 1. Yes 2. No
12. How do you transport Red pepper from farm to market?
 1. Head loading 2. Pack animals 3. Animal cart 4. Trucks 5.

Others_____
13. What is the **distance of the main market** from your house? _____minute
14. Who set your selling price in 2022 E.C.?
 1. Myself 3. Set by demand and supply 5 other (specify)-----
 2. Buyers 4. Negotiations
15. Did you know the market price before you sold your red pepper/? 1. Yes 2. No

16. How did you sale your produce in 2022?

1. Direct to the purchaser 2.Through broker 3. Other (specify) -----

17. How do you measure your sell?

1. By sack 2. By basket 3. By weighing (kg)
4. By ‘box’ 5. Others (specify) _____

18. **Current market price** of Red pepper _____(in Birr/kg)

19. What has been the trend of Red pepper market prices for the last 2 years?

- 1 Increased 2 Decreased 3 No change

25. Is the current price of the Red pepper is promising? 1. Yes 2. No

26. Do you face difficulties in finding buyers for the Red pepper when it is ready for sale?

1. Yes 2. No

27. If “yes”, above, why? Please indicate below

1. Inaccessibility to the market 3. Lack of information 4. Low price offered
2. Other (specify) _____

28. What are the marketing costs you incur when you take your produce to the market?

Items	Cost in Birr
Calling costs	
Sales tax	
Loading and unloading	
Packing	
Negotiation costs	
Total cost	

31. Do your products have preferred qualities by buyers?

1. Yes 2. No

Part 6. Constraints/Challenges of Red pepper production and marketing

6.1. What are the Red pepper production constraints?

Constraints of Red pepper production	Rank according to their importance
Seed Shortage	
Diseases	
Insect pests	
Irrigation water shortage	
Drought	

Frost	
Fertilizer shortage	
Lack of pesticide	
Labor shortage	
Lack of skill and facility to processing	
Shortage of farmland	
theft	
Insufficient product handling techniques	

6.2. What are the Red pepper marketing constraints?

Constraints of Red pepper marketing	Rank according to their importance
Distance to market S	
Low price of product	
Lack of storage facilities	
Lack of Transport service	
Lack of market information	
Brokers (hinder) fair sales	
Perishability	
Absence of demand	
Lack of credit/financial service	
10 (others)_____	

Part 7. Opportunities of Red pepper production and marketing

7.1 Would you like to expand Red pepper production?

1. Yes 2. No

7.2 What opportunities exist to expand Red pepper production?

Opportunities	Rank according to their importance
Better market demand	
Proximity to market	
Better price	
Better support from experts	

Enough water/ different alternatives	
It doesn't require more man-power	
Available of different varieties	
Others	

7.3. What are the opportunities of Red pepper marketing?

Opportunities	Rank according to their importance
Better production in terms of qty.	
Better price	
Better market demand	
Better variety	
Not easily perishable	
Proximity to market	
other	

7.4. Market price of Red pepper per kg

2022				2023							
SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG

End of the interview,

THANK YOU!!!!

PART II. TRADERS' INTERVIEW SCHEDULE

The purpose of this study is largely academic, and above all, to generate knowledge that will be useful to stakeholders in the production and marketing industry. The study will be carried out to determine the value chain and market performance analysis of red pepper/ Red pepper, as well as their impact on farmer welfare and food security in North-Western Ethiopia.

The data provided will also aid in the development of policies and programs to improve production and marketing in the study areas. As respondents, you are kindly requested to participate in answering the survey questionnaire, and you are guaranteed that any information shared will be completely confidential.

Enumerator Instructions:

- Begin by greeting traders warmly in accordance with local culture.
- Give a brief introduction before beginning any question, and make the purpose clear.

- Inform him/her that he/she has the right to ask questions at any time before, during, or after the interview.
- Please fill out the interview schedule based on the traders' responses (Do not include your own feelings).
- Please ask each question patiently and clearly until the trader understands what you're saying.
- Before you begin asking questions, please identify any unclear questions and seek clarification from the researcher/survey supervisor.
- Please circle/put the correct answer.

General Information

Questioner number/Code: _____

Name of Town _____ Name of Market _____

Date of Interview: Date _____ Month _____ Year 2022/20

Name of Enumerators _____ Signature _____

I. Respondents Socio-demographics

1. Sex-----
2. Age ----- (years).
3. Educational level -----
4. Marital Status: 1) Single 2) Married 3) Divorced 4) Widowed
5. Total Family size _____ Male _____ Female _____
6. Main occupation (type of trading)
 - 1) Wholesaler 2) Retailer 3) Processor 4) Collector 6) others (specify) -
7. How long have you been in Red pepper trading? ----- (years).
8. Do you participate in Red pepper trading year round? 1= Yes 0= No
9. If no, at what period of the year do you participate?
 1. Year-round 2. When purchase price becomes low
 3. during high supply 4. Other (specify) -----
10. Number of market days in a week? _____
11. What was the amount of your initial working capital when you start this trade Business? _____ (in Ethiopian Birr).
12. Who was bought Red pepper from you in 2022 E.C?
 1. Wholesaler 2. Retailers 5. processor 6. exporter _____
 3. Household consumers 4. Brokers 7. others _____
13. From where did you purchase in 2022 E.C?
 1. From village, name of village (specify) -----

2. From market, name of market (specify) -----

14. Do you carry out any physical treatment to maintain product quality? 1. Yes 2. No

15. What do you do, if the product is not sold on time?

- 1. Took back home
- 2. Took to another market
- 3. Sold it at lower price
- 4. Sold on other market day

16. How do you attract suppliers?

- 1. Giving better price
- 2. By visiting them
- 3. Fair scaling /weighing
- 4. Others _____

III. Purchase practice

17. From which market and supplier did you buy /red pepper in 2022 E.C?

- 1. Farmers
- 2. Retailers
- 3. Wholesaler
- 4. Collector
- 5. You don't Know

18. How do you measure your purchase?

- 1. By sack
- 2. By basket
- 3. By weighing (kg)
- 4. By 'box'
- 5. Others (specify)

19. Is obtaining sufficient volume is a problem in 2022? 1= Yes 0= No

Purchasing price per kg

2022				2023							
SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG

IV. Selling practices

20. To which market did you sell _____

21. To whom did you sell /red pepper in 2022 E.C?

- 1. Farmers
- 2. Retailers
- 3. Wholesaler
- 4. Collector
- 5. Gov't organization, (specify) --
- 6. You don't Know

22. How did you attract your buyers?

- 1. By giving better price relate to others
- 2. By fair scaling (weighing)
- 3. By visiting them
- 4. Others (specify)

23. Accessibility to market roads in rainy seasons for vehicles is

- 1. Difficult
- 2. Easily accessible

24. Do you have other branch shops/ shades to sell your /red pepper in 2022 E.C?

- 1= Yes
- 2= No

25. What are the opportunities to expand Red pepper trading? _____

26. Do you have mobile phone? 1= yes 2=no

27. Are there restrictions imposed on unlicensed /red pepper/ traders?

28. Are there problems on /red pepper marketing? If yes what are the problems, & your suggestions to overcome each problem in 2022?

Problem	1=Yes 0=No	If yes what do you think are the cause(s) of this problem?	What are your suggestions (s) to solve each problem?
Administrative measure (multiple taxation and other fees)			
Shortage of supply			
Storage problem			
Theft			
Natural quality problem			
Adulteration			
Information flow			
Absence of government support to improve Red pepper marketing			
Farmer's reluctance to sell due to lower price			
Business management (Financial accounting training)			
Access to credit			
Capital shortage			
Lack of demand (low price)			
Too much competition with licensed traders			
Too much competition with unlicensed traders			
Other (specify)_____			

29. Indicate your average cost incurred per quintal in the trading process in 2022 E.C?

Marketing cost components in the chain	Birr/qt
Purchased price of quality Red pepper per quintal	
Packaging with material	

Labour to load and un load	
Labour employed to fill the bag and stitch	
Transportation	
Scaling rent/cost	
Wage for permanent	
Taxes and fee	
License fee	
Telephone expense	
Watching and warding	
Other_____	

30. Selling price of quality /red pepper per kg

2022				2023							
SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG

31. What is your opinion on Red pepper marketing?

Thank you for taking the time to respond to my questions.

Name of the Enumerator: _____ **Date of Interview:** _____

ለአ/አደሮች የተዘጋጀ ቃለ-መጠይቅ

ውድ የዚህ ጥናት ተሳታፊ አ/አደሮች! ይህ ቃለ-መጠይቅ የተዘጋጀው ለዚህ ጥናት በተመረጡ በርበሬ አብቃይ ቀበሌዎች ሲሆን የጥናቱ ዋና ዓላማም ለመማሪያነትና የበርበሬ እሴት-ስንሰለት እንዲሁም የግብይት ስርዓት ዙሪያ ያለውን የእውቀት ክፍተትና ተግዳሮቶችን በመለየት ለሚመለከተው አካል ለማቅረብ ነው። ስለዚህ የጥናቱን ዋና ዓላማ ተረድተው ትክክለኛውን መረጃ እንዲሰጡን እየጠየቅን የሚሰጡት መልስ ሚስጥራዊነቱ የተጠበቀ ሲሆን አገልግሎቱም ለዚህ ጥናት ዓላማ ብቻ የሚውል ይሆናል። ጊዜዎትን ሰውተው ይህንን መጠይቅ ስለሞሉልን በቅድሚያ ከልብ እናመሰግናለን።

ማሳሰቢያ ለመረጃ ሰብሳቢዎች:

- በመጀመሪያ ራስን ማስተዋወቅና እንደ አካባቢው ሁኔታ ሰላምታ ማቅረብ፤
- ለተጠያቂ አባዎች/እማውራዎች ስለመጠይቁ ዓላማ ግልጽ ማብራሪያ ማድረግ፤
- እያንዳንዱን ጥያቄ ግልጽና ትህትና በተሞላበት መልኩ ተጠያቂው ሃሳቡን እንዲረዳው ማድረግ፤
- መልሱን ሲያስቀምጡ በቀጥታ የተጠያቂውን ሀሳብ ብቻ መሆን አለበት፤
- ተጠያቂው ሀሳቦችን ሲናገር ተከታትሎ መመዘገብ ይጠበቃል።

የመነሻ መረጃዎች:

- ❖ የቀበሌው ስም: _____ መንደር/ጎጥ: _____
- ❖ ቃለ-መጠይቁ የተደረገበት ቀን: _____ ወር: _____ አመት: 2015 ዓ/ም

ክፍል አንድ: መሰረታዊ መረጃዎች/Demographic Information/

1.1. የትምህርት ደረጃ

- 1 ያልተማረ 2 ማንበብና መጻፍ 3 የሃይማኖት ት/ት 4 እስከ 4^ኛ ክፍል 5 እስከ 8^ኛ ክፍል
 6 እስከ 10^ኛ ክፍል 7 እስከ 12^ኛ ክፍል 8 ኮሌጅ ሰርቲፊኬት 9 ኮሌጅ ዲፕሎማ 10 ዩኒቨርሲቲ ያጠናቀቀ/ች

1.2. የጋብቻ ሁኔታ: 1. ያላገባ/ች 2. ያገባ/ች 3. የፈታ/ች 4. የሞተበት/ባት

1.3. የእርሻ ስራ ከጀመሩ ስንት አመት ይሆነዎታል? _____

1.4. በዋናነት የቤተሰቡ መተዳደሪያ ምንድን ነው? 1. የእርሻ ስራ 2. ንግድ 3. ቅጥር 4. ሌላ _____

1.5. የመሬት ይዘታን በተመለከተ የሚከተለውን ይሙሉ (በ 2014 የምርት ዘመን)

1. ያለዎት ጠቅላላ የመሬት ይዘታ _____ (ሄክታር)
2. የተከራዩት መሬት _____ (ሄክታር)
3. ያከራዩት መሬት _____ (ሄክታር)
4. ለእርሻ የዋለ መሬት _____ (ሄክታር)
5. ለ በርበሬ ልማት የዋለ _____ (ሄክታር)

ክፍል ሁለት: የቤተሰቡ የገቢ ሁኔታ/Household Income/

2.1. የእንስሳት ሀብትን በተመለከተ እባክዎ የሚከተለውን ስንጠረገኛ ይሙሉ (በ 2014 የምርት ዘመን)

የእንስሳቱ አይነት	ብዛት (በቁጥር)	ዋጋ በአሁኑ የገበያ ሁኔታ ሲተመን (በብር)	የተሸጡ እንስሳት ብዛት (በቁጥር)
የቀንድ ከብት/Horn cattle			
የጋማ ከብት/Gamma cattle			
ዶሮ/Chicken			
ሌላ _____			

2.2. በ 2014 የምርት ዘመን ከዋና ዋና ሰብሎች የተገኘ የቤተሰብ ገቢ (እባክዎ ስንጠረገኛ ይሙሉ)

የሰብል አይነት	የተመረጠው መጠን በኩ/ል	የተሸጠው መጠን በኩ/ል	አማካይ የአንዱ ኩ/ል ዋጋ	በመሸጥ የተገኘ ገቢ (በብር) የተሸጠው በብር ሲተመን
በቆሎ				
ስንዴ				
ጤፍ				
ገብስ				
ማሽላ				

ሽንኩርት				
ቲማቲም				
ከሰል ሽያጭ				
ሌላ				

2.3. በ 2014 የምርት ዘመን ከግብርና ስራ ውጭ የተገኘ የቤተሰብ ገቢ (እባክዎ ሰንጠረዥን ይሙሉ)

የገቢ ምንጭ	የገቢ መጠን በብር	የገቢ ምንጭ	የገቢ መጠን በብር
ከእንስሳት ንግድ		ከቅጥር	
ከሰብል ንግድ/ለትርፍ		ከቀን ስራ	
መጠጦች ከመሸጥ		መሬት ከማከራየት	
ከእጅ-ስራ ውጤቶች/ሸመና		ሌላ ካለ	
ከዘመድ የተላከ			

ክፍል ሶስት : የ 2014 የምርት ዘመን በርበሬ አመራረትን በተመለከተ:

3.1. በርበሬ ልማት ስራን ከጀመሩ ስንት አመት ይሆናል? _____

3.2. የበርበሬ ዘር /ቸግኝ ከየት ነው የሚያገኙት?

1. ከግሌ ቸግኝ ጣቢያ 2. ከግብርና ጽ/ቤት 3. መንግስታዊ ካልሆኑ ተቋማት 4. ከገበያ

3.3. ለበርበሬ ልማት በግብዓትነት የሚጠቀሙት: 1. ዳገጥ 2. ዩሪያ 3. ኮምፖስት 4. የእንስሳት ፍግ

3.4. የ2014 ዓ.ም የበርበሬ ምርት በተመለከተ እባክዎ በሰንጠረዥ የተመለከተውን ይሙሉ፤

በ2014ዓ.ም የተመረተው መጠን በኩ/ል	ለቤት ፍጆታ የዋለ በኩ/ል	የተሸጠ መጠን በኩ/ል	ዋጋ (-ብር/ኩንታል)	ከተሸጠው የተገኘ ጠቅላላ ገቢ በብር

3.5. በርበሬ ለማምረት ሲጀምሩ መነሻ ካፒታል ስንት ነበር _____ (በብር)

3.6. በርበሬ ለማምረት የመስኖ ውሀ ይጠቀማሉ? 1. አዎ 2. የለም

3.7. ከሚከተሉት የመስኖ ቴክኖሎጂዎች ውስጥ የትኛው አለዎት? 1. ሞተር ፓምፕ 2. ፔዳል ፓምፕ

3. የእጅ ጉድጓድ በባህላዊ መንገድ 4. ሮፕ ፓምፕ 5. ሌላ _____

3.8. የመስኖ ውሀ አቅርቦት የሚያገኙት ከየት ነው? 1. ከወንዝ 2. ከዝናብ 3. ከጉድጓድ

3.9. የ በርበሬ ማሳዎ ከመኖሪያ ቤትዎ ምን ያህል ይርቃል? _____ (የአግር ጉዞ በደቂቃ)

3.10. የበርበሬ ማሳዎ ከመኖሪያ ቤትዎ አካባቢ ራቅ ያለ ቦታ ከሆነ ምን ምን ቸግሮችን ያመጣል? (ከአንድ በላይ ሊመርጡ ይችላሉ)

1. ለመድረስ የስራ ጊዜን ይጨርሳል 2. ለሌባ ይዳርጋል 3. ማሳውን ቶሎቶሎ ለመጎብኘት አያስችልም
4. በማሳው ብዙ ጊዜ ለመቆየት ያስቸግራል 5. ሌላ ካለ ይገለጽ _____

3.11. በእርስዎ እይታ የበርበሬ ጥራት መገለጫዎች ምን ምን ናቸው? (ከአንድ በላይ ሊመርጡ ይችላሉ)

- 1. መጠን (ትልቅነት ወይም ትንሽነት) 2. የቀለም ልዩነት 3. ሽታ
- 4. ጣዕም 5. ከበሽታ የፀዳ መሆኑ 6. ሌላ ካለ ይገለጽ_____
- 3.12. ገበያ ላይ ሲሸጥ ከጥራት አኳያ የዋጋ ልዩነት አለ? 1. አዎ 2. የለም
- 3.13. ከላይ በቁጥር 3.19. “አዎ” ከሆነ ምን ያህል ልዩነት ይኖራል? _____ (በብር/ከአንድ ኪ.ግ)
- 3.14. በበርበሬ ማሳዎ ላይ የበሽታ ክስተት አለ? 1. አዎ 2. የለም
- 3.15. ከላይ በቁጥር 3.21. መልስዎ “አዎ” ከሆነ የበሽታውን ስም ይገለጹ_____
- 3.16. ከላይ በቁጥር 3.21. መልስዎ “አዎ” ከሆነ በሽታውን ለመቆጣጠር የሰሩትን ስራ ይግለጹ፡
 - 1. ኬሚካል በመጠቀም 2. ግንዱን በመቁረጥ 3. የእንስሳት ፍግ በ በርበሬው ዙሪያ በማጨስ
 - 4. የእሞ ሳሙና በመርጨት 5. ሌላ ካለ ይግለጹ?_____
- 3.17. በ 2014 የምርት ዘመን የጤና እክል ገጥሞት ነበር? 1. አዎ 2. የለም
- 3.18. በቁጥር 3.24. መልስዎ “አዎ” ከሆነ ለስንት ቀን?_____

ክፍል አራት፡ የግብርና ኤክስቴንሽን አገልግሎትን በተመለከተ፤

- 4.1. በ 2014 የምርት ዘመን ከግብርና ባለሙያዎች የኤክስቴንሽን ድጋፍ/አገዛ አግኝተዋል? 1.አዎ 2. የለም
- 4.2. በተራ ቁ. 4.1 መልስዎ “አዎ” ከሆነ በአመት ውስጥ ለስንት ቀን _____?
- 4.3. በ 2014 የምርት ዘመን በበርበሬ አመራረት ዙሪያ የኤክስቴንሽን የምክር አገልግሎት አግኝተዋል?
 - 1. አዎ 2.የለም
 - 4.4. ከላይ ከተራ ቁ.4.3 መልስዎ አዎ ከሆነ በዋናነት በምን ላይ ያተኮረ ነበር?
 - 1. ስለ አመራረት የሙያ ድጋፍ 2. የዋጋ መረጃ በመስጠት 3. ግብአት አጠቃቀም
 - 4. ብድር አጠቃቀም 5. በሌላ ከሆነ ይገለጽ_____
 - 4.5. የመኖሪያ ቤትዎ ከግብርና ጣቢያው ምን ያህል ይርቃል? _____ (የእግር ጉዞ በደቂቃ)
 - 4.6. በቤትዎ የሚሰራ/ያልተሰላሽ ሞባይል አለዎት? 1. አዎ 2. የለም
 - 4.7. በተራ ቁጥር 4.8 መልስዎ “አዎ” ከሆነ በዋናነት ለምን አገልግሎት ይጠቀሙበታል?
 - 1. ከዘመድ ለመገናኘት 2. የገበያ መረጃ ለማግኘት 3. የግብርና ሙያተኞችን ለማግኘት
 - 4. ለሁሉም 5. ሌላ ከሆነ ይገለጽ_____
 - 4.8. የህብረት ስራ አገልግሎት አባል ነዎት? 1. አዎ 2. አይደለሁም
 - 4.9. መልስዎ ”አዎ” ከሆነ የየትኛው ማህበር አባል ነዎት?
 - 1. የመስኖ 2. የገንዘብ ብድርና ቁጠባ 3. የሽማግሌ 4. የሁሉም 5. ሌላ ካለ ይገለጽ_____
 - 4.10. በአካባቢዎ በርበሬ አምራቾች ማህበር አለ? 1. አለ 2. የለም
 - 4.11. መልስዎ ”አለ” ከሆነ እርስዎ የማህበሩ አባል ነዎት? 1. አዎ 2. አይደለሁም

ክፍል አምስት፡ የብድር አገልግሎትን በተመለከተ፤

- 5.1. ባለፉት 12 ወራት የብድር አገልግሎት ተጠቃሚ ነበሩ? 1. አዎ 2. የለም
- 5.2. ከላይ በተራ ቁ. 5.1. መልስዎ ”አዎ” ከሆነ የሚከተለውን ሰንጠረዥ ይሙሉ

የብድር መገኛ	የተበደሩት መጠን /በብር/
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ከብድር ተቋማት	
ከዘመድ	
ከጓደኛ	
ሌላ	
ጠቅላላ ድምር	

5.3. የብድር አገልግሎት ተጠቃሚ ከነበሩ የተበደሩትን ብድር ለምን አገልግሎት አዋሉት?

1. ለግብዓት መግዣ 2. ለእርሻ መሳሪያዎች መግዣ 3. ለምግብ እህል መግዣ 4. ለ በርበሬ ልማት
5. ለበሬ መግዣ 6. ለአንስሳት አርባታ ልማት 7. ሌላ ከሆነ ይጠቀስ_____

ክፍል ስድስት፡ የ 2014 የምርት ዘመን በርበሬ የግብይት ሁኔታ/Marketing Aspects

6.1. የ በርበሬ ምርት የገበያ መረጃ አቅርቦት ምን ይመስላል? 1. ዝቅተኛ 2. መካከለኛ 3. ከፍተኛ

6.2. ከሚከተሉት ውስጥ ለበርበሬ የገበያ ዋጋ እንደ መረጃ ምንጭነት የሚያገለግልዎ የቱ ነው?

1. ሌሎች በርበሬ አምራቾች 3. ሞባይል 5. ራዲዮ/ቴሌቪዥን
2. በግሌ ከማውቀውና ከማየው 4. የልማት ጣቢያ ሙያተኞች 6. ሌላ_____

6.3. የመኖሪያ ቤትዎ ከዋናው የገበያ ቦታ ምን ያህል ይርቃል?____ (የአግር ጉዞ በደቂቃ)

1. ከ 10 ደቂቃ በታች 2. 20 ደቂቃ አካባቢ 3. ከ30 ደቂቃ በላይ

6.4. የ በርበሬ ምርትዎን በአብዛኛው የሚሸጡበትን የገበያ ስም/ከተማ ይግለጹ_____

6.5. የ በርበሬ ምርትዎን በአብዛኛው የሚሸጡት ለማን ነው?

1. ለአካባቢ ፍጆታ/Consumers 2. ለከተማ ፍጆታ ተጠቃሚዎች /Consumers
3. ለአካባቢ ሰብሳቢዎች /Collectors 4. ለአቀናባሪዎች/ባልትና ቤቶች/Processors
5. ለቸርቻሪዎች/ Retailers 6. ለጀምላ ሻጮች/ Wholesalers
7. ለማህበራት /Cooperatives 8. ሌላ ካለ_____

6.6. የበለጠ አዋጭ የሚሆነው በአብዛኛው ለየትኛው ሲሸጡ ነው?

1. ለአካባቢ ፍጆታ/Consumers 2. ለከተማ ፍጆታ ተጠቃሚዎች /Consumers
3. ለአካባቢ ሰብሳቢዎች /Collectors 4. ለአቀናባሪዎች/ባልትና ቤቶች/Processors
5. ለቸርቻሪዎች/ Retailers 6. ለጀምላ ሻጮች/ Wholesalers
7. ለማህበራት /Cooperatives 8. ሌላ ካለ_____

6.7. በርበሬ ለገበያ ማቅረብ ከጀመሩ ስንት አመት ሆነዎ?_____

6.8. በአብዛኛው የበርበሬ ምርትዎን ለገዥዎች የሚሸጡት የት ነው?

1. በማሳ ላይ 2. በአቅራቢያ ገበያ 3. በመንገድ ዳር
4. በወረዳው ዋና ከተማ 5. ሌላ ከተማ/አባከዎ የከተማውን ስም ይግለጹ_____

6.9. የበርበሬ ምርትዎን የተሻለ ዋጋ እንዲያወጣ የሚጨምሩት እሴት _____?

6.10. ለመጓጓዣነት የሚያገለግሉ ጉበረቶች /የጋማ ከብት ወይም ጋሪ/ አለዎት? 1. አዎ 2. የለም

6.11. ምርትዎን ከማሳዎ ወደ ገበያ ቦታ በምን ያጓጉዛሉ?

1. በትኩረት በመሸከም 2. የጋማ ከብት በመጠቀም 3. በጋሪ 4. በሌላ ከሆነ ይገለጽ_____

6.12. ባለፈው አመት የበርበሬ ምርትምን የሸጡት እንዴት ነው?

1. በቀጥታ ለገዥዎች 2. በደላላዎች አማካኝነት 3. በሌላ ከሆነ ይገለጽ_____

6.13. የበርበሬ ምርትምን ሲሸጡ የመሸጫ ዋጋ የሚወሰነው በማን ነው?

1. በሻጭ 2. በገዥ 3. እንደገበያው ሁኔታ 4. በድርድር 5. ሌላ ከሆነ ይገለጽ_____

6.14. በርበሬ ለገበያ ከማቅረብ በፊት የገበያውን ዋጋ ያውቁት ነበር? 1. አዎ 2. የለም

6.15. በርበሬ በሚሸጡበት ጊዜ በመለኪያነት የሚጠቀሙት ቁሳቁስ በአብዛኛው የቱ ነው?

1. በኪሎግራም 2. በቅርጫት 3. በጆንያ 4. በሳጥን 5. በቁጥር 6. በሌላ_____

6.16. ባለፈው አመት የበርበሬ ምርትምን ሲሸጡ ዋጋ ስንት ነበር_____ (ብር/በኪ.ግ)

6.17. ባለፉት ሁለት አመታት የበርበሬ የገበያ ዋጋ አዝማሚያ/Trend እንዴት ነበር?

1. ጨምሯል 2. ቀንሷል 3. ለውጥ የለም

6.18. በአሁኑ ጊዜ በርበሬ ዋጋ ተስፋ የሚጣልበት ነው ብለው ያምናሉ? 1. አዎ 2. የለም

6.19. በርበሬ ለሽያጭ ሲደርስ ገዥ ለማግኘት ችግሮች ይገጥሙታል? 1. አዎ 2. የለም

6.20. ከላይ በቁጥር 6.20 መልስዎ “አዎ” ከሆነ ምክንያቱ ምን ሊሆን ይችላል?

1. የገበያ አቅርቦት አለመኖር 2. የመረጃ አጥረት 3. የዋጋ መውረድ 4. ሌላ ከሆነ_____

6.21. የበርበሬ ምርትም ጥራት በገዥዎች/በተጠቃሚዎች ዘንድ ተመራጭነቱ እንዴት ነው?

1. ዝቅተኛ 2. መካከለኛ 3. ከፍተኛ

6.22. ምርቱን ለገበያ ለማድረስ የሚጨርሰው ወጭን በተመለከተ:

ዝርዝር	ወጭ በብር
1. ለስልክ ወጭ	
2. ለማስጫንና ለማውረድ/ትራንስፖርት	
3. ለማሸግ	
4. ለድርድር	
5. የገበያ ግብር	
6. ሌላ_____	
ጠቅላላ ወጭ	

ክፍል ሰባት: የበርበሬ ማምረትና ግብይት ዋና ዋና እንቅፋቶች ምን ምን ናቸው?

7.1. የበርበሬ ማምረት ዋና ዋና እንቅፋቶች ምን ምን ናቸው?/production problems/

ዕንቅፋቶች	እባክዎ በደረጃ ያስቀምጡ (1ኛ፣ 2ኛ 3ኛ፣.... በማለት ፊት ለፊቱ ያስቀምጡ)
በሽታና ተባይ መከሰት	
ውርጭ መከሰት	

የጉልበት ሠራተኛ ዕጥረት	
የእውቀት ክፍተት	
የእርሻ መሬት ጥበት	
ስርቆት	
የዱር አውሬ/ጦጣ መኖሩ	
ለምርቱ ትኩረት አለመስጠት	
ሌላ _____	

7.2. የበርበሬ ግብይት ዋና ዋና እንቅፋቶች ምን ምን ናቸው?/marketing problems/

ዕንቅፋቶች	እባክዎ በደረጃ ያስቀምጡ (1ኛ፣ 2ኛ 3ኛ፣.... በማለት ፊት ለፊቱ ያስቀምጡ)
የገበያ እርቀት	
የዋጋ ማሽቆልቆል/ዝቅተኛነት	
የማከማቻ /Storage/ ቦታ አጥረት	
የትራንስፖርት አጥረት	
የገበያ መረጃ አጥረት	
የደላላዎች ጣልቃ ገብነት	
ቶሎ መበላሸት /Perishability	
ሌላ _____	

ክፍል ስምንት: የበርበሬ ማምረትና ግብይት ዋና ዋና ምቹ አጋጣሚዎች ምን ምን ናቸው?

8.1. የበርበሬ ማምረት ዋና ዋና ምቹ አጋጣሚዎች ምን ምን ናቸው?/production opportunities/

ምቹ አጋጣሚዎች	እባክዎ በደረጃ ያስቀምጡ (1ኛ፣ 2ኛ 3ኛ፣.... በማለት ፊት ለፊቱ ያስቀምጡ)
የተሻለ የገበያ ፍላጎት መኖሩ	
የገበያ ቅርበት መኖሩ	
የተሻለ ዋጋ መኖሩ	
የሙያተኞች ድጋፍ መኖር	
የመስኖ አቅርቦት መኖር	
ሌላ _____	

8.2. የበርበሬ ግብይት ዋና ዋና ምቹ አጋጣሚዎች ምን ምን ናቸው?

ምቹ ኢጋጣሚዎች	
በብዛት መመሪያ	
የተሸለ ዋጋ	
የተሸለ የገበያ ፍላጎት መኖር	
የታሻለ ዝርያ	
ሌላ _____	

8.3. በ2015 የበርበሬ መሸጫ ዋጋ በኪሎግራም

መስ	ጥቅምት	ህዳር	ታህሳስ	ጥር	የካቲት	መጋቢት	ሚያዝያ	ግንቦት	ሰኔ	ሀምሌ	ነሐሴ

ጊዜዎትን ሰውተው ይህንን መጠይቅ ስለሞሉልኝ በድጋሚ ክልብ አመሰግናለሁ።

ለበርበሬ ነጋዴዎች የተዘጋጀ ቃለ-መጠይቅ

ውድ የዚህ ጥናት ተሳታፊዎች! ይህ ቃለ-መጠይቅ የተዘጋጀው ለዚህ ጥናት በተመረጡ የበርበሬ ግዢ በሚፈጸምባቸው የገቢያ ማዕከላት ሲሆን የጥናቱ ዋና ዓላማም ለመማሪያነትና የበርበሬ እሴት-ስንሰለት እንዲሁም የግብይት ስርዓት ዙሪያ ያለውን የእውቀት ክፍተትና ተግዳሮቶችን በመለየት ለሚመለከተው አካል ለማቅረብ ነው። ስለዚህ የጥናቱን ዋና ዓላማ ተረድተው ትክክለኛውን መረጃ እንዲሰጡን እየጠየቅን የሚሰጡት መልስ ሚስጥራዊነቱ የተጠበቀ ሲሆን አገልግሎቱም ለዚህ ጥናት ዓላማ ብቻ የሚውል ይሆናል። ጊዜዎትን ሰውተው ይህንን መጠይቅ ስለሞሉልን በቅድሚያ ክልብ እናመሰግናለን።

የመነሻ መረጃዎች:

- የቃለ-መጠይቁ ኮድ: _____
- የተጠያቂው ስም: _____
- የከተማው ስም: _____ የገበያው ስም: _____
- ቃለ-መጠይቁ የተደረገበት ቀን: _____ ወር: _____ አመት: 2015 ዓ/ም
- መጠይቁን የሞላው ስምና ፊርማ: _____

ክፍል አንድ: መሰረታዊ መረጃዎች/Demographic Information/

1. ፆታ: 1. ወንድ 2. ሴት
2. እድሜ _____ (በሙሉ አመት).
3. የትምህርት ደረጃ: 1. ያልተማረ 2. ከ1-4 3. ከ5-8 4. ከ9-12 5. ዲፕሎማ 6. ዲግሪ
4. የጋብቻ ሁኔታ: 1) ያላገባ 2) ያገባ 3) የፈታ/ች 4) የሞተበት/ባት
5. ጠቅላላ የቤተሰብ ብዛት: _____ (በቁጥር)
6. ዋና ስራ (የንግድ አይነት)
 1. አከፋፋይ 2. ቸርቻሪ 3. አቀናባሪ/Processor 4. ሰብሳቢ/Collector 6. ሌላ _____
7. ከመኖሪያ ቤት ወይም እስከ ገበያ ያለው እርቀት _____ (በደቂቃ/ በእግር ጉዞ)

8. የበርበሬ የንግድ ስራ ከጀመሩ ስንት አመት ይሆንዎታል? _____
9. በበርበሬ ንግድ ስራ አመቱን ሙሉ ይሳተፋሉ? 1. አዎ 2. የለም
10. ከላይ መልስዎ “አመቱን ሙሉ አልሳተፍም” ከሆነ መቼ መቼ ይሳተፋሉ?
1. ብዙ አቅርቦት ወደ ገበያ ሲገባ 2. የመግዣ ዋጋ ሲቀንስ 3. ሌላ _____
11. በሳምንት ውስጥ የገበያ ቀናቶች ስንት ናቸው? _____
12. በርበሬ የንግድ ስራ ሲጀምሩ መነሻ ካፒታል ስንት ነበር? _____ (ቡብር)
13. ከእርስዎ የበርበሬ ገዥዎች በአብዛኛው እነማን ናቸው?
1. ቸርቻሪዎች 2. ለቤት ፈጆታ ተጠቃሚዎች 3. ጅምላ ሻጮች 4. አቀናባሪዎች
5. ወደ ውጭ ላኪዎች 6. ደላላዎች
14. እርስዎ በርበሬ ለንግድ የሚገዙት ከየት ነው?
1. ከሰፈር ከሆነ የሰፈሩን ስም ይጥቀሱ _____
2. ከገበያ ከሆነ የገበያውን ስም ይጥቀሱ _____
15. የበርበሬን ጥራት ለመጨመር የሚሰሩት ስራ አለ? 1. አዎ 2. የለም
16. የበርበሬ ምርቱ በሰዓቱ ባይሸጥልዎ ምን ማድረግ ይችላሉ?
1. በቅናሽ ዋጋ መሸጥ 2. ሌላ ገበያ በመውሰድ መሸጥ 3. በሌላ የገበያ ቀናት መሸጥ 4. ሌላ _____
17. አምራቾችን/አቅራቢዎችን እንዴት መሳብ ይችላሉ?
1. የተሻለ ዋጋ በማቅረብ 2. እነርሱን በመጎብኘት 3. ያልተጭበረበረ ልኬት/ሚዛን በመጠቀም

ክፍል ሁለት: የግዥ ሁኔታ/ Purchase practice/

18. በርበሬ ግዥ ከየትኛው አቅራቢ ይገዛሉ?
1. ከአምራቾች 2. ከቸርቻሪዎች 3. ከጅምላ ሻጭ 4. ከሰብሳቢዎች 5. ከማህበራት 6. ከሌላ _____
19. በርበሬ ግዥ ሲፈፀሙ በመለኪያነት የሚጠቀሙበት በየትኛው ቁሳቁስ ነው?
1. ቢጅንያ 2. በቅርጫት 3. በኪ.ግ 4. በሳጥን 5. በሌላ _____
20. በርበሬ ግዥ ሲፈፀሙ በቂ መጠን ማግኘት ይቸገሩ ነበር? 1. አዎ 2. የለም
21. በ2015 የበርበሬ መግዣ ዋጋ በኪሎግራም

መስ	ጥቅምት	ህዳር	ታህሳስ	ጥር	የካቲት	መጋቢት	ሚያዝያ	ግንቦት	ሰኔ	ሀምሌ	ነሐሴ

ክፍል ሶስት: የሸያጭ ሁኔታ

22. በርበሬ ለየትኛው ገበያ ይሸጣሉ _____
23. በርበሬ ለየትኛው አካል ይሸጣሉ?
1 ለተጠቃሚዎች 2. ለቸርቻሪዎች 3. ለጅምላ ሻጭ 4. ለሰብሳቢዎች 5. ለደላላዎች 6. ለሆቴሎች 7. አይታወቅም
24. ገዥዎችን እንዴት መሳብ ይችላሉ?
1. የተሻለ ዋጋ በማቅረብ 2. እነርሱን በመጎብኘት 3. ያልተጭበረበረ ልኬት/ሚዛን በመጠቀም

25. በርበሬ ግብይት ችግሮችን በተመለከተ እባክዎን ሰንጠረዥ ይሙሉ፤

የበርበሬ ግብይት ችግሮች አሉ	1=አዎ 0= የለም	አዎ ከሆነ የችግሮቹ መንስኤ ምንድን ነው	ችግሮቹን እንዴት መፍታት ይቻላል
አስተዳደራዊ ችግሮች (የግብር መብዛትና ሌሎችም)			
የብድር እጥረት			
የመንግስት ድጋፍ አለመኖር			
ፍላጎት አለመኖር/ዝቅተኛ ዋጋ			
በስራው ብዙ ተፎካካሪ መኖሩ			
የህገ-ወጥ ነጋዴዎች መብዛት			
የመጋዘን አለመኖር/Storage problem			
የአቅርቦት መኖር			
ስርቆት			
ጥራት ዝቅተኛነት			
የገንዘብ እጥረት			
የመረጃ ችግር			
ሌላ			

26. እባክዎ በግብይት ሂደት ጊዜ የሚኖሩ ወጭዎችን/ለአንድ ኩ/ል/ የሚከተለውን ሰንጠረዥ ይሙሉ፤

ወጭዎች	የወጣ ወጪ	ወጭዎች	የወጣ ወጪ
በርበሬ ለመግዛት		የገበያ ግብር	
በርበሬ ለሚከት ሰራተኛ		ለስልክ ዎጭ	
ለመጫንና ለማውረድ		ለፈቃድ ማደሻ	
ለድለላ		ለቋሚ ሰራተኛ	
ለትራንስፖርት		ለጥበቃ	
ለማሸግ		ሌሎች ወጭዎች _____	

27. በ2015 የበርበሬ መሸጫ ዋጋ በኪሎግራም

መስ	ጥቅምት	ህዳር	ታህሳስ	ጥር	የካቲት	መጋቢት	ሚያዝያ	ግንቦት	ሰኔ	ሀምሌ	ነሐሴ

28. በበርበሬ ግብይት ዙሪያ ያለውት አስተያየት? _____.

ጊዜዎትን ሰውተው ይህንን መጠይቅ ስለሞሉልኝ በድጋሚ ክልብ አመሰግናለሁ።