



**ST.MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**DETERMINANTS OF VOLUME FLUCTUATION IN AGRICULTURAL
EXPORT IN ETHIOPIA**

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**MAY, 2019
ADDIS ABABA, ETHIOPIA**

**ST.MARY'S UNIVERSITY
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INSTITUTE OF AGRICULTURAL AND DEVELOPMENT STUDIES**

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EXPORT IN ETHIOPIA**

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**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ST.MARY'S
UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF ART IN DEVELOPMENT ECONOMICS**

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DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Wondimagegn Chekol (PhD). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Name

Signature & Date

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

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Table of Contents

ACKNOWLEDGMENT.....	1
ACRONYMS	1
LIST OF TABLE	2
LIST OF FIGURE.....	3
ABSTRACT.....	4
CHAPTER ONE	1
INTRODUCTION	1
1.1.Background of the study	1
1.2.Statement of the Problem.....	4
1.3.Objectives of the Study.....	5
1.3.1.General Objective	5
1.3.2.Specific Objectives	5
1.4.Significance of the Study	6
1.5.Scope and Limitation of the Study.....	6
1.6.Organization of the Paper	6
CHAPTER TWO	6
LITERATURE REVIEW	7
2.1.Theoretical Literature Review	7
2.1.1.Mercantilism Theory of Trade	7
2.1.2.Adam Smith’s Theory of Absolute Advantage.....	8
2.1.3.The Product Life-Cycle Theory	9
2.1.4.The New Trade Theory	10
2.1.5 porter Theory of National Compitative Advantage.....	10
2.2 Export Development Strategies in Ethiopia.....	10
2.3 The Role of Agriculture in Ethiopian Development.....	11
2.4 Export and Economic growth.....	12
2.5 The Overall Ethiopia’s Export Performance.....	13
2.6.Determinants of export in Sub Saharan Africa Countries and In Ethiopia... Error! Bookmark not defined.	
2.6.1.Determinants of Export Performance in Ethiopia..... Error! Bookmark not defined.	
2.7.Empirical Literature review	15
CHAPTER THREE	18
RESEARCH METHODOLOGY	20
3.1.Research Design and Approach.....	20
3.2.Source of Data	20
3.3 study poplation.....	23
3.4 Sampling Technique & Sample Size.....	23
3.5.Instruments of Data Collection.....	21

3.6.Methods of Data presentation and Analysis	24
3.6.1 Modle Specification.....	24
CHAPTER FOUR	24
DATA PRESENTATION RESULTS AND DISCUSSIONS	24
4.1.Introduction	24
4.2.Background Information Data Presentation	24
4.3.Descriptive Analysis on Determinants of Export	26
4.4.Regression analysis: Determinants of Agricultural Export	37
4.5.Government Professional’s Response Analysis	39
CHAPTER FIVE	46
CONCLUSION AND RECOMMENDATION	46
5.1.Conclusion	46
5.2.Recommendation	46
5.3. Important Issues for Further Studies.....	47
REFERENCE	48
APPENDIX.....	50

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ACRONYMS

AGOA: African Growth and Opportunity Act

COMESA: Common Market for Eastern and Southern Africa

ECX: Ethiopian Commodity Exchange

EEA: Ethiopian Economist Association

ERCA: Ethiopian Revenue and Customs Authority

GDP: Gross Domestic Product

IMF: International Monetary Fund

LDCs: Less Developed Countries

MoFED: Ministry of Finance and Economic Development

MOT: Ministry of Trade

NBE: National Bank of Ethiopia

SSA: Sub-Saharan Countries

UNDP: United Nation Development Program

WB: World Bank

LIST OF TABLE

	Page
Table 4.1 Duration of time on the export sector	28
Table 4.2 Age of respondents	29
Table 4.3 Sex composition of respondents	29
Table 4.4 Education level of respondents	30
Table 4.5 infrastructural facility effects on export volume response	31
Table 4.6 Export policy issues	33
Table 4.7 quality of agricultural products	36
Table 4.8 description of market information	37
Table 4.9 finance support and availability	38
Table 4.10 access to finance for export	40
Table 4.11 description of domestic price	42
Table 4.12 export volume increment	42
Table 4.13 ordered logit estimation result	46

LIST OF FIGURE

	Page
Figure 2.1 Trends of Agricultural Export Volume.....	18
Figure 4.1 Export policy effects on export	35
Fig 4.3 Reasons for not obtaining export finance	41

ABSTRACT

This study tries to assess the determinants of fluctuation in the volume of agricultural export in Ethiopia. Today's theories of economic development emphasize improving export performance as a vital component to international competitiveness and rapid growth and development. The main problem that this study tries to address is why the Ethiopian Agricultural product export trade performance is unsatisfactory in spite of its long time entrance into the international market and the paradox that Ethiopia has a capable labor force, low wage rate, a wide range of weather and soil conditions, the country exports are agricultural products, but the sector is characterized by its volatility from year to year instead of achieving its targeted level. The objective of the study had conducted to identify the major determinants of fluctuations in the volume of agricultural crop export in Ethiopia, to examine to what extent infrastructural issues determine agricultural exports, to determine the effect of government policy on export volume, to assess to what extent product quality determines agricultural export and to examine the extent of financial support determine agricultural export. In order to analyze the determinants of agricultural export volume fluctuations explanatory research design were employed and for the purpose of this data were collected from 99 exporters and 10 government professionals. Collected data's were analyzed through descriptive analysis method and econometrics analysis specifically the researcher use ordered legit regression. The findings of the study revealed that infrastructure, government policy, quality, and finance had a positive effect on export of agricultural products; whereas, domestic price shows a negative association with export of agricultural exports volume. Therefore, in order to make Ethiopian export products competitive in the world market, special attention should be given to the issue of quality through better quality standardization system, effective export policy implementation, infrastructural and credit facilities should be improved.

Key words; Agricultural Export Determinant, Export volume, Export Volume Fluctuation, Volume Volatility

CHAPTER ONE INTRODUCTION

1.1. Background of the study

Many theories of economic development advocated import substitution in order to increase productivity and diversity of the production structure. But today, the emphasis has shifted to improving export performance. It has been increasingly recognized that given the limited size of domestic market and the dependence on the import of intermediate and capital goods, expanding export capacity and increasing international competitiveness are vital factors for rapid growth and development (Brook Debebe, 1999, p.5).

Systematic identification of factors constraining export growth and diversification is quite important in the design and effective implementation of export enhancing policies. With this regard, there are a number of theories about the constraining factors of exports in developing countries. One school of thought is the trade pessimists who ascribed the export setback to the difficult conditions in the export markets, especially the protectionist reaction of the industrialized countries. The other school of thought is the structuralisms, who blame the supply side constraints within the developing countries as the main factors that inhibit export growth and diversification. There are also other arguments that consider policy failure as a major constraint on effective export diversification.

Accordingly, the success of export orientation depends on sound policy implementation, at the right place and at the right time in removing constraints and seizing opportunities. Exports of developing countries are concentrated in a narrow range of primary commodities and are destined to few markets due to those export earnings as well as export volumes fluctuate time to time. Thus, fluctuations in earnings from one commodity or market are not offset by compensating changes in proceeds from another product or trading partner [Love 1975: 35]. This implies that total export earnings are highly sensitive to changes in the prices and/or quantities of the dominant export commodities, with the elasticity of earnings with respect to prices/quantities accounting for a significant share of the sum total. It can, therefore, be argued that as a country diversifies its exports more and more, the elasticity of each export commodity will get smaller and smaller.

Most of Sub-Saharan African countries depend almost on primary commodities for their foreign exchange earnings. African merchandise exports did not raise significantly for the period 1980 to 2006 particularly when South Africa and Nigeria are not included (Amin et al, 2007). Capitalizing upon agriculture's potential to drive development in Sub-Saharan Africa (SSA) is both critically important and urgent for enhancing aggregate economic growth and improving the welfare of hundreds of millions of extremely poor people.

Like most Sub-Saharan African countries, Ethiopia is agrarian economy with a very small industrial sector. That is to say, the performance of the economy as a whole is greatly influenced by agricultural sector, which is the basic feature of the country's economy (Shewangzaw, 2003). Agriculture is the mainstay of the Ethiopian economy and a major source of employment for about 80% of the population. The sector, among others, is focused on exported development. It is also the most important foreign currency earner (Access, 2012). But in recent years agricultural export sector exhibited slower growth rate of 2.3 percent compared with 8.2 percent target mainly due to most of agricultural products does not achieve its targeted goal (NBE, 2016/17).

According to Invest in Ethiopia Magazine 2012, Ethiopia has one of the largest and most diverse genetic resources in the world. Ethiopia has the soils and climate required for the production of a variety of food crops. Ethiopia has also more than 80 million hectares of arable land out of which 16% is under cultivation. Over all irrigation development potential is estimated at 3.7 million hectares of land while only 5-6% of this area is currently utilized. Irrigable large scale farms such as in the Rift Valley have big potential for the expansion of cash crops such as sugar, oil seeds and horticulture. Ethiopia has also the largest livestock production in Africa and the tenth largest in the world, with 45.5 million cattle, 26 million sheep, 21.7 million goats and 32 million poultry. Its dairy farming, poultry, meat and live animal industries which are organically produced are attracting huge export demand in the neighboring countries and Middle Eastern markets but the export sector does not achieve its targeted goal.

In most developing countries the export sector dominated on the primary goods like agricultural export goods. In Ethiopia 90% of export goods are agricultural products which are coffee, oilseeds, chat, flower, pulses and live animals. This agricultural export goods are a great role in the economy but in our case have not utilized there resource in full potential to enhance their

export production for instances the quality, quantity and earnings. Therefore, agricultural export commodities it faces instability, fluctuation, especially in export volume and export earnings. "Export instability means instability of export earnings, export prices, and export quantities," Yohannes (n.d) cited in Herrmann (1989 P: 219).

In Ethiopia, both exports and the manufacturing sector remain relatively small. Ethiopia has the lowest ratio of merchandise exports to GDP among populous countries in the world; it has half as many of exporting firms as Kenya (which has half the population of Ethiopia), and average exporter size is small (World Bank, 2014).

According to National Bank of Ethiopia Annual Report 2017/18 it has been a challenging year for Ethiopia external sector particularly export sector. Total merchandise export revealed a 2.3% decline instead of achieving its targeted level owing to lower earnings from major agricultural exports of coffee, pulses, live animal and chat. The ratio of merchandise export declined to 3.1% from 3.6% a year ago. Earnings from export of coffee and chat dropped by 5% and 3.6% respectively. This is due to the drop in volume of export and international price.

Most developed countries earn high profit from export than under developed countries because advanced countries export goods are high and large in volume, quality and diversified which means they don't have to concentrate in a few goods due to this they take trade advantages. But, in developing countries the export volume is very small and not diversified. According to Taylor Biggs (2007), low income countries appear to especially constrain in their ability to take advantage of trade opportunities. Exports are generally small and concentrated in a few products, primitive transportation and communication system, backward financial system, unskilled manpower, poor policy, lack of capital and so on. The above problems are true in the case of our country Ethiopia in the export sector (Access capital, 2012).

Records show that export trade in Ethiopia was started during the reign of Minilik II and expanded more during the reign of Emperor Haile-Silasse I. Since then, the country has been exporting items like coffee, leather, and hides and skins and some agricultural products such as oil seeds and cereals. Despite this long time entry into the export market, various studies indicate that the overall performance of the export sector is unsatisfactory. This is evidenced by the lower Export/GDP ratio and by the declining share of exports in import financing.

As indicated in the National Bank of Ethiopia Annual Report from 200/01 to 2017/18 and other related published materials Ethiopian export sector strongly influenced by export volume

fluctuation of agricultural products. This study is aims to investigate the major determinants that contribute for fluctuations in the volume of agricultural crop export in Ethiopia. Different related studies were done, but most of the studies were concerned on secondary data's collected from published materials. But this paper especially concerned on primary data's which directly collected from exporters and government professionals.

1.2.Statement of the Problem

Ethiopia has also more than 80 million hectares of arable land out of which 16% is under cultivation and the country has the largest livestock production in Africa. The strengths of Ethiopian export commodities indicated that they are organic (primary agricultural products), characterized by a significant demand in the world market as a result of better nutritional values, a high potential for type diversification, a relatively cheaper cost of production as a result of labor intensiveness, and highly advantaged in terms of geographical locations to the world market. But the foreign exchange earning that is acquired from agricultural export is still sadly very poor due to the fact that it's underutilization human and natural resources. The sector also dominated by primary goods and fluctuates in the quantity and price time to time due to this can't earn profit compared to its capacity to get from its diversified agricultural resources (World Bank, 2014).

The country is a price taker in almost all of its export commodities. The world price for Ethiopian agricultural goods depends on the performance of the major supplier of agricultural goods like *Brazil* to the world market. So, the country losses the trade advantage opportunities in the world market due to this the export sector doesn't grow at its expected level. According to National Bank of Ethiopia 2015/16 Annual Rapport the poor performance in merchandised exports which dropped by 5% over the previous fiscal years due to lower international commodity price of some of agricultural export as well as fluctuation in the volume of items such as coffee, oilseeds, Chat, leather and pulses. When we look the case of coffee, according to National Bank of Ethiopia Annual Report 2014/15 the volume of coffee fluctuates from time to time for example in the year of 2011/12, 2012/13, 2013/2014 is (169408.1), (1,991,27.7), (189669.3) in metric ton respectively.

Generally, agricultural export goods have a huge contribution in the country's export, but still did not reach the desired level by different constraints. Instead of achieving its desired level there is a problem of unstable export volume as well as export earnings. According to Ministry of

Trade (2009-2017) Report the Export performance of the last seven-year period (2009/10-2016/17) registered a 68.91% achievement rate of the planned targets. Statistics show that there is an unsteady annual growth rate in the sector. Especially, data from the last three years have been marked by a decline in the achievement of planned export targets.

A major reason behind this is the fact that much of the country's exports are unprocessed agricultural products whose prices are unsteady in the international market, volatility in the volume of export items, and have seen a recent decline. It's clear from the report that we need a coordinated effort to ensure our products to have an adequate quantity and quality demanded by the international market. Therefore, this study will try to identify the determinants and factors that constrain agricultural exports that lead to fluctuation in its volume of export in Ethiopia.

Many studies related this topic were done by using secondary data's specially concentrated on international factors like exchange rate, terms of trade, market size by neglecting problems which directly related to Exporters like infrastructural facilities, policies, and credit facilities domestic price etc. Thus, this study was done by taking into consideration on factors which have direct relationship on to export such as domestic policy infrastructural facility, credit facility, institutional problems etc. by directly collecting data from exporters by using questionnaires and an additional data collected from government professional who are directly involved on the export sector through interview.

1.3.Objectives of the Study

1.3.1. General Objective

The main objective of this study is to assess the main determinants of fluctuations in the volume of agricultural export in Ethiopia.

1.3.2. Specific Objectives

- To identify the major determinants of fluctuations in the volume of agricultural export in Ethiopia.
- To describe at what extent factors determining fluctuation in the volume of agricultural crop exports.
- To suggest possible remedial actions in relation to export trade

1.4. Significance of the Study

The significance of this study will be lies to help to justify the constraints/determinants of agricultural export. The findings and recommendations of the study will serve as a reference to governmental, local or non-governmental agencies that would like to deploy intervention on the area of the study. Moreover, the study will initiate others to carry out detail and extensive studies in agricultural export and other related issues.

1.5. Scope and Limitation of the Study

The study was focus on the fluctuations in the volume of agricultural export in Ethiopia. It also tries to identify the determinants of agricultural export instability to give more emphasis on the problem faced. When under taking this investigation, the paper encounters several problems such as, inadequate and unavailable information and source of data, lack of supporting material like reference book, journal, magazine, and lack of recent review literatures.

1.6. Organization of the Paper

This paper organized in to five chapters. The first chapter contains background of the study, statement of the problem, objective of the study, scope of the study, limitation of the study and methodologies. The second chapter contains literature review. The third chapter model specification with articulated definition of variables and chapter four presents the Econometrics analysis of the study and the last chapter presents the conclusions, summery, and recommendations.

CHAPTER TWO

LITERATURE REVIEW

The theoretical framework of trade theories is preferable to a review of theories and empirical findings. Integrating theories with practices in fact helps to better understand how and why nations trade with each other. The literature review has three major parts: the first part deals with theoretical literature of trade, the second part deals with the overall Ethiopia's export practices the third one empirical literature reviews.

2.1.Theoretical Literature Review

The main reason that explains why countries trade with each other is related with economics. Basically, it is the difference in resource endowments of nations that make necessary international trade. In support of this idea, Ayele Kuris (2006, pp. 70-71), states: "The main reason that countries trade with one another rather than run completely independent economies is that the earth's resources are not equally distributed across its surface." According to Dwivedi (2002, pp. 507-508), the uneven distribution of resource endowments fuels international trade. Dwivedi further explained his argument as follows:

"While some countries are better endowed with natural resources Like vast fertile and cultivable land, large mineral deposits, water And forest resources, some others are better equipped with capital And technology."

2.1.1. Mercantilism Theory of Trade

Several literatures assert that mercantilism was the first theory (some call it belief) of international trade, that emerged in England in the mid-16th century. This theory of international trade states that it is in a country's best interest to export more than it imports. According to Hill (1998, p.126), the mercantilist doctrine advocates government intervention through policies to maximize exports by subsidizing exports and to minimize imports by using tariffs and quotas to limit imports. This results in a management of balance of trade surplus. On the other hand, the classical economist David Hume identified an inherent inconsistency with the belief of mercantilism in 1752. Hill (1998, p.126) states, according to Hume, that if one country exports more than it imports, the resulting inflow would swell the domestic money supply and generate inflation to the exporting country. On the reverse side, the outflow would have the opposite

effect for the importing country. That is, the importing country's money supply would contract and its prices would fall. Hume concluded his argument that in the long- run, no country could sustain a surplus on the balance of trade. The flaw with mercantilism, as pointed out by Hill, was that it viewed trade as a zero sum game (a situation in which a gain by one country results in a loss by another). Nonetheless, it is believed that mercantilism is still alive today; even recently, the trade strategy of many nations is designed to simultaneously boost exports and limit imports. According to Hill (1998, p.126), for example, Japan is a neo-mercantilist nation because its government, while publicly supporting free trade, simultaneously seeks to protect certain segments of its economy from more efficient foreign competition. Extending the explanation, Hill affirms that it was left to Adam Smith and David Ricardo to show the shortsightedness of this approach and to demonstrate that trade is a positive sum game (a situation in which all countries can benefit, even if some benefit more than others do).

2.1.2. Adam Smith's Theory of Absolute Advantage

The classical economist Adam Smith in his *theory of absolute advantage* provided the earliest evidence of the gain arising from foreign trade. Hill (1998, p.127), explained that absolute advantage refers to the situation in which one country is more efficient at producing a product than any other country. Jeannet and Hennessey (2001, p. 42) tried to explain the theory of absolute advantage as 'While there are many variables that may be listed as the primary determinants of international trade, productivity differences rank high on the list'. Hence, Smith's theory of absolute advantage states that a country tends to specialize in the production of Commodities in which it has absolute advantage in cost of production; In support of this idea, Dwivedi (2002, p. 508) also elaborates the concept of Smith's absolute advantage as follows:

"It may be possible for all countries to produce all the commodities they need, in spite of resource constraints. Nevertheless, the cost of production of goods for which a country is deficient in its resource endowments would be exorbitantly high. It is, therefore, advantageous for a country to specialize in the production of commodities, which it can produce most efficiently."

2.1.3 David Ricardo's Principle of Comparative Advantage

David Ricardo (1772 – 1823) was a British economist who is best remembered for his theory of *Rent* and his theory of *Comparative Cost*. He started work in his father's stockbroker's office, and then began his own successful career in securities and real estate. His interest in economics

was aroused from reading Smith's book, "*The Wealth of Nations*" in 1799. He is credited for formalizing the concept of *comparative advantage*. The original idea of comparative advantage dates to the early part of the nineteenth century. Although the model describing the theory is commonly referred to as the "Ricardian model," the original description of the idea can be found in an *Essay on the External Corn Trade* by Robert Torrens in 1815. David Ricardo formalized the idea by using a simple numerical example in his 1817 book titled, *The Principles of Political Economy and Taxation*."

According to Ricardo's *principle of comparative advantage*, even if a nation is more efficient (that is, has an absolute advantage) than the other nation in the production of both goods, there is still a basis for mutually beneficial trade. The more efficient nation should specialize in the production of and export of the good in which its absolute advantage is greater and import the good in which its absolute advantage is smaller. Similarly, the less efficient nation should specialize in the production of and export of the good in which its absolute disadvantage is smaller and import the good in which its absolute disadvantage is greater. To make his point, Ricardo imagined two countries, England and Portugal, producing two goods, cloth and wine, using labor as the sole input in production. Furthermore, he introduced the concept of *opportunity cost*, which is defined as the next best alternative forgone.

2.1.4. The Product Life-Cycle Theory

Raymond Vernon initially proposed this theory in the mid-1960s. The theory suggests that trade patterns are influenced by where a new product is introduced first (Hill, p. 151). According to Jeannet and Hennessey (2001, p.48), whereas the Heckscher-Ohlin theory argues that the pattern of international trade is determined by differences in factor endowments, the product life cycle theory focuses on the *role of technology, economies of scale, transportation costs and changing input requirements*. In addition, the Heckscher-Ohlin theory predicts that countries will export those goods that make intensive use of locally abundant factors and will import goods that make intensive use of factors that are locally scarce. On the other hand, the product lifecycle theory suggests that trade patterns are influenced by where a new product is introduced. On the other hand, some scholars claim that the product life cycle theory seems to be less predictive in an increasingly integrated global economy.

2.1.5. The New Trade Theory

This theory argues that in those industries where the existence of substantial economies of scale implies that the world market will profitably support only a few firms. Countries may predominate in the export of certain products simply because they had a firm that was a first mover in that industry. First mover advantages can be explained as economic and strategic advantages that accrue to early entrants in an industry. According to Hill (1998, p.141), the new trade theory is at a variance with the Heckscher-Ohlin theory where as it is not at a variance with the theory of comparative advantage. Since economies of scale result in an increase in the efficiency of resource utilization, and hence, in productivity, the new trade theory identifies an important source of comparative advantage. Consistent with this theory, a recent study suggested that first mover advantages are important factors in explaining the dominance of firms from certain nations in certain industries. Hill (1998, p.142) argues that the most contentious implication of the new trade theory is the argument that it generates for government intervention and strategic trade policy. The new trade theory stresses the role of luck, entrepreneurship and innovation in giving a firm first mover advantages.

2.1.6. Porter's Theory of National Competitive Advantage

Michael Porter focused on why some nations succeed and others fail in international competition. More specifically, Porter explains why a nation achieves international success in a particular industry (Hill, 2005, pp. 142- 150). Michael Porter in his theory of national competitive advantage identifies four broad attributes of a nation that shape the environment in which local firms compete, and that these attributes promote or impede the creation of competitive advantage. Porter identified the four attributes as factor endowments (such as skilled labor or the infrastructure), demand conditions (nature of local demand for the product), related and supporting industries and firm strategy, structure, and rivalry (the conditions in how companies are created, organized and managed and the nature of domestic rivalry). Michael Porter also maintains that two additional variables can influence the national demand in two important ways: *chance and government*. Chance events such as major innovation create discontinuities that can unfreeze or reshape industry structure and provide the opportunity for one nation's firms to support another's government by its choice of policies, detracting from or improving national advantage. For example, regulation can alter home demand conditions,

antitrust policies can influence the intensity of rivalry within an industry, and government investment in education can change factor endowments.

2.2 Export Development Strategies in Ethiopia

According to the Ethiopian Ministry of information's Press and Audiovisual Department's 2005 report, the export development strategy focuses on sectors and products that have already reliable markets and thus contribute to the foreign exchange earnings of the country. The export deployment strategy aims at maximizing the productivity through improvement and cultivation of unused land. Moreover, the strategy aims to utilize the advantage of natural resources for exports of high value agricultural products, establish new basis for exports of manufactured goods based on the country's competitive advantage of labor and discover exportable mineral and fuel deposits. High value agricultural products include vegetables, flowers, and fruits as well as fresh and chilled meat. There is plenty of scope for expansion of exports based on surplus venting by allowing exploitation of unused land for agricultural cultivation. The report also states that there is the greatest potential for growth of export manufacturers for which the world market is huge more specifically in clothing, textile, leather and leather products. Reports indicated that there are conducive scenarios to export development, including access to land, infrastructure development, and water resources. The same is true for private-public sector partnership forums, Institutional support and tackling bureaucratic obstacles. Export incentives include export tax exemptions, access to inputs, export financing, external loan and suppliers or foreign partners' credit, Franco-valuta schemes, and foreign exchange retention.

2.4 Export and Economic growth

The relationship between export performance and economic growth is an area that has been given much attention by development economists. The results of different studies on export expansion and economic growth has broadly classified economists into those that support the hypothesis that export growth has a positive impact on economic growth and those that doubt the existence of such relationship. The central question to be addressed in this section is "how does export growth influence economic growth?" Adam Smith's theory of international trade assumes that a previously isolated country about to enter into international possesses a surplus productive capacity above the requirements of domestic consumption. With trade the country is able to reallocate the given resources as to provide the new effective demand for the output of the

surplus resources. Hence, a surplus productive capacity suitable for the export market appears as a costless means of acquiring imports and expanding domestic economic activity [Meier, 1995 and Myint, 1958].

One of the export-based models formulated to present a dynamic view of how an economy's growth can be enhanced by expansion of its exports is the staple theory of growth. According to this theory, the discovery of a primary commodity in which a country has a comparative advantage or an increase in demand for its comparative advantage commodity leads to an expansion of resource-based export commodity which in turn induces a higher growth of aggregate and per capita income. The export of the primary product also has effects on the rest of the economy through reducing unemployment and underemployment, inducing a higher rate of domestic saving and investment, attracting an inflow of factor inputs into the expanding export sector, and establishing links with other sectors of the economy [Meier 1995, p.460].

2.5 The Overall Ethiopia's Export Performance

According to national bank of Ethiopia annual report coffee has been the number one export good, dominating all other export products. It generates 25.2%, 30.4% and 29% value of export earnings from 2015/16-2017/18 fiscal years respectively. It not only contributes for the entire economic growth of the nation but it is also the source of income for millions of farmers (coffee growers), exporters and for whom participates in the import export activity. Some of the Ethiopian coffee importers include Germany, Japan, Saudi-Arabia, Belgium, USA, Italy, France, Sudan, England and Switzerland. Oil crops take second place in terms of Ethiopian agricultural exports. It generates 16.6%, 12.1% and 14.9% value of foreign currency earnings for fiscal years of 2015/16, 2016/17 and 2017/18 fiscal years respectively. Niger (nueg), sesame seeds, sunflower and ground nuts are also exported to Asia, Europe, America and Africa. Countries like China, Turkey, Israel, USA, Jordan, Greece, Switzerland, Yemen, Saudi Arabia, Canada and Britain are the main export partners.

In terms of the commodity composition of exports, although coffee continues to dominate the top spot, its relative share of total exports is now at a historic low and the ranking of other key commodities is changing rapidly. Ethiopia now has five major *non-coffee* exports (oilseeds, gold, chat, flower, and pulses) which each bring in more than \$100 million per year .Fifteen products (other than coffee) show annual exports of at least \$10 million. Despite these positive

developments, we see many of Ethiopia's non-coffee exports being overly dependent on demand from just a single country (Access capital magazine 2012).

With respect to the destination of Ethiopia's exports, some surprising shifts are taking place. Switzerland has (just barely) surpassed China as the top destination for Ethiopia's exports. In what is probably the start of a longer-term trend, neighboring and regional countries are increasingly among the largest buyers of Ethiopian goods: Somalia and Sudan, for example, are both now individually larger export markets for Ethiopia than is the U.S. or Italy or Great Britain. Data from destination countries on their reported level of imports from Ethiopia showed strong growth last year, suggesting there is little reason to doubt the reliability of national export data compiled by the Ethiopian Customs Authority. Of course, the recent improvement in exports should not be exaggerated given the still modest scale of Ethiopia's exports when seen in a broader context (Access capital, 2012).

According to Invest in Ethiopia magazine Exports of goods in Ethiopia are only about 7 percent of GDP, compared to an average of near 30 percent of GDP in Sub-Saharan Africa. Export levels still fall short of what is registered by other African countries with much smaller populations (Uganda and Tanzania both export more than \$3 billion per year), and exports per person remain very low: only \$24 in Ethiopia compared to \$200 in Sub-Saharan Africa and \$580 in developing Asia. Growth rates are also very modest if one makes a comparison with Asian countries over a decades-long time frame. For example, Ethiopia's total exports were *higher* than that of Vietnam in the 1980s but are now just a tiny fraction: \$2 billion in Ethiopia versus \$65 billion in Vietnam. Given the above, Ethiopia's export record ought to be viewed as one of long-standing under-performance, but one whose recent surge might potentially mark a significant turning point. In a seemingly contradictory development, coffee exports reached the highest ever *level* last year (\$528 million) while at the same time falling to the lowest ever *share* in Ethiopia's total exports (just 26 percent). Notable among Ethiopia's non coffee exports is the growing importance of five major products that each bring in more than \$100 million per year: these include oil seeds (\$358 million), gold (\$281 million), chat (\$210 million), flowers (\$170 million), and pulses (\$130 million). Export products with annual sales of at least \$10 million have also increased substantially and now include products as varied as processed meat, vegetables, textiles and clothing, spices, leather products, minerals and cotton. (Access capital, 2012)

To give a sense of some of the physical volumes behind these dollar figures, Ethiopia now annually exports 172,210 tons of coffee (equivalent to about 9,000 twenty-foot containers), 9 tons of gold, 36 million kilos of chat, and 1.6 billion stems of flowers (equivalent to roughly 37 fully loaded cargo planes of roses every week). According to National bank of Ethiopia annual reports from 2000/01 to 2017/18 the overall export performance of the country export sector does not achieved its targeted goal instead it characterized by fluctuation in the volume of exports as well as export earnings. Majority of the export earnings dominated by agricultural export products, but those agricultural products were mainly characterized by fluctuation in its volume and value earnings from time to time instead of achieving its targeted goals. The following graph shows trends of agricultural export volume volatility from 2000/01-2017/18

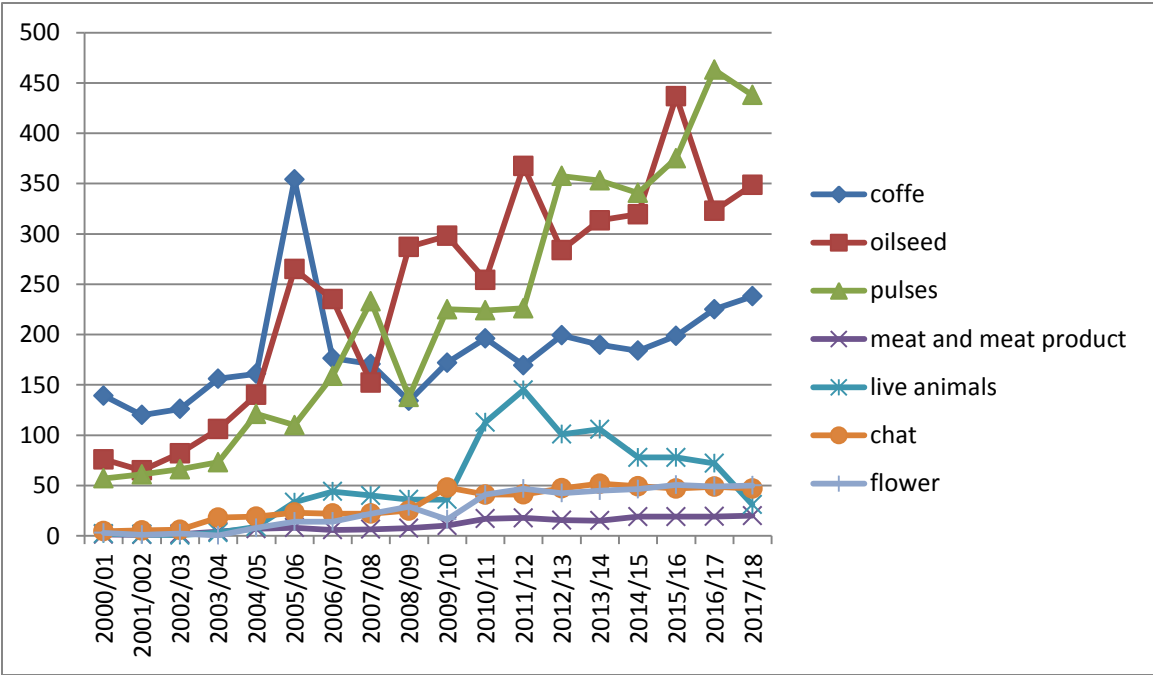


Fig.2. 1 volume of agricultural export (in millions of Kg unless stated otherwise)

Source: NBE own computation

The above graph shows that trends of selected agricultural export over a period of time. From this graph we can understand that agricultural export volume in Ethiopia characterized by its volatility up and down trends. Except chat its more or less constant trend most of those selected agricultural products are shows up and down trends from year to year.

According to UNDP merchandise-trade-matrix-exports-and-imports-to-world-by-product-roups-annual-1995-2014 report Untied state is the first leading exporter of agricultural products the world, the country earn from agriculture export is \$106 billion in 2012. But Ethiopia earn from export only \$2billion, so to increase or to generate the output of export goods it will be work hard and revised the policies.

2.6 Determinants of Export Performance in sub Saharan countries (SSA)

Based on the trade theory of comparative advantage, Africa continues to produce and export its raw materials or primary goods, where it is said to have the comparative advantage. But the comparative advantage theory is has been disappointing as African countries have been forced into the role of exporting raw material and other primary commodities with little or no development impact. Most of Sub-Saharan African countries depend almost on primary commodities for their foreign exchange earnings. African merchandise exports did not raise significantly for the period 1980 to 2006 particularly when South Africa and Nigeria are not included (Amin et al, 2007). Capitalizing upon agriculture's potential to drive development in Sub-Saharan Africa (SSA) is both critically important and urgent for enhancing aggregate economic growth and improving the welfare of hundreds of millions of extremely poor people. Agriculture employs 62% of the population of SSA (excluding South Africa) and generates 27% of GDP of these countries, with the majority of the poor living in rural areas (FAO, 2006; World Bank; 2006b as cited in Staatz and Dembélé, 2007).

2.7 Empirical Literature review

Most researchers focus on the relationship of export and economic growth but some researcher investigate in agricultural export. It is wise to know about the relationship between agricultural export and economic growth especially in developing countries like Ethiopia whose economic base is agriculture and related activities.

Mekbib (2008) classified factors affecting export performance into two broad categories. These are domestic and external factors. According to Mekbib, "External factors are factors that are related with international/regional and individual country's trade and related policies. For instance, the rules established by different international organizations such as world trade organization may probably promote external trade in the long run. Even though the rules established by international organizations such as the World Trade Organization (WTO) may in

the long run promote external trade, in the short run, the degree to which globalization pressurizes developing economies to open-up without allowing enough time to prepare for the challenges, could have a serious impact on their export performance.” (cited Samuel Tekeste Determinants of Agricultural export in Ethiopia. 2012).

In addition to the above constraints the tendency of some regional organizations to protect their markets from external competition may minimize the developing countries access to the external market. Protective policies of countries (through tariff and non-tariff barriers), such as, for instance, the agriculture policies of some European countries, under pressure from internal industries, constrain exports of developing countries (Ibid).

The second one is domestic factors which Mekbib classified again in to two categories. Such as, factors internal and external to the firm. When we look at specifically the factors affecting export performance of Ethiopia, different researchers have put their effort towards identifying and addressing these constraints. For instance, according to Abay and Zewdu (1999), the major constraints of the Ethiopian export sector could be seen from demand and supply sides. The demand side constraints include low level of demand for agricultural products due to very slow population growth rate in industrial countries, low income elasticity of demand for primary exports, production of synthetic products, and restrictive trade policies followed by importing countries. On the other hand; type and composition of products, concentration of export markets in few countries, natural factors like drought and diseases, and poor domestic policies are among the supply side challenges of the Ethiopian export trade according to the above named researchers. The stage of development or level of industrialization is also an important determinant of external competitiveness and export performance through externalities. The level of development of infrastructure, the overall institutional framework for economic management, level of education of the workforce, the efficiency of transportation and communication system in the country, the availability and degree of domestic supply of inputs to exporting firms, the nature of home demand for export commodities, etc., influence the performance of a country’s exports(Mekbib, 2008). He also underlined that the level of the economy, its resource endowments, policies and development strategies pursued are the some of the factors determining the export structure of the country.

World Bank (1987) report also indicated that exchange rate overvaluation, low level of investment, the coffee surtax, and inadequate marketing infrastructure, high raw material import

tariffs, unfavorable terms of trade and insufficient adjustment of producer prices are the major obstacles of Ethiopian export performance. Mouze (2005) also tried to show the agricultural exports of Ethiopia as a function of real effective exchange rate, terms of trade, infrastructure variable measured by the percentage of paved road to total road, net value of world trade, agricultural input (fertilizer consumption) and a dummy to capture the impact of government change. As a result the Error correction model shows that only real effective exchange rate, terms of trade and fertilizer consumption are the significant short-run and long-run determinants of agricultural export supply of the country. (Ibid)

On the other hand, Berhanu (2005) using 25 co-integration and Error Correction Model analyzed both short- and long-run relationships between the real exports of the country and various explanatory variables. The long-run model shows that when real exchange rate and real private sector credit affect real exports of the country positively, real private consumption affected negatively. Similarly, the short-run factors significantly affecting exports are real GDP, real private sector credit and real private consumption (Cited Samuel Tekeste, 2012 p (23-25)).

Samuel (2012) shows that in Determinants of Agricultural export thesis the short run model show that fertilizer input, nominal effective exchange rate, kilometers of paved road, terms of trade and world price are significant; indicating that the variables significantly affect the agricultural export performance of Ethiopia in the short run.

On the other hand, domestic price has no impact on agricultural export performance of Ethiopia. This is likely because domestic exporters seriously look at foreign price of the exported good rather than its domestic price.

Ethiopia's Export Performance Ethiopia's exports reached a never-before-seen level of \$2 billion in the just completed fiscal year. This export level is an impressive 38 percent increase from the \$1.5 billion in exports registered the previous year, and nearly three times the average annual export level of the prior decade (2000-2009). Encouragingly, the increase in exports has been broad-based in terms of both commodities and country of destination. (access Capital magazine, 2012).

Debel (2002) by using co-integration and error correction approaches in the regression analysis examine the policies and test for the relationship between exports and economic growth. The results show that export significantly affected economic growth in the short run. There is

casualty runs from export to economic growth. He showed that trade can make a nation better off without making another worse off.

Mohammed Adem (2005) conducted his study with time series data for Ethiopian for the period of 1960/61-2003/04. He found Ethiopian exports had no positive contribution to short run economic growth (GDP). i.e evidence was not found supporting the export led growth hypothesis in the dynamic model. To sum, from the above theoretical and empirical literature review, we can observe that there is some uncertainty about relationship between export and economic growth. More than 215 million people, nearly a third of the population, are malnourished, and almost half live on less than a dollar a day. SSA is the only region of the world where poverty is still strongly a rural phenomenon—and undernourishment have been increasing over the past 20 years and where those living on less than \$1/day have become poorer. This weak economic performance is closely linked to slow productivity growth in the agricultural sector, as the agricultural sector is the key determinant of overall economic growth (World Bank, 2005c as cited Staatz and Dembélé, 2007).

The importance of agriculture in SSA has not been stressed enough given that it is central to economic growth and most of the economic activities depend on it. Africa's exports remain dominated by primary commodities, and the share of agriculture in SSA's total exports has declined sharply in the last 40 years. Only a few SSA countries have achieved significant diversification of their exports. Despite those trends, agriculture remains the main export-revenue source for many SSA countries and the largest income generator for their population (WB, 2007).

The region's share of global agricultural export has declined gradually from almost 10% four decades ago to around 3% today. On the import side, the opposite pattern emerges as Sub-Saharan Africa is the only developing-country region that has seen its share of world agricultural imports increase rather than decrease (Baccetta, 2007; WB, 2007; and Christiansen, 2005). The cause of poor export performance in agricultural sector in SSA has been attributed to poor domestic policies as well as restrictive policies by developed countries. Furthermore, the ability of the region to increase exports (its export supply response) is constrained by structural rigidities in production capacity, infrastructure and institutional barriers to trade costs) followed by overvalued exchange rate and anti-agricultural industrial policies (Biggs, 2007; Kandiero and Randa; 2004; Alemayehu, 1999).

Agricultural markets are among the most heavily distorted in the world. The agricultural protection applied by industrial countries to SSA exports is higher than applied to other developing countries (Kandiero and Randa; 2004). According to IMF and WB (2002) if greater market access is granted by industrial countries to Africa's product, real incomes in SSA would increase by USD 6 per person and reduces the number of people living in poverty by as much as 13% by the year 2015. Moreover, Ghura and Grennes (1994) as cited in Daniel et.al (2002) found that the impact of 1% increase in OECD real income growth results in primary export demanded by 1.6% implying that a world recession has potential to disrupt economic growth, thus lowering economic growth in SSA. SSA'S share in the European markets has declined despite nearly three decades of trade preference extended to SSA under several ACP-EC agreements and response of SSA's agricultural exports to AGOA's commercial incentives were not significantly different from zero(Bedassa and Bichaka ,2007).

Agriculture is partly dependent on imported inputs, fertilizers, pesticides, equipment's. Balance of payment crisis have caused reduced imports of inputs and equipment, perhaps causing a reduction in agricultural production and export of SSA (Cleaver1985).Moreover, the high susceptibility of most African economies to trade and current account deficit arises from world share, declining terms of trade, excessive export turning volatility and falling export revenues are reasons for poor export performance of the region in general and SSA's in particular(Ignacio, 2007; and Ackah and Morrрисsey,2005). So far, there has been a divergence of opinions as to what really undermines Africa's exports in global trade.

While a school of thought believes that it is the trade restrictions that hindered Africa's exports to developed countries and some developing countries, thereby reducing the income level and employment rate, another argued that even if Africa's exports are allowed free access to the developed countries' markets, the continent lacks the ability to produce to meet the demand due to Africa's supply constraints (Kareem, 2009). Identifying and assessing the major constraints that significantly determines the overall agricultural export performance in SSA will give some useful guidance to policy makers in designing sound macroeconomic policies to improve the sectors' export performance and can be used as a base for detailed study on individual country agricultural export constraints to take remedial measures and ultimately to achieve overall economic growth (Cited EyayuTesfaye 2013 p. 14-15).

CHAPTER THREE

RESEARCH METHODOLOGY

The primary aims of this study, as mentioned in chapter one, is to examine the determinants of agricultural export volume in Ethiopia. This chapter describes the research design approach that was employed to achieve the main objectives of the study. It therefore, discusses the research design, source of data and sampling technique, the data collection instruments and methods of data analysis used in the entire study.

3.1. Research Design and Approach

Explanatory research designs were employed in order to answer the stated research questions. Since the nature of the research is a cause and effect relationship explanatory research design is the most appropriate design to examine the relationships between agricultural export and the determinants of agricultural export. Further, the study has used mixed research approach, which includes both qualitative and quantitative data. By qualitative data, the description is in words rather than numbers by believing it helps the study to go beyond the statistical results that are reported in the quantitative research. As well for this study the researcher used quantitative research designs, techniques and measures to produce numerical quantifiable data.

3.2. Source of Data

The study was using both primary and secondary data. Primary sources of data were collected from exporters and government professionals they are involved in as export expert. Discussions were held with government professionals from MoT, ECX, Ethiopian tea and coffee Authority. The main and primary data comprised evidence obtained through structured questionnaires which was responded by exporters & an additional interview made with government professionals. Both instruments qualitative in nature so as to gain an insight and understanding into the operations of the exporters and the government professionals surveyed. The questionnaires were designed based on open and closed ended questions.

Secondary data was collected through previous researches publications & annual reports, to ensure that a comprehensive overview of the issues to be considered. The electronic search site will be employed extensively for up-to-date materials on the topic.

3.3 Study Population

The populations that identified to conduct the research were mainly including exporters which involved in agricultural export in Ethiopia. According to the data obtained from Ministry of Trade & Ethiopian Revenue and Customs Authority (ERCA), there were 8674 exporters registered in Ethiopia up to September, 2017/18(FDRE MoT: ERCA, 2017/18). These exporters were scattered across the length and breadth of the country with most of their main offices were located in Addis Ababa.

3.4 Sampling Technique & Sample Size

To determine the sample size from a population of 8674 exporters, the Slovinc's (1960) formula $n=N \div (1+Ne^2)$ was applied. (Where: n is sample size, N is total population and e is 0.1 sample error). The choice of this formula was based on the recommendation of Avwokeni (2005) that if the knowledge of population size is available, the Slovinc's formula should be used. Subsequently the appropriated sample size using the above formula were 99 exporters and questionnaires to these exporters which distributed through Agricultural product exports coffee, oil seed, cereals, chat and others which were selected based on early establishment & the existing market share. In addition to these interviews were held with ten executives (six from ministry of trade one from marketing & promotion department and five from different export department experts, two from Ethiopian commodity exchange (ECX) two from Ethiopian tea and coffee Authority).

3.5 Instruments of Data Collection

Structured questionnaires & interview was used for the collection of primary data. Besides, review of different documents was done. As indicated earlier these questions were both open and close-ended question. A total of 99 sets of questionnaires were distributed. Respondents assured of the confidentiality of their responses and their names have never been solicited.

3.6 Methods of Data presentation and Analysis

On data analysis, primarily the data was organized categorically and chronologically. The qualitative and quantitative data collection are compiled, evaluated & summarized using techniques such as tabulation, appropriate statistical graphs, charts, percentages in addition to this the study will be use econometrics tools like logistics roagation model. This offered a pictorial presentation to enhance the understanding of the data.

3.6.1 Model Specification: Ordered Logistic Regression

According to Sarkisian (2004) whenever the dependent variable has ordered categories, i.e., meaningful order but the distances between them are arbitrary, it is possible to use Ordered Logit. For some variables, the order is much clearer than for others, but always it is important to take care of whether it is the only possible order or if something else is there which makes sense better. Ordinal dependent variable treated in four different ways. The first option is treating the variable as continuous and uses techniques for continuous variables. The second option was ignoring the ordinality and treating the variable as nominal, i.e. uses Multinomial Logit techniques. Thirdly, treat the variable as measured on a true ordinal scale like the professorial ranks of Full Professor, Associate Professor and Assistance Professor, they are ordered but it may or may not reflect crude measurement of some underlying continuous variable; the last option was treating the variable as though it were measured on an ordinal scale, however, the ordinal scale represent crude measurement of interval/ratio scale; For example, the categories “High, Medium, Low”. Accordingly, this study considers the dependent variable as true ordinal scale (Williams, 2015).

Therefore, under this research overall agricultural export volume was measured using a single-item measure. Exporters was asked to rate to what extent the export volume is increases on a five-point Likert scale. Since the outcome variables for export volume is ordered and categorical, the most appropriate econometric estimation method to apply is ordinal logistic regression (Green 2000). The ordered logit models have come in to wide use as a framework of analyzing ranked responses (Parasuraman *et al.* 1988). Furthermore, according to Williams (2008) Ordered logit models are among the most popular ordinal regression techniques. Hence, for the purpose of this study ordinal logistic regression model was employed and the functional form of ordered Logit Model for student satisfaction is specified as follows:

$$Y^* = \sum_{k=1}^K \beta_k X_{ki} + \varepsilon_k \quad (1)$$

Y^* is a continuous, unobserved and unmeasured latent variable whose values determine what the observed ordinal variable Y equals ε is a random disturbance term with zero mean and a

standard normal or logistic distribution: $\varepsilon \sim N(0, 1)$. The continuous latent variable Y^* has various threshold/cut-off points. (κ is the Greek small letter Kappa.)

The value on the observed variable Y depends on whether or not you have crossed a particular threshold/cut-off points. Thus, when $M=3$, what we do observed is;

$$\left. \begin{aligned} Y &= 1, \text{ if } Y^* \leq \mu_1 \\ Y &= 2, \text{ if } \mu_1 < Y^* \leq \mu_2 \\ Y &= 3, \text{ if } \mu_2 < Y^* \leq \mu_3 \end{aligned} \right\} \quad (2)$$

Where: Y , is observed in j number of ordered categories, μ s are unknown threshold/cut-off point parameters separating the adjacent categories to be estimated with β s. The continuous latent variable Y^* can be rewritten as;

$$Y^* = \sum_{k=1}^k \beta_k X_{ki} + \varepsilon = Z_i + \varepsilon_i \quad (3)$$

The Ordered Logit Model estimates part of the above:

$$Y^* = \sum_{k=1}^k \beta_k X_{ki} + \varepsilon = E(Y^*) \quad (4)$$

Note that, because of the random disturbance term, the unmeasured latent variable Y^* can be either *higher* or *lower* than Z . Note also that there is no intercept term. You then use the estimated $M-1$ cut off terms to estimate the probability that Y will take on a particular value. In this case since $M=3$, the formulas are:

$$\begin{aligned} P(Y = 1) &= \frac{1}{1 + e^{Z_i - \mu_1}} \\ P(Y = 2) &= \frac{1}{1 + e^{Z_i - \mu_2}} - \frac{1}{1 + e^{Z_i - \mu_1}} \\ P(Y = 3) &= 1 - \frac{1}{1 + e^{Z_i - \mu_2}} \end{aligned}$$

The cumulative probabilities can also be computed using the form:

$$Prob(Y = j) = 1 - L(\mu_{j-1} - \sum_{k=1}^k \beta_k X_k)$$

Where: $L(\cdot)$ represents cumulative logistic distribution

CHAPTER FOUR

DATA PRESENTATION RESULTS AND DISCUSSIONS

4.1.Introduction

Fluctuation of agricultural export means unsteady in the volume and earning by different periods. The volume and the earning of export are not the same in different time period in the economy because of many factors. The study shows that the export volume determined by many constraints, infrastructural facilities, quality, and export price the country export policy and others. Those factors affected the agricultural export volume by two sides which means that some variable increased the volume of export and the other also vice versa. Due to this the export earnings and the volume also fluctuate.

4.2.Background Information Data Presentation

4.2.1 Respondents Duration of Time on the Export Sector

Table 4.1 Duration of time on the export sector

Duration of time	Frequency	Percentage
<2years	19	19.2%
3-5	16	16.1%
5-7	20	20.2%
7-10	12	12.12%
Above 10 years	32	32.4%
Total	99	100%

Source: own survey computation 2018/19

From the informants, it was possible to identify that many exporters have been started since the past 10 years. Based on the respondents Response majority of the exporters was participated on the export sector more than ten years ago. The above table shows that 32.4% of the respondents have been since the past ten years. From the total respondents 19.2% of the respondents have been participated on the export sector less than two years ago.

4.2.2. Age Composition of Respondents

Table 4.2 Age of respondents

Age	Frequency	Percentage
20-25	12	12.1%
25-30	28	28.28%
30-35	17	17.17%
35-40	22	22.2%
Above 40	20	20.2%
Total	99	100%

Source: Own survey computation

The above table shows that from the total sample respondents 28.28% of the respondent's within the age category of 25-30 years old 20% of the respondents was above 40 years old. The result shows that majority of the respondents were within the age category of 25-30 years old. The age category from 20-25 were the smallest share category of age groups.

4.2.3. Sex Composition of Respondents

Table 4.3 Sex composition of respondents

Sex	Frequency	Percentage
Male	71	71.7%
Female	28	28.3%
Total	99	100%

Source: own survey computation

The above table shows that sex composition of the total sample 71.7% of the respondents are male 28.3% of sample respondents are female. The result shows that majority of the respondents are male. From those the researcher understood that majority of export companies employee are dominantly male.

4.2.4 Education Level of Respondents

Table 4.4 Education level of respondents

Level of Education	Frequency	percentage
<Diploma	3	3.03%
Diploma	61	61.9%
Degree	25	25.25%
Masters	4	4.04%
PhD and above	-	-
No Response	6	6.06%
Total	99	100%

Source: own survey computation

From the total sample response majority of the respondent's level of education are diplomas it followed by first degree their percentage shares of the total respondents are 61.6% and 25.25% respectively. 4 or 4.04% masters, and 6 or 6.06% no response. From the total respondents no one of them education levels are PhD and above.

4.3. Descriptive Analysis

4.3.1. Infrastructural facilities

Table 4.5 infrastructural facility effects on export volume response

		Frequency	Percent
Road infrastructure is good	Strongly Agree	17	17.2
	Agree	19	19.2
	Neutral	14	14.1
	Disagree	34	34.3
	Strongly Disagree	15	15.2
	Total	99	100.0
Telephones infrastructure is good	Strongly Agree	23	23.2
	Agree	33	33.3
	Neutral	14	14.1
	Disagree	19	19.2
	Strongly Disagree	10	10.1

	Total	99	100.0
Transport infrastructure appreciable	Strongly Agree	11	11.1
	Agree	23	23.2
	Neutral	16	16.2
	Disagree	39	39.4
	Strongly Disagree	10	10.1
	Total	99	100.0
The overall infrastructural facilities are appreciable to export more quantity products	Strongly Agree	7	7.07
	Agree	16	16.16
	Neutral	12	12.12
	Disagree	39	39.4
	Strongly Dis Agree	25	25.25
	Total	99	100

Source: own survey computation

The infrastructure situations were observed from three perspectives, road, telephone and transport. Based on the analysis 36.4 percent of the respondents said the road infrastructure is good however, 49.5 percent of the respondents said that the road access where the agricultural products coming from are not good. In the remaining 14.1 percent of the respondents put the road infrastructure at medium level. Furthermore, the telephone infrastructure was perceived at good level by 55.5 percent of the respondents, and perceived at bad level by 29.3. whereas, 49.5 percent of the respondents put the transport and infrastructure facility at bad level 33.3percent of the respondents response put at a good level the remaining 16.6 percent of respondents response were neutral to determine the performance of transport facilities. Overall through looking the descriptive statistics we can conclude that the infrastructural facilities are contributing at least a little for the betterment of export performance; this implies the infrastructural facilities which helps to brought the products from the rural areas, that is the road, the facilities which helps for the purpose of communication, the telephone infrastructural facilities and the availability of transport facilities which helps to bring the exportable products to the main market station are possibly to say at a bad level, although it had constraints to exporters export capacity.

From the total sample 64.65% of respondents' response indicates that the overall infrastructural facilities are not appreciable to export more quantity products, 23.2% of respondents response indicates that the overall infrastructural facilities are appreciable to export more quantity

products. From those results we can understand that infrastructural facilities strongly affect the exporters export capacity.

Related study conducted on export performance in Ethiopia by Birhanu Lakew (2005, P.351), as stated by Bruk, identified that high transaction costs, infrastructural deficiencies, delays in service delivery, constraints challenging Ethiopia's export sector. In addition to this World Bank group 2014 economic report implies that infrastructural facilities in Ethiopia are the bottlenecks in trade logistics. A key to competitiveness is shipping containers quickly and inexpensively. Rwanda, which faces more crippling shipping costs, performs better than Ethiopia in overall trade-related operations because of its reforms in operating hours, joint border management procedures with neighbors, and introduction of an electronic single-window system. Effective implementation will require significant coordination across government departments to avoid having a reengineering effort simply lead to the accumulation of inefficiencies in one place. Based on those studies and our study results we can conclude that infrastructural facilities in Ethiopia very strongly influence the exporters export capacities to increase their export volume as well as it reduce the country competitiveness with in the international market.

4.3.2. Policy Problems and its Effect on Export Volume

Table 4.6 Export Policy Issues

		Frequency	Percent
The country export policy is comfortable to your company	SA	10	10.1
	Agree	12	12.1
	Neutral	14	14.1
	Disagree	44	44.4
	SDA	19	19.2
	Total	99	100.0
The tax system considering the companies' ability to pay	SA	6	6.1
	Agree	17	17.2
	Neutral	16	16.2
	Disagree	33	33.3
	SDA	27	27.3
	Total	99	100.0
the tax levied retreat to expand company's export capacity	Strongly Agree	4	4.0
	Agree	15	15.2
	Neutral	9	9.1
	Disagree	44	44.4
	Strongly Disagree	27	27.3
	Total	99	100.0
Is the export subsidy appreciable	Strongly Agree	6	6.1
	Agree	19	19.2
	Neutral	9	9.1
	Disagree	41	41.4
	SDA	24	24.2
	Total	99	100.0

The license policy provides to export more products related with your export products	SA	8	8.1
	Agree	17	17.2
	Neutral	9	9.1
	Disagree	35	35.4
	SDA	30	30.3
	Total	99	100.0
the country export policy trend as the whole getting good	SA	8	8.1
	Agree	14	14.1
	Neutral	16	16.2
	Disagree	47	47.5
	Strongly Disagree	14	14.1
	Total	99	100.0
There is fertile conditions are contributing to running your Export	Strongly Agree	9	9.1
	Agree	24	24.2
	Neutral	16	16.2
	Disagree	36	36.4
	Strongly Disagree	14	14.1
	Total	99	100.0

Source: Own Survey Computation

Description: SA - Strongly Agree

SDA -Strongly Disagree

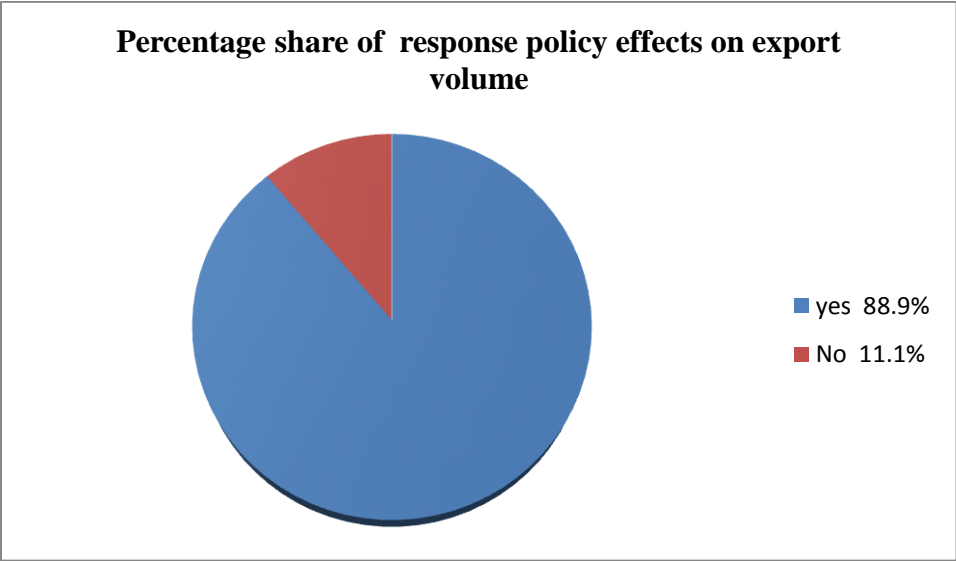
More than 60 percent of the respondents replied that the country's export policy is not comfortable as well as the tax system doesn't consider the companies' ability to pay and didn't encourage to expand company's export capacity. However, close to 20 percent of the respondents relied that in Ethiopia there is good export policy which encourage exporters in terms of tax levied that consider exporter companies capacity.

Around 25.3 percent of the respondents agreed that government easily give license to expand their export business to diversify export product, on the other hand, 65.6 percent of the respondents replied that the government didn't give easily license to expand and diversify their export business. The rest 9.1 percent of the respondents didn't say much thing about this. Apparently, 25.3 percent of the respondents replied that the license policy provides to export more products related with export products, on the other hand, majority of the respondents, 65.7 percent of the respondents said that the license policy is not provide to expand products. 33.3 percent of the respondents said that there are fertile conditions that are contributing to running Exports, on the other hand, 50.5 percent of the respondents replied that there are not fertile conditions at all that are contributing to run export business. Policy is very important thing for any country for the development of that country. The descriptive analysis shows that exporters

were not much happy with the export policy of the country, not only with the export had policy exports had a complaint, but also with the licensing process as well as tax levied situation.

Based on the above data presentation the researcher understood that the country export policies are not satisfactory it restraint the exporters competitiveness with in the international market as well as it affects the country export sector. According to Michael porter the theory of comparative advantage domestic policies& regulation can alter home demand conditions; antitrust policies can influence the intensity of rivalry within exported products. Based on this theory and the respondents perspective on the country export policy as the whole our country export policy strongly affect the country export volumes and values competitiveness capacity with in international market.

The following pie chart shows that respondents’ response their export volumes are affected by export policies or not affected by the country export policies. The following pie-chart shows that 88.9% of exporters export volumes are affected by the country export policy related problems. The remaining 11.1% of exporter’s response indicates that their export volumes are not affected by export policy problems. The result shows that majority of exporters export quantities are influenced by the country export policy related problems. From the respondents perspective the following responses are given by the respondent’s evaluation on the country rule and regulations related with export policy.



Source: Own survey computation Figure 4.1 policy effects on export

4.3.3. Quality of Products

Table 4.7 quality of agricultural products

		Frequency	Percent
There is constant quality measurement system	Strongly Agree	8	8.1
	Agree	22	22.2
	Neutral	41	41.4
	Disagree	19	19.2
	Strongly Disagree	9	9.1
	Total	99	100.0
Good Quality products are supplied by ECX	Strongly Agree	10	10.1
	Agree	22	22.2
	Neutral	32	32.3
	Disagree	26	26.3
	Strongly Disagree	9	9.1
	Total	99	100.0
There is good carriage and storage	Strongly Agree	7	7.1
	Agree	14	14.1
	Neutral	19	19.2
	Disagree	22	22.2
	Strongly Disagree	37	37.4
	Total	99	100.0

Source: own survey computation

In Ethiopia according to 30.3 percent of the respondents there is constant quality measurement system; on the other hand, 28.3 percent of the respondents replied that there is no constant quality measurement system in the country; the rest majority of the respondents that means 41.4 percent of the respondents neither agrees nor disagrees. Furthermore, 22.3 percent of the respondents replied that Quality products are supplied by Ethiopian commodity exchange; on the other hand 35.4 percent of the respondents said that quality products are not provided by the Ethiopian commodity exchange. Apart from these, there is no good carriage and storage facility which is used to store agricultural produces; this was confirmed by 59 percent of the respondents; whereas, 21.2 percent of the respondents said that there is good facilities of carriage and storage. In most cases quality determines the export volume since under qualified products mostly didn't have demand internationally. In pursuit of achieving international qualification internally there should be constant quality measurement and quality products should be supplied as well as there should be good storage facilities. In this regard, considerable amounts of

exporters argue that there is not good and quality measuring system and criteria which makes the export performance.

World Bank group 2014 third Ethiopian economic update report indicates the current challenge in the area of standards is primarily the weak capacity of regulatory bodies. Inadequate quality standards are directly hurting export potentials. For instance on reason that an overwhelming share of pulses (such as groundnuts) enter emerging markets, but not markets like the EU or the U.S. is the inability of exporters to fulfill the high sanitary requirements of those markets.

The flower industry, too, has worked hard to implement a Code of Practice for social responsibility grading firms into categories of bronze and silver based on certification levels. It is moving towards implementing Integrated Pest Management in lieu of chemicals. Beyond sanitary issues, the origins of produce are not easily traceable. With incentives distorted by tight controls, intermediaries often resort to hoarding, misleading classification on the quality and grade of coffee, and illicit trading, all of which weaken a transparent system of quality control based on verification and traceability. Ethiopia ought to pay much bigger attention to establishing a functioning Geographical Indications regime to brand its quality products differently, such as coffee from Yirgacheffe, Harar, and Sidamo; or Humera sesame seeds. The present system of inadequate grading and sorting, and a tendency to export in bulk undervalues Ethiopia's most important exports. Based on the World Bank third Ethiopian economic update and the respondent's perspective the researcher conclude that our country export volumes and export earnings are continuously affected by quality measurement related problems.

4.3.4. Market Information and Promotion

Table 4.8 description of market information

		Frequency	Percent
The agricultural exportable products are promoted internationally by concerned stakeholders or Ministry of Trade marketing & promotion department	Strongly Agree	14	14.1
	Agree	43	43.4
	Neutral	12	12.1
	Disagree	16	16.2
	Strongly Disagree	14	14.1
	Total	99	100.0
The companies export volume influenced by lack of market information	Strongly Agree	13	13.1

	Agree	40	40.4
	Neutral	14	14.1
	Disagree	18	18.2
	Strongly Disagree	14	14.1
	Total	99	100.0
There is enough information about international market which is important for your company export quantity determination	Strongly Agree	15	15.2
	Agree	31	31.3
	Neutral	14	14.1
	Disagree	22	22.2
	Strongly Disagree	17	17.2
	Total	99	100.0

Source: Own Survey Computation

The agricultural exportable products are promoted internationally by concerned stakeholders; this was confirmed by more than 57 percent of the respondents. On the other hand, around 30 percent of the respondents replied that the agricultural exportable products are not promoted internationally by concerned stakeholders. Apart from these, do the companies export volume influenced by lack of market information were the next points raised for exporters; around 53 percent of the respondents said yes; the companies export volume influenced by lack of market information; on the other hand, 32.3 percent of the respondents said that the companies export volume didn't influenced by lack of market information. Apparently, exporters were also asked about whether there is enough information about international market which is important for their company export quantity determination, with regard to these 46.5 percent of the respondents replied that there is enough information about international market which is important for their company export quantity determination; on the other hand, 39.4 percent of the respondents replied that there is not enough information about international market which is important for their company export quantity determination. According to World Bank enterprise surveys 2014, 43% of firms in Ethiopia have their own websites and know about international market information and use technology licensed from foreign company the higher promotion among its peers. On the same case the study shows that majority of our country exporters get enough information about international market.

4.3.5. Financial Support and Availability

Table 4.9 finance support and availability

		Frequency	Percent
Did your company require additional finance to increase export volume	Strongly Agree	30	30.3
	Agree	36	36.3
	Neutral	-	-
	Disagree	13	15.2
	Strongly Disagree	10	19.2
	Total	99	100.0
your company easily access credit facilities from financial institutions	Strongly Agree	8	8.01
	Agree	15	15.2
	Neutral	33	13.1
	Disagree	31	31.3
	Strongly Disagree	12	12.2
	Total	99	100.0

Source: own survey computation

There are times company's require additional finance to increase their export volume; these was confirmed by 66.6 percent of the export respondents. On the other hand, 33.4 percent of the respondents said that they didn't require additional finance to increase their export. In addition to these, export company easily access credit facilities from financial institutions, this was confirmed by 33.3 percent of the respondents; conversely, around 43.5 percent of the respondents replied that their company didn't easily access credit facilities from financial institutions.

4.3.4.1 Export Finance Availability from Financial Institutions

Export finance consists of the various options and facilities available to exporters in securing needed funding for their export business activities. That is, ways and means by which the exporters financial needs or financing requirements can be met. Most exporters receive payment in an export contract typically after delivery. However, few exporters may take payment in advance from importers if they are well established & who are in a good position to request for advance payment from importers with whom they have established long business contacts. But most of the time well established overseas importers are reluctant to make payments in advance.

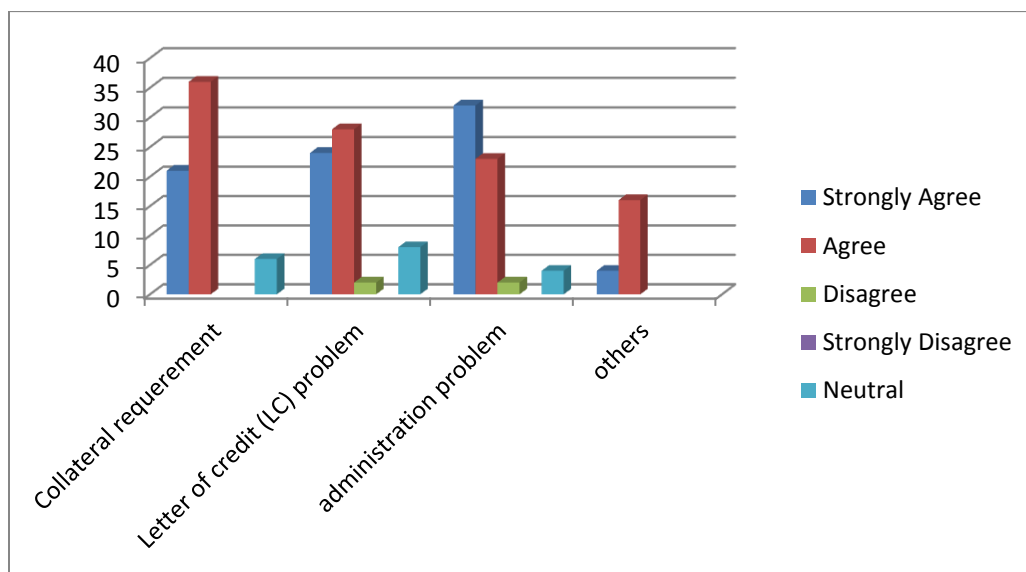
Therefore, the period to getting paid is usually long and leaves a gap in exporters' cash flow which they require substantial funds to pay for production costs in order to fulfill an export contract. In this regard, participant exporters were requested about access to loan from banks. The result is presented below as tables.

Table 4.10 access to finance for export

Access for Export finance from financial institutions	Frequency	Percentage (%)
Yes	23	34.8
No	43	65.2
Total	66	100

Source: Own Survey Computation 2018/19

Results from table above indicate that 34.8% of respondent exporters were obtaining export finance from banks to their export activities. However, 65.2% did not obtain export loan from financial institutions due to various reasons. Among the reasons, Bank's collateral requirements, LC problem, cumbersome loan application procedures and high cost of the loan exporters pre shipment agreement problems are listed. Furthermore, as shown in the graph below the below pie chart shows the respondent's perspective listed reasons which affect their credit accessibility and their level of effects. The result shows that majority of respondents credit accessibilities are very strongly affected due to collateral requirements and letter of credit problems.



Source: own Survey Data computation

Fig 4.3 Reasons for not obtaining export finance

4.3.6. Price

Apart from the other anticipated variables respondents were asked to rate to what extent the local and international price of the export products had affect their export. Accordingly, majority (43.5%) of the respondents agreed that domestic price affect their competitiveness in the international market; however, around 25 percent of the respondents said that the domestic price didn't affect their international competitiveness. Apart from 24 percent of the respondents replied that the margin of domestic price set by ECX is rational; on the other hand around, 56.56 percent of the respondents said that the margin of domestic price set by ECX is not rational.

Table 4.11 description of domestic price

Domestic price affect competitiveness in international market	Strongly Agree	27	27.27
	Agree	29	29.29
	Neutral	19	19.19
	Disagree	14	14.14
	Strongly Disagree	10	10.10
	Total	99	100.0
The margin of domestic price set by ECX is rational	Strongly Agree	14	36.36
	Agree	10	20.20
	Neutral	19	19.19
	Disagree	36	14.14
	Strongly Disagree	20	10.10
	Total	99	100.0

4.3.7. Export volume of Agricultural products

Respondents were also asked about the export situation within the last two years; accordingly, 44.4 percent of the respondents replied that their export was show increment within the last two years; conversely, 44.4 percent of the respondents also confirmed that their export amount were decreased on the last two years; the rest 12.1 percent of the respondents said that their export amount didn't show any significant change within the last two years.

Table 4.12 export volume increment

		Frequency	Percent	Valid Percent	Cumulative Percent
Export volume for the last two years increases	Highly increases	14	14.1	14.1	14.1
	Increase	27	27.3	27.3	41.4
	No change	12	12.1	12.1	53.5
	Decrease	33	33.3	33.3	86.9
	Highly Decrease	13	13.1	13.1	100.0
	Total	99	100.0	100.0	

Source: Own survey Computation

4.4 Regression analysis: Determinants of Agricultural export volume fluctuation

Table 4.13 Ordered Logit Estimation Result

Ordered Logistic Regression				Number of obs =99		
Log Likelihood = -121.07915				LR chi2(5) = 58.71		
				Prob > chi2 = 0.0000		
				Pseudo R2 = 0.4951		
Export	Coef.	Std. Err.	Z	P>z	[95% Conf. Interval]	
Infrastructure	.3026677	.0781864	3.87	0.000	.1494252	.4653893
GovPolicy	.1110079	.0370251	3.00	0.003	.03844	.1998841
Quality	.3281273	.0863722	3.80	0.000	.1588409	.4174301
Marketing	.1167102	.083461	1.40	0.162	-.0468703	.2913262
Price	-.2729603	.1037423	-2.63	0.009	-.4762914	-.0278028
finance	.185209	.0809497	2.29	0.022	.0265505	.3324578

In order to assess the determinants of the fluctuations in the volume of agricultural export in Ethiopia; ordered logit model was performed. The results of the econometric model revealed that Infrastructure, Government policy, Quality and Finance had significant effect on agricultural export volume. On the other hand, the marketing variable didn't show a significant association with export volume.

Accordingly, one of the independent variables that affect agricultural export volume was infrastructural facilities which expressed by road, transport and telecommunication infrastructures. A one unit increase in infrastructural facilities would result in a .3026677 unit increase in the ordered log-odds of being in a higher export category **or** a unit increase in infrastructural facilities, the (weighted) odds of being in a higher export category increases by

1.534 or about 53.4% while the other variables in the model are held constant. Foreign demand is influenced by various elements. Firstly it is strongly linked to geography (the structural components). Typically, countries at the center of fast growing region are more likely to benefit than countries situated outside that region. Second, it is likely to be related to competition and trade policy (the market access/entry component) which could have in principle a similar impact on trade than geography. Finally both quantity and quality of physical infrastructures (the development component) are expected to play important roles (Lages et al., 2004).

The other important variable was government policy, this variables was express in terms of availability of good export policy, tax, license issue and other government beuarocracy. A one unit increase in government policy effectiveness would result in a .0370251unit increase in the ordered log-odds of being in a higher export volume category or a unit increase in government policy effectiveness, the (weighted) odds of being in a higher export category increases by 1.1174 or about 11.7% while the other variables in the model are held constant. Implementing good government policy such as promotion of exports through the provision of favorable tax, tariffs and foreign exchange rate measures improve exports in terms of quality, quantity of export. In general even though there were various measures taken by both the imperial and the derg regime to diversify and promote export sector, the country's export products remain undiversified and are still concentrated on very few products such as coffee, oilseeds, hides and skins, chat and pulses due to different factors (Tekeste, 2012).

Price of the products had also a significant effect on export volume of agricultural products; accordingly, the price of products had negative and significant effect on export volume. The regression result shows that a one unit increase in price of the agricultural products would result in a .2729603 unit decrease in the ordered log-odds of being in a higher export volume category or a unit increase in price of the agricultural products the (weighted) odds of being in a higher export category decreased by 23.8% while the other variables in the model are held constant. Quality of agricultural products was also a significant factor which shows a positive effect on export volume agricultural products. The regression result shows that a one unit increase in quality of the agricultural products would result in a .3281273 unit increase in the ordered log-odds of being in a higher export volume category or a unit increase in quality of the agricultural products, the (weighted) odds of being in a higher export category increases by 1.388 or about 38.8% while the other variables in the model are held constant. Apart from this finance

availability for exporters were the other variable which had a significant and positive effect on agricultural exports. A one unit increase in finance would result in a .185209 unit increase in the ordered log-odds of being in a higher export volume category or a unit increase in finance, the (weighted) odds of being in a higher export category increases by 1.203 or about 20.3% while the other variables in the model are held constant. According to Yifru (2015), despite the incentives taken by the country, the export sector has depended on a few agricultural products mainly coffee, oil seeds and pulses which are characterized by fluctuations in quantity, price and have low competitiveness on the world market. The objective of the study was to assess the trend and impact of agricultural (coffee, oilseed and pulses) exports on economic growth of Ethiopia over the last forty years. Tekeste (2012) also argues that world price, fertilizer input import over a period and kilometers of paved roads affected agricultural export positively as expected. Especially when we look at the magnitude by which kilometers of paved road affected the dependent variable both in the long run and in the short run positively and significantly, it can be regarded as one of the key finding in this study.

4.4. Government Professional's Response Analysis

Other data were collected by interviewing selected experts. The study conducted interviews with ten executives (six from ministry of trade one from marketing & promotion department and five from different export department experts, two from Ethiopian commodity exchange (ECX) two from Ethiopian tea and coffee Authority). These people were selected for an interview since more competent with issues relevant to the study. The interviews provided information useful to identify the major determinants of agricultural products volume fluctuation in Ethiopia and prospects of getting access to international market for Ethiopian products, the strengths and weaknesses of the parties involved in export processing. (Note that information about the overall export performance it was deal with during the interview specially focused on the major problems which are causes for agricultural product export volume fluctuations and the major problems raised from).

According to most of the responses, Ethiopian exporters have a high level of commitment in their work, relative trustworthy, ready to learn, and they use utmost their capacity to compete in the world market. They also play a great contribution role in generation of a significant amount of foreign currency, even though still working in a very competitive environment. With regard to their weaknesses, most of the responses indicate that Ethiopian exporters use traditional ways of

marketing, carrying on their businesses without basing on valuable research. Poor management, inefficiency, poor communication, lack of reliability, poor customer service and handling lack of coordination among the involving parties the most cited weaknesses. Other weaknesses suggested include not well organized, delayed delivery, lack of supplying quality products, exporting only primary products, lack of skilled work force, poor market orientation, limited products and customer knowledge, poor attention to quality. Some of the Ethiopian exporters were also blamed to use unethical business practices. In addition, traditional management, lack of foreign trade research, lack of innovation in packaging, lack of planning while entering into the export sector, lack of demand analysis, lack of information and lack of adequate finance are the most common weak points of Ethiopian exporters. In fact a significant number of responses indicate that Ethiopian exporters ignore the international rules and regulations in relation to foreign trade, and that lead to improper utilization of their financial and human resources, not updated prices, not defined structure of local markets, lack of access to foreign markets, lack of knowledge (they usually rely only on experience). These problems are mainly due to high cost in doing their business.

The poor quality of export products are the result of unethical activities as mixing with other items due to poor carriage and storage, mixing of different quality standard products by the exporters, and lack of trucks for exports which results in delayed delivery, poor handling and freight, adulteration, some of agricultural export products standards are not set by ECX which are the most reported weaknesses. Ethiopian export commodities with better development prospects (as suggested by the respondents) include oil seeds, pulses, fruits, horticulture, coffee, flower, Niger seeds, tin seeds, chick peas, red kidney, beans, lentils, leather and leather products, chat, fruits and vegetables, gold, flower, spices, honey, bees' wax, meat and dairy products, fish (artificial production), food supplements, poultry products, sugar and minerals, potash, hides and skin, precious metals and precious stones, processed hides and skin, textiles and garments , tantalum, herbs, and beverages.

Furthermore, respondents suggested that most Ethiopian exporters experience shortage credit accessibility to export more and more quantity of products, bad infrastructures, lack of sustainable supply chain, and focus only on some agricultural products, improper documentation, unwillingness to hire professionals (family based employment), little cooperation among themselves, unfair competition, monopoly or oligopoly scenario, costs without supporting

documents, long chain between exporters and farmers, and lack of forecasting future price and demands are the major causes for export volume fluctuations. According to the responses of key informants, it is very challenging for Ethiopian exporters to get international market access because the commodities are agricultural products not competitive in terms of cost and quality. Getting market access for agricultural products is very difficult because developed countries have a common agricultural policy subsidizing their farmers, increasing and affecting the level of competition. Entering into the export market for such commodities is very difficult, especially getting customers as result of no market research and information. Although Ethiopia has access to AGOA, COMESA etc. But not benefiting from them as possible due to lack of knowledge. Some experts argue that globalization do not imply a market access problem, but Ethiopian exporters lack form of coordination between their selves and also are not well aware of the concept of comparative advantage. Ethiopian geographic location nearness to Europe, Asia, and the Middle-East and its very good climatic conditions are also opportunities of which advantage should be taken of. Another challenge of getting access to international market for Ethiopian products is due to the traditional methods of conduct business, which should instead be more technological and avoid unfair competition, while more promotional efforts should be done. There are no organized institutions to facilitate training, market access, no intensive use of technology to find new markets and chances. Supply side constraints, infrastructure lack, trade facilitators' negligence, etc. represent the main problems. Ethiopian exports are mainly limited to China, and generally limited in terms of coverage and volume, due to high demand but limited production capacity. There are no internet facilities, trade fairs, exhibitions that facilitate international market access and promote Ethiopian products. Further government policies, strategies, bilateral and multilateral agreements should be developed between different countries. Bottom to top level policies implementation problems should be solved. Taxed export commodities in the domestic market are also other constraints for export access. The other problems indicated by key informants are business diversion of the exporters some exporters registered on import export license, but practically they involved on import activities only. In addition to this receive letter of credit from the government then they receive money from financial institutions after that they involved on other business activities other than export. Those problems are strongly affecting to achieve the targeted level of country export volumes and values of export earnings.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The objective of this paper was to identify the determinants of agricultural export in Ethiopia. Particularly, to what extent infrastructure, government policy, quality of products, price and marketing and financial issues determine the export volume. Explanatory research designs were employed since it has a cause and effect relationship; furthermore, data were collected from 99 exporters. Both primary and secondary data sources were used to collect the data. The findings of the study revealed that among the anticipated five variables four of them had a significant effect on export volume; infrastructural facilities, government policy, quality of the products and finance issue had a significant effect on export volume of agricultural products. However the marketing and price didn't show a significant association with agricultural export volume. Apart from these, the findings from the key informant indicated that that the major problems which determine the country export capacities are inefficient policies to regulate the export sector, poor quality standardization system, Poor infrastructural facilities, lack of market information, and lack of coordination among the participants, illegal market, and unsatisfactory measurement taken by the government like devaluation of currency export subsidy. Apart from these, export subsidies are not distributed to the right person at the right time most of the export subsidy users are participated on other business activities other than export due to inefficient controlling system.

5.2. Recommendation

Agricultural export is the major source of income or source of foreign exchange earnings for Ethiopia economy. To generate this income we need to have an adjustment in the export sector. It is obvious the increment of export volume as an advantage for registered fast economic growth. In order to make Ethiopian export products competitive in the world market and to export more quantity products, special attention should be given to the issue of quality through better quality standardization system and production methods, innovative packaging and storage and by maintaining a strong supply chain management.

Quality controlling system should be give more attention from its standardization to destination effective rules and regulations should be set to manage/ punish unethical exporters.

Government should be maintaining the necessary infrastructure and availing credit through banks would help the Ethiopian exporters to export more quantity products. Not only facilitate credit accessibilities should be control the exporters business activity is there effectively use it for export propose or not. In addition to this government should be set domestic price controlling mechanism for export products it will be increase the exporters' competitiveness with in international market.

Government should be revising its export policy as well as its licensing police to make appropriate export system by considering the exporters capacity and the real export situations.

Furthermore, to increase Ethiopian export the participants should be coordinating themselves specially institutions coordinate themselves to solve challenging issues which affect Ethiopian exports.

5.3.Important Issues for Further Studies

The present study attempted to identify the major determinants of fluctuations in the volume of agricultural exports. Determinants of the fluctuations in domestic production of export products are beyond the scope of this study. Other issues such as the impacts of volume fluctuation on foreign currency earnings, its impact on the country economic growth etc. are left for other parallel and future studies.

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APPENDIX

ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES

Dear Respondents.

I am a master's degree student in Development economics from St. Mary's University. The researcher is to conduct the research on the topic known as **Determinants of volume fluctuations in Agricultural crop export in Ethiopia**. The main objective of this study is to assess the main determinants of fluctuations in the volume of agricultural crop export in Ethiopia. Therefore, to make the work easy the researcher prepared some questionnaire papers. So the researcher asks your politeness to fill the answer, suggestions and recommendation according to the question. Your cooperation has a great value to fulfill my work without any anxiety.

For your response put a tick (✓) in the box

Part One: Back Ground Information

1. Sex Male Female
2. duration of time engaged in the export sector (your company)
<2 years 3-5 years 5-7 years 7-10 years more than 10 years
3. Your Level of Education
Under diploma Diploma Degree Masters PhD and above
4. Age : 20-25 25-30 30-35 35-40 above 40

Part two: Export related Questioners

1. In which agricultural Export product your company operated? _____

2. Infrastructure Related Questions

Description: SA=Strongly agree, A=Agree, N=Neutral, DA =Disagree, SD=Strongly Disagree

	SA	A	N	DA	SD
Transport infrastructure is appreciable					
Road infrastructure is good					
Telephones infrastructure is good					
The overall infrastructural facilities are appreciable to export more quantity products					

2.1 Are infrastructural facilities affecting your company export volume capacity?

Yes No

3 Government Export Policy Related questioners

	SA	A	N	D	SD
The country export policy is comfortable to your company					
The tax system considering the companies' ability to pay					
the tax levied retreat to expand company's export capacity					
Is The Export subsidy appreciable to increase quantity of export					
the country export policy trend as the whole getting good					
The license policy provides to export more products related with your					

export products					
There is fertile conditions are contributing to increase your company export quantity					

3.1 Are Export Policy problems affecting your export volume capacity? Yes No

4 Product quality

How do you see the quality of the exported products?	SA	A	N	D	SD
There is constant quality measurement system					
Good Quality products are supplied by ECX					
there is good carriage and storage					
The quality of our country agricultural products are competitive with in international market					

5. Market information Related Questionnaires

	SA	A	N	D	SD
The agricultural exportable products are promoted internationally by concerned stakeholders or Ministry of Trade marketing& promotion department					
The companies export volume influenced by lack of market information					
Is there enough information about international market which is important for your company export quantity determination					

6. Financial and credit Accessibility Related Questionnaires

	SA	A	N	D	SD
Did your company require additional finance to increase export volume					
your company easily access credit facilities from financial institutions					
6.1 factors affect your company credit accessibility	SA	A	N	D	SD
Financial institutions collateral requirement affect credit accessibility					
Letter of credit problem affect your company credit accessibility					
Administration problems affect your company credit accessibility					
Others (Specify it)					

6.2 Is your company use credit facilities from financial institution?

Yes

No

7. Price related questionnaires

Items	SA	A	N	D	SD
Domestic price affect competitiveness in international market					
Domestic price set by ECX is rational					
Domestic price are affect your company export volume capacity					

8. Export Volume

	Highly increases	Increase	No change	Decrease	Highly Decrease
How did you see your company Export volume increment for the last two years					

Interview For government professionals

1. How do you evaluate the fluctuation of agricultural exports Quantity in Ethiopia? What are the major factors causes for those problems?
2. Why those problems are continuously specially happened on agricultural export products?
3. What are the measurements taken by the government to solve those problems?
4. Is there agricultural product promotion activity prepare with in the world market? Is it satisfactory or not? How?
5. Which facility is taken as very important and need by exporters majorly?
6. How do you evaluate domestic price as well as international price effects on export volume?
7. How did you see the quality of Agricultural export products? What are the major factors behind this?
8. What are the fertile conditions provided by the government to increase export earnings by increasing export volume to compensate export earning affected by international price.
9. Is there enough market information about international market price, supply, demand etc? if you says no why? If you say yes is it accessible to exporters at a right time?
10. What are the major problems happened on behalf of the exporters themselves?
11. Is there financial problem on the exporters? What are the measurements taken by the government to solve the exporter's financial problem?
12. How do you see infrastructural facilities like Road, transport and telephone?

. ologit Export Infrustrstructure GovPolicy Quality Marketing finance Price

Iteration 0: log likelihood = -150.4345
Iteration 1: log likelihood = -122.74006
Iteration 2: log likelihood = -121.09258
Iteration 3: log likelihood = -121.07915
Iteration 4: log likelihood = -121.07915

Ordered logistic regression Number of obs = 99
LR chi2(6) = 58.71
Prob > chi2 = 0.0000
Log likelihood = -121.07915 Pseudo R2 = 0.1951

Export	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Infrustrstructure	.3026677	.0781864	3.87	0.000	.1494252	.4559103
GovPolicy	.1110079	.0370251	3.00	0.003	.03844	.1835758
Quality	.3281273	.0863722	3.80	0.000	.1588409	.4974136
Marketing	.1167102	.083461	1.40	0.162	-.0468703	.2802907
finance	.185209	.0809497	2.29	0.022	.0265505	.3438675
Price	-.2729603	.1037423	-2.63	0.009	-.4762914	-.0696291
/cut1	6.843488	1.741312			3.430579	10.2564
/cut2	9.039558	1.842725			5.427883	12.65123
/cut3	9.853577	1.882363			6.164212	13.54294
/cut4	12.32363	2.008243			8.38755	16.25972