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Ethiopian Coffee Exports: Development Performance, Challenges and Prospects

Project work submitted to the Indira Gandhi National Open University in partial fulfillment of the requirements for the award of the Degree-Master of Arts (Economics). I hereby declare that this work has been done by me and has not been submitted elsewhere.

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ABSTRACT

Coffee has greater importance in the Ethiopian economy. It is the single foreign exchange earner of the country accounting for about 46 percent of its total export revenue for the last two decades. Approximately 1.3 million households are involved in coffee production, and it is estimated that around 15 million of the country's population are dependent on coffee production and market based income for their livelihoods. This research aims to examine the performance and major determinants of Ethiopian coffee export in the major importing countries in the last decade. The effects of importing countries' GDP, population situation, real effective exchange rate etc. on the demand for Ethiopian coffee export is analyzed in detail. Challenges and prospects for the country's coffee export identified and appropriate recommendation has been given. Descriptive statistics, growth function, and log-linear regression were employed for data analysis.

With a share of less than 3 per cent of the global market for coffee, Ethiopia relies on a high proportion of its coffee export earnings. Indeed, coffee is the backbone of the Ethiopian economy, contributing about 28 per cent of the total foreign exchange earnings in 2011. In 2010/11, the total volume and value of coffee export was 196,117 ton and 841.65 million American dollars, respectively; and more than 120 Ethiopian Coffee exporters were participated in processing and exporting coffee to 53 destination countries of the world.

Over the 1991-2011 period (EPRDF governance), the value of coffee export earning of Ethiopia showed a positive growth of 7.5 percent annually 60 percent of this growth was explained by the increase in the volume of coffee exported that grew by 4.5 percent; and 40 percent by increase in coffee prices that rose by 3 percent annually.

The growth of Ethiopian coffee exports has a different pattern when we examine it on market basis. For the period 1991-2011, Ethiopian coffee export volume showed a positive growth rate to Japan (6.96%), Saudi Arabia (6.19%) and Belgium (4.34%). The growth rates for Germany, France, and Italy were not

significant at 10 percent probability. The volume of coffee exported to USA, and Finland showed negative growth rate of 6 percent 10 percent respectively during the analysis period; nevertheless, the total imports of the countries showed no significance changes.

With the purpose of identifying factors influencing the export demand for Ethiopian coffee log-linear equation was estimated. The explanatory variable assumed the expected relationships. The coefficients of Ethiopian coffee export prices assumed negative sign for all countries and significant for Saudi Arabia, Japan, and the USA. The coefficients of Brazilian mild prices were significant in case of Japan, Germany, and the USA and assumed a positive sign expected. These suggest that the Brazilian mild Arabica coffee is a direct substitute for the Ethiopia coffee. Coefficients of the income variable were positive as expected, but found to be significant for Saudi Arabia alone. The estimated coefficients of population were significant for Saudi Arabia, Japan and Germany and assumed a positive sign as per expectation. The taste and preference of the USA market showed a negative trend for Ethiopia coffee.

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ABBREVIATIONS

ECGPEA	Ethiopian Coffee Growers, Producers and Exporters' Association
ECEA	Ethiopian Coffee Exporting Association
ECX	Ethiopian Commodity Exchange
ERCA	Ethiopia Revenue and Customs Authority
FOB	Free on Board
GDP	Gross Domestic Product
GTP	Growth and Transformation Plan
ICO	International Coffee Organization
IMF	International Monetary Fund
CLU	Coffee Liquoring Unit
MoFED	Ministry of Finance and Economic Development
MoTI	Ministry of Trade and Industry
NBE	National Bank of Ethiopia
UNCTD	United Nations Conference on Trade and Development
SSACs	Sub-Saharan African Countries
WTO	World Trade Organization

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

The aim of the study is to examine the performance and major determinants of Ethiopian coffee export in the major importing countries. The effects of importing countries' GDP, population situation, income, etc. on the demand for Ethiopian coffee export are analyzed in detail. The challenges faced and prospects for the country's coffee export identified. This helps to identify the major determining factors of Ethiopian coffee exports and the achievements made through interventions to improve the export demand.

Nations of the world differ in their resource endowments and level of technology applied in the production of goods and services. The engagement of nations in the international trade depends upon a nation's specialization in the production of goods in which they have comparative advantages for improvement of the welfare of the society as a whole. This theory traces back to the last half of the 18th century, the time when Adam Smith realized the importance of specialization and trade in his *Wealth of Nations*. Subsequently, many economists advocated the contribution of international trade for the welfare of nations (as the engine of growth) in the overall process of economic development (Onafowora and Owoye, 1998; Arndt, 1999). The international trades of Sub-Saharan African (SSA) countries are mainly based on exporting primary agricultural commodities in which they have comparative advantages due to cheap labor and tropical climate. In the context of Ethiopia, coffee alone constitutes more than 50% of the total agricultural export of the country. Accordingly, different studies show that diversifying the export sector towards non-traditional agricultural

commodities is crucial to attain stability in export earnings of a country (Alwang and Siegel, 1994).

Agriculture remains the largest sector in the Ethiopian economy, contributing about 47% of GDP and providing employment to more than 80% of the rural population (World Bank, 2010). In addition, it continues to be the major source of export earnings. The low levels of agricultural technology and rural infrastructure, together with land degradation, recurrent droughts and the demographic pressure on rural areas, are among the main causes of low agricultural productivity, poverty (44.2% of the population living below the poverty line of USD1 per day) and low social indicators (ibid). In this context, a better performance of the agricultural sector is vital in order to: guarantee food security; produce exportable goods to pay for imports; aim to generate a surplus for the development of other sectors; secure a sustainable use of natural resources and improve the living conditions of rural dwellers (Gebre-Selassie 2003). The fact that the Ethiopian economy has shown mixed results in the past years. That is, the country's GDP growth rates increased from 3.8% in 2002/2003 to an unprecedented 11.8% in 2005, and down to 8.7% in 2009, showing the existing direct link between the performance of the agricultural sector and the performance of the economy as a whole (Petit 2007, World Bank, 2010). Both industry and services sectors are dependent on the performance of agriculture, which provides raw materials, generates foreign currency for the import of essential inputs and food for the fast growing population. In spite of its importance in the national economy, agriculture is based on subsistence small holder farming, whose modes of life and operation have remained unchanged for centuries.

The growth and social progress of developing countries have been influenced significantly by both the external trade environment and domestic policies. International trade functioned as

an engine of growth for the regions during the 19th century. The situation today is somewhat different, most world trade takes place industrial commodities. That is, inter-industry, in which many poor developing countries find it difficult to compete and the demand for developing countries' traditional exports is relatively low compared to the demand for industrial goods (Thirlwall, 2003). Due to these facts, developing nations can rely much less on international trade for their growth and development than the regions of recent settlement. However, trade has a significant role on their economy due to the strong relationship it has with the major macroeconomic variables in this era of globalization. With the globalization phenomenon, the ability of national policies to reach national goals through the means available is decreasing, while the external policies and development increase their impact on economic development (Jenicek, 2000). As Thirlwall (2003) pointed out the growth rates of individual developing countries since 1950s correlate better with their export performance than with almost any other single economic indicator.

The exports of most LDCs are highly concentrated on primary products in nature. In sub-Saharan African countries, a single product still accounts for over one-half to total exports in seventeen countries; three principal products account for over 75 percent of total exports (Todaro, 1998). In some of the small countries, anywhere from 25% to 40% of the monetary GNP is derived from the overseas sale of agricultural and other primary products, such as: coffee, cotton, cacao, sugar, palm oil and copper (Ingram, 1986). These primary product exports are subject to large fluctuations in price and volume, and that high degree of concentration in exports makes their economies vulnerable to external disturbance. Although exceptions can be found, it is now generally agreed that export prices, quantities, and total earnings are all more unstable for the average poor country than the average rich one (Ingram,

1986). Fluctuations tend to be even greater for individual commodity that matters for a country that depends on one or two exports. This instability of export prices and earnings is believed to lead to serious internal economic instability through the familiar multiplier accelerator process (Salvatore, 1983).

Ethiopia, as other African and third world countries, shares the above characteristics. Its economy is mainly based on agriculture (primary goods), which accounts for about 40% of its GDP, 90% of exports, and 80% of its total employment.

Coffee, the most important export earner of the country, in the last decades though its share shows declining smoothly and continuously from 70% of its share in 1997/98 to 26.4% in 2009/10. Moreover, export tax from coffee was a significant proportion of government revenues (ERCA, 2010). Approximately, about 1.5 million households are involved in coffee production; and it is estimated that 15 million people (i.e., about one out of every five people in the country) are dependent on coffee for their livelihood (MoTI, 2008).

Ethiopia is, currently one of the largest coffee producing countries in Africa; and one among the ten top coffee producers in the world after Brazil, Vietnam, Colombia and Indonesia. According to International coffee organization (ICO) (2012), in 2011/12, Ethiopia was the fifth largest coffee producing after Brazil, Vietnam Indonesia and Colombia, with total production of 498,780 tones; and the seventh largest coffee exporter in the world. According to the Ethiopian Government figures, in 2010/11 the total volume and value of Ethiopia coffee export was 196,117 tones and 841.65 million American Dollars respectively. This volume and value of coffee export when compared to the 2009/10 export performance shows increment was increased by 13.9 % and 59.3%, respectively. According to the same information source

in 2011/12, more than 120 Ethiopian coffee exporters were participating in processing and exporting coffee to 53 market destinations of the world. In 2010/11, the top five coffee export destinations for the country were: Germany, United States of America, Saudi Arabia, Belgium and Italy.

1.2. Statements of the Problem

As Teresa (1987) explained in his study, the variation in Ethiopia's total merchandise export proceeds was better explained by fluctuation in export receipts from two or three commodity groups, namely; coffee, pulses and hides and skins. Belay (1998) also stated that coffee accounted for 57 percent of the fluctuation in export earning of the country for the period 1962 to 1990.

World coffee market condition was the predominant source of the instability of coffee export earnings of Ethiopia (Teresa, 1987). This suggests that, there are a number of underlying factors in the world coffee trade, which in turn contribute to the determination and evolution of coffee prices. The key determining factors continue to be production, consumption, and stocks. As to consumption, coffee consumer tastes are known to vary a lot among importing countries. Other economic, social, political, and natural factors sometimes profoundly change the impact of fundamental factors on the determination of prices and their evolution (USDA, 1999). Identifying the external as well as internal factors that influence the export earning performance and demand for Ethiopian coffee and information on the future challenges and prospects in the sub-sector are some of the research gaps that should be addressed.

As a matter of fact, no one knows exactly what the demand for products will be in the future. However, producers, researchers, legislators, policy makers, administrators of agricultural

programs and any related body cannot work entirely in the dark. They must base their decision and plans upon the best possible estimated of future demand and supply conditions. Most research works to date on coffee in Ethiopia concentrate mainly on different aspects of production. Few research activities have been undertaken on coffee marketing focusing on domestic production and supply. Nevertheless, up to the knowledge of the researcher, in the past no empirical research was undertaken on the above-mentioned specific research area with full coverage of current conditions. All these imply that knowledge of the growth direction, demand and future prospects of Ethiopian coffee exports is crucial.

1.3. Significance of the Study

Assessing and estimating the growth and demand function of coffee assists in making relevant policy suggestion; and also allows the preparations of future plan with a better information base. Knowing the future target market based on the present export direction, it is possible to plan a target market oriented research and production improvement. This would help the country to satisfy its customers in the supply of coffee with their best quality preferences. A cost effective promotion and advertisement is also possible with a known target market. Knowledge of the past structure and future directions of coffee markets enables to know future possibilities and risks associated with changing structure of coffee exports. Hence, this study would contribute in determining some of the major determinants for Ethiopian coffee export performance and growth; and to produce practical policy suggestions based on the study findings.

1.4. Scope and Limitation of the Study

The scope of the study is limited to the analysis of the trends of Ethiopian coffee export development performance, including: growth, direction, structure, export demand and supply situation, challenges or problems encountered and future prospects. The study does not include other export commodities due to limitation of time and finance.

1.5. Organization of the Thesis

The project work is divided into five chapters. The introduction of the project states the background, the problem, significances, scope and limitation of the study. Chapter two deals with methodological framework. Literature review is presented in chapter three of the project. chapter four deal about presentation of findings that includes coffee production structure of Ethiopian coffee market, quality standards and the issue of traceability, growth of Ethiopia coffee export, growth with volume versus price effects , growth on market bases ,export demand for Ethiopian coffee, challenges of Ethiopia coffee exports and prospects of Ethiopia coffee exports

CHAPTER TWO

RESEARCH OBJECTIVE AND METHODOLOGY

2.1. Objective of the Study

The main objective of the study is to assess the trends of the Ethiopian coffee export development performance, challenges and prospects.

The specific objectives of the study are;

- To study the trends in the Ethiopian Coffee Exports during the last two decades
- To estimate the demand function of Ethiopian coffee export by relating the demand proxied by the quantity of Ethiopian coffee exported to the top four countries to real boarder price of Ethiopian coffee, real price of Brazilian coffee, real price of Robusta coffee group, real GDP and population of those countries and
- To analyze the challenges and future prospects of the Ethiopia's coffee exports.

2.2. Research Methodology

2.2.1. Types and sources of data

Secondary data is largely, used for this study. However, some qualitative primary data was gathered and analyzed to complement and elaborate the quantitative data. The secondary data was collected mainly from various national and international sources, namely: Ethiopian Commodity Exchange(ECX), Ethiopian Coffee Exporting Association (ECEA), Ethiopian Revenue and Customs Authority (ERCA), National Bank of Ethiopia (NBE), Ministry of

Trade and Industry (MoTI), Ministry of Finance and Economic Development (MoFED), International Coffee Organization (ICO), International Monetary Fund (IMF), United Nations Conference on Trade and Development (UNCTAD) , various websites such as UNTRADE, etc. The primary data gathered from individual discussion with coffee exporters using pre designed questionnaires for interviewing.

2.2.2. Sample design and method of data collection

Time series data was collected from the secondary sources indicated above. Individual discussion conducted with sample members of Ethiopian Coffee Exporters' Association (ECEA) and individual exporters as primary data source. Sampling design is the selection of a part of population or a material to represent the whole population. The objective of sampling is to make correct inference about the aggregate and is only justified if the selected part the sample population is a true representative of the main population. Among the different sampling techniques, the researcher employed stratified and simple random sampling. Stratified random sampling is a sample obtained by separating the population into non-overlapping groups, called strata and then selecting a simple random sample from each stratum. The possible sample respondents of the researcher were private exporters, government owned company and cooperative exporters.

Thus, the researcher using the basics of this system was taken 12 company were selected from 120 Ethiopian coffee exporters scheme as a sampling frame and officers of those company interviewed. The researcher was conducted questionnaire with multiple choices (closed – ended) and semi structured interviews based on open-ended questions. Moreover, they were

asked to elaborate on the challenges and prospects of the Ethiopian coffee export sector and to forward their professional and subjective opinions to be used as an input to this sector

2.2.3. Method of Data Analysis

2.2.3.1. Growth function

In order to estimate the growth rate of coffee exports, the best fitting growth function among the commonly used growth functions used in different aspects and stages of the analysis. As there is no decisive rule for the model selection the most commonly used criterion by similar empirical researches, coefficient of multiple determinations (R^2) used to test goodness of fit

2.2.3.2. Descriptive statistics

Descriptive statistics (average, ratio, and percentage) are applied using SPSS to examine the performance of Ethiopian exports.

2.2.3.3. Demand analysis

Demand analysis seeks to identify and examine factors that influence demand for a commodity. In economics, demand means effective demand. That is, one that satisfies all its three crucial characteristics: desire to have a commodity; ability to pay for that commodity; and willingness to pay for that commodity. Demand for a commodity depends on several factors; and varies as any one or more of these factors change.

Demand analysis could be done at six product levels (all sales, industry sales, company sales product line sales, product form sales, product item sales), five different space levels (world, country, region, territory, customers) and three different time levels (short-run, medium-run,

long-run); in total 90 different types of demand estimate (Kotler,2000). Export demand as one of the space levels, can be analyzed using demand analysis techniques. Regression models were frequently used in many empirical studies (Islam and Suramania, 1989; Lord,1991;Umo, 1991; Ndulu and Lipumba,1991; Selvanathen,1993).

Coffee is, specifically differentiated by country of origin in terminal markets. Due to this product heterogeneity, relative price change is a determinant factor for coffee trade (Islam and Subramania, 1989; Lord, 1991; ICO,2002; ICO,1992). The non-price factors are also important in deterring the demand for coffee (ICO, 2002; ICO, 1992).

Income, life style, diet and competition from other beverages, tariffs and taxes were the frequently mentioned non-price factors that influence demand (ICO, 2002; Islam and Subrama, 1989; Lord, 1991). Population growth was also an important factor in determining food and beverage consumption. Based on the above mentioned theoretical foundation and past empirical studies on list of explanatory variables, an appropriate regression model will be selected for the analysis of the demand. The most commonly used model will be the double log-linear regression for it has an advantage of giving direct estimate of elasticities.

Following the double log-linear multiple regression model of demand for Ethiopia coffee export is specified as follows:

$$\ln\text{ETCFFXi} = a_0 + \beta_1\ln\text{ETPRICE}_i + \beta_2\ln\text{BRMPRICE} + \beta_3\ln\text{ROPRICE} + \beta_4\ln\text{GDPi} + \beta_5\ln\text{POPULAi} + e$$

Where ln represents the natural logarithm;

$ETCFFXi$ = demand of the i^{th} country for Ethiopian coffee exports (i.e. the quantity exported to the i^{th} country of Ethiopian coffee);

α and β_i = represent parameters to be estimated;

$ETPRICE_i$ = red boarder price of Ethiopian coffee (F.O.B. price) to i^{th} country;

$BRMPRICE$ = real price of Brazilian coffee

$ROPRICE$ = real price of Robusta coffee group;

GDP_i = real GDP of the i^{th} buying country (Proxy for income)

$POPULA_i$ = population of the i^{th} buying country

e = error term

CHAPTER THREE

REVIEW OF RELEVANT LITERATURE

3.1. Defining “Export Performance”

Export is the international marketing related decisions and activities of internationally active firms (Cavugil and Neviv, 1981). The overtone of the word performance, in the literature sense, does not pose any problem for it is the act of carrying out or accomplishing something such as a task or action. When it comes to economics, this word has been defined in many ways and no unifying principle has underlined its quantification. However, in the context of the current study, ‘Export performance’ is defined as:

- i) The success or failure of the efforts of a nation to sell domestically produced goods and services in other nations markets (Zou and stan, 1998);
- ii) The composite outcome of a nation’s international sales (Shoham, 1996); and
- iii) The three sub-dimensions which encompasses sales, profit and growth (Madsen, 1987).

3.2. Export Performance and Its Determinants

Export performance is a relative success or failure of the efforts of a firm or nation to sell domestically produced goods and services in other nations. Export performance can be described in objective terms such as sales, profits, or marketing measures or by subjective measures such as distributor or customer satisfaction. Determinants of export performance can be split into external and internal components. External components include market access/entry conditions and a country’s location, which include international markets. Internal

components are related to supply-side conditions. Foreign demand is influenced by various elements. Firstly, it is strongly linked to geography (the structural component). Typically, countries at the center of a 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 the quantity and quality of physical infrastructures (the development component) are expected to play important roles (Lages et al, 2004).

Access to foreign markets is a critical determinant of export performance. It relates directly to the characteristics of the trading partner countries, such as the size of their market and transport facilities, and inversely to their own internal transport costs. It also depends positively on the size of the export basket and the number of differentiated items and their prices, which in turn are affected by market entry conditions. Transborder costs, which also include tariff and non-tariff barriers, have the expected negative impact on foreign market access (Anderson, 2004; Fugazza, 2004).

Despite the worldwide fall in trade barriers that has occurred in the last two decades, export performance has varied substantially across countries. World exports increased almost by 220% in twenty years. The figure jumps to 720% for East Asian and Pacific countries; and falls to 80% for Sub-Saharan countries. The exports of “best performers”, such as the Republic of Korea, China, Cambodia and Vietnam, have grown by more than 15% annually over the whole period. “Worst performers”, mostly African and Latin American countries, have negative annual growth rate records in at least one decade. As a result of various trade negotiations and autonomous reforms, access to international markets has improved in the last twenty years. Nonetheless, it is likely that there is still much to gain from further

improvements in market access conditions. Concerns have also been raised about the necessity to improve supply conditions. Supply conditions are fundamental in defining the export potential of an economy. For a given level of access to international markets, countries with better supply conditions are expected to export more (Redding and Venables, 2004).

Recently, Redding and Venables (2004) investigated the relative contribution towards export performance of international linkages relative to internal geographical factors. They found that most of the differential in export performance of various countries and over the last three decades can be due to differences in the evolution of external components. Nevertheless, they found that internal components related to supply capacity such as internal geography and institutional quality also have played a significant role in explaining the observed differential in export performance. Accounting for unobservable heterogeneity should allow the identification of any differences in the effect and importance of export performance components, which are linked to the degree of development of the external sector itself. In other words, the techniques used here allow for the testing for non-linearities in the relationship between export performance and its components. While dynamic panel techniques would seem to be the most desirable approach, data availability is likely to restrict their implementation. In this context, cross-sectional analysis proves to be a viable alternative. Regression techniques which are able to account for unobserved heterogeneity across countries, namely quantile regressions, are used. Moreover, more emphasis is put on the determination and impact assessment of variables related to supply conditions. This is done with the aim of determining what the policy implications are as clearly as possible. The study revealed important differences across countries and regions when looking at their respective determinants of export performance. External and internal components prove to have played

an equal role in determining export performance for Asian countries. Their improvement in the South East and Pacific region appears to be high relative to that observed in any other region. Sub-Saharan African countries owe their export performance to the evolution of external components. The latter were strong enough to more than offset a relative deterioration of their internal production conditions. Further investigation also indicates that good internal conditions are necessary to obtain good export performance. Particular attention should be paid to the macroeconomic dimension. Good infrastructures and non-stringent institutions are also necessary to put the export sector on a durable development path. In addition; there is scope for promoting a dynamic process of diversification across and within sectors. Constant efforts to support diversification are particularly relevant for commodities exporters' when a secular downward trend is observed in volatile commodities prices (Redding and Venables, 2004).

In general, the specific factors influencing export performance vary from one country to another. Many scholars have categorized determinants of a country's export performance into two major factors: internal supply and external market conditions (Love and Turner, 2001; Redding and Venables, 2003; Fugazza, 2004; UNCTAD, 2005 and 2007; Bacchetta, 2007).

3.2.1. Export supply capacity

Supply conditions are fundamental in defining the export potential of an economy ,and for a given level of access to international markets, countries with better supply conditions are expected to export more (Fugazza, 2004). The agenda for assessing export supply constraints needs to consider both constraints to traditional export supply as well as constraints to shifting resources into new export activities (Biggs, 2007). Key determinants of supply side conditions

are classified into four major components: domestic transport infrastructure, macroeconomic environment/real exchange rate, foreign direct investment and institutional quality (UNCTAD, 2005). Each of these factors are briefly discussed below.

One of the major factors affecting export supply capacity is the domestic transport infrastructure. It is likely to play an important role, especially at the early stages of export sector development (UNCTAD, 2005). Most African countries are characterised by poor transport infrastructure, which is a major impediment to trade, competitiveness and sustainable development (UNCTAD, 2005; Mbekeani, 2007; Bacchetta, 2007), and isolates countries, inhibiting their participation in global production networks (Limão and Venables, 2000). Due to poor internal transport infrastructure, African transport costs are high making their exports expensive and uncompetitive (Radelet and Sachs, 1998; Mathee, Grater and Krugell, 2007), and reducing foreign earnings from exports (UNCTAD, 2003; Mathee, Grater and Krugell, 2007). The analysis of African trade flows shows that their relative volume is low due to poor infrastructure (Limão and Venables, 2001). Therefore, improvements in transportation services and infrastructure can lead to improvements in export performance (Fugazza, 2004; Clarke, 2005; Francois and Manchin, 2006; Edwards and Odendaal, 2008).

It has been shown that, infrastructure affects trade via altering transport costs (Limão and Venables, 2001; Edwards and Odendaal, 2008). In this context, Edwards and Odendaal (2008) argue that infrastructure directly affects transport costs by determining the type of transport system used and delivery time for the goods. This could be exemplified by the type and quality of roads determines the maximum size of trucks. Bougheas, Demetriades and Morgenroth (1999) have analysed the effects of infrastructure on trade through its influence

on transport costs and found a positive relationship between the quality of infrastructure and the volume of trade. Fugazza (2004) also finds that the internal transport infrastructure has a significant and positive impact in raising exports.

The second major factor that affects export supply capacity is the real exchange rate. The real exchange rate can be an important element in determining export growth, diversification and international competitiveness of goods produced in a country (UNCTAD, 2005). It is a key variable that requires close government supervision in any programme to expand and diversify exports (Biggs, 2007) since its management can influence export performance over a large number of different product groups (Mouna and Reza, 2001).

A stable real exchange rate is conducive to export expansion (Mouna and Reza, 2001). The real exchange rate is often rendered uncompetitive in low income countries by poor economic management and turbulence in financial markets (Biggs, 2007). Ensuring that the real exchange rate adjusts to more realistic levels is a means of enhancing the economy's incentives for exporting, and can lead to an increase in the production of export products (De Rosa and Green, 1991; Oyejide, 2007). While an overvalued currency can undermine export competitiveness through a direct loss of price competitiveness for exporting firms, undervaluation of the currency can bolster export competitiveness (Biggs, 2007), enhance the incentives for export activities (Oyejide, 2007) and lead to diversification of exports (Sorsa, 1999; Mouna and Reza, 2001).

Empirically, it has been proven that the real exchange rate has a significant effect on a country's export performance (Sekkat and Vaoudakis, 1999; Mouna and Reza, 2001). While appreciation of the real exchange rate affects exports negatively (Sharma, 2000; Love and

Turner, 2001; Edwards and Alves, 2005; Morrissey and Mold, 2007), depreciation affects exports positively (Asmerom, 1999; Achy and Sekkat, 2001; Mouna and Reza, 2001; Edwards and Alves, 2005). On the other hand, some studies indicate that the effect of exchange rate variability on exports is ambiguous (Hooper and Kohlhagen, 1978; Klaassen, 1999; Du and Zhu, 2001; Kihangire, Potts and Cameron, 2005).

The effect of the exchange rate on exports depends on the price elasticity of export supply because the real exchange rate should incorporate the price effect on exports. Thus, the higher the price elasticity, the more competition face exports of a particular country on the world market. In general, industrial products have a higher price elasticity than primary products, which causes industrial exports to respond perfectly to changes in the exchange rate (Roshan, 2007). Conversely, the low response to price changes of demand for primary products, which are the main exports of LDCs, implies that LDC exports respond imperfectly to changes in the real exchange rates, (i.e. the effect of exchange rate changes on LDCs exports is ambiguous).

Foreign direct investment (FDI) is another important factor affecting the export supply capacity of a country. There is a consensus among development economists that FDI inflows are likely to play an important role in explaining growth of recipient countries (De Mello, 1997, 1999; Buckley et al., 2002; Akinlo, 2004; Seetanah and Khadaroo, 2007). By increasing capital stock, FDI can contribute to a more efficient use of existing resources and absorb unemployed resources; and thus, increase a country's output and productivity (De Gregorio, 1992; Seetanah and Khadaroo, 2007). However, the World Bank (1993) notes that the role of FDI in export promotion depends crucially on the motive for such investment. If the motive behind FDI is to capture the domestic market (tariff-jumping type of investment), it may not contribute to export growth. On the other hand, if the motive is to tap export markets by

taking advantage of a country's comparative advantage, then FDI may contribute to export growth. Thus, whether FDI contributes to export growth or not depends on the nature of the policy regime (Sharma, 2000).

Like the theoretical views, the existing empirical studies of the role of FDI in export performance also report mixed findings. Some studies found a negative relationship between FDI and export (Horst, 1972; Jeon, 1992; Ancharaz, 2003; Gu, Awokuse and Yuan, 2008). In contrast, others indicate that FDI have a positive effect on the export performance of host countries (Fugazza, 2004; UNCTAD, 2005; Morrissey and Mold, 2007; Gu, Awokuse and Yuan, 2008). Finally, Lall and Mohammad (1983) and Sharma (2000) do not see any statistically significant impact of FDI on exports.

The fourth and last major factor that affects export supply capacity is institutional quality. The quality of institutions and policies are decisive in determining whether countries can benefit from globalisation (UNCTAD, 2008). Levchenko (2004) suggests that differences in institutional quality can themselves be a source of comparative advantage (Francois and Manchin 2006). Weak and missing institutions have been shown to limit the ability of firms to take advantage of new trading opportunities in low-income countries (Roland 2000; Stiglitz and Charlton 2006; Biggs, 2007). It has also been shown that institutional quality is highly correlated with trade (Dollar and Kraay, 2002; Francois and Manchin, 2006). In this regard, Francois and Manchin (2006) show that export performance and, the propensity to take part in the trading system at all, depend on institutional quality. Anderson and Marcouiller (2002) also find that a deterioration of the quality of a country's institutions should result in a reduction of its exports (Francois and Manchin 2006). However, evidence from successful

exporting countries indicates that good institutions have large elements of indeterminacy and characteristics specific to individual countries (Biggs, 2007).

In addition to the direct effect, institutions may also indirectly affect trade through their impact on other variables that determine trade flows, like investment and productivity (Méon and Sekkat, 2006). The quality of institutions affects the investment climate, which in turn affects the supply capacity of the economy (World Bank, 2004a; Munemo, Bandyopadhyay and Basistha, 2007). Méon and Sekkat (2006) have shown in their empirical analysis that a deterioration of the quality of institutions results in lower investment which in turn lowers trade. Moreover, bad institutions reduce aggregate productivity (Hall and Jones, 1999; Olson, Sarna and Svamy, 2000; Méon and Sekkat, 2006). In relation to this, Méon and Sekkat (2006) argue that countries whose institutions result in low productivity will likely have difficulties in exporting and trading abroad.

3.2.2. Market access conditions

The other major factor that determines export performance of a country is related to the external market access conditions for its exports (Fugazza, 2004; UNCTAD, 2005). The available literature shows that foreign market access and supply capacity conditions are equally important for the development of a country's external sector (Redding and Venables, 2003; Fugazza, 2004). In the case of foreign market access, two dimensions can be considered. The first is explained through interventions by trading partners, and the second one is related to the measures implemented by the exporting country to provide its exportable with a price advantage (McCarthy, 2008).

Trading partners influence the export performance of a country through their trade policies (tariff and non-tariff measures). Since 1950, in the world economy, there has been a massive liberalisation of world trade, first under the auspices of the General Agreement on Tariffs and Trade (GATT); and now, under the auspices of the World Trade Organization (WTO) (Thirlwall, 2000). Due to these and other trade negotiations, access to international markets has improved (Thirlwall, 2000; Fugazza, 2004; Clarke, 2005; Biggs, 2007). However, it is likely that there is still much to gain from further improvements in market access conditions (Fugazza, 2004).

Meaningful market access requires a further lowering of all kinds of barriers to trade (Mold, 2005; UNCTAD, 2005). In this context, UNCTAD (2005) notes that the most important actions should be tackling high tariff peaks and escalation of facing items of export interest to developing countries' agricultural and non-agricultural exports. In industrial countries, border protection in manufacturing is generally low; but remains high for labor-intensive products of interest to developing countries (IMF and World Bank, 2001). As indicated by the IMF and the World Bank (2001), tariff peaks and escalation in sensitive products (like, textiles and clothing, agriculture, food products, wood products, and pulp and paper) disproportionately affect the products exported by developing countries and inhibit the diversification of exports toward higher value-added products.

In recent years, non tariff barriers (NTBs) have become increasingly important (UNIDO, 2002; UNCTAD, 2005). As noted by UNIDO (2002), products have to comply with a myriad of technical standards, health and safety requirements and regulations etc. set by importing countries. These barriers have had serious implications for developing countries in terms of high compliance costs and potential or actual trade losses (UNCTAD, 2005). Moreover, such

barriers to market access undermine incentives in low income countries to move into higher productivity, non traditional export areas (Biggs, 2007). UNCTAD (2007), based on a data for 1999-2001, has shown that NTBs affect LDC exports more than other developing countries exports. For example, NTBs like environment related trade barriers affect 41% of the merchandise exports of LDCs; but only 21% of other developing countries exports. In this regard, Mold (2005) estimated the potential loss of Africa's trade through the imposition of higher quality standards and phytosanitary controls and indicated that the potential loss for LDCs could run into millions of dollars. In relation to this, Kirchbach and Mimouni (2003) also noted that LDCs are the most exposed to NTBs and show that while 40% of LDC exports are subject to NTBs, the figure for developing and transition economies is only 14%.

Developed countries have designed and offered preferential access schemes (such as EBA and AGOA) for poor developing countries in order to ensure better access to their markets without asking for a reciprocal treatment in exchange (Kirchbach and Mimouni, 2003), with the objective of raising beneficiaries' export earnings (Paul, 2003). Even though, to some extent, the restrictive effects of tariff and non-tariff measures are mitigated by these preferential access schemes for poorer countries, these schemes are still affected by the existence of tariff peaks and tariff escalation (IMF and World Bank, 2001), and strict rules of origin (Paul, 2003; Mold, 2005). Due to these conditions, preference schemes for poorer countries have not proven to be very effective in increasing market access for targeted countries (IMF and World Bank, 2001). In this regard, Paul (2003) has shown that the direct impact of EBA on LDC exports has not so far been significant. Mattoo, Roy and Subramanian (2002) found that the benefits of AGOA for Africa would be about five times greater if

exporting countries were not subject to the restrictive rules of origin imposed by the United States (Mold 2005).

Apart from trade barriers, foreign market access is also determined by the international transportation costs (UNCTAD, 2005), which constitute an important element for countries to supply their exports at a competitive price in the world market. High international transport costs can put a country out of export markets (Mbekeani, 2007); and are a key determinant of a country's ability to participate fully in the world economy, and especially to increase exports (Limão and Venables, 2001; Edwards and Odendaal, 2008). Today, transport costs represent a significant barrier to African exports (Amjadi and Yeats, 1995; Biggs, 2007; Mathee, Grater and Krugell, 2007; Edwards and Odendaal, 2008) and account for a large component of the final cost of the export product (Biggs, 2007; Mbekeani, 2007). Analysis of low-income countries indicates that transport costs are amongst the most important trade barriers (Porto, 2005; Mathee, Grater and Krugell, 2007).

For countries located far from their export markets, the effect of transport costs on trade is severe. Distance is an important factor in the international trade relations. As distance increases, trade volumes decrease (Venables, 2001; Mathee, Grater and Krugell, 2007). Limão and Venables (2002) demonstrate that exports and imports of both final and intermediate goods bear transport costs that increase with distance. Remoteness from economic activity increases transport costs, and accounts for the poor export performance of many developing countries situated far from the major markets (Venables, 2005; Mathee, Grater and Krugell, 2007).

Apart from a country's distance to the main market destinations, its geography (whether it is landlocked or coastal) also affects international transport costs (Matthee, Grater and Krugell, 2007). Landlocked countries tend to have poor access to ports which correlates negatively with transport costs (Redding and Venables, 2003). Therefore, landlocked countries' transport costs are higher, and they have lower international trade volumes than coastal countries (Radelet and Sachs, 1998; Limão and Venables, 2001; Matthee, Grater and Krugell, 2007). Moreover, exporters situated in landlocked countries incur extra costs since products have to switch between more modes of transport than is the case for coastal countries (Martínez-Zarzoso, Gracia-Menéndez and Suárez- Burguet, 2003; Matthee, Grater and Krugell, 2007).

3.3. Export Performance and its Determinants in Low-Income Countries

“Export performance is the relative success or failure of the efforts of a firm or nation to sell domestically produced goods and services in other nations and it can be described in objective terms such as sales, profits, or marketing measures or by subjective measures such as distributor or customer satisfaction,” (Allaro, 2010). When we look at the export share of the African continent in the world trade, it has been experiencing a gradual decline since the 1960s. The share of Africa's export in the world export which stood at 5.52% in 1960 declined gradually to 2.87% in 2007 before increasing to 3.45% in 2008. This share in total world export is far below the share of the Asian continent in the world trade has been enjoying an upward trend the share of the African continent and the developing America continent. Thus growing trends showed that, Africa has been losing market shares in exports in relative terms. Perhaps, this dismal trend can be linked to the composition of Africa's merchandise trade. There is also dismal performance in terms of agricultural raw materials exports. Except for a country, such as Benin that has over 50% of its exports in agricultural

raw materials, a sizable number of the Sub-Saharan African (SSA) countries share of the exports are below 20% (Adetunji and Busari, 2011).

Mold and Prizzon (2008) also tried to indicate that one of the most extensively cited stylized facts of African trade performance is that the continent's share in world merchandise trade, measured in value terms, has declined steadily since 1980 from around 6 per cent to around 2 per cent in the late 1990s, with a subsequent mild recovery in the 2000s to around 3 percent. That decline in the world share of exports has been particularly marked for Western and Southern Africa. However, as Morrissey (2005) argues, this does not mean that trade is unimportant for Africa: compared to other developing country regions, Sub-Saharan Africa (SSA) tends to have high export/GDP and import/GDP ratios. In simple terms, exports are very important to African countries even if African exports are not very important in the world market.

That is why 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 as Amin et al (2007) identified. But, the comparative advantage theory has been disappointing as African countries have been forced in to the role of exporting raw materials and other primary commodities with little or no development impact. Most of the Sub-Saharan African countries depend on primary commodities for their foreign exchange earnings.

According to Ibrahim (2007), in developing countries, especially in Sub-Saharan African (SSA) countries, the pattern of exportable goods is dominated by primary agricultural products; and for export of processed and semi processed agricultural products there is limited

access to the international markets. Moreover, the countries are facing decline in the prices of primary goods in the international market. However, LDCs basic focus was only to solve problems related to supply side bottleneck without paying much attention to the demand side problems or in some cases taking the demand side for granted. The export sector of the SSA countries is highly affected not only by domestic policies, but also by international policies including the performance of the world economy and other exogenous factors like institutions, governments' commitment, natural resource and intensity and prevalence of poverty.

On the other hand, according to the study conducted by Babatunde and Busari(2011), SSA countries have significantly liberalized their trade regimes over the past two decades or thereabout. Although, the pace and patterns of trade policy reform varies among countries, the general trend tends towards lower barriers to trade. This is evident in the significant reduction of tariffs and non-tariff barriers, removal of exchange rate control and elimination of export marketing boards among other trade reform measures. While the study was able to confirm the distortions caused by trade barriers on export performance, there is not much evidence that the adoption of trade policy reforms since the mid-1980 have produced a significant agricultural export response. Declining infrastructure investment, particularly transport infrastructure (air/sea port, railways and roads) have generated substantial transaction costs and dampened the response of agricultural exports to the more favorable trade environment being witnessed, since the mid 1980's. In addition, factors external to an individual country such as relative prices and income of trading partners appears to be more important determinants of exports than a country's own structural adjustment policies. This, however, does not imply that, at the margin structural adjustment policy reform is not beneficial. The simple point is that, there are many factors other than structural policy that help explain the

poor agricultural export performance of SSA countries. Domestic policies are necessary to reduce the various constraints on supply response increase transport and marketing efficiency and encouraging investment. To benefit from agricultural trade, SSA countries need to increase the flexibility and efficiency of resource use so that they can be competitive in global markets.

In addition, Oyejide (2007) also identified that many African countries began the process of reforming their trade, investment and exchange rate regimes around the mid-1980s. This process gathered pace through the 1990s as the reforms both widened in terms of country coverage and deepened in several countries. These reforms constitute a reflection, in most cases, of a shift from an inward-looking and import-substituting industrialization strategy to an out ward-oriented and export-led development strategy. Correspondingly, the primary focus of policy gradually began to reflect increased concern for raising the profile of the export sector, and more specifically for achieving the goal of significantly expanding and diversifying African exports. In this context, the emerging strategy appears to have at least two components (i.e., seeking improved external market access for a much wider range of African's export products, as well as seeking ways to eliminate the export supply response constraints which have hindered the growth and diversification of the region's export).

Ibrahim (2007) also identified that both domestic and international policies, including the performance of the world economy and other exogenous factors, like: institutions, governments' commitment, natural resource, and intensity and prevalence of poverty highly affect the export sector of SSA. Since the export sector is affected by multiplicity of causes, there has to be a rigorous analysis concerning this sector along with agriculture, where

agriculture is the base for the regions' export. Despite the significance of the sector, little work has been done in this area.

Various discussions on SSA's trade normally cover issues of unfair market access and problems concerning the market-distortive effects of developed subsidies. Yet, one of the greatest challenges facing Sub-Saharan African countries today is overcoming supplyside constraints and building competitive capacity within the private sector. Over the past 30-40 years SSA's share in world exports has been declining, and along with it the standard of living of most Africans. Yet, during the same time, other developing countries, particularly in Asia have experienced significant growth in their share of world exports (Calvin Manduna, 2005).

According to Allaro (2010), many researchers classify the determinants of export performance into two broad components. These are internal and external components. According to Allaro (2010) external components include market access/entry conditions and a country's location which include international markets, while internal components are related to supply-side conditions. 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)

Fugazza (2004) also classified determinants of export performance into external and internal factors like Allaro (2010) where external factors are related to market access conditions and

other factors, affecting import demand. Apart from trade barriers and competition factors, foreign market access is also determined by transportation costs, which include geography and physical infrastructures. On the other hand, internal factors refer to supply side conditions. Supply capacity is also affected by location-related to elements, which may for example; affect access to raw materials and other resources. It also depends upon factor costs such as labour and capital. He also stated that, beside resource endowment, factor costs are essentially the outcome of economic policy and the institutional environment. Access to technology, which is likely to affect the productivity of the external sector, may be also an important determinant according to the above author.

On the other hand, Charles D. Jebuni (2006) outlined that the availability and quality of infrastructural services is critical to economic activity in terms of determining the costs, profitability and viability of different economic activities. They also influence the attractiveness of different countries/locations for investment, and the type of economic activities.

3.4. Determinants of Ethiopian Export Performance

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. 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. 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. 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, the 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.

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). Mekbib 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 a country.

World Bank (1987) report also indicated that, exchange rate overvaluation, low level of investment, the coffee surtax, inadequate marketing infrastructure, high raw material import tariffs, unfavorable terms of trade, and insufficient adjustment of producer prices were the major obstacles of Ethiopian export performance.

Mouze (2005) 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.

On the other hand, Berhanu (2005) using 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 a country positively, real private consumption is affected negatively. Similarly, the short-run factors significantly affecting exports are real GDP, real private sector credit, and real private consumption.

3.5. The Importance of Coffee for the Ethiopian Economy

3.5.1. Agricultural policy in Ethiopia

Agriculture remains the largest sector in the Ethiopian economy, contributing about 47% of GDP and providing employment to more than 80% of the rural population (World Bank, 2011). In addition, it continues to be the major source of export earnings. The low levels of agricultural technology and rural infrastructure, together with land degradation, recurrent droughts and the demographic pressure on rural areas, are among the main causes of low agricultural productivity, poverty (44.2% of the population living below the poverty line of USD1 per day), and low social indicators (ibid). In this context, a better performance of the agricultural sector is vital in order to: guarantee food security; produce exportable goods to pay for imports; the aim to generate a surplus for the development of other sectors; secure a sustainable use of natural resources; and to improve the living conditions of rural dwellers (Gebre-Selassie 2003). The fact that the Ethiopian economy has shown mixed results in the past two decades with GDP growth rates going from 3.8% in 2002/2003 to an unprecedented 11.8% in 2005 and down to 8.7% in 2009. This is an example of the direct link between the performance of the agricultural sector and the performance of the economy as a whole. (Petit ,2007 ; World Bank, 2011).

Although the performance of the Ethiopian agriculture as a whole has improved over the past decade – partly due to the reforms introduced in 1992; and partly because of the brief periods of favorable weather conditions– productivity levels remain low compared to the increase in rural population (Petit 2007).

3.5.2. Ethiopian coffee and the economy

Ethiopia is known for being the birthplace of Arabica coffee, which still grows wild in the forests of the former “Kaffa region” and in the current administrative arrangement located in the regions of Southern Nation Nationality People (SNNP). It is also the country’s main export crop, accounting for approximately 40% of export earnings (IMF 2006); and responsible for the livelihoods of an estimated 15 million people including: producers, wage workers, transporters and their families (Petit 2007). For this reason, analysts and policy-makers alike regard coffee as one of the key subsectors of the economy in terms of its potential to raise agricultural production and increase both smallholders’ income and government revenue. However, during the last decades, the world coffee market has evolved into a highly specialised and complex global chain involving a wide range of actors that interact in order to satisfy an even wider range of market demands. This global context poses particular challenges to a poor coffee-producing country, such as Ethiopia.

Ethiopia is, currently, the largest coffee producer in Africa and among the ten top producers in the world after Brazil, Vietnam, Colombia and Indonesia. According (International Coffee organization , 2012), in 2011/12 Ethiopia was the fifth largest coffee producer after Brazil, Vietnam Indonesia and Colombia, with total production of 8,313,000 bags and the seventh largest exporter worldwide. According to the recent Government figures, in 2010/11 Ethiopia exported coffee to 53 destination countries with a total volume and value of coffee export 2010/11 were 196,117 ton and 841.65 million American dollars respectively. This volume and value of coffee export as compared to the 2009/10’s export increased by 13.9 % and 59.3%, respectively. More than 120 Ethiopian coffee exporters did participate in processing and exporting coffee to all destination of the world. In 2010/11, the top five coffee export market

destinations for the country were Germany, United States of America, Saudi Arabia, Belgium and Italy.

3.5.3 The uniqueness of Ethiopian coffee

Ethiopia's role in the global value chain lies not in the volume of its exports; but, in the fine quality of its coffee (Ponte and Daviron 2005). In order to understand the relationship between domestic and international chain actors, it is important to first understand how, where and by whom coffee is produced in a country. Ethiopia, as mentioned earlier, produces only Arabica coffee, which is believed to have originated in the Kaffa region. Coffee-farming systems in Ethiopia can be classified into four categories: forest coffee, semi-forest coffee, garden coffee, and semi-modern plantation. Most farmers cultivate without the use of fertilizers, pesticides and herbicides, that is why yields per unit area are fairly low in Ethiopia compared to other countries. Geographically, coffee districts (*woreda*) are classified by their extension into major, medium and minor producers. Coffee production is concentrated in the Oromia and the Southern Nations, Nationalities and People's Region. Each *woreda* produces coffee varieties with distinct characteristics, the most popular of which internationally being Yirgacheffe, Limu and Harar varieties. Dry and wet processing are the most widely used methods in Ethiopia. Historically, about 90% of production used to be sun-dried; but, washing has become more popular in recent years because of significantly higher premiums in the market. Petit (2007) reported smallholders produced about 95% of total production, against 4.4% of state-owned coffee farms and 0.6% private investor plantations.

3.6. Export Demand Analysis

Maizels (1971) explained that changes in the commodity pattern of export reflect changes in demand and supply, both in the primary-producing countries and in the outside world. Externally, changes in the pattern of the world demand, the development of synthetic substitutes, changes in relative costs of production in competing countries, and changes in government protectionist policies may influence the pattern of exports from individual primary producing countries. Internally, changes in export patterns can originate from changes in resource availability, particularly from the discovery of new mineral resources, or more intensive exploitation of already known resources, or they may reflect a conscious attempt at diversification through selective industrialization or selective changes in agricultural production.

More specifically, the relative importance of domestic supply and world demand in determining the rate of growth of country's export will vary according to its share in the world trade. The greater a country's share in the world trade, the more probable that its exports will grow more or less in line with the growth in world import demand for the products it exports. The smaller its share, the more important its ability to produce for export at the prevailing world price; and as might be expected, there is a tendency for a greater dispersion of export ratios among those countries with the smallest shares in the world trade (countries where supply is the main determinant of exports).

We now review the literature related to the export demand of processed and unprocessed agricultural and other commodities. This helps to identify the major determining factors of exports, and the achievements reached by interventions meant to improve the export demand.

Ingram (1986) suggests that the demand for a developing country's exports depend on the income of importing countries, and on the relative prices of the exports of developing countries in the markets of importing countries. Lord (1991) emphasized the consideration of the following three points in analyzing trade theories and policies: (i) the long-term relation between the growth rates of the commodity exports from developing countries and the rate of economic growth in the industrialized countries; (ii) product heterogeneity (relative price changes); and (iii) the effect of national policy initiatives, in either the major import markets or the exporting countries could have on commodity trade.

Koester et al (1989) examined external demand and constraints of traditional exports. He reported that Sub-Saharan African countries' export promotion depends on: changes in the world demand which will grow because of population and income growth, the price elasticity of world demand; the share of SSACs in world export markets; the reactions of supply in SSAs in world export markets; and the reactions of supply in SSACs and competing countries to changes in the world markets prices.

Ahamandi-Esfahani and Stanmore (1997) have studied export demand for attributes of Australian wheat in Asia and the Middle East. The study employed a hedonic price function and sample data from Australian Wheat Board Commercial contracts from 1984 to 1991. The study has found that Japan is relatively quality conscious, while China and the Middle East markets pay little premium for quality. The sample was further divided into two separate time periods for testing consistency in export demand for attributes and determining recent trends in premiums/discounts. The results of the analysis reveal that, there appears to have been a drop in the reward for quality in these markets since 1987, which may in part be explained by the US-EC wheat price war.

According to the above reviewed literature, factors that affect the export demand for a country product differ from one situation to another. Income of importing countries, relative prices of exports, national policies of importing countries, population growth, promotion, tastes and preferences, competitors' reaction and share of exporters are frequently mentioned as important factors. Most of the LCDs' exports exhibit low price and income elastic ties. Different policies used to improve the competitiveness of countries were found effective only in some cases. All these suggest that, from a development policy view-point, it is essential to examine the specific experience of each country.

CHAPTER FOUR

PRESENTATION OF FINDINGS AND DISCUSSION

4.1 Coffee Production

Ethiopia produces one of the best highland coffee varieties in the world. Its coffee is almost exclusively of the Arabica type, which is native to Ethiopia. Ethiopia is considered the birthplace of coffee. Some 64% and 35% of coffee production in Ethiopia comes from the regions of Oromia and Southern Nations Nationality People (SNNP), respectively; and the remaining 1% of the total production comes from Gambela region. Forest coffee production system is the dominant and constitutes about 55% of the total production followed by garden coffee production system (about 35%); and the rest is from modern plantation of producers' cooperatives and states farms. Ethiopia is the 6th largest coffee producer in the world followed by Brazil, Vitenam, Colombia, Indonesia and Mexico. It maintains its position to be the first largest producer in Africa for over the last two decades. Average annual production sharply increased from 174.54 thousands of metric tons in 190/91 to 390 thousands of metric tons in 2012/13. In fact, half of the coffee produced in the country goes into domestic consumption. Ethiopia's role in the global value chain lies not in the volume of its exports; but, in the fine quality of its coffee seeds. It is reported that, coffee trees were accidentally found by a goat-herder in an area called "Kaffa" after his goat started acting as if energized by eating a particular plant. The trees were called "Kafa" which very much sounds like coffee. There are four major types of coffee production systems in Ethiopia, namely: forest coffee, semi-forest coffee, garden coffee and semi-modern plantation. Most farmers cultivate coffee trees

following the traditional practices, without the use of fertilizers, pesticides and herbicides. That is why yields are fairly low in Ethiopia compared to other coffee producing countries.

Table 1: Top Ten Coffee Producing Countries in the World and Their Shares of the Total Production 1990/91-2012/13

No	Country	Production in Metric Tons	Share of World Production (%)
1	Brazil	49,345,500	31.22
2	Vietnam	16,040,340	10.15
3	Colombia	15,701,520	9.93
4	Indonesia	10,520,760	6.66
5	Mexico	6,300,840	3.99
6	Ethiopia	5,850,420	3.70
7	India	5,775,600	3.65
8	Guatemala	5,507,760	3.48
9	Honduras	4,088,040	2.59
10	Côte d'Ivoire	3,977,340	2.52

Source: International Coffee Organization

Ethiopia known to be the home of coffee Arabica mainly produces washed and sun dried unwashed coffee types demanded in the world market for their flavor, acidity and diversity of taste.

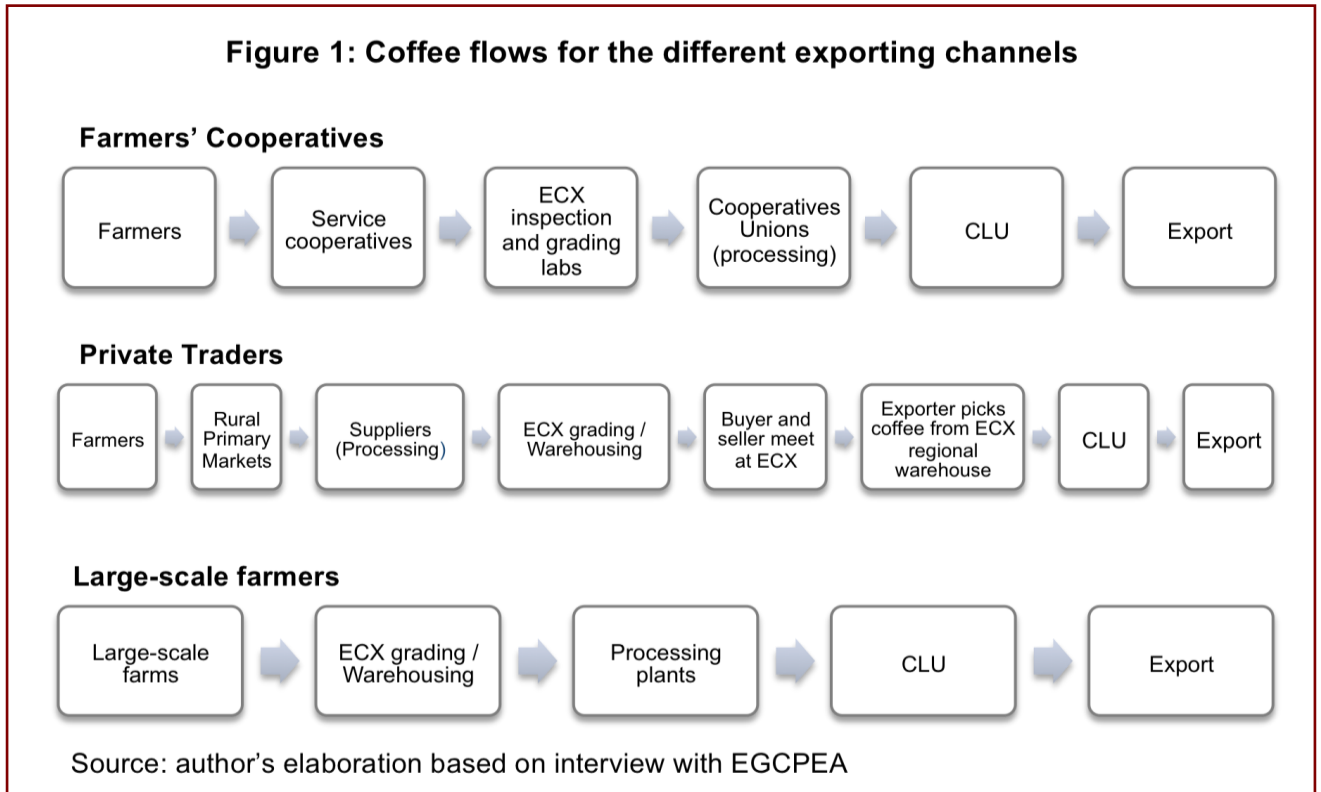
Table 2: Main Ethiopian Coffee Types by Quality and Place of Origin

Coffee Types	Characteristics
Yirgacheffee	Internationally known and recognized by its brand name as ‘Yergachaffee’ and has intense flavor known as flora. Many rosters are attracted to its fine and flavor and are willing to pay a premium price for it.
Harar	Medium sized beans with greenish-yellow colour, medium acidity and have a distinctive mocha flavour. Internationally known and recognized as Harar Brand Name; and it is the highest premium coffee in the world.
Sidama	Medium-sized bean, greenish-greyish in colour. Due to balanced tests and good flavour called sweet coffee; has fine acidity. It is always blended for gourmet or specialty coffee
Limmu	Spicy and winy flavor; and attracts many rosters, especially from Europe and USA; has good acidity and body. Washed Limmu coffee is one of the premium coffee types, medium sized bean and greenish-bluish in colour mostly round in shape
Djimma	Like wine in taste and can be prepared as washed sun dried coffee.
Tepi	Low acidity. This coffee is commercially important which is used for special blending.
Bebeka	Low acidity. This coffee is commercially important, which is used for special blending.
Lekempti	Medium-to-bold bean: and known for its fruity taste and having greenish-brownish colour with good acidity. Many roasters put their flavor in their blends; but, it can also be sold as an original gourmet or special origin flavor.

Source: Federal Democratic Republic of Ethiopia Ministry of Trade, February 2012

4.2. Structure of Ethiopian Coffee Market

The coffee in Ethiopia can be exported through three main channels: a) private traders, b) farmers' cooperatives and c) large-scale farmers. Figure 1 illustrates coffee flows for each of the channels.



The cooperative sector has grown considerably since 2001, especially as a result of the intervention of numerous NGOs and international cooperation agencies and the increasing international attention to fair trade initiatives). However, most coffee produced is still channeled by private traders. Small-scale coffee producers have undeveloped low input-output agricultural and coffee harvesting practices, low incomes, weak organizations and little bargaining power; they sell their coffee to private traders and/or to their primary farmers' cooperatives.

Commercial growers, who are better able to implement intensive agro-ecological practices, aim to increase productivity and quality in order to enter the specialty markets, like cooperative unions, who are allowed by law to bypass the ECX. Several Ethiopia Coffee Growers, Producers and Exporters Association (ECGPEA) members have recently started implementing out-grower schemes through which they provide technical assistance to small-scale farmers in the vicinity of their plantations, and serve as an outlet for their production.

However, it was not possible to verify the conditions under which such schemes take place, or the degree to which the emergence of contract farming in the coffee sector alongside a continued policy to promote the growth of commercial plantations could transform the structure of the coffee chain in the coming years.

4.3. Quality Standards and the Issue of Traceability

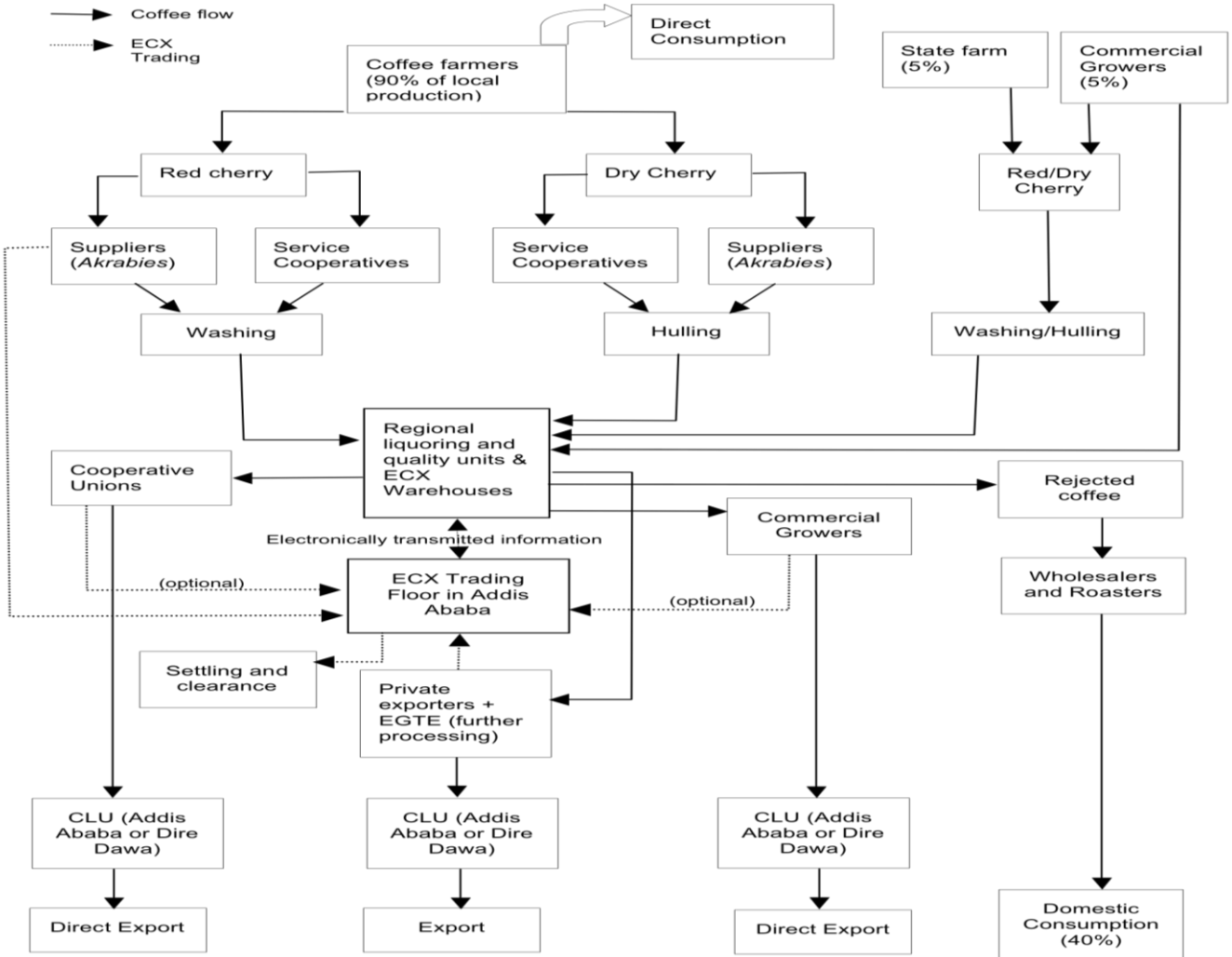
Even before the new Coffee Proclamation (Proclamation no. 602/2008, also known as ‘the Coffee Quality Control and Marketing Proclamation’, and its Directives 159/2009 and 161/2009), regulations mandated coffee to be sealed by government officers at the production area before delivery in Addis Ababa or Dire Dawa and checked for moisture before the auction and prior to export. However, coffee has been bought at one price and without incentives for different qualities. The new quality control system, in which coffee is graded according to its agro-ecological zone, type of processing and physical attributes, has helped to increase awareness about price differentials in relation to quality.

Throughout the years Ethiopian coffee by types have maintained their place in the world market due to their rich genetic varieties and the low use of agrochemicals, which makes them naturally organic. Yet, two important factors are to be considered regarding quality. The first

is that, there is still room for improvement when it comes to processing. A common problem is that farmers are not used to see more compensation for more effort made for picking red cherries. Because of this, they pick coffee beans either early or from the ground. Institutional extension services aim to teach farmers the link between good processing techniques and final quality, but institutional capacity is limited for implementation.

The second factor is, the issue of traceability, which is lost once coffee is graded and warehoused. The new system allows for differentiation between coffee seed types coming from different regions; but, not from individual producers or farms. This is one basic requirement for specialty markets, which offer higher price premiums. Despite Ethiopia being ‘naturally endowed’ for the specialty market, in the current circumstances only commercial growers and cooperative unions are able to offer full traceability. Hence, Ethiopia’s specialty market share is only 20%, compared to Kenya’s 40% (the highest in Africa), Guatemala’s 60% (the highest in Central America) or Colombia’s 33% (the strongest in terms of specialty volume) (ECX 2010b). Estimates suggest that, Ethiopia has the potential to increase its specialty coffee production to two thirds of its total production, or even to 80% of the total production adding organic or rainforest certified coffee produce.

Figure 2: Ethiopian domestic coffee marketing chain in 2010



Source: adapted and updated from Petit 2007

4.4. Growth of Ethiopian Coffee Exports

With a share of less than 3 per cent of the global market for coffee, Ethiopia relies on a high proportion of its coffee export earnings. Indeed, coffee is the backbone of the Ethiopian economy, contributing about 28 per cent of the total foreign exchange earnings in 2011. In 2010/11, the total volume and value of coffee export was 196,117 ton and 841.65 million

American dollars, respectively; and more than 120 Ethiopian Coffee exporters did participate in processing and exporting coffee to 53 destination countries of the world.

4.4.1. Growth with volume versus price effects

Over the 1991-2011 period (EPRDF governance), the value of coffee export earning of Ethiopia showed a positive growth by 7.5 percent annually. Some 60 percent of this growth was explained by the increase in the volume of coffee exported that grew by 4.5 percent; and 40 percent by increase in coffee prices that rose by 3 percent annually.

Table 3: Summary of Exponential Growth Rates of Coffee Export Value, Volume and FOB Prices in Ethiopia (1991-2011)

Period	Value	Volume	Price	Variation of Coffee Exports explained by volume (%)	Variation of Coffee Exports explained by price (%)
1991-2011	.075* (23.807)	0.045* (97.548)	0.030* (4.14)	60	40

Source: Researcher's Computation, 2013

Note: Values in parenthesis are F-values

*represents statistical significance at 10 percent

4.4.2. Growth on market bases

The growth of Ethiopian coffee exports has a different pattern when we examine it on market basis. For the period 1991-2011, Ethiopian coffee export volume showed a positive growth rate to Japan (6.96 percent), Saudi Arabia (6.19percent) and Belgium (4.34percent). The growth rates for Germany, France, and Italy were not significant at 10 percent probability. The volume of coffee exported to USA, and Finland showed a negative growth rate by 6 percent and 10 percent respectively during the analysis period. Nevertheless, the total imports of both USA and Finland showed no significance changes.

Table 4: Exponential Growth Rate of volume of Coffee Imported by Major Ethiopian Coffee Buying Countries 1991-2011

Country (Importers of Ethiopian Coffee)	Import from Ethiopia	Total Import
Germany	0.0155	0.0202***
Japan	0.0696***	0.0307***
Saudi Arabia	0.0619***	-0.0253
USA	-0.0594*	0.0062*
France	0.0134	0.0102***
Italy	0.0063	0.0248***
Netherlands	-0.0519	0.0033
Belgium	0.0434**	0.0337***
Finland	-0.0966***	0.0034

Note ***,** and * represent statistical significance at 1,5, and 10 percent, respectively.

Source: Researcher's Computation, 2013,

The actual source of raw data is ICO

4.5. Export Demand for Ethiopian Coffee

Model estimation was made for the first four major buyers of Ethiopian coffee (Japan, Saudi Arabia, Germany and USA) that purchase an average of 68 percent in the last two decades. In the estimation process, due attention is given to the problems of multicollinearity and autocorrelation; and appropriate tests are undertaken (VIF and DW tests). Because of the multicollinearity and autocorrelation problems, the less important factors price of Robusta coffee in all cases; time trend in case of Japan, Germany, and Saudi Arabia and population in the case of USA were removed from model estimation process.

The estimated export demand functions were significant for all countries at less than 1 percent; and quite satisfactory for most of the countries from the usual test statistics view point (F-test, t-test, DW test and VIF test) (see Table 5 below). The explanatory variables assumed the expected relationship within the dependent variable. Coffee export price assumed a negative sign for all importing countries, and significant at 1 percent level for Saudi Arabia; at 5 percent level for Japan and USA coffee export demand of Ethiopia. The values of the estimates are in the expected range indicating that the price inelastic nature of coffee.

Table 5: Summary of Factors Influencing Export Demand for Ethiopian Coffee 1991-2011

Explanatory Variables	Estimates			
	Japan	Saudi Arabia	Germany	USA
R ²	0.931	0.783	0.613	0.586
Adj R ²	0.931	0.725	0.51	0.475
F (4,15)	50.711	13.529	5.939	5.298
D-W	1.928	1.585	2.075	1.858
Dependent Variable	ETCFFX _J	ETCFFX _S	ETCFFX _G	ETCFFX _U
Constant	-46.645**	-67.829**	-105.368*	-18.000
	(-2.527)	(-2.377)	(-2.126)	(-0.976)
ETPRICE	-0.639**	-0.664***	-0.269	-0.727**
	(-2.79)	(-5.291)	(-0.561)	(-2.890)
BRMPRICE	0.455**	0.245	1.121**	1.057***
	(2.344)	(1.394)	(2.400)	(3.682)
INCOME	0.175	0.286**	0.047	0.816
	(1.117)	(2.158)	(0.117)	(1.638)
POPULAR	0.604***	0.518**	0.797**	--
	(2.899)	(2.713)	(0.094)	
Time	--	--	--	-0.885*
				(-1.779)

Note: t-value in parenthesis, ***,** and * level of significance at 1%, 5% and 10%, respectively.

Source: Researcher's Computation, 2013

The coefficients of the Brazilian mild price are significant at 1 percent level in case of USA; and at 5 percent level in case of Japan and Germany; and insignificant in the case of Saudi Arabia. All the coefficients assumed a positive sign as expected. The results suggest that the Brazilian mild coffee is a direct substitute for the Ethiopian coffee in the three Ethiopian client countries (Japan, Germany and USA). The effect may be expected with the growing practice of the least blending of international coffee buyers on the target markets.

The income coefficient is found to be significant at 5 percent level for Saudi Arabia. It is insignificant for the other countries although all coefficients assumed a positive sign as expected. Increase in income has a positive and significant effect as expected in Saudi Arabia

The estimated coefficient of population is significant at 1 percent level for Japan, at 5 percent level for Saudi Arabia and Germany; and assumed a positive sign as expected. The coefficients suggest that coffee is a necessary commodity in these countries. Specifically, the taste and preference of USA market shows a negative trend for Ethiopian coffee.

Price of coffee is an important factor in determining the export demand of Ethiopian coffee. The price elasticities suggest that the markets are price inelastic. The significant price elasticity of Brazilian mild coffee suggests that this product is a substitute for Ethiopian coffee and caution is needed in price competitiveness. Population growth is also an important factor for the growing Ethiopian coffee export markets, namely Japan, Saudi Arabia and Germany. Saudi Arabia's demand for Ethiopian coffee was responsive to income changes though it is income inelastic.

4.6. Challenges and Prospects of Ethiopian Coffee Export

4.6.1. Challenges of Ethiopian coffee export

Coffee yield is still low in Ethiopia by the world standard (hardly exceeds an average of 500 kg per hectare). This low productivity is due to disease problem, such as coffee berry disease (CBD). CBD in particular has been causing severe crop losses (30%), coupled by poor and traditional management practices and shortage of improved and adaptable coffee seed varieties.

Low returns for farmers due to low prices paid to them mean lower agricultural households income, lower agricultural wages and loss of employment. Farmers are always the ones most affected by the international agricultural products (example coffee) price movements. A reduction in their earnings creates a vicious circle of challenges, since it makes difficult to mobilize investment resources for improving production, especially the introduction of environmentally-friendly production methods. This leads to stagnation in productivity and competitiveness, and in dwindling incomes. Farmers are often unable to use improved seed varieties or to adopt scientific and technical advances (improved technologies). The result is poor crop management, and low yields. Such situation threatens the sustainability of the coffee economy in the country, heavily dependent on coffee for the bulk of its export earnings.

Quality inconsistency and deterioration is often marked due to some natural calamities, such as drought, irregular rainfall, and improper processing system. This is, particularly, true in areas where unwashed/sun-dried coffee processing method is predominantly practiced.

In the face of ever increasing coffee prices, domestic suppliers do not get sufficient access to loans. Coffee producers require large sums of money early in the season to purchase input supplies and hire labor. In Ethiopia, regulatory constraints, such as strict lending policies and government mandated collateral requirements, make it nearly impossible for smallholder farmers to obtain financing support without a loan guarantee. This lack of access to capital made it very difficult for smallholders' coffee producers farmers, most of which have limited track records where no formal collateral is practiced.

There are many wet mills in the country that could buy cherry coffee from farmers and sell green coffee a few months later without any protection from a fall in the international market price. While producers of specialty-grade coffee are typically less prone to the international volatile price shocks, the unpredictable boom-and-bust nature of the market remains a challenge for all suppliers. Hence, non existence of price risk management is one the challenges persist in the coffee export sector.

4.6.2 Prospects of Ethiopian coffee exports

The Government of the Federal Democratic Republic of Ethiopia has emphatically emphasized the development of the coffee sector as the strategic commodity. The five year Growth and Transformation Plan (GTP) of the country which is being implemented (2010/11-2014/15) put the target for coffee export to increase from 172,210 tons in 2009/10 to 600,970 tons in 2014/15, and coffee export earning from 528 million of USD in 2009/10 to 2, 0370

million of USD in 2014/15. This indicates the Government's commitment with favorable policy environment.

The diverse agro-ecology and climatic conditions offer the country to grow diverse Arabica coffees. In coffee business, above all, the supply of best quality coffee seeds in favor of consumers' preferences and demand is the most important aspect. In this regard, Ethiopia is gifted, in that, it is endowed with diversity of quality coffee types, such as: Harrarghe, Yirgacheffe, Gmbi, Limu and others which fetch premium price in the world market.

Ethiopia is believed to be the center of origin and diversity for Arabica coffee. This offers the country well established brand - positive image in the world coffee trade.

While Ethiopia do not currently produce the volume necessary to compete with the powerhouses of Brazil and Colombia (which together account for nearly 40 percent of global Arabica coffee production), Ethiopia has a distinct advantage when it comes to producing premium coffee for the specialty market. Hence, Ethiopia has competitive advantage on quality in international coffee trade. In fact, very few places in the world can match the ideal growing conditions that exist in Ethiopia: a combination of the right temperatures and rainfall patterns, as well as the very specific altitudes necessary for Arabica coffee to thrive between 1,200 and 2,000 meters above sea level. Ethiopia has high potential and prospects for sustained expansion for producing quality coffee types of world standard due to the availability of adequate and suitable agricultural land and labor with favorable temperature and water supply.

CHAPTER FIVE

CONCLUSIONS AND POLICY IMPLICATIONS

5.1 Conclusions

The main aim of this study is to examine the major determinants of Ethiopian coffee export performance in the major importing countries. The effects of importing countries' GDP, population situation, income, etc. on the demand for Ethiopian coffee export is analyzed in detail. Challenges and prospects for the country's coffee export identified and based on the finding the study the following conclusions are drawn.

Coffee has still remained the dominant export commodity of Ethiopia. However, Ethiopia irrespective of its being the origin of coffee Arabica and a traditional exporter, the volume of coffee exported rose by less than 8 percent for the last two decades. This is due to low coffee yield, quality inconsistency, and low return for farmers etc. On the contrary, Ethiopia's competitors have increased their volume of coffee exports aggressively by improving their production and productivity. Ethiopia's coffee export earnings have showed a positive growth during the whole period of analysis (1991-2011)

In the last two decades, the most noticeable change in the direction of Ethiopia's coffee exports is the declining of the importance of the USA and the rising importance of Japan, Germany and Saudi Arabia. The country lost its shares in USA's, Finland's, and Italian coffee markets; and improved rather its shares in Japanese and Saudi Arabian markets. In all markets the washed (higher quality) coffee export increased with the exception of Germany (the far leading buyer of washed coffee).

The determinants of export demand for Ethiopian coffee are not the same in all major client countries. Ethiopia's coffee own price and price of substitute coffee are important factors in most of the target markets; but, they are inelastic. Ethiopian coffee has higher own price elasticity in USA's market and the price of substitute coffee has higher effect in Germany's and USA's markets.

5.2 Policy Implications

Based on the findings of the research to improve the benefits and reduce the negative impacts of the world coffee condition on the Ethiopian economy, the following policy implications need due attention.

1. In addition to exporting reliable and consistent quality coffee according to the target markets' preferences, supporting participants in the domestic coffee production, improving the exporters' capacity in market information usage, international sales capacity, and negotiation skills are crucial. To improve the competitiveness of the country in its coffee export, other factors like increasing productivity and reducing costs of marketing should also be considered.
2. It is essential to keep government support in terms of increasing its international advocacy in order to improve coffee market prices paid by the multinational corporations.
3. Price of Ethiopian coffee and that of its substitute (Brazilian mild) are important factors in determining the export demand for Ethiopian coffee, even though the demand is inelastic. This suggests that price competitiveness should be given due attention.

4. In planning of coffee production and trade, adequate efforts should be made in future to exploit the opportunities that population growth in Japan, Saudi Arabia and Germany and income increase in the Saudi Arabian market would provide.
5. Besides, for properly exploiting the present target markets, finding new outlets in potential markets needs adequate attention. Potential markets that have good trade relationships and geographic proximity to Ethiopia (China, Middle East, and North Africa) need to be served, especially with high quality processed coffee types and continuous promotion activities.
6. In order to increase yields at the farm level, the bureau of agriculture at regional levels need to recruit full-time development agents specialized in coffee crop production with short or long term training to educate /provide training support to farmers at local levels on good coffee agricultural (agronomic) practices as part of the regular agricultural extension program.
7. By working with industry partners, the Ethiopian government and other concerned stakeholders should address constraints along the coffee value chain and support private sector investment. Coffee exporting companies, commercial banks and international roasters should link to address their financing and marketing needs for optimizing the overall farm-to-market value chain.
8. The government should offer price risk management services for producers to further reduce vulnerability due to fluctuation international market price. For coffee producers the easiest solution for price risk reduction is to sell their coffee to exporters often, rather than holding in stock supplies and waiting for a better market price (in many cases which may never come). Selling often will help cushion producers from volatile

price swings and enable them to receive relatively better an average of market prices during the season.

9. The government and other concerned stakeholders' efforts should focus on supporting the creation of new producer cooperatives and devote to ensuring that a viable business model and capable leaders are in place for the already existing cooperatives. Nowadays, cooperatives play a crucial role in economic and social development processes in the country. For smallholder farmers, cooperatives offer opportunities to pool resources, acquire agro-inputs, access services and information; and sell to markets that would otherwise be inaccessible. Apart from the economies and benefits of scale they offer to farmers, cooperatives provide important opportunities in generating rural employment, and in participating in their respective cooperatives as a member, elected leader or employee which often brings with it enhanced status and voice in the community. More focus and support should be given to the capacity building efforts on helping cooperatives to make them more competitive, profit-oriented, and more professional or skilled. Support activities may include: assisting cooperatives to develop business plans, strengthening management practices and enhance their accounting systems, improving their processing and storage techniques, and in establishing relationships with banks and coffee service providers to secure necessary financing support.
10. Exchange rates play a central role in international trade because they allow the computation of the relative prices of goods and services produced in different countries, thereby allowing the comparison of those prices across countries. The government should also focus to motivate coffee exporters in terms of allowing them

to use some the hard currency brought through their efforts for increased motivation or encouragement.

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ANNEXES

Annex I: Cover Note

Indira Gandhi National Open University

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MA PROGRAM in Economics

Survey questionnaire for a Study on *Ethiopian Coffee Exports: Development Performance,*

Challenges and Prospects

Dear Respondents

This questionnaire is prepared to assess the *Ethiopian Coffee Exports: Development Performance, Challenges and Prospects*. The purposes of the study are to examine the major determinants of Ethiopian coffee export performance in the major importing countries and to analyse the challenges and prospects for the country's coffee export sector in detail. This helps to identify the major determining factors of Ethiopian coffee exports and the achievements reached by interventions meant to improve the export demand.

I respectfully request your kind cooperation in answering the questions that follow as clearly and frankly as possible and your response will be highly confidential.

Mechal Tadele

Thank you in advance for your cooperation.

Annex II: Questionnaires for Coffee Exporters,

Personal Information questions

Please answer by circling in one of the given choice or by writing black spaces corresponding to each item.

1. Age group (in year):

A. 20-30

C. 41-50

B. 31-40

D. 51+

2. Sex:

A. Male

B. Female

3. Level of education:

A. Below 12 grade

B. Certificate

C. Diploma

D. Bachelor degree

F. Masters and above

4. Your status/position in the business_____

5. Year of experience in the specific office/units_____

Survey questions

Select an appropriate answer from the given alternatives and circle it, for other questions please provide your answers on your own words.

3. Do you think that Ethiopia will be successful enough in achieving the target put on the five years Growth Transformation Plan (GTP) regarding the coffee export earning & coffee quantity?

A. yes B. No C. I have no idea

4. If your answer for **Q # 3** is No, what is /are the principal reason (s) for this?

5. Are there any challenges facing the Ethiopian Coffee export sector?

A. Yes B. NO C. I have no idea

6. If the answer for **Q #5** is yes, can you mention the existing challenges?

7. If the answer for **Q #5** is yes, do you think the government has a responsibility to play in this regard?

- A. Yes B. No C. I have no idea

8. If the answer for **Q #7** is yes, what do you think the responsibility they have to play?

9. Do you think that the government policy suitable with your company?

- A. Yes B. No C. I have no idea

10. If your answer for **Q #9** is „A“ or „B“ what do you think of the reasons?

11. Do you think that the current infrastructure development have comparative advantage to your company?

- A. yes B. NO C. little

12. If your answer for question **#11** is „B“ or „C“ what do you think of the reasons?

13. Do you think that the current financial environment have relative benefit to you company?

A. Yes

B. No

C. little

14. Do you think that the current Macroeconomic stability of the country suitable with your company?

A. Yes

B. No

C. little

15. Would you summarize the potential and existing challenges to Ethiopian Coffee export sectors?

Annex III-Exponential Growths

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	13.966	.185		75.616	.000	13.646	14.286
year	.075	.015	.755	4.879	.000	.048	.102

a. Dependent Variable: Natural Logarithms of Value of Coffee Exports (In Thousands of Birr)
(1991-2011)

Coefficients^b

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90.0% Confidence Interval for B	
	B	Std. Error	Beta				B
(Constant)	11.234	.055		204.770	.000	(Constant)	11.234
year	.045	.055	.919	9.877	.000	year	.045

b. Dependent Variable: Natural Logarithms of Quantity of Coffee Exports(In Metric Tons)(1991-2011)

Coefficients^c

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90.0% Confidence Interval for B	
	B	Std. Error	Beta				B
(Constant)	2.732	.177		15.470	.000	(Constant)	2.732
year	.030	.015	.432	2.035	.057	year	.030

c. Dependent Variable: Natural Logarithms of Unit Value of Export Items FOB (Birr/Kg)