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FDI flow and National competitiveness in the Ethiopian Flower Industry

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Abstract

Over the past few decades, relocation of global flower production from traditional hubs in Western Europe and North America towards developing countries has become recurrent in the global flower industry. In line with this trend, Ethiopia has emerged as one of the hot destination for flower production. Although flower production as a commercial undertaking is relatively new to its economy, the country came to be one of the main global suppliers. In about a decade time, the country has becomes the second largest exporter in Africa and the fifth largest non-EU exporter to the EU flower market. In view of this development, this study examines FDI flow and competitiveness in the country's flower industry by using Porter's (1990) diamond as analytical framework. The study employs a mixture of primary and secondary data sources including interview and survey conducted with flower farm managers/owners, and governmental and industry experts; and analysis of policy document, trade and other economic data from government organisations; United Nation Conference on Trade and Development (UNCTAD) and the Ethiopian Horticultural Producers and Exporters Association. The analysis uncovered the instrumental role FDI played for the emergence of the Ethiopian flower industry into the global scene. Although the export value has been growing over the years, over the past few years the sector's performance has been patchy as it not only lagged behind expectation but also showed a mixed trend. In addition, interesting inconsistency regarding the export value reported by the Ethiopian authorities and the value reported by the importing countries has been uncovered. With respect to the sector's competitiveness, the analysis revealed that the friendly investment climate in combination with the favourable factor conditions is the major catalysts in making the sector globally competitive. The other determinants of competitiveness i.e. related and supporting industries, demand condition and firm structure and rivalry are found to be weak.

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Acronyms

DBoE - Development Bank of Ethiopia

EHDA - Ethiopian Horticulture Development Agency

EHPEA - Ethiopian Horticultural Producers and Exporters Association

EIA - Ethiopian Investment Authority

EPRDF - Ethiopian People's Revolutionary Democratic Front

ERCA - Ethiopian Revenue and Custom Authority

EU - European Union

FDI - Foreign Direct Investment

FPI - Foreign portfolio investment

IMF - International Monetary Fund

ITC - The International Trade Centre

LDCs - Less Developed Countries

MNEs - Multi-National Enterprises

UNCTAD - United Nations Conference on Trade and Development

1 Introduction

1.1 Background of the study

The contribution of Foreign Direct Investment (FDI) to the development of a country has been a recurring theme in the economics literature over the past few decades. The theory identifies a range of channels through which FDI contributes to host countries' economy although empirical evidence does not provide conclusive evidence (Görg & Greenaway, 2004; Krkoska, 2001; Agosin & Mayer, 2000). In its classic role, FDI is considered as promoting capital formation in the host country by filling the gap between desired investments and domestically mobilized saving and thereby contribute to GDP (Krkoska, 2001; Ndikumana & Verick, 2008; Krkoska, 2001; Agosin & Mayer, 2000). In addition to this, FDI is also regarded as generating productivity spillovers to a host country's economy by facilitating the transfer of valuable technology, know-how, improvement of labour productivity, managerial practice and competitiveness (Borensztein, De Gregorio, & Lee, 1998; Findlay, 1978; Wang & Blomstrom, 1992).

With the ambition to augment the indirect benefits of FDI with the primary benefits of boosting their GDP, governments across the world have been making conscious efforts ranging from creating conducive investment environments to granting incentives to attract FDI. Over the past few decades, the emerging and developing world has witnessed a pragmatic policy shift in this regard. Many of these countries have shifted their focus to outward-looking export oriented strategy in place of the inward-looking import substitution strategy, which they experimented for many years before (Balasubramanyam, Salisu, & Sapsford, 1996; Kokko, 2002). The Asian countries such as South Korea, Taiwan, China, and Singapore are prime examples in this regard (Balasubramanyam, Salisu, & Sapsford, 1996; Sun, 1998). In line with this trend, many African countries are now actively seeking FDI by undertaking economic and political reforms designed to improve their investment environment (Dupasquier & Osakwe, 2006).

In the case of African countries, FDI is of paramount significance. Generally in less developed countries (LDCs) the level of national saving is extremely low and hence, there exists a huge gap between the required rate of investment and the existing rate of savings (Loayza, Schmidt-Hebbel, & Servén, 2000). To their dismay, most of these countries do not have access to international capital markets. This makes both official assistances from

developed countries and FDI of great importance to African countries. However, post-financial crisis austerity measures have resulted in the reduction of the official development assistance over the past few years (OECD, 2014). This makes FDI the most important alternative source of foreign capital for African countries as it provides access to foreign capital that would otherwise be unavailable. Acknowledging this, African countries are exerting a wide range of inducements to attract FDI such as reducing taxes, establishing an investment promotion agency to assist foreign investors and abolishing FDI-related restrictions. Increasing effort has also been put in initiating policies aimed at enhancing bilateral, regional and multilateral levels international cooperation and/or integration in matters relating to FDI (Asiedu, 2006).

As is a case in many other African countries, the Ethiopian government has been taking similar moves. Since 1991, the incumbent government has been undertaking a wide range of liberal reforms aimed at realigning the country's economic institutions to fit to the emerging milieu (Philibert, 2001). Various macroeconomic policies and reforms have been undertaken to make the investment environment friendly to foreign investors. In line with this, the investment regime has been liberalized through a series of proclamations and reform processes in such a way that foreign investors are not only allowed to participate but also get a wide range of inducements in several industries (UN, 2002; Weissleder, 2009). All the liberalization measures undertaken in the post 1991 period have encouraged foreign investment flows into the country (UN, 2002). One of the sectors in which FDI plays significant role is the flower industry. The Ethiopian flower industry represents an exemplary sector to examine the flow and consequences of FDI in developing countries. The sector came to existence in the late 1990's. In spite of its late entry into the flower export industry, in about a decade time Ethiopia came to be the 2nd largest in Africa next to Kenya and the 5th largest non-EU exporter to the EU cut-flower market (Gebreeyesus & Iizuka, 2010). To keep up the momentum, the sector needs to be competitive enough to continually attract FDI. In view of this development, this study aims at answering the following questions-

- What are the trends and structure of FDI in the Ethiopian floral industry?
- How competitive is the sector?
- What are the opportunities and challenges for the sector ahead?

1.2 Objectives of the study

This paper aims at providing an analysis of the FDI flow and competitiveness in the Ethiopian flower industry. In doing so, it tries to achieve the following objectives –

- To examine the trend and structure of FDI in the Ethiopian flower industry
- To assess the competitiveness of the Ethiopian flower industry and thereby provide contextual insight into the main issues surrounding the sector
- To assess the effectiveness of the measures taken by the Ethiopian and thereby give recommendations for policies directed towards the sector.

1.3 Scope of the study

The flower industry is a truly international industry with a value chain stretching across countries and continents. The chain involves a wide range of participants ranging from suppliers and producers to supermarket distributors, research institutions and capital investors. Making an insightful and comprehensive competitiveness study entails the inclusion of the whole value chain in the study. It is obvious that a comprehensive study covering each and every single element in the value chain calls for an extended deal of time, financial and other resources. Given the financial and temporal constraint faced, it is impossible to do so. To this end, the analysis of this study is confined to the flower industry actors within Ethiopia in general and flower producers in Ethiopia as focal points in particular. However, when needed and when data and literature from secondary sources are available, the study tries to take account of foreign parties and actors which have direct and indirect implication to the competitiveness of the Ethiopian flower industry.

With respect to the geographical scope of the study, it would have been more comprehensive if the study included all producers from all geographical areas within Ethiopia. However, the sparse distribution of clustered farms made visiting each establishment for data collection cumbersome and impossible. In line with this, decision was made to focus on those flower producers located nearby to Addis Ababa and along the main international road from Addis Ababa to Hawassa city due to their easy accessibility to collect data within the limited time and financial resource. Although this decision leaves out some of the producers, the fact that this area is highly concentrated with flower producers makes it possible to find desirable number of flower producers.

1.4 Significance of the study

Most of the previous studies that have been conducted on the Ethiopian flower industry focus on the sector's evolution, socio-economic and environmental impact, labour force issues, and income distribution. Focusing on the evolution of the sector, Gebreeyesus & Iizuka (2010) provides detailed naration on the Ethiopian flower industry's emergence. In a related theme, Gebreeyesus & Sonobe (2011) analyze how capabilities in the Ethiopian flower industry were formed and took shape while meeting the complex standards and trading procedures the global flower market requires. Focusing on the promotional activity of the government and environmental impact, Belwal & Chala (2008) on their part analyze the catalysts and barriers to the growth of the flower industry. With respect to labour, Taylor (2011) examines the role existing Ethiopian skills have played in the industry and how these skills have developed over time with the involvement of universities and international institutions in the implementation of training programmes. In a related theme, Nigatu (2010) assesses occupational welfare and the provision of income and other benefits for workers within the industry. Tilahun (2012) assessed the impact of cut flower in relation to the environment, economic and occupational health and safety, while Taylor (2011) explored how the benefits that accrue to various actors within the flower industry network are distributed. Melese and Helsing (2010), in their part, studied the implication of foreign capital domination, particularly of Dutch firms, in the sector.

None of the studies focus on the competitiveness of the sector. This study aims at filling this gap by assessing the flow of FDI and competitiveness within the Ethiopian flower industry. It is therefore expected to contribute to the understanding of the Ethiopian floriculture industry. More importantly, the outcomes of the study are expected to provide insightful information and valuable implication to policy makers and other stakeholders in formulating appropriate policies. In addition, it would also be helpful to the producers association, producers and other market actors by providing them thick description of the sector's competitiveness, challenges and prospects. Furthermore, the research could identify different research gaps which may initiate researchers to undertake further study related to the sectors' competitiveness. It can also serve as an empirical basis for further studies.

1.5 Organization of the Thesis

This paper is organized into eight chapters. The first chapter sets out to outline the study's research questions, objectives, significance and scope. Chapter two draws on the study's analytical framework. Chapter three deals with the research approach and methodologies employed. Chapter four presents the global flower industry. Chapter five describes the Ethiopian political and economic context within which the flower industry evolved. Chapter six gives an account of the Ethiopian flower industry's development. Chapter seven assesses FDI within the sector. Chapter eight examines the sector's competitiveness. The last chapter provides concluding remark.

2 Conceptual Framework

2.1 Foreign Direct Investment Theories

In order to thoroughly dig into the driving forces of foreign direct investment (FDI), it is important to have a clear understanding of the activities that the phenomenon of FDI encompasses. Foreign investment across national borders is generally conceived as the flow of private capital by firms or individuals of one country into those of another. Such investment can take two forms: foreign portfolio investment and foreign direct investment (FDI) (Hymer, 1976). Foreign portfolio investment (FPI) refers to passive holdings of securities such as foreign stocks, bonds, or other financial assets, none of which entails active management of the securities' issuer by the investor. Through such investments foreign nationals and institutions take indirect control of firms or existing assets. Foreign direct investment (FDI), on the other hand, refers to an investment in which a firm or individual in one country invests in a subsidiary residing in another country in exchange for ownership stakes (full or partial) and thereby, exercise a significant degree of control on the management of the enterprise. The direct ownership stake reflects establishment of a lasting interest that implies the existence of a long-term relationship between a resident enterprise (the investor) in one economy and an enterprise getting the investment residing in another economy. Such investments are conventionally defined as the acquisition of 10% or more of the assets of a foreign enterprise (OECD, 2008).

Even though researchers have tried to develop theories that explain the motivations for investment across national boundaries, there is no universally accepted theory. According to Hosseini (2005), the early attempt to explain FDI can be traced in the neoclassical trade theories. Traditional classical theories presume that there could be no international flows of capital and labour if markets work effectively and if there are no barriers in terms of trade or competition. Neoclassical theories tried to develop a model of international trade that accommodates foreign investment by relaxing the assumption of international factor immobility. These theories regarded the difference in return on capital between nations as the driving force for foreign investment. Firms are conceived as having the incentive to invest their capital in those countries where they get higher return for their invested capital. The capital flow is, thus, assumed to continue to the high return country until return on capital is equalized across countries. In these theories, capital and trade are treated as substitutes and hence, if barriers to trade are liberalised, capital flows are not rationalised (Hosseini, 2005).

However, the post WWII experience does not fit with this hypothesis. If lower trade barriers lead to reduction of FDI, the post war liberalization policies pursued by many countries across the world should have resulted in falling FDI. However, the evidence overwhelmingly suggests that neoclassical theories are deficient in explaining the recent patterns of FDI (UNCTAD(a), 2014; OECD, 2014; OECD, 2005; Jungnickel, 1993). According to Zebreg (1998), the neoclassic model's inability to pridict the patterns of FDI more reasonably emanates from its unrealistic assumptions of perfect competition, risk neutrality and absence of barriers to movement and transaction costs.

According to Hosseini (2005), these theoretical shortcomings were first observed by Hymer (1976). Analyzing the behavior of Multinational Enterprises (MNEs) and their FDI activities from the perspective of firms' strategic behaviour and markets' structure, Hymer (1976) contended that firms' decision to invest overseas is best explained as a strategy to capitalize on certain capabilities not shared by competitors. He assumed that local firms are better informed about local economic environment and hence, operate at an advantage in comparison to Multi-National Enterprises (MNEs) that have additional costs when doing business abroad. According to him, MNEs can compete successfully in foreign markets only so far as they possess certain advantages that are sufficient enough to outweigh the disadvantages they face in competing with indigenous firms. In order to take advantage of these benefits, the market for these advantages has to be imperfect so that the MNEs gain competitive advantages over their local counterparts. These advantages can take different forms such as larger or cheaper capital, intangible assets (trade names, patents, and superior management), superior marketing techniques, better products, superior technology, privileged access to raw materials and firm-level economies of scale (Hymer, 1976; Hosseini, 2005).

No matter how plausible Hymer's (1976) hypothesis is, his dissertation is argued to have failed in distinguishing between two types of market imperfections- the structural type and the transaction-cost type. Structural imperfections comes from the ownership advantages of factors such as proprietary technology, privileged access to inputs, scale economies, control of distribution systems, and product differentiation and hence, would lead to deviation from perfect competition in the product market whereas the transaction cost type imperfections arise naturally and are assumed to be exogenous to the MNE (Hosseini, 2005). According to Hosseini (2005), Hymer's (1976) market imperfection hypothesis focuses on the structural imperfections. Drawing on this shortcoming, Buckley & Casson (1985; 1976) developed

internalization theory that adresses the transaction-cost type imperfection. According to this theory, firms aspire to develop their own internal markets whenever transactions can be made at lower cost within the firm. The process of internalization involves the integration of operations and activities formerly carried out by intermediate markets under the ownership and governance of the firm (Buckley & Casson, 1985; Buckley & Casson, 1976).

Hymer's (1976) market imperfection theory and the internalization paradigm that followed it offer sound insights to explain the driving forces of FDI. However, individually each of these theories is limited in providing a complete picture. To make up for this, Dunning (1981; 1977) developed a unified theory of international production that combines the afore-discussed paradigms to explain the existence, activities and strategies of MNEs. His eclectic theory of international production suggests that the propensity of a firm to initiate foreign production will depend on the presence of three conditions: ownership (firm-specific), location and internalisation advantages. According to the ownership advantage hypothesis, MNE must possess ownership advantages such as superior technology, superior product, or transferable economies of scale and scope, brand name, trade mark etc that are not available to the host country firms. The ownership advantage relates to Hymer's (1976) imperfect markets proposition. When the ownership condition is fulfilled, according to the second condition, it must be more advantageous for the company that owns them to use the advantages itself rather than sell them or rent them to other firms through contractual arrangements such as licensing, the establishment of joint ventures, or managerial contracting. This condition embodies the transaction-cost-based imperfection upon which the internalization paradigm rooted. The third condition, location advantage, states that there should be locational advantages that enable MNEs to exploit their ownership advantages more profitably by locating some part of their activities in another country. With the addition of location advantage, the eclectic paradigm makes it clear that not only the ownership advantage and internalization advantages play a role in determining FDI activities but also the competitive advantages of potential host-countries (Dunning J. , 1992).

As the discussion so far highlights, the theories ranging from the orthodox neoclassical school of thought to the heterodox eclectic perspectives have tried to answer the question why a firm would choose FDI over export or licensing. In doing so, each of the paradigms have tried to build on the shortcomings of their predecessor and in the process, have gradually moved the theory of FDI away from the narrow confines of traditional economics to a more

interdisciplinary approach. The most influential approach that provided a cohesive conceptual framework to explain why MNEs choose FDI rather than serve foreign markets through other alternative modes is the one orchestrated by Dunning (1981; 1977). He argues that only realistic assumptions that base on an eclectic approach can provide a convincing explanation to the phenomenon of FDI. In this study, his eclectic approach is used as baseline in conceptualizing the flow of FDI in the Ethiopian Flower Industry. In the section to follow, his location advantage paradigm is used as a basic point of departure in developing a conceptual framework to provide the conceptual framework for the competitiveness of the Ethiopian Flower Industry.

2.2 National Competitiveness

In his eclectic theory, Dunning (1981; 1977) made it clear that firms would locate their production activities in those countries where they can exploit their ownership advantages more profitably. This implicitly would mean that they select those countries that have better competitiveness relative to other countries. It is therefore pivotal for nations to take measures that enhance their competitiveness (Porter, 1990).

The concept of competitiveness refers to an entity's ability to compete. According to Li (2011), competitiveness can be explained by the current state and future prospect. Each of the two can be further described by two dimensions. The current state can be explained by an entity's effectiveness and efficiency in accomplishing the competitive goals whereas the future prospect is portrayed by the sustainability of current state (current competitiveness) and the potential to improve on current state. The ideas embodied in this orientation goes in line with Porter's (1990) proposition of innovation and upgrading as pivotal to competitiveness. The current state, when translated to Porter's (1990) competitive-advantage notion, would mean how effective and efficient a nation's current productivity is relative to other countries. The future prospect refers to how sustainable the current productivity level is and how good the potential to improve is.

The basic idea of competitiveness can be seen from two levels: micro and macro perspective. At firm level, it can be described as a firm's ability to compete, grow and be profitable. Competitiveness at this level is determined by a firm's ability to consistently and profitably produce products that meet the requirements of an open market. Any firm must meet these requirements if it is to remain in business, and the more competitive a firm is relative to its

rivals, the greater will be its ability to gain market share. Conversely, uncompetitive firms will find their market share decline, and ultimately are bound to go out of business (Li, 2011). At a macro level, the concept is vaguely defined and much more controversial. Despite the fact that improving a nation's competitiveness is frequently presented as a central goal of economic policy, arguments abound as to what this means and whether it is even sensible to talk of competitiveness at a macro-economic level at all. Two schools of thought can be identified in this regard: the management school that advocates the notion of national competitive advantage and the economic school, which denounce the presence of national competitiveness (Smit, 2010).

According to the management school, competitiveness is the underlying cause of why some social groups, economic institutions and nations advance and prosper; and the only meaningful factor of competitiveness at the national level is national productivity (Porter, 1990). Under this orientation, countries are seen as an aggregation of industries whose economic performance is determined by the competitiveness of those industries. Therefore, the industry is believed to be the appropriate level of analysis. The central question is whether a certain industry in a country has advantages in the global market and how to improve the competitiveness of the respective industry. In doing so, the management school of thought assumes that firm competitiveness can be extended to national level by portraying countries as somehow in competition with one another (Smit, 2010; Porter, 1990).

Despite the fact that improving a nation's productivity is the central purpose of every economic policy, the extension of firm level competition to national level has opened up the debate on the meaning and understanding of national competitiveness. According to the economic school of thought, the analogy between the firm and the nation is incorrect and therefore, the concept of national competitiveness is elusive (Krugman, 1994). The underlying assumption in economic theories is that companies of different nations rather than nations themselves are the ones in competition with each other. The argument sounds reasonable. However, Dunn (1994) argues that countries compet economically, though in a different way than corporations do. He contends that conventional economic theories fails to notice the geniune political character of competition when applied to national economies. Though his point of departure is completely different from Dunn (1994), Cho (1998) points out that competitiveness can be measured for any entity with different levels: product, firm, industry, nation, or the globe. He argues that in a strict sense it is not companies, but similar products

that directly compete against each other. He explains that at the business-unit level in a multidivisional firm, managers talk about the competitiveness and performance of individual products but the firm's overall competitiveness depends often not on one particular product line but the entire portfolio of the products it produces (Cho, 1998). Similarly, an industry can be seen as a portfolio of firms within the industry and a nation as a portfolio of industries within the nation (Porter, 1990). Therefore, it is plausible to see competitiveness as a legitimate concern both at industry and national level in as much as it is at the product and firm level (Cho, 1998)

In addition to the disagreement on the analogy between the firm and the nation, proponents of the economic school argue that countries do not go out of business as uncompetitive corporations may do (Krugman, 1994; Kay, 2005). However, Peterson (2005) refute this contention by pointing out those nations that ceased to exist due to their failure to remain economically competitive and militarily strong (the latter often being a function of the former). The Soviet Union, the Republic of South Vietnam, and Czechoslovakia are good examples in this regard (Peterson, 2005). Li (2011) point out that the reasons why countries may not go out of business easily is simply because they can default their debts repayment when they become insolvent while corporations do not have that option. A good example he cited is Mexico in 1982. Thus, conceiving national competitiveness as meaningless simply because countries do not go out of business is irrational (Li, 2011; Peterson, 2005).

A well-established framework that can be used to analyze the competitiveness of nations is Porter's (1990) diamond model, which builds on his earlier frameworks on competitive strategy (Porter, 1980) and competitive advantage (Porter, 1985). In his seminal book, Porter (1990) tries to build a bridge between the theoretical literatures in strategic management and international economics, and provides the basis for improved national policies on competitiveness (Pitelis, 2009). The main question Porter (1990) attempts to answer is why some countries are more successful in particular industries than others. According to him, the answer lies in differences in national competitiveness, which he defines as a function of national productivity. He argues that the standard of living in a country can be improved when industries in the country improve their productivity. In his diamond framework, he identifies four classes of country attributes that provide the underlying conditions for the determination of national competitiveness. These are factor conditions; demand conditions; related and supporting industries; and firm strategy, structure and rivalry. In addition to the four

determinants, he also proposes two other factors, namely government policy and chance (exogenous shocks), that complement or negate national competitiveness but do not create lasting competitive advantages.

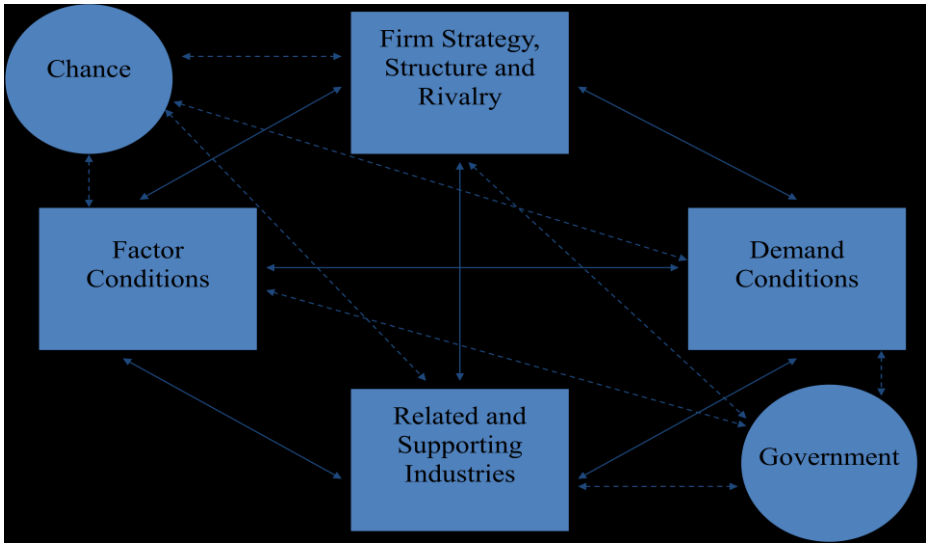


Figure 1- The diamond of national competitive advantage (Porter, 1990)

The first determinant deals with a nation's position in factors of production. Factor conditions have traditionally been defined as land, labor and capital. However, Porter (1990) argues that if factor conditions are to be useful in explaining competitiveness, they need to be defined at a much more disaggregated level than the simple trinity of land, labor and capital. He made distinction between basic factors such as unskilled labor, raw materials, climatic conditions and water resources that are inherited and require little or no new investment to be utilized and advanced factors such as skilled labor, infrastructure, sophisticated skills and knowledge, research facilities etc that are created and upgraded through reinvestment and innovation. He also distinguishes between generalized factors which can be deployed in a wide range of industries and specialized factors, which cannot. According to him, the advanced and specialized factors form the basis for the sustainable competitive advantage of a country, as they are factors whose supply depends on investments by individuals, companies and governments, not on exogenous endowment.

The other determinant considered by Porter (1990) is demand condition within the respective country. He pointed out that it is not only the size of the home demand that matters, but also the sophistication of home country buyers. It is the composition of home demand that shapes how firms perceive, interpret and respond to buyers' needs. In line with this, he distinguishes

three attributes of a home demand condition that create initial and ongoing incentive for investment and innovation. First, a country's industry benefits a lot in terms of competitiveness if the industry has its important market segment at home rather than elsewhere. Second, the presence of demanding and sophisticated buyers creates pressure on companies to meet the high expectations. Third, if the needs of buyers at home are capable enough to anticipate the needs of buyers in other countries, it gives a nation's industries a lead in learning how to meet those needs ahead. He concludes that a domestic market that has these attributes enhance international competitiveness as these conditions force firms within a country to continually innovate and upgrade their competitive positions to meet the high standards in terms of product quality, features and service demands.

The third element of the diamond deals with the presence of related and supporting industries. According to Porter (1990), a county's industry becomes internationally competitive if the country's economy accommodates strong clusters of industries which are linked to each other through vertical or horizontal relationships amongst competitive supplying and buying sectors or common customers, distribution channels or technologies. Porter (1998; 2000) argues that the external economies of scale associated with related and support industry clusters are the true source of competitive advantage. According to him, networks of specialized input providers, manufacturers of complementary products and companies in industries that are related by skills, technologies or common inputs support specialized suppliers, allow labor market pooling and help knowledge spill-over. He believes competitive clusters provide an environment in which learning, innovation and operating productivity can flourish and hence, they are among the most important influences on learning and eventually the ultimate source of many of the scarcest resources and capabilities of firms (Porter, 1998).

The fourth determinant identified in the diamond is firm structure, strategy and rivalry in the home country between firms. Porter (1990) contends that the strategies and structures of firms are extremely dependent on national environment and that there are systematic differences in different countries that define the way firms compete in each country and ultimately their competitive advantage. Under this corner of the diamond, Porter (1990) identifies rivalry amongst domestic firms in the home country as the most decisive driver of competitive advantage of a country's firms. According to him, competitive pressure amongst those in proximity to each other provides the dynamics that drives the search for internationally competitive products and practices. Domestic rivalry puts pressure on firms to

be cost competitive, to improve quality and to be innovative. As domestic firms are most visible to one another, the success of one firm shows the others that further development is possible in the local circumstances. Therefore, strong domestic rivalry can serve as a major spur to innovation and hence success in international competition.

Chance and government are the two additional variables in the diamond framework. According to him, these factors could complement or negate national competitiveness but do not create lasting competitive advantages. Chance events refers to exogenous factors such as technological discontinuities, wars, global shifts or political decisions by foreign governments that are beyond the realms of firms' sphere of influence. Such events are important because they have bearing on firms' competitive position (Porter, 1990). With respect to government, Porter (1990) underlined that government can influence all four determinants and hence, has important role in the creation of international competitiveness by influencing the four determinants. The influence, however, could be bad or good depending on circumstances. For instance, government can play a positive role by stimulating competition, improving factor conditions such as infrastructure, education or by setting quality safety and environmental standards that have cross-industry benefit. He noted that government's role is inevitably partial in a sense that it lacks the power to create national competitive advantage directly by itself.

As Porter (1990) points out, the diamond framework is not static; rather it constitutes an interactive system in which elements influence each other. The effect of one determinant depends on the development of and interaction with the other determinants. The determinants reinforce each other and competitive advantage is created as this mutual reinforcement between the determinants proceeds. Using the findings from his studies carried out in ten different nations as a frame of reference, Porter (1990) makes a proposition stating that countries go through a series of stages in their industrial development, moving from the factor-driven stage, to the investment-driven stage, to the innovation driven stage, and finally to the wealth-driven stage. As a country moves from the factor-driven stage up in the hierarchy, the general standard of living within the respective country is assumed to improve irrespective of welfare distribution. According to him, the industries which are successful in competition with those of other nations are those whose competitive strategies are appropriate for the country's stage of development. In the factor-driven stage, successful companies compete on the basis of low-cost that comes from cheap labor or low cost natural resources.

Hence, in this stage the competitive advantage of such a nation comes from only the factor conditions. Factor conditions play an important role in the second stage as well. Even though industries are conceived as competing on cost at this stage, the cost advantage is achieved through scale economies and state-of-the-art manufacturing practices applied to mature products, rather than low wages. Hence, this stage is manifested by heavy investments such as in infrastructure and education. Unlike the first stage, competitive advantage is based on two more corners of the diamond, demand conditions and firm strategy, in addition to factor conditions. In the innovation-driven stage, competition takes place on the basis of both product and process innovation and hence, a nation needs to have strength in all corners of the diamond to get into this stage. It needs to continually improve and innovate so that it can stay at the forefront. When a country reaches a level where it can no longer innovate and improve on its productivity, it proceeds to the wealth-driven phase, in which it essentially lives on its past and goes into decline. In the wealth-driven phase, the country's firms are run by stewards, rather than entrepreneurs. Belief in the value of competition is less intense as powerful firms seek protection through government policy. The motivation to innovate is reduced, employees become more interested in non-economic aspirations. All these will lead to mistaken government policies as national goals become more concerned with wealth distribution than wealth creation ((Porter, 1990).

Even though it is widely used as a frame of reference by academicians and practitioners, Porter's (1990) diamond framework came under criticism. The framework came under is criticized for its failure to pay enough attention to the role of government in the diamond framework (Grant, 1991; de Man & Bosch, 1997). However, De Man & Bosch (1997) argue that most critics misunderstood the role government can play in Porter's framework. As they pointed out, the fact that it is seen as an influencing factor and not as a determinant does not mean that governmental policy has a negligible influence on the creation of national competitiveness. The other group of critics point to the failure of Porter (1990) to relate the role of government to the industry life cycle. Porter (1990) underlined that government plays a different role depending on the stages of national competitive development. However, he does not relate the impact industry life cycle can have on different phases of the national competitiveness. According to Van den Bosch & De Man (1997), the role of government should vary according to phases of the industry life cycle. It may need to be very active in the early phases of development, diminish in influence when the industry matures and may come back to play an important role in restructuring the industry in the decline phase. Incorporating

these extensions in the Porter's framework would contribute to a more balanced understanding of the impact of government on competitiveness (de Man & Bosch, 1997).

Another aspect of the diamond that attracted critics is Porter's (1990) insistence that firms' ability to compete depends largely upon the strength of the diamond in their home base and his assertion that national economic performance depends upon firms for whom the nation is the home base. Dunning (1992) argues that both of these assertions are inappropriate. He contends that a foreign MNE which locates its operations in a country can help local suppliers to improve and upgrade if it is more demanding than domestic firms. Likewise, the presence of foreign MNE may create opportunity for domestic firms to be aware of different consumer demands and thus stimulates the quality of demand in the home market. He also argues that it is illogical to suggest that the competitiveness of firms which have a large proportion of their operations outside their home solely depends on the strength of diamond in their home country. Thus, Dunning (1992) extended Porter's diamond in such a way that it accounts for MNEs activity and influence. He therefore suggests MNEs be considered as a third exogenous variable in addition to government and chance. Even though they agree with Dunning's (1992) argument, Rugman & D'Cruz (1993) disagree with the idea of considering MNEs as an exogeneous variable. They insist that Porter's framework needs to be adapted not only with respect to the MNEs' but also with respect to the diamond of the countries that trades heavily with the focal country (Rugman & D'Cruz, 1993). According to them, the home base diamond analysis is incorrect for small, open economies that are highly interdependent with one or more countries. Due to this interdependency, proponents of the double diamond posit that the competitive strength of that country's strategic clusters rests on their ability to draw on the other trading country's diamond, learning from demanding foreign customers, using resources from both countries, and purchasing inputs from the supporting industries in both places. Hence, they insist that each country needs to set its own home-country diamond against the relevant trading country's diamond (Rugman & D'Cruz, 1993). In addition to the afore-discussed criticism, Porter's (1990) diamond has been criticized due to its limited analysis of the role of culture, the ambiguity regarding the correct geographical level and its interpretation of inward and outward FDI flow (de Man & Bosch, 1997).

The discussion so far presents the conceptual perspectives that underpin the assumptions, premises, finding and critics about Porter's (1990) diamond framework. As discussed above, the model provides a useful framework to identify a country's sources of competitive

advantage that firms can use to enhance their competitive positions internationally. It is useful in analyzing locations as a source of international competitive advantage for firms. However, as the critics indicate, the framework becomes more comprehensive when the role of other trading countries local conditions is taken into account. In line with this, in this study the double diamond framework approach is used as a frame of reference to analyze the competitiveness of the Ethiopian flower industry. Hence the framework is applied to the Ethiopian flower industry in such a way that the diamond of Ethiopia's most trading region, Europe in general, is taken into account in addition to the condition within the Ethiopian economy. It should, however, be noted that the determinants from European diamond are considered when they are found to be significantly important in influencing the Ethiopian flower industry. Otherwise, the focus is on the Ethiopian flower industry. Besides, the association of the Ethiopian flower industry with its European counterpart is conceived not in the sense of creation of competitive advantage, rather in the sense of creating competitive parity with other competing countries that have access to the European flower industry.

3 Methodological approach and description of data

3.1 Research design and approach

In order to comprehensively study the issue at national level, it would be ideal if the study was designed in such a way that it uncovers the trends and structure of FDI in the Ethiopian Flower Industry and the competitiveness of the sector as intensively and extensively as possible. However, as academic literature, data and information about the Ethiopian floriculture is limited, it would be difficult to have the ground to explore further in explanatory manner. For this reason, this study is designated to be descriptive in its nature. Apart from this, to broadly describe the issue in a more credible way, data from as many sources as possible should be pooled for making insightful analysis. To this effect, this study employed a mixture of methodologies with the aim of triangulation. In line with this, one way methodological triangulation that relates to the collection of data from different sources such as government organisations; UNCTAD, flower producers' association; individual growers and exporters is employed with the aim of uncovering plurality not observable when using a single source. Government sources are expected to provide information regarding the government's policy and national statistics regarding the sector whereas individual producers and exporters provide insight from the growers' point of view. The UNCTAD data in its part provides the statistics of the Ethiopian flower export value as reported by the importing countries.

3.2 Sampling and data gathering methods

In conducting any kind of study, it is important to make preliminary assessment of the issue under consideration from existing academic literature and other secondary sources. In line with this, I conducted desk research involving a general assessment of global and floral industry in general and Ethiopian flower industry in particular as a first stage of the study. Hence, before embarking on fieldwork, I did an extensive reading of the existing literature and other secondary sources. In the process of doing this, it became evident to me that there is very little academic work and publications on the Ethiopian floriculture. I could not find much of the data on Ethiopia's macro-economic statistics in general and the country's flower industry in particular readily available from secondary sources. This made my fieldwork a necessity as such statistics and data had to be sought from the respective industry's associations, private and government actors in the country. In spite of the limited literature

and secondary sources, I have tried to tap as much data and information as possible from already existing literature and secondary data sources.

The second stage in the data collection process involved the collection of primary data from the governmental and industry sources in Ethiopia. As mentioned in the research design section, I sought data from different sources. As far as the selection of respondents from the respective sources is concerned, I used different approaches according to the data source used. Regarding government offices and other public actors such as National Investment Agency, Ethiopian Horticulture Development Agency and the Ethiopian Horticultural Producers and Exporters Association (EHPEA), I used purposive sampling to target those officials and experts that are directly dealing with the flower industry. When it comes to selecting individual flower producers, I used convenience sampling in order to include accessible and willing owner/managers of the farms. In line with this, I targeted managers/owners of flower producers that are located nearby to Addis Ababa or along the main road from Addis Ababa to Hawassa City.

As far as data collection is concerned, I used different data gathering techniques. In the collection of data from government and other public sources, I have relied on the analysis of policy documents, reports and publications related to the floral industry and the national economy. Thus, reports from the Ethiopian Investment Agency, the Ethiopian Horticulture Development Agency, the Association of Horticulture Producers, the Ethiopian Revenue and Custom Authority have been explored. The report from the Ethiopian Horticulture Development Agency and the Association of Horticulture Producers provide general information regarding the flower industry in Ethiopia whereas the reports from the Ethiopian Investment Agency and the Ethiopian Revenue and Custom Authority provided the FDI and export data in the sector respectively. In an effort to triangulate the data, I used indirect export data (mirror data) as reported by importing countries from the database of UNCTAD. In addition to the reports from these organizations, I conducted in depth semi-structured interviews with officers/experts from Ethiopian Horticulture Development Agency and the Association of Horticulture Producers. I was not able to do this with National Investment Agency officers. I was rather provided with the relevant data.

I preferred to use interview in collecting data from the officers mainly due to its advantage in uncovering and clarifying things insightfully and exhaustively which would otherwise be difficult to get using questionnaire. The semi-structured nature of the interview allowed

adapting the questions in such a way that they would include issues and aspects which I had not considered before the interview but had become evident and important during the course of the interview. With respect to flower producers, I planned to administer questionnaire to at least 30 flower producers. However, this was not possible mainly due to the unwillingness of the flower producers. This eventually reduced the actual number of flower producers who took part in the study to 26. In addition to this, I planned to conduct semi-structured interview with managers/owners of some producers in order to get more insight on the sector. I managed to get only five farm managers who were willing to be interviewed. The data collected from primary sources and the information extracted from secondary sources are presented at various points in chapter six, seven and eight in such a way that it fits to the analytical framework developed in the previous chapter.

3.3 Reliability and Validity of the study

Though reliability and validity are prominent to a quantitative perspective, they are as much relevant to qualitative studies as well (Babbie, 2007; Bryan, Teevan, & J., 2005). However, due to the inherent difference between the two approaches in terms of measurement, epistemological foundation and ontological considerations, Bryan & Teevan (2005, ss. 148-151) argues that the meaning of research reliability and validity needs alteration to fit the qualitative discourse. In this regard, Lincoln and Guba (1994) proposed four qualitative research criteria – credibility, transferability, dependability and confirmability, each of which have equivalent criteria in quantitative research - internal validity, external validity, reliability and objectivity respectively.

The credibility criteria in qualitative approach refer to whether the results of qualitative research are believable. This goes in line with the criteria of internal validity, which refers to the extent to which a study's results can be accurate in quantitative approach. Transferability deals with how well the results of a research can be generalized to other contexts. This in qualitative research refers to external validity - the extent to which the results of a study can be generalized to other situations and to other people. In qualitative research, transferability can be enhanced by describing the research context and the assumptions that were central to the research thoroughly, so that other researchers who may want to transfer the results to a different context can make reasonable judgment of how sensible the transfer is (Guba & Lincoln, 1994).

The third criteria, dependability is analogous to reliability in quantitative researche. In quantitative approach, reliability refers to whether it is possible to obtain the same results if the research is repeated. In order to enhance this, dependability criteria in qualitative research calls for the need for the researcher to account for the ever-changing context within which research occurs and how these changes affect the way the research is conducted. The fourth criteria, confirmability, refer to the degree to which the results could be corroborated by others. It is analogous to objectivity in quantitative research, which emphasizes that the findings of a study should depend on the nature of what is studied rather than on the personality, beliefs and values of the researcher. One way to enhance this is to document the procedures for checking and rechecking the data throughout the study so that others can conduct a data audit that examines the data collection and analysis procedures and makes judgements about the potential for bias or distortion (Guba & Lincoln, 1994).

These four set of criteria are assumed as a point of reference to ensure this study's reliability and validity. In line with this, I used one way methodological triangulation that relates to the use of different data sources to enhance the credibility of the study. With respect to dependability, all phases of the study ranging from methodological choice and selection of sample cases to interview transcripts and data analysis procedures have not only been clearly sorted out but also strictly followed as much as possible. I presented all respondents with a set of questions that are developed in such a way that they show a good match with the research questions and the study's analytical framework. The questionnaire is presented in the appendix part. It should, however, be noted that I have adjusted the interview questions to fit the formal role of respondents when needed. Though the interviews were recorded in Amharic, I have translated them to English. As I am not professional translator, this may pose an issue. I tried to reduce the potential error by consulting other native speakers of the local language to check the accuracy of the translation.

Likewise, in order to enhance the transferability of the findings, the selection of individual producers and exporters was proposed to be conducted in such a way that the resultant samples are diversified enough to represent the whole industry. However, this was not conducted as planned, partly due to the unwillingness of some flower producing firms to participate in the study and partly due to constraints in terms of limited time and financial resource. The unwillingness of some flower producers to participate in the study may introduce a selection bias and thereby, have implication on the representativeness of the

respondents. This may cast question on the transferability of the study's findings. Without sufficient firm specific data, I found it difficult to assess how this would play in affecting the study's outcome as it is difficult to tell the size and characteristics of individual firms. However, I expect that it would not have a magnified implication as some of those growers who declined for interview were willing to participate in filling the questionnaire. In addition, according to Lincoln and Guba (1994) transferability can be enhanced by doing a thorough job of describing the research context and providing thick description of the issue under consideration. In line with this, I have tried to give as much care as possible to make the collected data and analysis as comprehensive and insightful as possible so that it would provide a database for making reasonable judgments about the Ethiopian flower industry. In reference to the fourth criteria, dependability, Lincoln and Guba (1994) stress the need to account for the ever-changing context within which the research is conducted. In line with this, in the section to follow a thorough description of the changes that occur in the setting and how these changes affected the way I approached the study is provided along with other practical issues.

3.4 Practical and ethical issues during field work

The prime overriding issue that I encountered during the field survey was access to respondents and to data. As it turned out, I did not find the data collection process as smooth as I expected and hence, in some circumstances, I needed to alter the fieldwork approach and instrument. The first challenge in this regard is in relation to the collection of data from governmental and other public sources. Except in the Ethiopian Investment Agency, where predefined rules about how and which data would be released are set clearly and where the employees are very friendly, the process of data obtaining was too bureaucratic from other offices. Often, offices had to be visited repeatedly to get the respective officers with the authority to permit the release of data. In some circumstances, it was found difficult to convince and get the cooperation of officers. This emanates from the nature of the bureaucracy existing in Ethiopia. Due to the existing domineering government culture, a great number of Ethiopian officers are both somewhat reluctant and hence, careful in the information they provide. Even in those circumstances where they are willing to cooperate, sometimes it was difficult to get the kind of data designated as such data may not be readily available.

I encountered a more pressing challenge when collecting data from individual producers. Resistance by individual firms was expected from the very beginning as any private businesses in any industry naturally tend to protect the release of any data that could compromise its competitive position. However, the case with some of the flower producers was even more serious and difficult. Therefore, there were a number of circumstances I was denied of getting data and response. The hesitation of the flower producers to get involved in the study is related to the claim by some recent studies regarding the environmental implication and workers welfare in the Ethiopian flower industry. According to some studies, workers' welfare and the environmental impact of the industry are on the stake in the Ethiopian flower industry (Tilahun, 2012; Haug, Ingrid, Jens, & Suma, 2008; Tadele, 2009; Nigatu, 2010). Owing to this, a number of flower growers were reluctant to grant access to information fearing that the information they give out would result in similar allegation against their business. This eventually reduced the number of flower growers included in the study significantly. Even in those circumstances where cooperation was attained, they were not willing to share information they thought were sensitive and hence, I was unable to collect as much data as desired. This may have a bearing on the triangulation designed in the study as the absence of sufficient data from these sources affects the insightfulness of the study.

Putting aside these challenges, another issue that came to light during the field survey is ethical considerations in relation to the anonymity of respondents. Due to the sensitiveness of the sector owing to the afore-discussed reasons, it has always been difficult to get cooperation from most of the data sources in general, the flower growers in particular, especially when the respondents are employed managers, not owners. Indeed, their concern is understandable. The disclosure of their identity or position or even company in any way has a potential bearing on their professional career. As a matter of fact, keeping respondents' identity anonymous was the basic ethical consideration underlined in the planning stage of the field survey not only because this was necessary to convince data sources but also as a moral imperative to make sure that respondents won't be affected due to their participation in the study. In line with this, assurance was given to all respondents that their identity would be kept anonymous throughout the study. It should however be noted that in the analysis and interpretation stage, it may be necessary to refer to the position of the respondents to provide context regarding the information they gave. In such circumstances, their position is referred without mentioning their personal background and institutional affiliation.

4 The Global Cut Flower Industry - Consumption, Demand and Production Patterns

Consumers buy flowers because of traditions, culture and lifestyle. Unlike other agricultural commodities that are needed to satisfy nutritional or energy requirements, flowers are sought to satisfy emotional and aesthetic needs. Even though they are extremely perishable as is the case with most agricultural products, flowers are a very special class of commodities in a sense that their intrinsic value, which comes from their use in satisfying emotional and aesthetic need, differs from that of most other agricultural commodities. This makes the market for flowers an interesting and challenging object for economic analysis (Steen, 2010).

The culture of using flowers as good gestures and gifts to express emotions, beautify environs, conduct rituals and commemorate observances has existed for many centuries. However, the emergence of floriculture as an industry has been driven largely by the consumption habits of the ruling nobilities and upper class people in urban centres of Western Europe in the 19th century. In the first half of 19th century, floriculture was started in England where flowers were grown on a large scale basis on vast estates (Goody, 1993). The Netherlands then emerged as main producer in Europe by the early 1900's mainly due to its flat and fertile land, and proximity to the growing market in continental Europe (Hortiwise; FlowerWatch , 2012).

Before the 1960's, demand for cut flowers was predominantly met by local production. However, as transportation systems developed in Europe, the landscape changed remarkably. Expedited movements enabled the distribution of cut flowers grown in one country to other countries within Europe (Hortiwise; FlowerWatch , 2012). In 1973 when the world energy crisis occurred, producers in northern Europe became under competitive pressure because cut flower production became more expensive for northern growers relative to southerners due to increased energy costs[1]. Thus, increasingly larger quantities of cut flowers were grown in southern Europe to meet the demand in Northern and Central Europe. This development needed an efficient floricultural trading hub-network through which flowers are distributed from the Southern Europe to the Central and Northern Europe. With its pioneering auction system, important logistical hubs, its proximity to Europe's 500 million consumers plus the

[1] Energy cost for the production of flowers in Europe constitutes one of the major cost aspects due to the need for controlled temperature in greenhouses during the winter season.

development of high-quality production and distribution methods, the Netherlands appeared to be the perfect candidate to be at the heart of the budding European floriculture business (Hortiwise; FlowerWatch , 2012; Wernett, 1998). Since then, it became a global trendsetter and undisputed international market leader. The vast majority of commercial cut flowers go through the Netherlands' well-established flower auctions if not been grown in the country (Taylor, 2011).

Fuelled by economic growth and cultural characteristics in the Dutch and German-speaking countries, the European flower market transformed from immature to emerging and eventually to matured market in the 1970's and 1980's. The market expansion was so massive that it grew at annual double-digit growth rates. The demand for a year-round supply, which triggered cut flower production in non-traditional production sites such as Israel, Africa and South America, emerged during this period. In about the same period, the European flower industry was able to influence flower production and sales in North America. Although production of flower began in the USA following European settlement, production was on small scale to supply the populace of nearby cities and towns. However, the introduction of European flowers through the Dutch flower auctions system in the 1970's has influenced the sector remarkably. Through dedicated promotion activities in the USA, the European flower producers led by the Netherlands were able to motivate Americans to purchase more cut flowers for gifts, occasions and everyday use, similar to consumer habits in Europe. Hence, it didn't take long for the European flower producers to gain significant share of the budding US market (Wernett, 1998). In the late 1980's, attracted by the growth of Asian economies, the European flower industry sought to expand in Asia. Initially European growers started commercial floriculture production in Southeast Asia to meet the increasing need for low cost flowers by the European cut flower market. However, as the economies of Asian countries boom, European growers sought to tap the opportunity by using their already established production in Asia. Using Japan as starting point, European growers were able to swiftly move and strengthen their position in the Asian lucrative market. The Dutch auctions system served to redistribute the Southeast Asian production to the Japanese and other Asian markets (Wernett, 1998).

Over the last few decades, notable changes occurred in the cut flower industry in relation to demand, production and distribution (van Uffelen & de Groot, 2005; van Liemt, 1999). With respect to demand, strong economic indicators in the 1980s and 1990s made the consumption

of flowers grow steadily. Flowers have regularly been demanded by middle and upper-income homes. In addition, as companies, events and recreations start to use more flowers for ornamental purpose, the institutional consumption has also increased. Consequently, global consumption demonstrated a tremendous growth between 1980's and the mid 2000's (GIA, 2012; van Uffelen & de Groot, 2005). It should however be noted that consumption is concentrated in North America, Western Europe and Japan. Western Europe accounts for over half of the world cut flower consumption and on individual country basis, the United States, Japan and Germany are the three largest single markets in their respective order (van Uffelen & de Groot, 2005). Even though the sale of flowers was initially expected to go on increasing, the recent global economic crisis took its toll on the market as sales of flowers withered. Though the downturn had implication for the flower demand, it did not completely halt the market growth. Global flower market witnessed a positive growth in 2010, after relative decline in earlier years. There is a general feeling that the demand in Western Europe and other mature markets faces a period of stagnation with moderate growth. However, the economic boom in growing and emerging economies is expected to keep the momentum in the global demand for flowers, even against the background of the turbulence in matured markets. In this regard, Asia and Eastern Europe have big potential as emerging markets due to rising prosperity (GIA, 2012; Hortiwise; FlowerWatch , 2012).

With respect to production pattern, the industry's production chain was traditionally structured close to major markets, European and the US flower markets, with Netherlands being not only the main trade-hub but also major producer in the world. However, overtime this structure has changed remarkably as the industry players react to increased globalisation, the change in consumer tastes, development of advanced transport services, and lower labour costs, availability of land, good climatic conditions and year-round production in the southern developing countries (van Liemt, 1999; Labaste, 2005; DEFRA, 2007). In line with this, relocation of flower production from traditional hubs in the Northern hemisphere such as Western Europe and North America towards countries where climatic conditions are more favourable and production and labour costs are lower has become recurrent in the global flower industry (Rikken, 2010; van Liemt, 1999). This shift in production occurred in evolutionary process. Initially it came in lower-quality, higher-volume varieties where the knowledge and skill requirements for optimum production were lower. This made traditional producers in matured markets focus on the high-value varieties where, being proximate to the market, they could be more responsive to consumer demand and take flowers to market in

optimum sale condition without considerations of perishability during transit. In due course, as production capabilities improved, production centres in developing countries were able to produce the high-value varieties at a greatly reduced cost. This eventually narrowed the scope of producers in the traditional production hubs to those varieties which are most easily damaged in transit, or can be easily produced without energy or labour inputs (Tanya & lga, 2007; Taylor, 2011). Consequently, in a slowly but steadily growing manner, developing countries such as Colombia, Kenya, Ecuador and Ethiopia are gaining market share in place of traditional producers (Rikken, 2010).

The value chain of flower industry is affected not only from production perspective but also from marketing and distribution aspects as well. The industry is evolving towards lean and transparent distribution chains. Direct trade channels, bypassing the auction system, are growing. As transactions are increasingly handled by means of computer systems, an acceleration of technology and knowledge development in the way flowers are traded is witnessed. Further down in the downstream activities, distribution of flowers is becoming virtual as wholesalers are offering products online (Rikken, 2010). Likewise, as major supermarkets seek greater involvement in floriculture in search of economies of scale and greater influence over the nature and timing of production, the traditional distribution structure is evolving into a dual structure with, some distribution channels controlled by independent florists and others distribution channels are controlled by mass retailers (such as supermarkets chains) (Labaste, 2005; Taylor, 2011). While most of the product used to go to outlets like independent florists and local stores, lately supermarket chains and garden centers have become influential with their high and specific demands. Such changes in the marketing channels are making flowers more readily available to consumers at lower prices (van Uffelen & de Groot, 2005). So as to cope up with the increasing demands of supermarkets for affordability, quality audits, labels and certificates, market actors in the upstream distribution chains such as wholesalers and importers have started co-operating with growers very closely (Taylor, 2011).

Nowadays, the flower industry is truly global. International production and trade is largely organised along regional lines. It is dominated by south-north flows with Europe and North-America housing the world's largest consumer markets while the major producing countries are situated in low latitude countries. In line with this, African and European countries are the principal suppliers to the main European markets; the North-American cut flower market is

mainly supplied by Colombia and Ecuador; and Asian markets source primarily from Asia-Pacific countries (Hortiwise; FlowerWatch , 2012).

5 Ethiopia's Political and Economic context

Ethiopia is a nation with a long and complex history. It is one of the ancient countries in the world with a long history of independent statehood even during the African colonization. In the last four decades, it went through major political transformations ranging from a feudal system to socialist and more recently to federal government. Before the 1974 revolution, the established aristocracy and the majority of peasants (tenants) constitute the major socio-economic agents. Land was the critical resource, the control of which was important for any group that aspires for power. It was controlled by the feudal lords whose livelihood depended on exploiting the peasants (Geda, 2007). Even though there were attempts to modernize during the imperial regime, the initiatives failed to respond to meet the societal demands for change. As a result, the long standing feudal dynastic rule was overthrown in 1974 by revolutionary upheavals. The revolution gave rise to the military dictatorship known as the Derg.

Soon after its rise to power, the military government introduced a socialist economic system. It undertook a wide range of political, economic, and social reforms that revolve around the socialist principles of extensive state ownership and control, large-scale regulation of economic activities and restrictive economic policies. To its credit, it not only declared nationalisation of land that automatically ended tenancy but also equality among the country's ethnicities and religions, and plurality in the use of languages. However, some of these reforms were not translated into practice. Among the unfulfilled promises, ethnicity served as both resource and product for the mobilisation of armed insurgency against the military regime in the 1970s and 1980s by a number of opposition groups (Vaughan, 2003). In the economic front, the Marxist economic policies coupled with the debilitating civil war grinded down the country's economic performance. Between 1974 and 1990, growth slowed down from what it was during the imperial regime. As a result, between 1975 and 1990 Ethiopia's economy was turning down, with an average GDP growth of 2.3% and per capita GDP growth of -0.4%. During the last year of the military government, GDP declined by 5 % in real terms with extreme level of inflation, defence expenditures accounted for 40 to 60 % of the national budget, merchandise exports fell to their lowest level since 1974 and a collapse in international coffee prices reduced foreign-exchange reserves to an all-time low (Geda, 2007; Philibert, 2001).

In 1991, the Derg was ousted by a coalition of rebel groups led by Ethiopian Peoples' Revolutionary Democratic Front (EPRDF), an umbrella organization of ethnic-based organizations under the control of Tigray People's Liberation Front (TPLF). Under the new regime, Ethiopia implemented ethnic based federalized constitution that guarantees, at least in principle, regular democratic parliamentary elections accessible to all citizens (EFDR, 1994). According to the new makeup, government policies are deemed to centre on ethnicities and the federal parliament is, in theory, the highest organ of political power. However, in practice real power has vested in the hands of the architects of the system. The EPRDF in general, the inner circle elites of TPLF in particular have been governing the country as omnipotent and omnificent since they took power in 1991 (Abbink, 2006; Vaughan, 2003; Adegehe, 2009).

In the economic front, the country's economic condition coupled with the international collapse of communism and the global rise of neo-liberalism necessitated a nationwide structural and institutional reform. In line with this, the incumbent government showed a political will to move from a planned to capitalist economy by ostensibly adopting the Structural Adjustment Program prescribed by IMF and World Bank. The program revolved around privatization of state-owned enterprises, liberalization of trade policies, devaluation and deregulation of prices and foreign exchange. With these reforms, the Ethiopian economy has been going through a slow process of economic reform and liberalization over the past two decades. It should however be noted that the compliance of the incumbent government with the reform policies has been less so in practice than in rhetoric (Philibert, 2001).

After a period of sporadic experience in the 1990's, Ethiopia has experienced strong economic growth over the past decade. With real GDP growth at or near double digit levels since 2003/04, the country's economy has expanded much faster than most other countries in Africa (World Bank, 2013). In 2012/13, the economy has continued repeating the high-growth trajectory of the previous 10 years. In the 2012/13 fiscal year, Ethiopia's economy grew by 9.7%, the eleventh year in a row of robust growth. Average annual real GDP growth rate for the last decade was around 10.9%. In 2013/14 fiscal year, the country's GDP reached over 47 billion USD with per capita income of 558 US dollars while inflation decreased relative to prior years (MFED, 2014). Growth has been broad-based, with the industry sector growing at higher rate than agriculture and services sectors. Although the structure of the economy has changed in favour of industry and service sectors over the last few years, the change has been evolving at slower rate than planned (MFED, 2014). This growth momentum is expected to

continue in the coming years, albeit at a slower pace (IMF, 2014; World Bank, 2013). The country's exports have also been growing strongly, averaging about 25.1 percent per annum between 2003/04 and 2009/10 (ADBG, 2010). Ethiopia's major traditional exports include coffee, oil seeds, gold, chat, pulses, and live animals (MFED, 2014). While coffee remains the largest source of merchandize export earnings, non-traditional agricultural exports have registered faster growth. The flower industry is a case in point. Flower exports have expanded from less than a million USD in 2004 to close to USD 165 million in 2013 (ERCA, 2014). External sources such as the International Trade Centre report that it is nearly USD 230 million (ITC, 2014). As a result, the share of non-coffee exports increased considerably. With imports rising faster than exports, the deficit in balance of trade increased significantly over the years. Consequently, the capacity of export earnings to cover import bills had declined (ADBG, 2014).

With all the reform endeavours and recent performances, it is clear that the Ethiopian economy is going through a process of economic liberalization and revival. In the years ahead, the country is projected to keep on being among the fastest growing non-oil producing economies in Africa (IMF, 2014; World Bank, 2013; ADBG, 2014). However, the government's strong involvement in the economic sector casts question. As opposed to its initial rhetoric towards the market mechanism, in recent years the government opted to a state-led development model that emphasizes extensive state participation in the economy (ADBG, 2014; ADBG, 2010). The government has been recommended to limit its involvement in the economy (IMF, 2014). However, the statuesque does not seem to change. State-owned enterprises and political ruling-party owned enterprises dominate the economic landscape, reducing room for the private sector to flourish. The government still retains control over the utilities sector, as well as telecoms, and prohibits foreign ownership of banking, insurance, and financial services and does not seem to have the appetite to make change on any of these sectors (US, 2014; ADBG, 2014). It is within this post-communist context that the Ethiopian floriculture industry has emerged. Hence, the ideology and policies the incumbent government pursue are of paramount significance to the growth of the floriculture industry. In line with this, a thorough review and evaluation of the current government policies towards the flower industry are done in the analysis part in section 8.1.5.

6 The Ethiopian Flower Industry

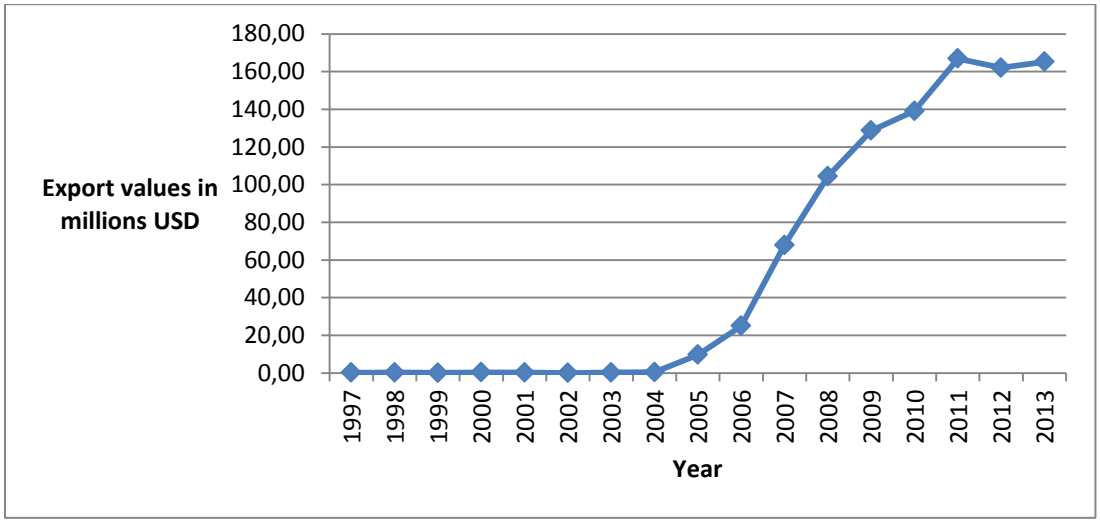
6.1 Development of the Flower Industry in Ethiopia

Although flower production as a commercial undertaking is relatively new to Ethiopia's economy, within a short period of time it emerged as one of the main sources of foreign exchange for the country. The origin of the sector in Ethiopia can be traced back to the military government. In 1980, the military government established the Horticulture Development Corporation with the primary objective of generating foreign exchange earnings. The corporation had the mandate to coordinate production and marketing of horticultural products including flowers. In line with this, production and export of summer flowers was started for the first time in 1981/82 on state farms with high subsidy from the government. However, the inefficient production did not stay long (Joosten, 2007). After the fall of the Derg regime, the industry re-emerged in the mid 1990s as a result of private initiative. Two local companies named Ethioflora and Meskel Flower pioneered production (open field) of summer flower. The two companies were able to export flowers. However, they were not as such successful mainly due to the unfavorable investment climate, their limited experience and knowledge about the business (Gebreeyesus & Iizuka, 2010).

However, the embryonic effort of the two companies was able to attract attention from international actors such as the EU, the UK and the Netherlands who saw the flower industry as a potential sector to be nurtured. The EU collaborated with the Ethiopian government to commission preliminary production in the late 1990s on half a hectare of land. The objective was to investigate the available inputs and climatic conditions and thereby develop marketing strategies for large scale commercial undertakings. In the same way, the UK's Department for International Development (DfID) conducted a number of feasibility studies aimed at locating potential flower production areas to supply to the UKs' supermarket chains. Similarly, a business delegation from the Netherlands visited Ethiopia to examine the potential of growing flowers that would be supplied through the Dutch auction system to the European market (Taylor, 2011). The involvement of these foreign governments contributed to the international awareness of the Ethiopian flower industry. Subsequently, a number of foreign investors began to set up flower farms in Ethiopia. Golden Roses, a subsidiary of RINA Investment - an Indian family business based in the UK, is the first foreign firm to enter Ethiopia in 1999. It was able to produce roses for export under wooden greenhouses the same year and by 2000, it expanded its production scale using modern greenhouse technology (Taylor, 2011; Taylor,

2010). In spite of the effort by the pioneering Meskel Flower and Ethio-Flora to lay the foundations for flower production in Ethiopia, Golden Rose is considered as pioneer within the Ethiopian flower industry by many industry players, mainly because it introduced modern technology such as steel greenhouses (Gebreeyesus & Iizuka, 2010).

In 2002, after years of struggle, the Ethiopian Horticultural Producers and Exporters Association (EHPEA) was formed as a non-profit organization representing growers. The association was instrumental in lobbying for government support in terms of infrastructure, loan and logistics services for the industry (EHPEA, 2014). Despite the early efforts of the association, the government's role was limited until the mid 2000s. Indeed, the government was unaware of the sector's potential and thus, it did not mention the flower industry among the extended list of priority sectors in the export promotion strategy it adopted in 1998 (Gebreeyesus & Sonobe, 2011). Following the recommendation of the EU and other international consultants, the government started to make efforts ranging from creating conducive investment environments to granting incentives to attract foreign investors. In addition, the government also enhanced its effort to initiate international cooperation in matters relating to the flower industry (Taylor, 2011).



Source – Ethiopian Revenue and Custom Authority (ERCA, 2014)

Figure 2 - Value of Ethiopian flower export

Table 1 Value of African flower export in millions USD

Exporters	Exported value in 2009, US Dollar millions	Exported value in 2010, US Dollar millions	Exported value in 2011, US Dollar millions	Exported value in 2012, US Dollar millions	Exported value in 2013, US Dollar millions	World export share in 2013	Share in African Export in 2013
World	7,316	7,579	9,073	8,930	9,199	100 %	
Africa	-	-	766	934	927	10.1 %	100 %
East African Community	436	-	475	635	655	7.1 %	71 %
Kenya	421	396	454	601	641	7.0 %	69 %
Ethiopia	132	144	169	166	165	1.8 %	18 %
Tanzania	19	16	14	37	14	0.2 %	2 %
South Africa	26	32	32	44	33	0.4 %	4 %

Source - The International Trade Centre (ITC, 2014)

In line with that, the number of flower firms licensed by the Ethiopian Investment Authority started to increase since the early 2000s. Before the government's inducements, the industry was dominated by a handful of producers that regularly exported to the auctions in the Netherlands (Taylor, 2011). The number of firms started to rise rapidly after the incentives. By the year 2014, the number of firms reached more than 120 from a handful of firms in the late 1990s (EHPEA, 2014). In the same way, the total cultivated area of floriculture has shown astonishing growth over the years. It has grown from 40 hectares in 2002 to 1618 hectares in 2014 (EHPEA, 2014). Consequently, flower production and export went through a remarkable growth from year to year both in terms of value and volume over the past decade. As can be seen from Figure 2, the export growth was exponential from 2004 to 2011. During this time, it grew from less than a million USD to 167 million USD (ERCA, 2014). The sector was able to grow even during the recent global financial crisis which reduced global demand for flowers. This is not to say that the Ethiopian flower producers were not completely affected by the financial crisis. Even though its export slowed down, the Ethiopian flower industry managed to maintain positive annual growth throughout the crisis years. According to Taylor (2011), the growth of the Ethiopian flower industry's export occurred not only as a result of rising demand in existing markets and the opening up of new markets but more importantly due to the capturing of market share from other exporting countries such as Kenya, Zimbabwe, Zambia and Uganda (Taylor, 2011; Joosten, 2007). Consequently, Ethiopia emerged as one of the prominent flower exporters from a negligible player in the global flower industry within a short period of time. Despite its late entry into the flower business, the country is now the second largest African exporter to the EU next to Kenya

(CBI, 2013). According to Workman (2014), the country needed only five years to achieve what Kenya achieved in 30 years and given the current pace of the industry's growth, it is expected to overtake Kenya in the coming few years.

At a country level, the contribution of flower export to the overall country-level export grew remarkably from extremely insignificant ten years before to more than 5% in 2013. When compared to the country's major export item, coffee, flower contribution grew much faster. Even though coffee is still by far the major contributor to export (around 24% of the export value), its relative contribution has showed a declining trend over the years. As opposed to this, the relative contribution of flower export grew remarkably. Even though the total cultivated area for horticulture is limited given the country's immense potential, the horticulture sector, which is dominated by flower production, is currently the 5th foreign revenue earner to the Ethiopian economy next to coffee, pulses & oil seeds, gold and chat. Within the horticulture sector, the flower industry contributes 80% of the sector's foreign revenue although it accounts for only 11% of the developed horticulture land (ERCA, 2014). Given the performance of the sector so far and the government's plan of generating $1bn export annually from the flower industry by the end of the decade, the flower industry's contribution to export is expected to overtake coffee's contribution in the near future (Van der Ploeg, 2009). In terms of employment, the industry currently employs more than 180 thousand people directly, out of which 85% are women. Albeit optimistic, the Ethiopian Horticultural Producers and Exporters Association (EHPEA) projects a further 200,000 people to have been benefiting from the industry indirectly (EHPEA, 2014).

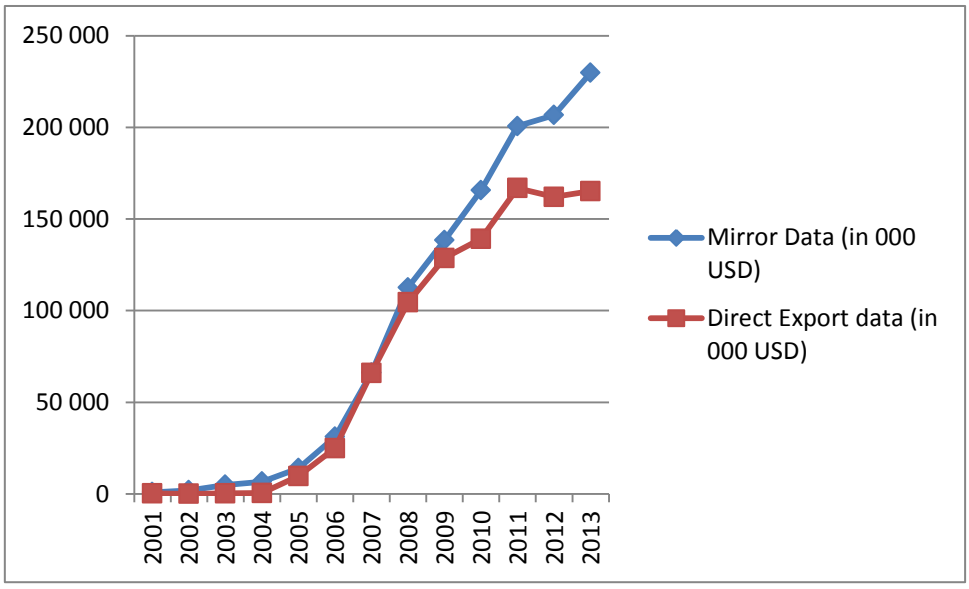
Comparison of the export data from the Ethiopian Revenue and Custom Authority to the mirror data (reported imports by Ethiopia's trading partners) from the International Trade Centre raises caution. As can be seen from Figure 3 and Table 2, there is significant discrepancy between the two data sources over the years with the mirror data from the International Trade Centre always exceeding the direct data from the Ethiopian Revenue and Custom Authority. Although the size of the discrepancy between the two data sources was extremely high in the early 2000s, it showed decreasing trend until 2007 at which point it registered the lowest discrepancy. After 2007, the gap has started to increase continuously from year to year until it reached 39% in 2013.

Table 2: Difference between reported direct export data and mirror data for Ethiopian flowers

Year	Mirror Data (in 000 USD)	Direct Export data (in 000 USD)	Discrepancy (Mirror –Direct Data in 000 USD)	The discrepancy in percentage
2001	892	282	610	216.31 %
2002	1,913	19	1,894	9968.42 %
2003	4,941	305	4,636	1520.00 %
2004	6,676	443	6,233	1407.00 %
2005	13,988	9,712	4,276	44.03 %
2006	31,155	24,950	6,205	24.87 %
2007	66,148	65,930	218	0.33 %
2008	112,581	104,467	8,114	7.77 %
2009	138,346	128,677	9,669	7.51 %
2010	165,567	139,102	26,465	19.03 %
2011	200,643	166,843	33,800	20.26 %
2012	206,647	162,034	44,613	27.53 %
2013	229,772	165,136	64,636	39.14 %

Source - The International Trade Centre (ITC, 2014) and Ethiopian Revenue and Custom Authority (ERCA, 2014)

Figure 3 - Difference between mirror data and direct export data for Ethiopian flowers (ITC, 2014; ERCA, 2014)



Source - The International Trade Centre (ITC, 2014) and Ethiopian Revenue and Custom Authority (ERCA, 2014)

Three possible reasons can be attributed to this discrepancy. The first is the difference in data source, i.e. the exporting and importing countries report. In explaining such discrepancies, the International Trade Center (2014) underlines that export statistics of exporting countries rarely line up exactly with the import statistics of partner countries. It lists a number of reasons such as the difference in quantity measurement, time lag, misallocation etc. Even

though such factors can have a role in creating such inconsistency, the materiality of the discrepancy between the export statistics reported by Ethiopia and its importing partner countries casts doubt on whether the registered gap in relation to the Ethiopian flower export is indeed caused by such factors. The other two possible reasons are incentives to under-report export by Ethiopian exporters and illusive trade practices by importers of the Ethiopian flower products in the destination countries. In the following paragraphs, explanation of the two possible reasons in relation to the perceived discrepancy in the export statistics of Ethiopian flower is provided.

As far as the incentive to underreport export is concerned, exporters normally have the incentive to underreport their export to the exporting country's tax authorities to reduce/avoid their export-related tax burden. The afore-mentioned discrepancy between the flower export value from the Ethiopian authorities and the importing countries authorities could be partly due to such practices by exporters basing in Ethiopia. For instance, Taylor (2011) attributes such discrepancies to the possible elusive practices by the Ethiopian exporters who, according to him, have the incentive to underreport export figures in an effort to reduce their tax burden in Ethiopia. Thus, he concludes that in reality the Ethiopian flower export figures are higher than is reported by the Ethiopian government offices. However, the claim does not seem to explain the picture behind such manipulation especially when taken in the context of the appealing tax inducements made by the Ethiopian government (see section 8.1.5 for detail). The Ethiopian government offers flower growers and exporters a number of export promoting inducements including tax exemption for seven years. This rules out the economic incentive of understating export by the Ethiopian flower exporters. It is, therefore, unreasonable to conclude that the afore-discussed discrepancy is mainly due to the opportunistic behavior of the Ethiopian exporters.

This takes us to the third possible cause, the opportunistic behavior by importers. Importers have the incentive to manipulate their importing activity when a certain country's products get preferential treatment over other countries products by the importing country authorities. In this regard, Ethiopian flowers are given preferential treatment to the European market under the ACP-EU Convention. Under the Cotonou Agreement between the African, Carebean and Pacific Group of States (ACP) and the EU, agricultural products from the ACP countries are exempted from import duty in the EU ((ACP-EU, 2000). Even within the context of the Cotonou Agreement, Ethiopia get a more preferred treatment and market access than other

flower producing African and developing country producers under the EU's 'Everything But Arms' (EBA) initiative which grant tariff-free access for Least Developing Countries' products to European markets (UNCTAD, 2009). In the same way, Norway also has the so called generalized system of preferences under which import of goods from developing countries can benefit from preferential customs duty rates. Thus, commodities like flower originating from Ethiopia enjoy the preferential treatment (Norwegian Embassy in Ethiopia, 2014). Likewise, in the USA, Ethiopian products enjoy preferential treatment under the African Growth and Opportunity Act (AGOA) (ITA, 2014). Unless backed by robust system that controls for evasive business manipulations, such schemes can encourage opportunistic behavior by established flower importers and industry players to take advantage of the preferential treatment in the name of developing countries.

In an effort to see if there is any pattern that could be potentially attributed to such practices, I examined both the mirror and direct data for several countries offering preferential treatment to the Ethiopian flowers and I found out interesting pattern. To show the pattern, I selected the main export destination countries for Ethiopian flowers within the EU i.e. the Netherlands, Belgium and Germany along with Norway. I focused on these selected countries not only because they are the main destination markets for Ethiopian flowers but mainly because these are the countries for which I have consistently found higher discrepancy over the years. Table 3 presents the summarized data reported by the mirror and direct export sources for the selected flower export destination countries for the years 2013, 2012 and 2011.

Table 3 : Export value of Ethiopian flowers (in million USD) as reported by the mirror and direct data sources (ITC, 2014; ERCA, 2014)

	2013			2012			2011		
Country	direct data	mirror data	Difference	direct data	mirror data	Difference	direct data	mirror data	Difference
Netherlands	145.97	62.18	83.78	142.41	44.61	97.81	150.08	40.43	109.65
Belgium	0.19	140.38	-140.18	0.18	130.22	-130.04	0.33	129.80	-129.47
Germany	1.87	5.69	-3.82	2.52	3.82	-1.30	3.15	3.99	-0.84
Norway	4.31	12.75	-8.43	3.86	11.27	-7.41	3.23	9.27	-6.05
Total	152.34	220.99	-68.65	148.97	189.91	-40.94	156.78	183.49	-26.71

Source - The International Trade Centre (ITC, 2014) and Ethiopian Revenue and Custom Authority (ERCA, 2014)

As can be seen from Table 3, the total discrepancy for these four countries accounts for the lion share of the overall discrepancy showed in Table 2. It should be noted that the same trend has been uncovered in the years before 2011. Therefore, it can be concluded that these countries are the prime sources for the existing discrepancy. Further examination of the

statistics in Table 3 revels that the direct export data for the Netherlands exceeds the mirror data for all the years considered while the reverse is true for the other countries. At surface glance, this may not be surprising as the Netherlands is a flower trading hub through which most of Ethiopian flower products are redistributed to the European market and beyond. Hence, it can be argued that the discrepancy is the result of re-exporting by the Netherlands. Even then, it casts doubt on whether re-exporting, an activity that does not include any value adding, can account for this much gap in the value of the export. One way to make a rough check on this is to estimate the margin between the average price for the Ethiopian flowers at the Dutch auction, which can be a good estimator for the re-exporting price, and the cost for Ethiopian exporters/ Dutch importers of Ethiopian flowers. Global Development Solution (2011) estimated the margin for Ethiopian flowers at the Dutch auction in 2010 to be around 8%. This implies that the potential total discrepancy that should be attributed to re-exporting should be more or less around 8% of the total export amount for the year 2010 (165,567$ x 8% = 13,245,360$). However, the reported discrepancy for the year 2010 as can be seen from Table 2 is more than 26 million USD, which is far higher than the amount derived by the computation based on the suggested margin. This implies that the re-exporting does not fully explain the existing discrepancy. The question becomes more serious when one considers the fact that the re-exporting by the Netherlands is acknowledged as if it was originally exported by Ethiopia in the importing countries such as Belgium, Germany and Norway. The presence of such huge discrepancy in the Ethiopian flower export statistics casts serious question. Therefore, it is imperative to make further investigation to identify the reason. This, however, is beyond this study's purpose and scope.

6.2 Production Network and Geographical Distribution in the Ethiopian Flower Industry

The structure and organisation of the cut flower industry differs across countries. Patterns of ownership, factor intensity, firm and farm size, and degrees of specialisation are heavily dependent on infrastructure, service availability, resource endowments, relative prices, the institutional framework for business and the nature of markets being served. In spite of these variations from country to country, the broad components of the industry and the links in the input, production and distribution chains are more or less similar throughout the world (van Liemt, 1999). As is the case in other flower growing areas, the Ethiopian flower value chain includes a range of local and international input suppliers, packaging manufacturers,

distributors, service suppliers and marketing agents. Global Development Solutions (2011) provides detailed description of the Ethiopian flower supply chain from the raw material sourcing stages to the export market as shown in Figure 4 - Cut flower value chain for the Ethiopian flower industry

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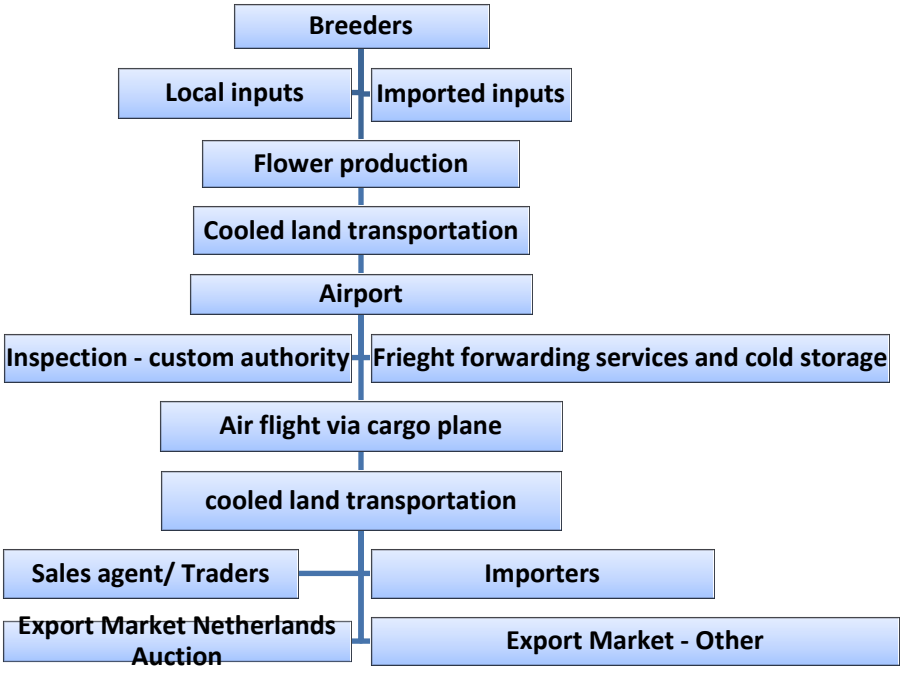
In the very upstream activities, flower growers need to source necessary inputs. As can be seen from Figure 4 - Cut flower value chain for the Ethiopian flower industry

, Ethiopian flower growers depend mostly on imports in sourcing their inputs. They source some inputs from local traders who are located mainly in or around the capital Addis Ababa. However, it does not mean that all the inputs sourced from local traders are produced within Ethiopia (GDS, 2011). The next stage, farming, includes activities such as preparing farm lands, selecting the appropriate variety, planting, irrigation and applying the necessary inputs to grow flowers at required quality. According to the Global Development Solutions (2011), Ethiopian flower growers have 8-12 harvest cycles per year with each cycle taking between 30-45 days. Once flowers are grown, they are cut to the required length, bunched, packed and put in refrigerated storage facilities on farm sites. All the activities in farm sites are reported to account for around 35% of the total cost in the value chain (GDS, 2011).



Adapted from Global Development Solutions (2011)

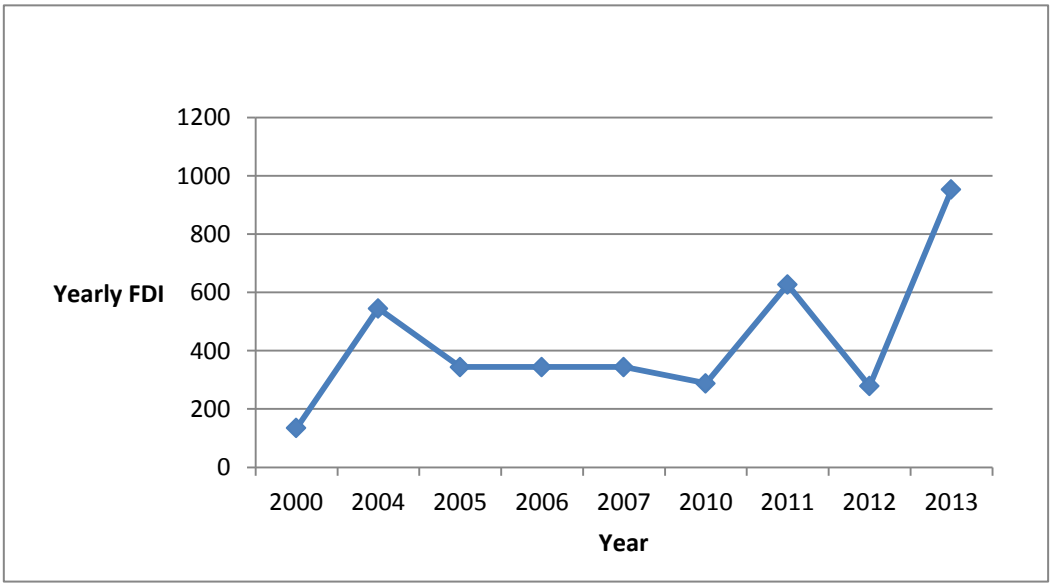
Figure 4 - Cut flower value chain for the Ethiopian flower industry

The flowers are then transported using refrigerated trucks to Addis Ababa where they will be transferred to refrigerated storage facilities at the airport until they are loaded to an aircraft. The land transportation to Addis Ababa accounts for 2% of the total cost in the value chain (GDS, 2011). Before the flowers are loaded to cargo planes, they are inspected by the Ethiopian Customs Authority (ECA) and the Ministry of Agriculture. The principal carrier, the Ethiopian Airlines, followed by KLM, Lufthansa and Etihad Airlines, plays key role in transporting the flowers. The air-transportation stage takes from three to four days and takes up around 43% of the total cost (GDS, 2011). According to the Global Development Solutions (2011) report, Ethiopian growers heavily depend on agents to access the auction system in Europe. Nearly 70% of Ethiopian flowers go through the Dutch auction system. Since Ethiopian Airline is the main carrier, most of the flowers are shipped to Belgium where the airliner lands. This compels Ethiopian exporters to buy logistic services to transport their flowers to the main destination country, the Netherlands (Melese & Helsing, 2010). Once the flowers reach the Dutch auction houses, agents unpack and refresh them so that they can be presented to the market at the auction houses. Flowers are then bought by wholesalers/exporters and shipped to warehouses in the destination countries. Florists would buy them from wholesalers and sell them on to consumers (Taylor, 2011; GDS, 2011). In terms of cost, the value chain analysis by the Global Development Solutions (2011) indicates that the cost of marketing Ethiopian flowers through the Dutch auction constitutes 22% of the total cost.

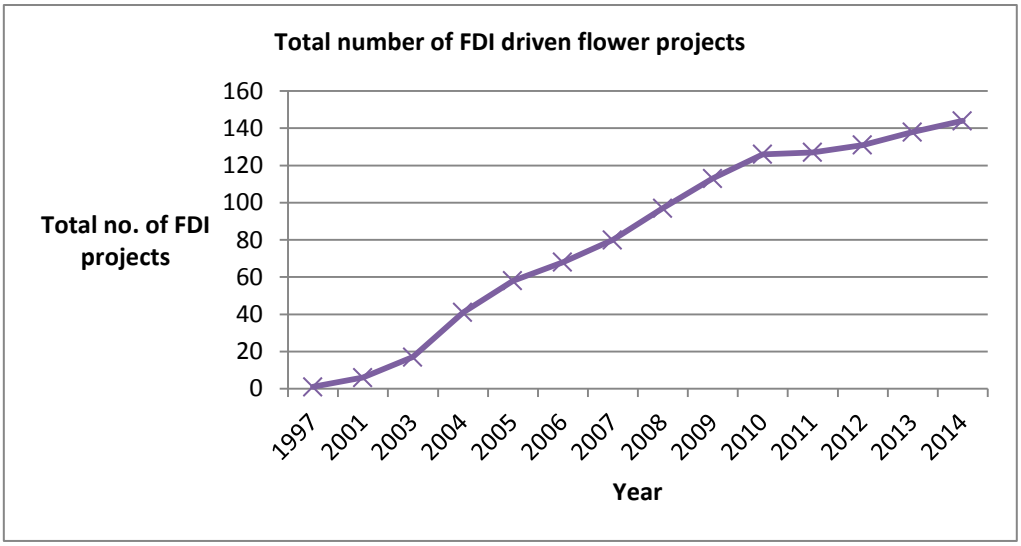
7 FDI in the Ethiopian flower industry

Even though the Ethiopian government in all regimes realized the importance of FDI for the country's economic development, misguided policies made the country unable to attract enough FDI to enhance capital accumulation and technology transfer (Geda, 2007; Weissleder, 2009). Following the 1991 regime change and the subsequent market-oriented structural reforms, the FDI trend started to change slowly. Until recently, FDI inflow was insignificant when compared to the level of flow to other comparable African countries (Weissleder, 2009). As can be seen from Figure 5, the inward FDI flow started to build momentum slowly in the first half of 2000s. According to UNCTAD(a) (2014), during this time the yearly FDI flow to the Ethiopian economy increased continuously from USD 135 million in 2000 to USD 545 million in 2004. It then remained constant more or less around USD 344 million for years between 2005 and 2007. Since then, it showed upward and downward trend alternatively until it peaked at USD 953 million in 2013. With a 240% increase from the amount in 2012, Ethiopia emerged as the third largest recipient of FDI in Africa in 2013. As a result, the FDI stock held within the economy reached 6.1 billion USD in 2013, up from 5.1 billion USD in 2012. In spite of the yearly increase, the share of FDI in gross fixed capital formation has declined from 8.7% in 2005 to 5.7% in 2013 (UNCTAD(a), 2014).

Figure 5 - Yearly FDI inflow to the Ethiopian economy



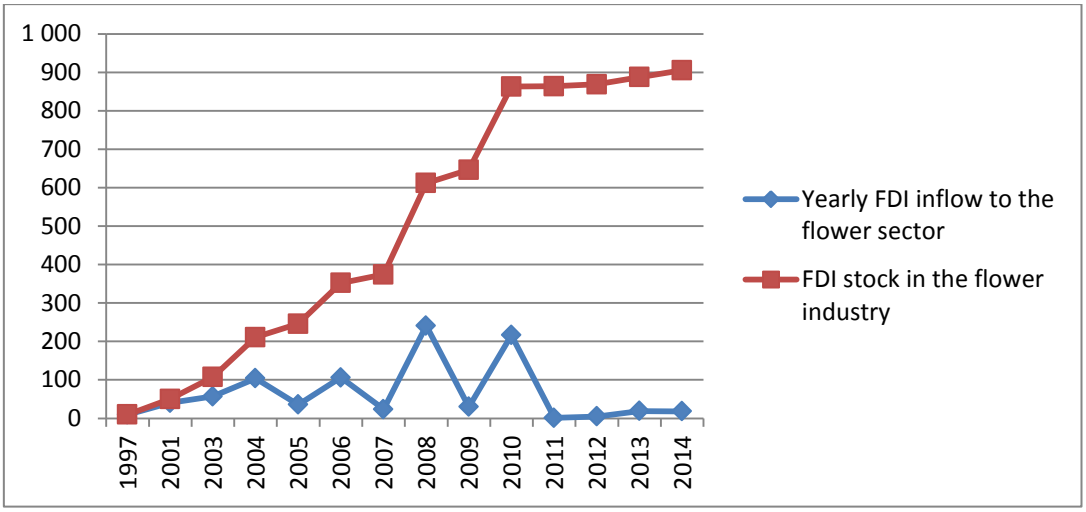
Source – UNCTAD (a) (2014)



Source - Ethiopian Revenue and Custom Authority (ERCA, 2014)

Figure 6 - Number of FDI Projects in the Ethiopian flower industry (EIA, 2014) industry (EIA, 2014)

With respect to the inflow of FDI to the Ethiopian flower industry, the first foreign company to be given licence in 1997 is Golden Rose Agro Farm PLC. Since then, the number of FDI projects in the flower industry started to build rapidly. As can be seen from Figure 6, the total number of FDI projects in the flower industry grew remarkably from 1 in 1997 to 144 in 2014. The annual increase in the number of projects was high until 2004 in which year the annual increase peaked at 24. After 2004, the number of new projects per year showed a general declining trend over the years even though it increased between 2006 and 2011.



Source - Ethiopian Revenue and Custom Authority (ERCA, 2014)

Figure 7 - FDI inflow and stock in the Ethiopian flower industry

Year	Yearly FDI inflow to the flower sector in millions USD	Accumulated FDI stock in the flower industry in millions USD	Yearly FDI inflow to the economy in millions USD	Accumulated FDI stock within the economy in millions USD	yearly FDI inflow to flower industry as % of total FDI inflow to the economy	FDI stock in flower industry as % of total FDI stock in the economy
1997	10	10	-	-	-	-
2001	40	50	-	-	-	-
2003	57	107	-	-	-	-
2004	104	211	545	-	19.06 %	-
2005	36	246	344	-	10.32 %	-
2006	106	352	344	-	30.84 %	-
2007	23	374	344	-	6.81 %	-
2008	241	612	-	-	-	-
2009	30	646	-	-	-	-
2010	216	863	288	4206	75.07 %	20.51 %
2011	1	864	627	4833	0.19 %	17.87 %
2012	5	869	279	5111	1.77 %	17.00 %
2013	19	888	953	6064	1.97 %	14.64 %
2014	18	905	-	-	-	-

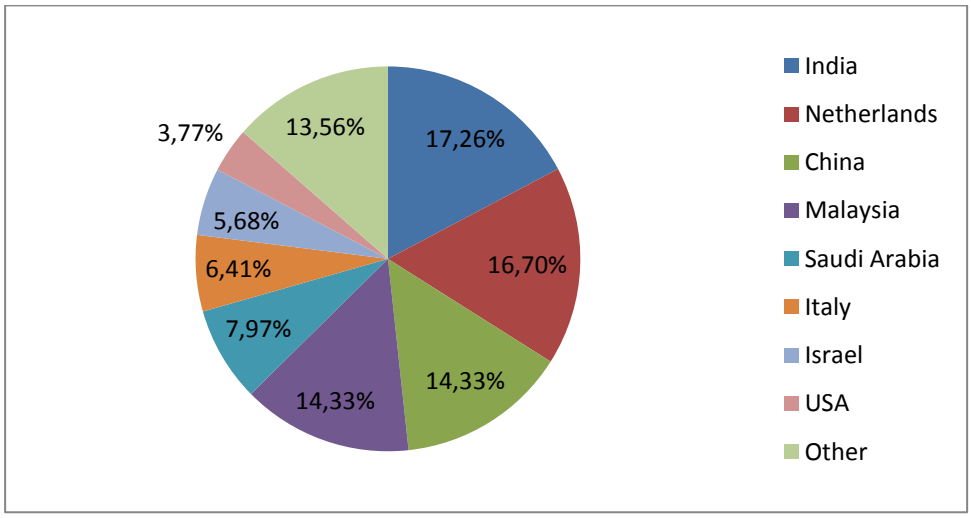
Source - Ethiopian Revenue and Custom Authority (ERCA, 2014) and UNCTAD (a) (2014)
Note – Figures for some years are missing

Table 4 : FDI inflow and stock in the Ethiopian flower industry

In terms of projects' size, as can be seen from Figure 7 and Table 4, the annual FDI inflow grew continuously except for few years until 2010. As a result, the total FDI stock in the sector has been growing continuously. Eventually by the year 2014, FDI stock in the flower industry reached more than 900 million USD. When compared to the FDI inflow to the overall economy, the relative share of FDI inflow in the flower industry maintained a yearly average share of 20% of the overall inflow to the economy from 2004 and 2006. Since then, its significance fell tremendously except the year 2010 for which the annual FDI inflow in the flower industry accounted for 75% of the inflow to the overall economy. In line with the declining trend of the yearly inflow, the relative share of the flower industry's FDI within the general economy's FDI stock showed declining trend in the last four years.. The interviewed experts at the Ethiopian Horticulture Development Agency and the Ethiopian Horticulture Producers and Exporters Association acknowledge the relative decline in the yearly FDI inflow. The experts underlined the role the government should play in rekindling the FDI inflow to the sector.

> *In spite of the existing inducements by the government, according to official reports, the yearly FDI flow to the flower industry declined for the past few years. This shows the need to do more. Therefore, the government need to review its policies and programmes to revitalize its endeavour to attract FDI. (Interviewee, EHDA)*

Despite the declining trend in the yearly inflow, by 2014 the FDI stock within the Ethiopian flower industry sums up to 80% of the total investment in the industry as a whole. Ethiopian investors account for only 20% of the investment. In terms of firm number, out of the 120 firms in the industry 73 are FDI driven while 11 and 36 are joint ventures and local companies respectively (EIA, 2014). This shows how significant FDI is in the flower industry unlike the other export oriented industries such as coffee wherein local investors and growers play significant role (Wennink, Mugoya, Kimenye, & Posthumus, 2014). Indeed, before the turn of the century, the infant flower industry in Ethiopia was also dominated by local players. All but one of the summer-flower growing and exporting firms were domestic producers. After the turn of the century, the picture changes as many foreign investors, without whom the phenomenal growth of the floriculture export industry since 2002 would not have occurred, come into play. It is therefore important to assess the implication of FDI dominance in the industry and whether the experience can be transferred to other export oriented industries as well.



Source - Ethiopian Revenue and Custom Authority (ERCA, 2014)

Figure 8 - Summary of Licensed Investment Projects (FDI) by origin of investment since 1997 - 2014 (EIA, 2014)

Another way to look into the flow of FDI is in terms of its origin. The flow of FDI between countries is influenced by factors such as historical relationship between countries such as colonial legacy, geographical proximity, country trade agreement with other countries, regional trade or investment agreement etc. According to the data from the Ethiopian Investment Agency (2014), the FDI in the Ethiopian Flower industry originates from around 34 countries. At individual country level, as can be seen from

, India is the principal source of FDI. It accounts for 17% of the total FDI in the sector. It is followed by the Netherlands which has 16% share. The Netherlands is closely followed by China and Malaysia each of which accounts for 14%. These four countries are the source of more than 60% of the total FDI flow. In terms of region level, with more than 45% share Asia is the most important source followed by EU which accounts for slightly over one fourth of the total amount of the FDI (EIA, 2014).

Geographical proximity and existing economic interaction can be a factor for the flow from the Asian countries whereas in the case of European investors, in addition to geographical proximity and existing economic interaction, development oriented bilateral and multilateral programmes to promote FDI in developing countries might have played a role. Melese and Helmsing (2010) argues that in addition to the attractiveness of Ethiopia in pulling FDI and the rising flower production costs in Europe, which led to relocation of production to developing countries, development cooperation programs such as the Dutch programme for cooperation in emerging markets (PSOM) played significant role. By providing up to 60% funds for FDI projects in designated developing countries, the program has been instrumental in stimulating Dutch and other European growers to invest in Ethiopia (Melese & Helmsing, 2010). Likewise, the possibility of producing in a country exempted from duty in the European market is also another probable cause in pushing FDI to Ethiopia. Taylor (2011) noted that the booming in Ethiopian flower was supported by a shift of growers' focus from other established exporting countries to Ethiopia not only due to the attractive investment climate but also the possibility of tapping opportunities under specific programs such as Cotonou Agreement.

All in all, even though Asia is the most important source of the FDI in the flower industry, Europe is also instrumental in originating FDI to the Ethiopian flower industry. This combined with the role Europe plays as focal market destination and input supplier makes the European flower industry the dominant force in shaping the Ethiopian flower industry. Therefore, the competitiveness of the Ethiopian flower industry should be assessed in light of the development and trends in its European counterpart as suggested by the double diamond framework. In line with this, in section 847 the competitiveness of the Ethiopian flower industry is examined in detail not only based on local factors within the Ethiopian economy but also by taking into account the driving forces emanating from the European flower industry.

8 Competitiveness of the Ethiopian Flower Industry

The analysis done so far describes the Ethiopian flower industry in terms of export growth, market destination, value chain, and FDI inflow. In the process of doing so, it uncovers how the Ethiopian flower industry is related to its European counterpart not only as market destination, but also as a source of crucial inputs to the industry including capital and knowhow. The analysis in this section examines the competitiveness of the Ethiopian flower industry by assessing the conditions in the Ethiopian local context in light with the general trend in the European flower industry.

8.1.1 Demand Condition

As Porter's (1990) diamond framework stipulates, the presence of strong domestic market is one of the prime sources of competitiveness for local industries. The domestic market for flower in Ethiopia is not in a position to play the role prescribed in the diamond framework. It is at its infancy stage. As the interviewed farm managers explained, in Ethiopia flowers are predominantly used on special occasions by insignificant portion of the urban population. All interviewed managers acknowledge the growing culture of buying flowers during occasions such as wedding and the popularized western fraternity days such as Valentine's Days. However, all interviewed managers agreed that the size of the domestic demand is very limited, seasonal and not diverse and hence, the domestic demand is not capable enough to influence the competitiveness of flower producers at its current stage. This has also been unanimously reflected in the response of sampled farm managers. As can be seen in Table 5, sampled flower growers were asked to appraise the local demand conditions for flowers in Ethiopia based on a five point scale that runs from very insignificant to very significant. Most respondents rated it as low with the average rating being closer to the lowest grading except the growth of the local demand which they rated as more or less moderate. In spite of the improvement in the local demand, the potential of the market is constrained by the purchasing power of Ethiopian consumers whose average income is one of the lowest in the world. In addition to individual consumers, the interviewed managers have also acknowledged the emergence of institutional buyers such as big hotels and some governmental offices during public holidays and meetings. One of the managers even went on to claim that there are small scale growers who produce and sell basic types of flowers like roses solely to cater the local market in and around Addis Ababa.

Table 5 : Response of flower growers regarding the domestic demand for flowers in Ethiopia (Source- Questionnaire 2014)

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
How do you rate the proportion of your local sales to your total sales?	22	4	-	-	-	26	1.15	0.37
How would you describe the local demand progress?	2	5	11	7	1	26	3.00	2.12
How would you rate the bargaining power of your local demand?	24	2	-	-	-	26	1.08	0.28
How would you describe the level of sophistication/complexity of your local demand	23	3	-	-	-	26	1.12	0.33

Note *– The scale runs from very insignificant (1) to very significant (5). The numbers in the first 5 columns indicate the number of respondents under that scale. The values in the last two columns are average scores and standard deviation of the respondents' rating. Average score of < 2.5 is interpreted as insignificant and > 3.5 as significant. A score between 2.5 and 3.5 is interpreted as modest.*

It can therefore be said that the Ethiopian flower market is at a stage of what Labaste (2005) call 'immature'. It is not sufficiently sophisticated to help Ethiopian flower growers achieve competitive advantages. However, given the size of the population and the recent economic improvement and rapid urbanization in Ethiopia, the market can be thought to have the potential to improve significantly in the years ahead. Two of the interviewed farm managers agree with this hypothesis, reservedly though.

> *There has been significant improvement in the local demand though it is still insignificant at its current level. If the trend goes on like this, the local demand can become important but even then, our export market in the developed countries will always be the decisive one. (Interview, Farm Manager 2)*

> *Given the trend we are witnessing in the local market, it can be said that it is getting well and it is advantageous if it goes on like this. But what we have right now is not sufficient enough to take up the excess production we at times have. If the local demand becomes big enough to take up our excess production during peak times, that is helpful. (Interviewee, Farm Manager 3)*

Indeed, at its current level the local demand is too small and negligible, as majority of the Ethiopian population is living at subsistent level with undeveloped flower consumption culture. Therefore, the local demand can be said to be not capable enough to enhance the

competitiveness of the industry in a way postulated by Porter (1990). It may not be able to do so in the foreseeable future either. However, it can help flower producers to be competitive in a peripheral but important way especially when the growers encounter demand shocks in their export markets. For instance, Taylor (2011) revealed that Ethiopian flower producers were affected during the recent global financial crisis as they were forced to under export. The impact of the global financial crisis has been evidenced in this study as well. As can be seen from section 6.1, the yearly growth of flower export from Ethiopia was affected during the crisis years even though the absolute size of the export was increasing. In such circumstances, the local market provides growers with alternative. However, as the interviewed managers pointed out, the local demand was not big enough to take up the excess stock they had during the crisis years. This would mean that growers were dumping some of their production. If the local demand was significant enough, flower growers would not have been affected to the extent they were by the crisis. Although the lack of a strong local demand is as a barrier to competitiveness according to Porter's (1990) diamond framework, the notion that the domestic market in Ethiopia for flowers will have no role in promoting flower producers' competitiveness is pessimistic. The potential of the market presents have significant contribution to the competitiveness of domestic producers. However, the mechanism through which the local demand contributes to the competitiveness of the sector is in a different way than stipulated by Porter's (1990) diamond framework. With the rising culture of buying flowers and the improving economic condition in Ethiopia, the local demand can enhance the competitiveness of Ethiopian flower producers by absorbing their excess production.

Even though it does not benefit from the local demand situation in terms of competitiveness in the conventional way, the strong interaction the Ethiopia flower industry has with the European flower industry as primary destination market and source of input is pivotal in keeping in touch with the global trend. Indeed, the Ethiopian flower industry came into existence in response to the increasing demand for and production cost of flowers in Europe. Therefore, developments in the European market are decisive for the functioning and competitiveness of the Ethiopian flower industry in so many ways. As the flowers are produced mainly for the European market, they should be qualitative enough to meet the expectation of European buyers. With this in mind, assessment on the implication of the European market's size, composition and sophistication to the Ethiopian flower industry is provided below.

With respect to market size, Europe represents the largest flower market in the world. It account for about half of the global demand for flowers (Rikken, 2010). The consumption has been growing continuously over the past decades as has been discussed in Chapter 0. Even though the demand for flowers experienced a slowing growth during the recent financial crisis, the market is lingering at high level after the crisis. Although major markets in Western Europe, such as Germany, Italy, France, Belgium and the Netherlands, are stagnating owing to saturation; with the high and stable per capita consumption in many European countries there is a general feeling that the market in Western Europe would go through a period of modest growth (GIA, 2012). In addition, the explosive growth in East-European countries including Russia is expected to support a further accelerated increase in the demand for flowers in Europe as a whole (GIA, 2012; Rikken, 2010). Thus, the Western European and the emerging Eastern European markets are expected to experience 2% to 4% and 5% to 10% annual growth respectively during the next decade (Rikken, 2010). This presents an opportunity for the Ethiopian flower producers who have performed well in the European market over the past few years. As can be seen from Table 6 below, Ethiopian growers managed to put Ethiopia into the map of major exporting countries to Europe within a short period of time. If they can keep up the momentum, they will be able to benefit even more from the expanding market in Europe.

	Euro x million, 2012	Share in Extra-EU imports, 2012	Annual growth '08-'12
Kenya	366	32%	1%
Ecuador	150	13%	4%
Ethiopia	140	12%	20%
Colombia	114	10%	-1%
Costa Rica	45	4%	-5%
Uganda	26	2%	1%
Other DC suppliers	305	27%	-4%

Source – The Netherlands Centre for the Promotion of Imports from Developing Countries (CBI, 2013)

Table 6 : Leading developing countries suppliers of fresh cut flowers and foliage to the EU27 in 2012

With respect to the composition of the demand, the share of occasional buyers is lower in matured Western European markets. Most of the individual consumers are those that buy for 'own' use. Consumers in this segment buy flowers with the intention of brightening up their home and creating a pleasant environment. Thus, they are particularly interested in new and exclusive products. With this, flowers, once considered to be a mere special occasion

products, are now gaining recognition as convenient decorative items with rapid changes in customer attitudes. This segment of buyers is the more demanding segment in Western Europe market and it is becoming prominent in the emerging eastern European market as well. Therefore, convenience and price setting are becoming critical in the European flower end-users market (Rikken, 2010). In addition, nowadays European consumers have become more refined in their tastes. For instance, until recently, the origin of flowers was often unknown at retail level and no retailer would dare to guarantee a minimum vase-life. However, nowadays, consumers in some matured European markets are becoming more sensitive to vase-life and the way flowers are produced. They demand for sustainably produced and distributed flowers. They want to know where their products come from, how they are produced, whether workers are treated fairly etc (Rikken, 2010).

The characteristics of the institutional buyers is more or less the same with the own use segment. Even though the share of this segment is currently estimated at 20% of the total demand, it is expected to rise further as the use of flower become more and more common in institutional settings. As is the case with own use consumers, institutional buyers are becoming more interested in sustainable products. With corporate social responsibility policies becoming more important in governments and companies, many governments and businesses are strictly inclining towards sustainable products. For instance, the Netherlands government has a plan of making all its flower purchases 100% sustainable products by 2015 (Rikken, 2010). Such buyers' preferences and expectations in future are expected to be increasingly demanding and ever more differentiated and dynamic (van Uffelen & de Groot, 2005).

Such buyers' preferences and expectations of the European flower consumers have greater implication to Ethiopian flower producers. Ethiopian flower growers need to respond to the changing needs of their ultimate buyers. According to the double diamond framework, their active presence in the European flower market should help them keep up with the trend in customers' preferences. Their presence in the European market provides Ethiopian flower producers with the opportunity to catch up with the market trend. The same holds for flower growers from other regions and countries who are supplying to the European flower market. Therefore, keeping up with the trend in the European market enables Ethiopian flower producers to have competitive parity, not competitive advantage, with flower growers from other regions and countries.

8.1.2 Factor Condition

As thoroughly described in Chapter 4, factor conditions are the main driving forces for the relocation of cut flower production from traditional hubs of production in the Northern hemisphere such as Western Europe towards the low latitude developing countries where climatic conditions, easy availability of land and cheap labour costs allowed a more favourable and efficient year-round production. Even though the favourability of the afore-mentioned factor conditions holds for Ethiopia too, the continued competitiveness of the Ethiopian flower industry depends on how sustainable are the relative advantages coming from the factor conditions. The country's factor conditions are assessed under three main categories in the discussion to follow.

8.1.2.1 Natural Resources

As clarified in section 2.2, the abundance, quality, accessibility, and cost of natural resources set the basic conditions necessary for efficient production of agricultural products like flowers. Ethiopia can be thought to have an ideal ecology for floricultural development. In terms of the agricultural land size, out of the country's 111.5 million hectares area coverage, 66% is suitable for agriculture and out of this only 22 % has been used. In terms of water resource, the country has a substantial amount of surface and ground water resource. The country has twelve major river basins and has more than 20 major lakes. In spite of this potential, the country's water resource is under-utilized. Geographically, Ethiopia is a mountainous country. Its diversified altitude, which ranges from 4500m above to 125m below sea level, creates a range of microclimates suitable to grow a wide range of tropical and subtropical crops (Mengistu, 2006). Indeed, in such heterogeneous country, the distribution of agricultural potential is uneven. Due to its proximity to the equator, the country has the sun overhead almost throughout the year and the higher elevation in the highlands makes day time temperature moderate while making the nights cool with low humidity. These conditions create suitable environment in broader part of the country, mainly around the highlands and the adjacent rift valley area, for growing a range of flower varieties (Taylor, 2011; Joosten, 2007). Parts of the Ethiopian highlands within a range of 2,400–2,600 metres above sea level have favourable climatic condition to produce larger-headed and longer-stemmed roses which are the two main attributes in dictating the price for rose flowers (Taylor, 2011). In the regions of the Rift Valley and Upper Awash river, where the altitude is between 1,100 – 1,800 metres above sea level, the climatic condition is suitable to grow small to medium sized rose

varieties (sweethearts and intermediates) and other flowers like summer flowers and cuttings (Joosten, 2007). According to Taylor (2011), the Ethiopian flowers are of high quality compared to their direct competitor, Kenyan flowers and as a result, they command a higher price in the European market than the Kenyan flowers do.

The interviewed managers and experts underline the opportunity the geographical and climatic conditions of the country present to flower growers. The interviewed expert from the Horticultural Development Agency stated

> '*The climate in Ethiopia is highly versatile in a sense that it creates an agricultural environment where a wide range of agricultural products can be produced at some part of the country*' (Interviewee, HDA Expert).

This has also been reflected by the response of sampled farm managers. They were asked to appraise the natural endowment of Ethiopia for growing flower based on a five point scale that runs from very insignificant (1) to very significant (5). As can be seen from Table 7, Table 8 and Table 9 most of the farm managers rated the country's climate, land and water resources favourably.

Table 7: Availability of supply (the scale runs from very scarce to readily available)

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
Land	-	-	2	21	3	26	4.04	0.45
Water	-	-	8	14	4	26	3.85	0.70

Table 8 : Quality of the natural resources

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
Land	-	-	5	17	4	26	3.96	0.60
Water	-	-	11	12	2	25	3.64	0.72
Climate	-	-	7	11	8	26	4.04	0.78

Table 9 : Relative cost associated with natural resources

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
Land	-	-	6	12	8	26	4.08	0.74
Water	-	-	18	7	1	26	3.35	0.93

Note *–The numbers in the first 5 columns indicate the number of respondents under that scale. The values in the last two columns are average scores and standard deviation of the respondents' rating. Average score of < 2.5 is interpreted as insignificant and > 3.5 as significant. A score between 2.5 and 3.5 is interpreted as modest.*

Even though the suitability of the country's climatic conditions to flower production is undeniable, it is also a source of challenge to growers. Taylor (2011) underlines the threat emanating from the climatic condition. He states that the extended rainy seasons in the Ethiopian highland, which occurs at a key time for rose production, puts Ethiopia at disadvantage when compared to its competing neighbour Kenya, which has shorter and earlier rainy season. The extended rainy season in the highland areas creates humidity that creates the condition for the prevalence of certain flower diseases uncommon in competing countries (Taylor, 2011).

All in all, the country's natural resource endows the country with natural assets such as powerful sunlight, plentiful water supply, warm day and moderate night time temperatures, and mineral rich volcanic soil especially in the highlands and the adjacent rift valley. This creates suitable environment to grow high quality flowers, particularly roses. However, with the natural advantage comes a challenge in the form of uncommon flower disease. The challenge for the country is thus to cope up with this by developing long-last solution.

8.1.2.2 Infrastructure

As discussed in section 6.2, the peculiar product and production characteristics of flowers necessitate not only efficient organization and management of the value chain but also speedy distribution channels. This magnifies the role of infrastructure. The presence of good infrastructure enhances the competitiveness of the sector. It enables firms not only to connect with their customers and suppliers efficiently but also use production technologies effectively. On the other hand, infrastructural deficiency not only limits productive opportunities but also increases costs (Porter, 1990; World Bank, 2014). The infrastructural development in Ethiopia is at its infant stage as is the case with most developing countries. The country's transport infrastructure is underdeveloped. The country has one of the lowest road-density with limited interconnecting links between regions. The proportion of paved road is extremely low and there is no active train network. The only positive thing out of the country's current state of transportation infrastructure is the air transportation situation. Courtesy to the upgrading efforts of the Bole International Airport and the renaissance of Ethiopian Airlines, Addis Ababa is now a regional hub for air transportation to the mainland Africa from Middle-east, Asia and Europe (Foster & Morella, 2010). Ethiopia's strategic geographical location has

played a role in this regard. Its proximity to Europe and the Middle East not only helped the country emerge as air transportation hub but also assured that the flowers reach these markets in a relatively shorter period of time at cheaper transportation cost compared to other African and Latin American flower producing countries. Even then, Splinter, Brusselaers, Jan; van Galen, Michiel (2011) stated that the airport's infrastructure and facilities do not meet the international standards. According to them, the Bole International Airport's facilities are too small to support the increasing flower production and export as this in combination with the rather poor handling at the airport are creating long waiting times for the trucks shipping the flowers from the production sites. In addition, the government is blamed for creating disproportionate bureaucracy that favours the national carrier, Ethiopian Airlines, whose monopolistic services are criticized for being unreliable and inconvenient. Some of the interviewed managers have also mentioned the logistics problem at the airport and custom offices not only in relation to exported flowers but also in relation to incoming inputs. According to them, due to the bottlenecking bureaucracy at the custom offices, inputs logistics takes too much time to reach the desired destination.

With respect to ICT, the sector suffers from a poor institutional and regulatory framework. The slow, expensive, and unreliable phone and internet services provided by the state monopoly Ethio-Telecom is rated as one of the lowest even by sub-Saharan Africa standard. (Adam, 2010; ITU, 2014). The same holds with respect to Electricity. The poor and unreliable service delivered by the state monopoly, Ethiopian Electric Power Corporation (EEPCO), created a bottlenecking situation for the emerging economy (Foster & Morella, 2010). The interviewed managers underlined the challenges they encountered due to the erratic electricity service. One sample response reads as follows –

> *Once we finish the post-harvesting, we depend on cooled processing and packing warehouses to preserve the freshness of the flowers. Due to these, dependable power supply is pivotal to us. However, the recurrent power outage makes it difficult for us to depend on the service we get from the EEPCO and hence, we are left with no chance but to arrange our own standby generators at high costs. This increased our operating cost. (Interviewee 1, Farm Manager)*

From the above discussion, it can be said that the current infrastructural situation in Ethiopia is not sufficiently supporting the flower industry's growth and global competitiveness. Such infrastructural situation is the case not only to Ethiopia but to other flower growing African

countries as well. According to the annual competitiveness report on Africa, the current infrastructure deficit in African countries reduces the continents annual growth by at least 2 percent. Infrastructural problem is identified as the prime obstacle for productivity improvement, private sector development, economic diversification, and spatial inclusion (World Bank, 2013).

Despite the challenges, Ethiopia has made significant progress in infrastructure over the past two decades. It launched an ambitious project to build, upgrade and repair its trunk-roads network in the late 1990s and has set up a modern road-maintenance fund which is financed by a levy on fuel prices. As a result, the country was able to maintain, rehabilitate and upgrade the main trunk and regional roads significantly in the past few years (FDRE, 2012; Foster & Morella, 2010). In line with this, the quality of the roads to the floriculture growing areas has been improved significantly and hence, industry spectators rated it as good although additional improvements are needed (Splinter, Brusselaers, & van Galen, 2011). Parallel with projects aimed at improving the main roads, the government commenced the construction of a nationwide 23,000-kms railways system that goes to every corner of the country. With the projects proposed completion in five years, the country's land transportation is expected to improve remarkably (ERC, 2014). With respect to air transportation, a project aimed at establishing a new international airport with much greater capacity than the Bole International Airport near the capital Addis Ababa has already been started in addition to upgrading the Bole and Dire Dawa International Airport and the opening of a dozen regional airports. This infrastructure improvement includes the emergence of Ethiopian Airlines as a leading African Airliner and the emergence of Addis Ababa as a main hub for air transpiration from and to Africa (FDRE, 2012; Foster & Morella, 2010). Airfreight and handling services at the Bole Airport and capacity by the Ethiopian Airline has also been reported to have been improved over the years. The capacity improvement under government subsidy resulted in lower transportation cost with improved service (Capital Ethiopia, 2012).

With respect to ICT and telecommunication infrastructure, substantial progress has been made over the last decade as a result of a massive investment by the government. The increase in access network, completion of core network, introduction of fixed and mobile broadband access, rolling out of fibre backbone and establishment of links to about 10,000 rural villages mark the infrastructure successes in the area (Adam, 2010). In the same way, remarkable improvement has been made on electricity and power supply in the past two decades. The

country's total hydropower generation capacity increased from 340 MW in 1991 to more than 2000MW in 2010. With the planned completion of the underway mega hydropower projects in 2015, the hydropower generation capacity is expected to boost remarkably to more than 10000 MW. Similarly, the length of power transmission lines across the country almost doubled in 2010 from its 8,380 km in 2005. In the same way, the length of power distribution lines improved remarkably from 25,000 km in 2005 to 126,038 km in 2010 and with the completion of the ongoing projects, it is expected to increase to 258,038 kms in few years time. With a number of mega hydropower projects including the Renaissance Dam on Abay River (Blue Nile) and with additional others being planned, the electricity coverage and reliability in Ethiopia is expected improve remarkably. (EEPCo, 2013; Lighting Africa, 2011). All these improvements are expected to help the country's industries attain their potential.

In general, cognizant of the infrastructural role within the economy, the Ethiopian government plans to scale up the ambitious infrastructure expansion program further in the years ahead. It vows to continue investing heavily in transportation, ICT & telecommunications, power generation & transmission, as well as in other infrastructural areas (MFED, 2010). Even though the country's infrastructure is currently not sufficiently promoting the competitiveness of domestic industries, given these progresses made so far and the potential improvements ahead, it can be said that the infrastructure in Ethiopia will play a key role in continuing and accelerating the progress made in recent years in many industries including the flower industry.

8.1.2.3 Human Resource and Social Makeup

Porter (1990) stated that the availability and quality of the required manpower for a given industry is one of the pivotal resource bases that ensure sustainable competitive advantage. The labour force required for flower production can be divided into three categories - managerial; technical; and manual. Each of these categories requires different processes of sourcing, transforming, creating and sustaining strategies. Besides, the labour force requirement varies significantly depending on where flowers are grown. As documented in Chapter 4, traditionally the primary production centre for commercial floriculture was placed in Europe and North America where the major markets are located. However, since the 1980's significant production was relocated to tropical countries. Even then, Europe is still significant producer for highly perishable premium verities. The conditions in the two production areas set two distinct production approaches. In Europe, producers tend to

mechanize their production process due to the high labour cost and energy requirement. This necessitates higher initial capital input. Conversely, in developing countries the warm climatic condition and the cheap labour induce the use of intensive manual labour with comparatively insignificant demand for energy. This set the condition for different requirement for labour in the two production areas (Taylor, 2011). Due to the emphasis on quality, the manual forces need not only a set of basic agricultural skills but also training as to how to perform precise tasks such as pruning, spraying, fertilising, harvesting, irrigation and packaging. This requires a readily available and cheap labour force with the ability and willingness to learn.

Table 10 - Characteristics of labor force in Ethiopian flower firms in terms of cost, education, experience and availability

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
Wages and salaries	22	4	0	0	0	26	1.15	0.37
Education /Training	11	9	6	0	0	26	1.81	1.04
Experience	13	6	5	2	0	26	1.85	1.23
Availability	0	1	3	4	19	26	4.7	0.81

Note *–The numbers in the first 5 columns indicate the number of respondents under that scale. The values in the last two columns are average scores and standard deviation of the respondents' rating. Average score of < 2.5 is interpreted as low and > 3.5 as high. A score between 2.5 and 3.5 is interpreted as modest.*

The afore-mentioned condition gives a comparative advantage to Ethiopia whose total population sums up between 85 and 90 million out of which 85% is rural based. The country has an abundant, inexpensive, disciplined and easily trainable workforce (Taylor, 2011; World Bank, 2014). Flower producers have no challenge in finding labourers willing to work for low wages. When compared to other flower producing tropical countries that have similar ecological and economic conditions such as Kenya, the cost of labour is by far cheaper in Ethiopia. This is evidenced by the response of the questionnaire as shown in Table 10. As can be seen from the table, sampled flower growers were asked to appraise the characteristics of their labour force in terms of cost, education, experience and availability based on a five point scale that runs from very low (1) to very high (5). They unanimously appraised their labour force characteristics as relatively cheaper, and readily available with limited educational and experience background. The government's minimum wage for public sector is Birr 320 (around 16 USD) a month. This, however, does not apply to the private sector. In the private sector, salaries and wages are decided by the market but it is not more than 1 USD a day for unskilled labour in the Ethiopian flower industry (Taylor, 2011). Though indirectly,

Global Development Solutions (2011) reported similar finding. It found that farming costs, mainly labour cost, in the Ethiopian flower industry were 25% lower per hectare than in Kenya with loss rates at 2% compared with 5% in Kenya. It should however be noted that the same report revealed that the Ethiopian flower industry is less productive than its Kenyan counterpart when the costs-per-stem is considered. However, Taylor (2011) argues that the economies of scale that have been gained with the growth of the industry since the study by Global Development Solutions was conducted have most likely improved the productivity and hence, he down played the productivity difference. Therefore, Ethiopia can be said to have a better competitive position than its flower producing counterparts as far as the availability of low-cost manual labour is concerned.

In addition to labourers, the management and administration of flower farms requires the availability of skilled and experienced managerial and technical human resources. As discussed in section 2.2, with respect to a country's endowment of human capital, Porter (1990) made a distinction between basic unskilled labor, which is determined by a country's exogenous endowment and skilled labor that is created and upgraded through education, practice and training. He further distinguished between generalized factors which can be deployed in a wide range of industries and specialized factors which cannot. According to him, the availability of these expertise forms the basis for the sustainable competitive advantage of a country's industry. Within this framework, the managerial and technical skills required by the flower industry fall under the general and specialized skills category respectively. It is preferable for flower growers to employ local expertise not only because local professionals are cheaper but also they are more sensitive to domestic requirements and conditions. As the income earned remains in the country and as local professionals are provided with the opportunity to nurture their professional skills, it is also preferable for the hosting country, in this case Ethiopia, and the stable future for the industry. In order for this to happen, the required skill level should be available in the local labour market. As far as the category of managing the business is concerned, general business expertises and skills such as in accountancy, business negotiation and people management as well as experience in the administrative aspects of running a business are available in sufficient supply in Ethiopia (2010). Besides, the expansion of higher education institutions and availability of a wide range of academic and professional programs both at the undergraduate and post-graduate program across the country's universities would mean that sufficient graduates are entering the job market. This sustains the future trained manpower supply.

The availability of technical labour is pivotal to the competitive success of the sector. Porter (1990) stresses the role of specialized skills in capacitating a sector's competitiveness. The technical labour in flower production refers to the management of farms that involves responsibilities ranging from the selection of varieties and other input materials to managing plantation and irrigation on the farms, applying the necessary inputs to grow at required quality and controlling diseases and all post-harvest activities such as cutting, bunching and packing of flowers. Decisions with respect to all these responsibility areas have direct impact on yield, damage and loss rates, and thereby, a firm's profitability. This implies how important the availability of such expertise is for the sector's success. The availability of agricultural experts in Ethiopia in general can be rated as good. All public universities in the country have programs in agriculture with some of them having well established Agricultural Colleges such as Juma, Hawassa, Haromaya and Mekele Universities. In addition, the presence of a number of agricultural training centres ensures the supply of mid-level agricultural experts. However, specific university level programs that address the specific needs of the flower industry are not widely given and the ones available such as in Jima and Hawassa Universities are of recent origin. Therefore, even though the supply of general agricultural experts may not be an issue, shortages of technical labour with specific educational and experience pertaining to floriculture are far more acute when compared to Kenya and other African flower producing countries where well established horticultural programs at university level have been offered for many years (Taylor, 2010). Taylor (2010) reported the dissatisfaction of foreign flower investors in Ethiopia with respect to the availability of technical and managerial expertise. The flower farm owners cited supply shortage and lack of commercial and practical competences specific to the flower industry as the most pressing challenges. Due to this reason, nearly 50% of the flower businesses in the country opted to employ foreign managers (Taylor, 2010). Indeed, as the sector is relatively young compared to other flower growing countries, the embedded knowledge base and human capital is limited (Splinter, Brusselaers, & van Galen, 2011; Taylor, 2010; Joosten, 2007).

In order to solve the problem, the Ethiopian government in collaboration with its partners initiated projects aimed at building capacity in the sector. A good instance is the initiative at Jima University by the collaboration between the Ethiopia and the Netherlands governments. Under the initiative, the Jima University in collaboration with Wageningen University set up B.A. and MSc. program in floriculture. A production area with a modern greenhouse, field plots with installed irrigation and two small cold stores has been established to create practical

learning environment for students. Students are also provided with internship opportunities at floriculture firms to back up their academic learning with practical experiences. In addition to the academic undertaking, the project involves providing consultation services to producers and other industry players. In addition to such academic programs at the universities, a special training centre dedicated exclusively to floriculture has been established at Melkasa Agricultural Institute. The institute is designed to have not only classrooms but also well equipped greenhouses, field plots and packing shed with three small cold stores so that practical skills training at all levels can be given to floriculture workforces (Taylor, 2010). Other capacity building programs in collaboration with other international partners such as the Swedish government and USAID technical assistance programme are being undertaken (Joosten, 2007). Such endeavours are expected to improve the situation.

Table 11 - Comparative analysis of corruption, security and crime costs in selected flower growing African countries

Country	Security cost (% of sales)	Losses due to theft, robbery, vandalism, and arson against firms (% of sales)	Bribe		
			(% of firms expected to give bribe in meetings with tax inspector)	(% of firms expected to give bribe to secure government contract)	(% of firms expected to give bribe to get operating license)
Ethiopia*	0.7	0.2	4	3	12
Kenya	3.7	1.5	17	28	15
Uganda	4.2	0.8	14	6	18
Tanzania	2.9	1	15	65	18
Sub-Saharan Africa	2.6	1.7	16	26	20

Source – World Bank (2014)

** The data for Ethiopia are for the year 2011 whereas the data for the other countries are for the year 2013. Although the time lag raises question in relating the data, as the time lag is relatively insignificant, its impact is assumed to be marginal.*

In terms of societal makeup and values, Ethiopia offers a peaceful civic life and less corrupted society when compared to other flower growing countries. As can be seen from Table 11, corruption, security and crime costs are lower in Ethiopia than any of the other competing flower growing countries in East Africa (World Bank, 2014). Similar fact has been evidenced in the World Economic Forum's Global Competitiveness Report 2013/2014. Out of the most pressing problematic factors in conducting business in a country, corruption and crime & theft received 12.3% and 0.0% in Ethiopia respectively. In the other countries, a relatively higher percentage has been reported, i.e. Kenya – 21% for corruption and 6.9 for crime and theft, Tanzania – corruption 16.9% and crime and theft 2.8 and in Uganda – corruption 23% and crime & theft 2.2 (World Economic Forum, 2014). Taylor (2011)

underlined that there is a difference between the corruption type evidenced in Ethiopia and other flower growing African countries. According to him, the corruption in the other countries is more of culturally ingrained systematic corruption whereas in Ethiopia, it is a matter of favouring of past and present government contacts in certain commercial areas, along the ethnic and party lines. Such corruption is unlikely to affect foreign investors.

Given all these, it can be said that Ethiopia has relatively good factor conditions compared to other flower producing countries in Africa. The country has advantage with respect to quality produce, cost of freight, cost of production and proximity to the major European market. Although there is shortage of skilled manpower, the country has cheap and plentiful labour supply than many flower growing African countries. However, the country's flower industry is entangled by lack of skills, professional education and experience. This can be a challenge for the competitive positioning of the industry globally. The efforts being made to improve the situation are expected to help the sector cope up with the challenge and thereby, expand more. The country also has a much better civil life than its competing counterparts. These factors combined with the suitable natural conditions and improving infrastructures makes the country amongst one of the suitable and preferred countries for flower production as far as factor conditions are concerned.

8.1.3 Relating and Supporting Industries

The relative competitiveness of the Ethiopian flower industry depends not only on its linkage with the main destination market, Europe, but also the robustness of its supply chain to cope up with the increasingly intense international competition. The structure of the Ethiopian flower production value chain is described in section 6.2. In this section, the relating and supporting industries within the Ethiopian flower supply chain are analyzed in terms of their ability in enhancing the competitiveness of the sector.

8.1.3.1 Financial service provision

One of those industries whose services are of paramount significance for the development of the flower industry is the financial sector. The presence of an efficient financial sector enhances the competitiveness of an economy by ensuring efficient allocation of resources to their most productive uses (World Economic Forum, 2014). The financial sector in Ethiopia is not liberalised. It is highly dictated by the government and hence, it has a non-competitive market structure with strong capital control in place. As foreign financial institutions are

barred by law, the financial sector is exclusively served by local banks with the government having greater role in controlling the lending process including interest rates. All foreign exchange transactions such as foreign exchange payments and remittances fall under the monopolistic jurisdiction of the National Bank of Ethiopia. The non-competitive market structure and the undeveloped regulatory environment have resulted in a limited and weak financial sector (Kiyota, Peitsch, & Stern, 2007). However, the Ethiopian flower industry has benefitted from the availability of government loans through the state-owned Development Bank of Ethiopia (DBoE). The highly favourable loan terms by the DBoE offer local and foreign investors in the flower industry a debt-equity ratio of 70:30 for new projects and a debt-equity ratio of 60:40 for the expansion of existing projects with no collateral requirement and against low interest rates. Loans are available with different repayment regimes - both medium and long-term bases. The attractive credit schemes encouraged a surge of foreign direct investment in the sector (Taylor, 2011).

Table 12 - Financial Service Provision

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
Requirement to start business	0	0	3	16	7	26	4.15	0.61
Availability	0	4	3	8	11	26	4.00	1.11
Cost of capital	12	7	5	2	0	26	1.88	2.52
Bargaining power of financiers	0	0	2	2	22	26	4.77	0.86

Note *– The numbers in the first 5 columns indicate the number of respondents under that scale. The values in the last two columns are average scores and standard deviation of the respondents' rating. Average score of < 2.5 is interpreted as low and > 3.5 as high. A score between 2.5 and 3.5 is interpreted as modest.*

In spite of the generous offers, the interviewed farm managers considered the role of DBoE in nurturing the domestic industry as controversial. According to them, the bottlenecking bureaucracy along with the inexperience of the bank with flower business affected the development of the industry (Interview Group, Farm Managers). This view has also been evidenced in the questionnaire respondents' rating as shown in Table 12. As can be seen from the table, sampled flower growers were asked to appraise the financial service provision based on a five point scale that runs from very low (1) to very high (5). Even though the respondents have rated the financial supply and cost of capital positively, they have assigned higher values to the bargaining power of the financial institutions and the required capital to start the flower business in the country. In addition, the bank's initial policy of excluding local investors from the scheme hindered the participation of local investors. Even though the bank excluded local

investors citing the absence of the knowledge of how to set-up and grow a floricultural export business in Ethiopia as a reason, significant number of foreign investors who had no prior experience in floriculture have benefited from the bank's loan. This not only undermined the development of local growers but also the possibility of buying knowledge from abroad. The bank has now included local investors under the scheme (Interview Group, EHPEA).

In a related theme, the highly favourable loan terms and the bank's lack of experience are reported to have encouraged opportunistic behaviour by some investors. Some investors considered it as an opportunity to make easy money quickly while others tried to extract money from the industry by submitting overstated business proposals (Taylor, 2011). In addition to offering generous loans, the bank played an equally important role during the recent global financial crisis. It helped the sector cope up with exogenous shocks of price crash that affected the industry during the financial crisis. When growers encountered difficulty to meet their loan repayments during the crisis years, the bank rescheduled repayments over a long term basis (Taylor, 2011). Such endeavours from the bank are indicative of the bank's constructive role towards the sector. Therefore, the financial service being offered to the sector by the local banks, mainly the DBoE, can be considered as good in facilitating the competitiveness of the Ethiopian flower industry although the monopolistic nature of the service casts question.

8.1.3.2 Input suppliers

The flower industry uses a range of inputs. The primary inputs used in flower production are chemicals, packing, fertilisers, greenhouse materials, irrigation systems, building materials, and cool chain facilities. Whenever available the flower producers use domestically produced inputs. A good example in this regard is packaging services. Even though the local industry has had difficulty in meeting the quality requirements of the industry initially, the local packaging industry upgraded its capacity remarkably as the flower industry grew. A number of firms imported specialized packaging machineries and hence, now they are able to produce standardized packaging materials. As a result, most of the flower exporting firms use domestically produced packaging products (Taylor, 2011; Taylor, 2010). However, the range of domestically produced inputs is not only limited but also the service providers are also not strong enough to serve the sector. As Table 13 indicates, sampled flower growers were asked to appraise the role of local suppliers and inputs based on a five point scale that runs from very low (1) to very high (5). The respondents have rated the role of seedling, fertilizer and

chemical suppliers as insignificant. However, they have relatively positive view regarding the role of packaging material suppliers. Due to this, interviewed managers stated that they mainly use imported inputs from local traders such as green-house construction, irrigation system materials, special pesticides and fertilizers. However, in some circumstances they noted that they directly import some inputs mainly due to the fact that some specialised inputs are unavailable in the local market. Even though the interviewed managers mentioned unavailability as the main factor, Global Development Solution's (2011) study indicated cost as another important factor. According to the study, flower growers were able to save up to 20% when they import by themselves. To the relief of flower growers, a number of international and local specialised input suppliers have started to open branches in Addis Ababa in response to the expansion of the sector (EHPEA, 2014). This alleviates the burden on growers as they can now get quality inputs at competitive prices.

Table 13 – Role of local suppliers in growers' view

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
Seeds/Seedlings suppliers	9	8	6	0	0	23	1.87	0.81
Packaging materials suppliers	4	2	7	13	0	26	3.12	1.69
Fertilizer and chemical suppliers	6	15	5	0	0	26	1.96	0.67

Note *–The numbers in the first 5 columns indicate the number of respondents under that scale. The values in the last two columns are average scores and standard deviation of the respondents' rating. Average score of < 2.5 is interpreted as low and > 3.5 as high. A score between 2.5 and 3.5 is interpreted as modest.*

Genetic materials and greenhouse films are the typical inputs that need participation of foreign suppliers mainly from Europe. A very important and instrumental actor with respect to greenhouse development is Sher Ethiopia Ltd - the subsidiary of Sher Holland BV, the largest rose company in the world. Sher Ethiopia Ltd specializes on developing readymade greenhouses for growers. Sher builds not only the greenhouses, but also technologies needed for production such as irrigation and central spraying units. It rents out prepared greenhouses to growers to whom ownership is transferred after 8-9 years. By doing so, Sher Ethiopia improved the investment climate for new entrants, especially for small and medium enterprises who do not have to go through the sunk costs of developing greenhouses and related infrastructures. Indeed, Sher plays an important role not only in the infrastructural area but also in importing and distributing other inputs for flower growers, and providing logistic, transporting and handling services for Ethiopian growers in the Netherlands through its other branch called Sher/Agriflora and Flowerport (Melese & Helsing, 2010; Taylor, 2011).

However, as interviewed expert from the Ethiopian Horticultural development Agency noted that the role of Sher in the sector is a mixed. The company's pursuit of higher profits margins for its services in input, transportation and the royalties for the ready-made greenhouses have significantly affected other flower growers that use the company's services. This is also evidenced by Taylor (2011). In an effort to ease the challenge for other growers, the government in collaboration with other institutional actors in the sector is planning to implement the ready-made turnkey greenhouse model in different areas of the country by using the knowledge gained during Sher's greenhouse turnkey project (Taylor, 2011).

Other actors that play a very important role as supplier are breeders. Breeders play a pivotal role as the right variety is decisive for productivity. Through licensing or by propagating genetics materials by themselves, breeders make their products available to growers. In addition to the formal mechanism, breeders, in an effort to protect their varieties, conduct strict informal control mechanism by exclusively avoiding selling to those growers accused of undermining breeders' right. They sell their varieties only to specifically selected growers which comply with their property right. Therefore, it is challenging for Ethiopian growers to find the kind of varieties they desire (Melese & Helsing, 2010; GDS, 2011). Currently, most of the flower breeds are imported from other countries such as Kenya, Israel and the Netherlands. According to Global Development Solution (2011), royalty payments to breeders on average constitute 21% of the ex-farm rose production costs. This may lure the interest to circumvent costly royalty payments by Ethiopian growers. However, the tendency towards such activity brings two kinds of risk to the Ethiopian flower industry. Firstly, the sector's image in the international market will be labelled as an 'illegal' and this may eventually result in exclusion from those markets especially from accessing new varieties. Secondly, it may have regressive impact on the development of independent and legal nursery/propagation service providers (GDS, 2011). The good news for Ethiopian flower producers is that the emergence of the Ethiopian flower industry as active player in the international arena is attracting the interest of several prominent breeders to establish propagation sites in Ethiopia (Joosten, 2007). This is expected to put the Ethiopian flower industry in par with its competing developing countries counterparts. Given all these experiences, it can be said that the input supply linkage in the Ethiopian flower industry in its current situation is not in a position to promote the competitiveness of the sector when compared to other competing flower producing countries such as Kenya although there are good improvements.

8.1.3.3 Transportation and logistics service provision

As elaborated in section 6.2, due to the peculiar nature of the product, the flower industry is heavily dependent on efficient coordination of cold-chain management systems, transportation and logistics activities. As studies indicated, transportation and logistics costs constitute the highest cost share in the Ethiopian flower value chain (GDS, 2011; Taylor, 2011). The first of the transportation and logistics activities is the inland transportation of the flowers from the farms to the Addis Ababa Bole International Airport. Global Development Solution (2011) indicates that flower producers do not have major challenge related to the functioning of inland transportation and handling services. The same view has been reflected by the interviewed farm managers. Even though there are several transportation companies with the capacity to handle the inland transportation, flower growers tend to prefer having full control of their cargo from the moment it is loaded into refrigerated trucks until it is unloaded, palletized and loaded onto airplanes. They use their own refrigerated trucks and conduct the documentation and clearing process including the loading of their products from the cold trucks directly into palletised loads for air shipment. They do so mainly due to the weak links in the supply chain. There is no centralized documentation and custom clearing process at the Addis Ababa Bole International Airport. Rather, most custom documentations and clearance activities and phytosanitary inspections are conducted on the farms. In addition, the absence of cold storage facilities at the airport have also facilitated for the emergence of such set up. This set up eventually exposes flower producers to additional risk in case the flowers loose quality or value due to flight delays, cancelation or any other unexpected events at any point in the chain (GDS, 2011; Taylor, 2011; Joosten, 2007). Thus, it can be said that the current decentralized set up of customs and phytosanitary inspections along with the absence of dedicated logistic and handling services at the airport puts Ethiopian flower producers at relative disadvantage when compared to their Kenyan and other flower producing counterparts. In order to alleviate this comparative disadvantage, Ethiopia needs to develop cool-chain storage facilities at the airport with established insurance provisions for losses and/or damage during handling, storage and moving the flowers, and establish an organised and centralised customs and phytosanitary services that facilitates the flow of goods and services at the airport. This in turn creates the incentives for the emergence of dedicated specialised support service providers such as freight forwarders and clearing agents (GDS, 2011; Joosten, 2007).

Table 14 - Transportation and logistics service provision in the Ethiopian flower industry in growers view

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
Land Transportation service providers	5	10	11	0	0	26	2.23	0.76
Air Transport service providers	2	5	16	3	0	26	2.77	0.94
Logistics service providers	11	13	2	0	0	26	1.65	0.86
The Ethiopian Horticultural Producers and Exporters Association	0	0	3	19	4	26	4.04	1.92

Note *– Sampled flower growers were asked to appraise the transportation and logistics service provision in the Ethiopian flower industry based on a five point scale that runs from very low (1) to very high (5). The numbers in the first 5 columns indicate the number of respondents under that scale. The values in the last two columns are average scores and standard deviation of the respondents' rating. Average score of < 2.5 is interpreted as low and > 3.5 as high. A score between 2.5 and 3.5 is interpreted as modest. As can be seen from the table, the respondents have rated the land transportation and logistics services as low. They have relatively modest rating towards the air transport service and maintained high regard to the role of the association.*

With respect to airfreight, Ethiopia can be thought to have advantage on other flower producing African countries in terms of geographical location and quality of national airport and airliner. The country has one of the leading air carriers in Africa. However, the Ethiopian flower industry has been entangled with capacity and cost constraint of air transportation since its emergence into the global business. The interviewed expert from the Ethiopian Horticulture Producer Exporters Association (EHPEA) indicated that airfreight capacity and charges are the prime challenge to expand growers' market reach in Europe. This feeling is shared by the interviewed farm managers as well. Indeed, it is undeniable that operational intricacies surrounding the air transportation has been limiting factors in the growth of the flower industry as evidenced in studies by Global Development Solutions (2011) and Taylor (2011). More recently, however, improvement has been achieved curtsey to the commitment of the Ethiopian Airlines and the government. In an effort to meet the increasing demand from horticultural and other exporters, the Ethiopian Airlines established the 14,000m^2 perishable cargo terminals with a capacity of handling 1000,000 tons of freight in a year at Bole International Airport in 2013 (Ethiopian, 2014). The infrastructure includes modern compartmentalized handling units that can provide cool-storage services. When the terminal is fully operated, it is expected not only to facilitate the cargo flights but also provide a way to improve the decentralized clearing process and the associated problems. The other huge airport related infrastructural improvements discussed in section 8.1.2 are also expected to make Addis Ababa a major cargo hub in East Africa. In addition, the airliner stepped up its effort to increase its cargo capacity. As a result, it offers eight chartered flights per week in place of one cargo per week few years before (Ethiopian, 2014). Other carriers such as

ETIHAD and Egypt Air make one chartered flight per week. In addition to the cargo services, a number of other carriers including the ones mentioned above provide limited space cargo service on their passenger flights although the price on passenger flights is way higher than the dedicated cargo flights (GDS, 2011; Taylor, 2011). The absence of competition contributed to the poor services and higher charges of airfreight during the early days of the sector. Now, the increasing number of airliners delivering cargo services is expected to make the cargo charges competitive. In a more recent development, flower exporters are boosted by Ethiopian Airline's decision to reduce cargo size requirement. The decision came after a year-long negotiation between the Ethiopian Horticulture Producers & Exporters Association (EHPEA) and the Ethiopian Airlines (EAL). The new scheme is expected to reduce the payment made by the exporters for the cargo service from Ethiopian (Addis Fortune, 2014).

Given the assessment made so far, it can be said that the current transportation and logistics service provision in the export of Ethiopian flowers is not efficiently organized to help the continued development of the sector although significant improvements have been achieved over the past few years. When the capacity improvement projects at the Bole International Airport and the Ethiopian Airlines are completed, the transportation and logistics sector is expected to be able to put the Ethiopian flower industry at least in par with its Kenyan counterpart. Until then, transportation and logistics services will continue to be the prime challenges for Ethiopian flower exporters.

8.1.3.4 Ethiopian Horticulture Producers & Exporters Association (EHPEA

A very prominent industrial institution that has played significant role in the Ethiopian flower industry is the Ethiopian Horticulture Producers & Exporters Association (EHPEA). The association (EHPEA) was established in 2002 as a non-profit and non- government organization with the aim of promoting the development of the Ethiopian flower industry. It encompasses the whole horticulture sector namely vegetables, fruits and flowers. It tries to secure the cooperation among floriculture producers; assist promotion of horticulture exports to international markets; represent and promote the interest of its members; collect and circulate statistics and other information; and arbitrate and settle disputes between its members (EHPEA, 2014). Although it faced challenge during its early years due to lack of enough membership and lack of attention from the government, in the past decade it became an instrumental element within the Ethiopian flower industry. The association has not only developed linkage but also lobbying with different government offices, local and international

institutions and businesses. Together with other actors, it managed to manoeuvre the government into giving the utmost support to the sector (EHPEA, 2014; Splinter, Brusselaers, & van Galen, 2011; Taylor, 2011). It has also conducted a number of successful negotiations with industry actors and others on behalf of flower producers. A good example from recent negotiation is the association's success in convincing the Ethiopian airlines to bow to the demands of the Ethiopian flower producers (Addis Fortune, 2014). In addition, in an effort to create strong link among actors in the industry and promote Ethiopian flower in the designated markets, the association organizes a biannual trade exhibition. It also makes effort to promote social responsibility within the industry and thereby, improve the image of Ethiopian growers as sustainable produce producers. In this regard, it not only encourages and facilitates its members to get international certification but also recently introduced a Code of Practices for the flower industry. The association in collaboration with the government and international actors has also been involved in initiating and facilitating a number of capacity building initiatives aimed at improving knowledge and skills in Ethiopian floricultural farms such as the one at Jima University and at Melkasa Agricultural Institute. In addition, in an effort to alleviate transportation related problems, it established Ethio-Horti Share Company (EHSC) that is engaged in providing services such as freight forwarding and carriage arrangement (EHPEA, 2014; Splinter, Brusselaers, & van Galen, 2011; Taylor, 2011; Joosten, 2007). The active role of the association has been reflected in the response of interviewed managers and questionnaire respondents as shown in Table 14. With such active role, the association is expected to keep on playing even more roles in enhancing the development and thereby promoting the competitiveness of the sector internationally.

8.1.4 Industry Structure, Firm Strategy and Rivalry

In terms of industry structure, flower growing firms in Ethiopia are structured around several clusters located in close proximity to the capital Addis Ababa. According to Global Development Solution (2011) study, nearly 80% of the flower farms are located within a radius of 50 kilometres from Addis Ababa in the directions of the five main highways connecting Addis Ababa to the rest of the country. Holleta, Ziway, Sebeta, Debre Zeit and Addis Alem constitute the main cluster areas where there is a high concentration of flower farms. The high density of flower farms clustering in close proximity to the capital city created the agglomeration of cut flower industry service providers in Addis Ababa. For instance, all the forwarding and clearing service companies, the refrigerated truck service

providers (except for Bahr Dar), majority of input suppliers and trucking service suppliers for supply of inputs are exclusively located in Addis Ababa. This forced flower growers to have either head or liaison offices in Addis Ababa in order to access vital services. Eventually the growth and competitiveness of the Ethiopia's flower industry depends mainly on how capable Addis Ababa is in serving as a logistical hub. The emergence of Bahirdar in the north-western part of the country as an independent flower hub, however, is a good example to prove that the flower industry can expand to the other potential areas within the country provided that sufficient infrastructural support is available (GDS, 2011).

In addition to the agglomeration of economic activities of the flower industry around Addis Ababa, the high density of flower farms clustering around certain areas have implication for the way flower firms cooperate and compete with each other. Gebreeyesus & Izuka (2010) reported that collaboration and learning from one another had been the case in the early days of the industry. According to them, the close proximity of flower farms with each other helped new comers within the industry collaborate and learn from the then industry leader Golden Roses and other established farms' experience through visits to the farms and discussions with management and other cooperative initiatives such as sharing of equipment (e.g. trucks), storage facilities (cold storage), and skilled employees. However, this did not stay long. As the industry expand with the in surge of capital into the industry from local and foreign investors, two categories of flower growers emerged – domestically owned and foreign owned farms. In general, the foreign owned firms appeared to have superior knowledge and experience than the domestic entrepreneurs most of who have experience in other businesses. This brought difference on the productivity of the firms. Melese & Helmsing (2010) found significant difference between domestically and foreign owned farms in terms of productivity. The foreign owned farms appeared to have visibly higher productivity. More importantly, they have also found a different level of cooperation between the two groups of flower producers. The foreign owned farms reported to have strong relationships amongst themselves that enable the exchange of information and experience about farms including core aspect of the business by visiting each other's farms and discussing better ways of managing the farms, the market and local conditions. This is not the case among the Ethiopian growers who do not seem to have well established relationship among themselves (Melese & Helmsing, 2010; Gebreeyesus & Iizuka, 2010). More interestingly, Melese & Helmsing (2010) reported limited cooperation between locally owned and foreign owned farms. According to them, the cooperation is incipient and rarely passes the stage of noncore

activities like borrowing input from neighbours in case of temporary shortage, exchanging none-core information, buying non-strategic inputs jointly, and participating in social activities. Interviewed managers have also noted the limited cooperation among flower growers. Although they questioned the willingness of their foreign counterparts, they cited the local business tradition as a major impeding element.

> *The foreign farms tend to perceive that they do not have that much economic incentive to cooperate with us. For this reason, they tend to interact with each other more often than they do with locally owned farms. What they miss out is that they can get more in sight about local conditions from local farm owners and in the process local farms would also have the chance to learn from their foreign counterparts' expertise. Even though this has contributed to the lack of cooperation, the local business tradition we have is the more impeding one. In Ethiopia, we conceive competition in the most myopic way; we perceive our relationship with our competitors as a zero sum game. We think we can get market share only when we outperform our local competitor but the reality is different. We participate in a global industry where we compete mainly with producers from other countries. Globally the competition is more on country level, between flower producing countries for reputation and branding, not on firm level. (Interview Group, Farm Managers)*

Table 15 - Ethiopian flower producers' view regarding the industry structure

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
There are many players in the industry	0	0	11	13	2	26	3.65	0.63
There is intense competition locally	8	7	11	0	0	26	2.12	1.79
International competition is stiff	0	0	2	10	14	26	4.46	1.05
Market access is difficult	0	2	13	8	3	26	3.46	0.83
There are many entry barriers to competitors	4	8	12	2	0	26	2.46	0.86
There is collaboration among producers	5	6	11	4	0	26	2.54	0.99

Note *– Sampled flower growers were asked how strongly they agree with the aforementioned statements regarding the industry's structure in the Ethiopia based on a five point scale that runs from strongly disagree (1) to strongly agree (5). The numbers in the first 5 columns indicate the number of respondents under that scale. The values in the last two columns are average scores and standard deviation of the respondents' rating. Average score of < 2.5 is interpreted as disagreement and > 3.5 as agreement with the respective statement. A score between 2.5 and 3.5 is indifferent stand.*

The response from questionnaire as shown below in Table 15 indicated the presence of modest cooperation in the sector. The absence of strong cooperation among producers especially

between local and foreign owners prohibits learning exchange and potential positive spill over in the sector. Melese & Helmsing (2010) mentioned a good exceptional instance for positive spill over among the growers under the Sher-Ethiopia turnkey project. According to them, growers both local and foreigners under the Sher-Ethiopia leased farms cooperate on a range of issues such as hiring cool trucks, and visit each others' farms more frequently than growers located elsewhere. Some of the local farm owners reported to have learned from the practice of foreign farm owners in their vicinity and thereby improve on their productivity (Melese & Helmsing, 2010). Apart from the cooperation aspect, as Taylor (2011; 2010) evidenced, the concentration of flower farms in certain areas have become a source of stiff competition not in the output market but mainly in the factor market especially with respect to skilled and semi-skilled labour. Maintaining workforce in areas where flower clusters have grown remarkably has become difficult due to a considerable labour mobility between flower farms. Gebreeyesus & Izuka (2010) have also acknowledged the emergence of the competition for workforce in the latter stages of the industry's development. The interviewed managers acknowledged the presence of the issue and explained that their respective firms use a multiple of strategies ranging from contractual obligations to providing incentives to their respective workforce. As can be seen in Table 16, sampled flower growers were to rate their own firm's engagement in strategies that promote the mentioned business aspects based on a five point scale that runs from hardly to mostly. As the self-rating indicated that the flower producers do not have proactive management tradition on issues related to their business.

Table 16 - Self rating by Ethiopian flower producers regarding their firm engage in strategies that promote the mentioned business aspects

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
Marketing Research	3	10	12	1	0	26	2.42	0.76
Building firm image	2	13	8	3	0	26	2.46	0.81
Explicit PR strategy	4	15	2	5	0	26	2.31	0.98
Management of change	1	13	10	2	0	26	2.50	0.71
Personnel training systems	2	6	11	6	0	25	2.84	0.90
Choice of market segments	6	12	5	3	0	26	2.19	1.15
Advertising	4	7	10	5	0	26	2.62	1.01
People involvement	1	6	17	2	0	26	2.77	0.66

Note *– The values in the last two columns are average scores and standard deviation of the respondents' rating. Average score of < 2.5 is interpreted as an indication of lower engagement and > 3.5 as higher engagement in the respective business aspect. A score between 2.5 and 3.5 is interpreted as modest engagement.*

In terms of organization, as described in section 8.1.3, due to the prevailing business conditions, most of the flower growers organized themselves in such a way that they have direct control over different activities in the supply chain including the core business of growing flowers. Most have cooled processing and packing warehouses in their farms to prepare the flowers after harvesting. In addition, flower farms have also tended to have their own refrigerated trucks to deliver the flowers to the airport. Interviewed managers indicated that they sought to have control over these aspects mainly due to the absence of dedicated service providers and the resultant higher transaction cost. Even though it seems realistic given the current circumstance surrounding the Ethiopian flower supply chain, such organization have greater implication on the grower's focus, cost and risk and hence, affects the industry's productivity. It not only makes flower farms lose their focus on the core business of managing their farms but also experience unnecessary costs and risk which could have been avoided if there were efficient service providers that can pool the industry's demand for such services.

In terms of product variety, the Ethiopian flower producers can be categorized into three main groups - roses under greenhouse, cuttings under greenhouse, and summer flowers. More than 80% of the total cultivated area is covered by rose production (GDS, 2011). Even within the rose varieties, the product range by most growers is very narrow (GDS, 2011; Joosten, 2007). The absence of diversification makes the Ethiopian flower industry highly vulnerable. In terms of market strategy and channel, the Ethiopian flower producers are over reliant on the Dutch auction system. As explained in section 6.2, nearly 70% of Ethiopian flowers go through the Dutch auction. They have limited participation in other market channels such as direct marketing. The Dutch auction system provides Ethiopian flower exporters with the benefit of transparent pricing system. By aggregating demand and supply forces, the auction system sets the conditions for efficient price-setting mechanism with secured transaction processing. In addition, it also offers the opportunity to sell globally and build up image and reputation. Although it enable Ethiopian growers sell their products in Europe without representation in the Netherlands, the use of agents insulates them from having direct interaction with buyers. For this reason, they rely on agents and traders at the auction houses for feedback and market information (Melese & Helmsing, 2010). This, however, makes Ethiopian growers highly vulnerable as is the case with the product range.

The interviewed expert from the Ethiopian Horticulture Producers & Exporters Association (EHPEA) noted that direct marketing approach is unrealistic option for many of the Ethiopian flower growers who grow on small plots of land and hence, limited produce. According to him, in order to participate in direct marketing, farms need to produce in bulk but this is not the case for many growers in Ethiopia. He explained that the Ethiopian flower growers are missing out opportunities due to such limitations. He recited the experience of American flower buyers who visited Ethiopia two years before to examine the possibility of sourcing from Ethiopia but unable to do so mainly because Ethiopian growers were not in a position to supply in large quantity. As a means to cope up with such challenges, the association has been lobbying for creating a legal framework that enable individual exporters to export flower products they have collected from various growers. Such scheme, according to the association, creates the opportunity to supply larger quantities of flowers to a wider market in international markets through direct marketing channels. The interviewed officer from the Ethiopian Horticulture Development Agency (EHDA) confirmed that in response to the initiative by the association, EHDA is in the process of drafting a new directive aimed at addressing this issue.

With respect to rivalry, the flower industry is truly global. Hence, competition within the industry should be seen not in the context of national boundaries. The analysis of competition for Ethiopian flower producers should therefore take account of the competing forces in the designated global market. Globally, as discussed in Chapter 4, the flower industry is dictated by the south-north flows with the largest markets being in the northern hemisphere while producers are located closer to the equator. It is mainly with these countries situated near to equator, such as Colombia, Ecuador, Kenya, Tanzania and India, that Ethiopian flower producers compete in European and other international markets. To the dismay of Ethiopian growers, with the shrinking of traditional markets in Europe and North America, competition among the producers has intensified (GIA, 2012; Joosten, 2007). Most of these countries have more or less similar natural conditions that suit to the cultivation of flowers and hence, the competition can be thought to be between fairly equally endowed competitors. However, the fact that some of the flower producers are well established ones would mean that they have a well-functioning industry that has higher productivity than the recently emerged Ethiopian flower industry. For instance, Kenya has higher productivity than Ethiopia although Ethiopia has advantage in terms of lower production cost. Not only the productivity difference, there are also difference in terms of knowhow, availability of skilled labour, associated

infrastructure and other supporting industries (GDS, 2011). Ethiopian growers therefore need to improve their productivity and the quality of their produce to catch up competing countries and thereby maintain competitive price/quality ratios in global markets.

8.1.5 Government

As discussed in section 5, over the past 50 years Ethiopia went through a fundamental political transformation from feudal system to socialist and more recently to parliamentary government and market oriented rhetoric though the government's commitment in democracy and open market orientation is contested[2]. This has brought shift in government policy and practice. The introduction of market oriented approach required a set of reforms and complementary policies that creates the basic conditions for the market mechanism. In an effort to create these basic conditions, the government has been undertaking a series of World Bank and IMF backed reforms under the Structural Adjustment Policies (SAP)[3]. Spanning over a number of phases, the reform agenda revolves around not only redefining the role of public institutions but also laying down the basis for market-based governance and steering (Philibert, 2001).

Parallel with these reforms, the government put in place a wide range of complementary development policies and strategies. It adopted Agriculture-Led-Industrialization (ADLI) as a long-term development strategy for the country. The strategy is two-pronged, incorporating the external sector (export-oriented) on one side and the internal sector, which focuses on the forward and backward-linkages between agriculture and industry, on the other side (FDRE, 2012). Thus, agricultural development is conceived as pivotal to the industrialization process as it supplies input to the industry, generate foreign exchange that can be used to import industrial inputs, and also promote markets for industrial products. In line with this strategy, ever since its rise to power, the incumbent government put outward looking economic policies in place of the previous government's inward looking policies. As part of these endeavors, export oriented high value agricultural products are considered as one of the most important areas in the country's development strategy (MFED, 2010; MFED, 2006).

[2] The discussion in Chapter 5 indicated that the ideological and practical commitment of the incumbent government in Ethiopia differs between policy and discourse. Thus, it is misleading to consider the government as committed to the ideals of market algorithm and democracy. It should, however, be noted that there has been a economic departure rhetorically and practically from what it used to be during the military regime although the political atmosphere seems to be at standstill.

[3] A detailed discussion on these reforms has been provided in section 5.

To this end, the government has taken a series of important actions to create an enabling environment for the private sector such as creation of an investment code, establishment of federal and regional investment agencies, liberalization of foreign exchange, creation of the export promotion agency and introduction of incentive schemes for exporters (EIA, 2013). The introduction of the investment proclamation and the subsequent establishment of the Ethiopian Investment Agency in 1992 constitute the incumbent government's early actions. Since then, the investment code has been amended several times through a series of proclamations in order to accommodate the increasing demands of both foreign and domestic investors. The first proclamation, Proclamation No. 15/1992, which was enacted in 1992 created the basic legal framework for private investment within the country. After four years, this proclamation was replaced by Proclamation No. 37/1996, which in turn was replaced by another proclamation, Proclamation No. 37/1996. Even though the three proclamations addressed the fundamental issues surrounding investment within the country, none of them have stipulations aimed at addressing the role of FDI. In an effort to encourage the participation of foreign investors, the existing proclamation was fundamentally amended in 2002 in such a way that it explicitly includes issues related to foreign investors. In line with this, on top of the general stipulations pertaining to domestic investors, the 2002 proclamation explicitly stipulated the areas open to FDI; the financial limits and requirements; the monitoring and reporting requirements; and the available financial incentives (FDRE, 2002). This law has been amended three times since then in the year 2003, 2008 and 2012.

According to the existing proclamations, not all sectors are open for foreign investors. Some sectors such as transmission and supply of electricity, large domestic air transport, postal service, telecom services and the likes are reserved exclusively for government mainly due to national security. Likewise, with the objective of promoting indigenous entrepreneurship and the domestic private sector, the financial sector, air transport (less than 20 passengers), import trade, small commercial water & road transport and several small businesses are reserved for domestic investors. The flower industry is not affected by all these stipulations. With respect to the process of getting license, investors are legally obliged to obtain an approval from Ethiopian Investment Authority or regional investment authorities for their projects. As far as capital is concerned, there is no capital requirement for local investors. This, however, is not the case for foreign investors. The general investment rule specifies that foreign investors are required to have a minimum initial capital of USD 200 thousand for a wholly foreign-owned project. If the project is in partnership with local investors, the minimum capital required is

US$ 150 thousand per project. To promote export-oriented FDI, foreign enterprises that export at least 75% of their output are exempted from the minimum capital requirement (EIA, 2013). As the flower industry's produce are mainly for export market, this would mean that investors in the flower industry are not obliged to fulfill the minimum initial capital requirement. This reduces the potential entry barrier for small scales investors.

The Ethiopian Investment Agency (EIA), an autonomous government institution, is a government institution responsible to promote the country's investment opportunities and conditions to foreign and domestic investors (EIA, 2013). As the agency is responsible to manage the procedures, processes and incentives involved with setting up private business in the country, its services are crucial in creating enabling environment for investors. In an effort to improve its services, the agency has recently launched the so called 'one-stop shop service' from where investors can get comprehensive services transparently. With this, it claims to have drastically streamlined its services (EIA, 2013). Interviewed managers rated the agency's services favorably. The following interview response represents typical view forwarded regarding the agency.

> *Although cumbersome and time-consuming procedures were major problem during the early years of the agency, nowadays the agency is the most vibrant government office where customers can get satisfactory services unlike the relatively wide spread bottlenecking bureaucracy in other government offices. (Interview group, Farm managers)*

Table 17 - Ethiopian flower producers' view on how supportive the government has been to their business through its policies

	1	2	3	4	5	Total No.of respondents	Mean	Standard Dev.
Govt policy on infrastructure	0	3	11	9	2	25	3.40	0.82
Govt policy on business start-up	0	2	7	17	0	26	3.58	0.67
Govt policy on investment incentives	0	0	7	10	9	26	4.08	1.05
Govt policy on industry regulation	0	4	15	6	1	26	3.15	0.77
Govt as advertising agent internationally	3	7	9	5	2	26	2.85	1.12
Political environment	1	3	8	10	4	26	3.50	1.23
The Ethiopian Investment Authority	0	2	9	11	4	26	3.65	0.85
The Ethiopian Horticultural Development Agency	3	3	7	12	1	26	3.19	1.19

Note *–The values in the last two columns are average scores and standard deviation of the respondents' rating. Average score of < 2.5 is interpreted as an indication of the government's policy failure and > 3.5 as effectiveness of the government's policy. A score between 2.5 and 3.5 is interpreted as modest.*

A similar response has been found from the response of questionnaire respondents. As can be seen from Table 17, sampled flower growers were asked to rate how supportive the government has been to their business through its policies based on a five point scale that runs from rarely supportive (1) to very supportive (5). As their average response indicates, the government is given high rating for most of its policy initiatives.

As mentioned above, the high value export products are one of the focal areas for the government. The horticulture area is considered as the prime one in this regard. In an effort to promote the development of the horticulture sector, the government set up the Ethiopian Horticultural Development Agency (EHAD). The agency is tasked with the responsibility of simplifying the bureaucratic procedures involved with conducting business in the industry and thereby, ensuring sustainable growth in the horticulture sector. According to the interviewed expert from the agency, the agency gives its service to the industry in three pillars areas: investment, capacity building and marketing. Under the investment support service, the agency in collaboration with the Ethiopian Investment Agency provides assistance in the process of setting up business in the floriculture sector. According to the expert, the agency is able to improve the process for investors in the area. As a result, processing time and service quality for governmental services in the sector has improved enormously. Even though interviewed managers agree with the existence of the improvement in service quality and processing time, most of them believed that the agency has a lot to improve especially when compared to the vibrant Ethiopian Investment Agency. This has also been reflected in the rating the agency got by questionnaire respondents as shown below in Table 17. Despite the reservation, the interviewed managers are optimistic regarding the agency's role in the future. According to the interviewed farm managers, the agency is more helpful in the capacity building and marketing areas. As discussed in section 8.1.2.3, the agency in collaboration with the Horticultural Producers and Exporters Association (EPEA) and the Netherlands government initiated a number of capacity development projects in the horticulture sector in general, in floriculture in particular.

> *In collaboration with the Netherlands government under the Ethio-Netherlands Horticulture Partnership Program (ENHPP, we are able to initiate and run a number of projects aimed at building capacity in the flower industry for consecutive phases to enhance the development and competitiveness of the sector. Under the marketing service section, we also help producers in the arrangement of cool chain management*

and logistics follow-up and promote Ethiopian flowers in the designated foreign markets. Initiatives are under way to create a more enabling climate for investors. For instance, our 'Consolidation Directive Proposal' which aimed at creating the framework for large scale supply by Ethiopian flower growers to a wider market in Europe and the rest of the world is one of the latest efforts the agency is conducting as a means to cope up the challenges of flower producers. Besides, we are also strengthening our effort to access new markets in Middle East, Far East and other countries in Europe in addition to the traditional European destinations such as the Netherlands and Germany, (Interviewee, EHDA expert).

Although the agency is instrumental in promoting the development of the sector, its interventions and endeavors are not yet optimal as far as creating strong cluster is concerned. As evidenced in section 8.1.3, the Ethiopian flower industry lacks strong supporting and related industry although encouraging development has been evidenced in some aspects. As Global Development Solution (2011)study revealed, the sector suffers from the absence of vibrant service sector around the primary production. In addition, the interaction between local and foreign investors, as uncovered in section 8.1.4, is weak. This hampers technology transfer and thereby the development of strong local entities. To this end, more is expected from the agency in addressing these specific issues in addition to the efforts it has been making so far.

Even though the agency became more instrumental in the latter years of the sector, it was not involved that much in the early stages of the sector's emergence. As mentioned in Chapter 06, the emergence of the Ethiopian flower industry is attributed to the entrepreneurial initiatives of local private companies. Despite the early efforts of the association, the government's role was limited until the mid-2000s. Indeed, the government was unaware of the sector's potential and thus, it did not mention the flower industry among the extended list of priority sectors in the export promotion strategy it adopted in 1998 (Gebreeyesus & Sonobe, 2011). Once it became aware of the sector's potential, the government has been decisive in promoting the sector's growth by taking proactive efforts ranging from creating conducive investment environment to granting incentives to attract local and foreign investors. As part of its transformation plan, the government offered a wide range of inducements to investors in the flower industry (EIA, 2013). Curtsey to the government's exemption of flower producers from the payment of custom duties and taxes on imports of capital goods and construction

materials necessary for the establishment of a new enterprise or for the expansion of an existing enterprise, the start-up costs and business risks for investors in the sector has been reduced remarkably. Businesses in the industry can apply any depreciation methods for their financial statement provided that it is under the universally accepted accounting practices. This inducement is further complimented by the exemptions from customs duties or other taxes levied on imports of raw materials and packing materials necessary for the production of export goods.

Likewise, flower growers are exempted from the payment of income tax ranging for 7 years. In addition, income derived from an expansion or upgrading of their farms is exempted from income tax for a period of two years if the expansion increases production value at least by 25%. In addition, flower producers that suffer losses during the tax holiday period can carry forward their initial operating losses. The carry forward scheme is time bounded. Flower producers can exercise this right during the 7 tax holiday years. In addition, after the expiry of the tax holiday period, their right to do so can be extended for half of the income tax exemption period, which is 4 years according to the current stipulation for the flower industry (EIA, 2013). Even then when the farms run out of their tax-holiday period, the 30% tax rate they face is the same rate as other competing flower producing countries in Africa such as Kenya, Tanzania and Uganda (Taylor, 2011). On top of these incentives, the government gives guarantee for foreign investors on full repatriation of capital, interest payments on foreign loans, profit, dividends, asset sell proceeds and technology transfer payments. Foreign investors are also guaranteed against expropriation. As a further confirmation of the government's commitment towards these promises, the country has signed the World Bank's convention on the settlement of Investment Disputes and Nationals of other States, which provides for the international arbitration of disputes with foreign investors (EIA, 2013).

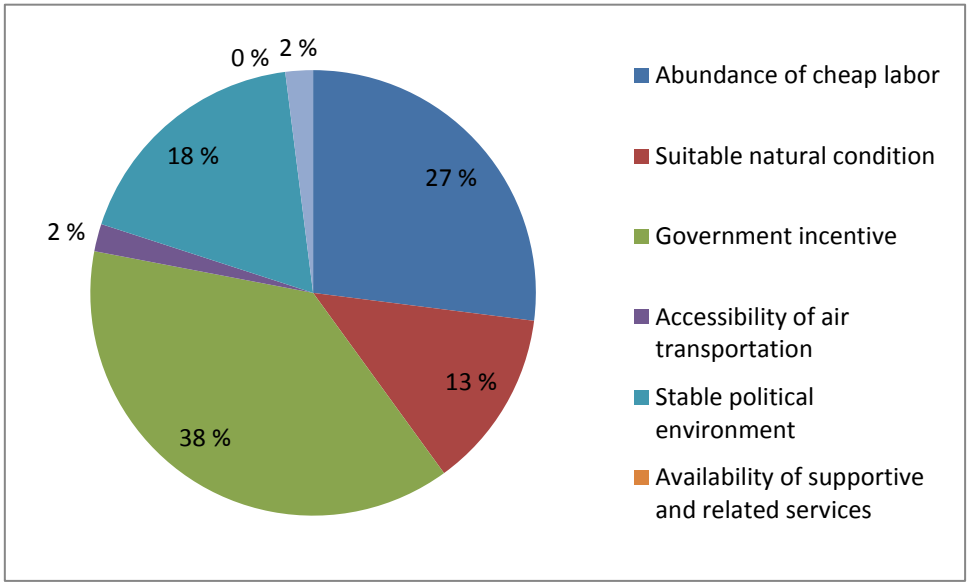
In an effort to facilitate the sector's growth, the government has also leased out land with basic utilities for export-led investment at a significantly low price on the long-term basis. The price of a lease varies from region to region and depends on several factors, such as the location of the land. Majority of the early farms leased out were state owned farms that were significantly under-producing and hence, inefficient. In addition to this, it has also made ready abundant land at different sites around major cities for local and foreign investors (EIA, 2013). According to EHPEA (2014), the government has readied additional 50,000 hectares of land to be leased for horticulture development in addition to the already cultivated area.

Therefore, investors neither need to prepare capital to purchase the land nor take a risk of losing the investment on the land. The process of getting land is simplified thanks to the commitment of the government. Constitutionally, land belongs to the state with those entitled to land expected to utilise it to the satisfaction of the government. Hence, no individual entity or person has the right to own it. To the relief of investors in the flower industry, the government circumnavigate some of its own policies on land acquisition in order to facilitate the growth of the industry, (Taylor, 2011). Therefore, investors can secure land easily with no much bureaucracy once they complete the pre-requisites such as project profile, bank letter, investment certificate (for foreigners or joint ventures), Memorandum of Association and Articles of Association (if PLC) (Interview Group, EHDA expert). In addition to these incentive packages, the government has also been heavily involved in building infrastructure, facilitating the accessibility of finance for investors and developing human capital for the sector as discussed in sections 8.1.2.2, 8.1.3.1 and 8.1.2.3 respectively.

With all these attractive investment packages and endeavors, the government created good conditions to attract investors to the sector. This has been evidenced by the better position Ethiopia has in the World Bank's Doing Business ranking when compared with other major horticultural exporters such as its arch rival Kenya (World Bank, 2015). The interviewed managers have also agreed with the notion that the government has played facilitative role in the development and growth of the Ethiopian flower industry. The following response from one of the interviewed managers summarizes the managers' response.

> *No question that the Ethiopian government's favorable investment and export policies make the business environment friendly to us. This non-hostile business environment coupled with the political and macro-economic stability and growth the country has been witnessing over the past decade make the country highly sought destination for investments. I believe this is one of the reasons that attract local and foreign investors, at least in our company case, to establish flower business in the country. (Interview group, Farm Managers)*

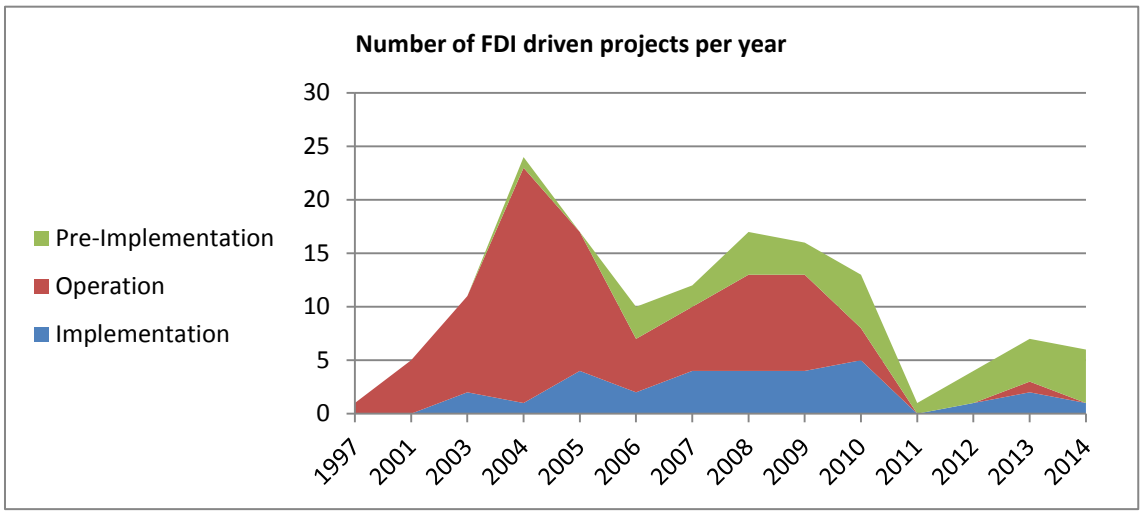
Figure 9 - Factors affecting flower growers decision to invest in Ethiopia



Indeed, as has been uncovered in section 7, the flow of FDI to the Ethiopian flower industry boomed after the government incentivized the sector. A good case in point is Sher Ethiopia, which is one of the most influential players in the Ethiopian flower industry as discussed in section 8.1.3.2. The company relocated to Ethiopia from Kenya in 2005 after the Ethiopian government started to promote the sector by offering attractive inducements. As can be seen from the Figure 9, questionnaire respondents have also rated the government investment package as one of the prime reason for entering Ethiopia. The figure presents the outcome from the survey conducted among flower farms to provide a subjective assessment on the weighting they allocate to a range of factors they consider were important in their investment decision to the Ethiopian flower industry. They were asked to identify the most influential factors in chorological order in their investment decision and as can be seen, government incentive is the prime one. Although the government's incentive and the investment climate are friendly, according to some of the interviewed managers, still there are improvements needed in the government bureaucracy.

> *Although the government's commitment and the attractiveness of the incentives are undeniable, the lack of autonomy and authority by regulatory staff to use their discretionary mandates makes implementation of some regulations and incentives in a rather bureaucratic manner. (Interview Group, Farm Managers)*

Figure 10 - Status of FDI driven projects in the Ethiopian flower industry



Source - Ethiopian Revenue and Custom Authority (ERCA, 2014)

Note – Number of investment project refers to the number of flower farms licensed. An individual company may have more than one flower farms in the country and hence, the total number of projects does not necessarily show the number of firms engaged in the industry. The above figure shows the number of FDI projects only. It does not include projects run by local investors. By the year 2014, a total of 144 FDI projects are registered by the Ethiopian Investment Authority. Pre-implementation refers to the number of projects whose implementation was not started in the year project license was given. Implementation and operation refers to the number of projects that were started (were on either implementation or operation stage) in the year license was given for the projects.

Astute examination of the implementation of the licensed projects in the flower industry casts question regarding the efficiency of governmental services in the latter years. As can be seen below Figure 10, all projects that were given license before 2004 either started operation or implementation in the same year they are given license. The percentage of projects implemented/operationalized in the same year they are given license started to fall between 2007 and 2009 as the proportion of projects on pre-implementation stage rose. During this time, the percentage of implemented/operationalized projects in the same year they are given license declined from 99.88 % in 2004 to 85.18 % 2009 respectively. It fell remarkably further to a yearly average of 28% between 2011 and 2014. This implies an increase in the time lag between the projects' approval and implementation/operation. As of 2014, 31 of the 144 projects are on pre-implementation stage while 30 projects are under implementation. This means only 58% of the all the FDI driven flower projects have already started operation (EIA, 2014). It is therefore imperative for the government to examine whether this trend is due to systematic problem in the investment environment.

9 Concluding Remark and Recommendation

9.1 Production pattern and geographical distribution

As the analysis in section 5 indicated, in spite of its late entry to the business, Ethiopia has established itself as one of the important flower supplier to the global flower industry in general, Europe in particular. The export value mushroomed from less than a million USD a decade ago to nearly 170 USD million. Indirect reports claim that it is nearly 230 million USD. Whichever way, the statistics shows that the country has transformed itself into a well established supplier within a short period of time. With such performance, the sector is not only contributing to the diversification of the country's income base but also creating significant employment opportunities directly and indirectly. This has a direct bearing on the development endeavour of the country. With the government's plan of capacitating the sector and the entry of new investors, the sector is expected to grow further and thereby play even more role in the economy. However, the analysis indicated that the whole picture is not flushed. The sector's performance over the last few years was not as expected. In the last few years, export value not only lagged behind governmental target but also decreased from the previous years' values. With this, it is questionable if the sector is going to achieve the 1 billion USD yearly export value set by the government at the end of the decade.

Apart from this, the value chain analysis has uncovered how dependent the Ethiopian flower industry is on the European market. It shows the pivotal role played by the European flower industry not only as destination market but also as an important source of inputs necessary for growing flowers in Ethiopia. Nearly 70% of the exports go through the Dutch auction system. This is attributed to the active role played by the Dutch growers that are taking part in the Ethiopian flower industry directly or indirectly. Unless the growers diversify their market base to newly emerging and other matured markets, they will be exposed to greater risk that comes from the absence of market diversification. Even though there are efforts being made by the Ethiopian Horticultural Producers and Exporters Association (EHPEA), the Ethiopian Horticultural Agency (EHA) and other governmental offices, the effort has not yet been able to bring the desired change.

Another interesting issue that came to light in the analysis is the inconsistency regarding the export value. The export value reported by the Ethiopian authorities is found to be significantly lower than the value reported by the importing countries. The extended analysis

done to examine the reason indicated that the discrepancy is too big to be attributed to the difference in quantity measurement, time lag, misallocation etc. Neither can it be accounted due to the under-reporting by Ethiopian exporters as they do not have economic incentive to do so. Instead, the analysis indicated that there is economic incentive by importers of the Ethiopian flower products in the destination countries such as within the EU to engage in an elusive trade practices to take advantage of the privilege Ethiopian flowers are given by the respective governments. It is, therefore, important to make further inquiry into the case.

9.2 FDI inflow, structure, origin and implication to the sector

The Ethiopian flower industry has attracted FDI from different countries. FDI has been instrumental in the emergence of the Ethiopian flower industry into the global scene. As the study revealed, the total number of FDI projects in the Ethiopian flower industry grew remarkably from 1 in 1997 to 144 in 2014. Although the annual increase in the number of new FDI projects was acute in the early 2000's, it showed a general declining trend in recent years. Similar trend has been found regarding the size of the FDI inflow. The annual inflow increased remarkably in the early days of the sector and slowed in the latter years. Although the annual FDI inflow slowed down in recent years, the FDI stock in the country's flower industry grew from non-existent in the late 1990's to more than 900 million USD in 2014. In line with the declining trend, the relative share of the flower industry's FDI in the general economy showed declining trend in the last four years. It is therefore important for the government of Ethiopia and other interested stakeholders and researchers to look into why the FDI inflow decreased over the years. Besides, the government needs to make renewed effort to attract FDI to the sector so that the sector can grow more.

In terms of origin, the FDI in the Ethiopian Flower industry originates from around 34 countries. At individual country level, India is found to be the principal source followed by the Netherlands, China and Malaysia in respective order. These four countries are the source of more than 60% of the total FDI flow. At regional level, Asia and Europe are found to be the most important ones. In addition to geographical proximity, existing economic interaction, the investment friendly environment, cheap cost of production and suitable natural conditions, bilateral and multilateral programmes have also played significant role in attracting the FDI flow to the Ethiopian flower industry.

Another interesting thing in the Ethiopian flower industry is that the FDI dominates the sector by accounting for around 80% of the total investment in the industry as a whole. In terms of firm number, out of the 120 firms in the industry 73 are FDI driven while 11 are joint ventures. Only the remaining 36 are fully local companies. This shows how significant FDI is in the flower industry unlike majority of the other export oriented industries such as coffee wherein local investors play the major role. As pointed out elsewhere in this study, in addition to serving as source of finance and boosting national GDP, theoretically FDI is thought to provide productivity spill over to local firms. These productivity spill over, whether it is technical, managerial process transfer or efficient operations, are mainly transferred by way of imitation, skill acquisition, competition and exports (Görg & Greenaway, 2004). For these mechanisms to work, there has to be strong competitive or collaborative link between the local and foreign firms. As the analysis in this study revealed, the experience in the Ethiopian flower industry is patchy. Indeed, the foreign owned firms are found to have superior knowledge and experience than the locally owned firms in terms of productivity. This goes in line with what the theory posits. However, different level of interaction between the two groups of flower producers has been found. The foreign owned farms are reported to have strong relationships amongst themselves. This is not the case among the Ethiopian growers who do not seem to have well established relationship with each other. More interestingly, the cooperation between locally owned and foreign owned farms is found to be weak. This is not surprising. Economically speaking, the foreign firms have the incentive not to share their technical knowledge process to their local competitors. From the industry's development point of view, however, this creates an unfavourable condition for the development of local firms as the sector become more fenced by the FDI firms, preventing local investors from learning the business. Therefore, it is important to assess the implication of FDI dominance in the industry more in detail, how can the challenges coming with the dominance of FDI can be coped up with and whether the experience can be transferred to other export oriented industries.

9.3 Competitiveness of the Industry

As the discussion in Chapter 4 indicated, flower producers and industry actors have become global business players chasing relative advantages in terms of inducements and costs to open up new and expand existing projects. As the conclusion drawn in section 9.1 and 9.2 indicated, the Ethiopian flower industry attracted significant amount of FDI and export

production levels in the past decade. The comprehensive analysis in section 8.1.5 revealed that the friendly investment climate in combination with the favourable factor conditions such as climatic conditions, natural resources, and the availability of cheap labour are the major catalysts in attracting foreign investors. The other determinants of competitiveness i.e. related and supporting industries, demand condition and firm structure and rivalry are found to be weak.

As the analysis made in section 8.1.5 indicated, the Ethiopian government has been instrumental in facilitating the development of the flower industry although the sector emerged as a result of private entrepreneurship. Through its favorable investment law, attractive tax exemption privileges for both local and foreign investors, provision of cheap financing, continued support and priority to infrastructure development for floriculture investment areas, the government created good conditions to attract local and foreign investors. However, as Porter (1990) pointed out the government's role cannot guarantee the continued competitiveness of the Ethiopian flower industry.

With respect to the factor conditions, as the analysis in section 8.1.2 revealed, Ethiopia has relatively good factor conditions compared to other flower producing countries in Africa. It has advantage with respect to quality produce due to suitable natural conditions, cost of freight, cost of production and proximity to the major European market. Although there is shortage of skilled manpower, the country has cheap and plentiful labour supply than many flower growing African countries. However, the country's flower industry is entangled by lack of skills, professional education and experience. This can be a challenge for the competitive positioning of the industry globally. The country also has a much better civil life than its competing counterparts. These factors combined with the suitable natural conditions and improving infrastructures makes the country amongst one of the preferred countries for flower production as far as factor conditions are concerned.

The local demand situation, as pointed out in section 8.1.1, is insignificant at its current level given the fact that majority of the Ethiopian population is living at subsistent level with undeveloped flower consumption culture. Therefore, the local demand is not in a position to play the role postulated by Porter's (1990) diamond framework. It may not do so in the foreseeable future either. However, given the progress it has showed over the years, it has a potential to enhance producers' competitiveness in a peripheral but important way especially when the local growers encounter demand shocks in their export markets. With the rising

culture of buying flowers and the improving economic condition, the local demand in Ethiopia can become an important alternative market in case of demand shock in the designated foreign markets. Even though it does not benefit from the local demand situation in terms of competitiveness in the conventional way, as the analysis suggested, having strong interaction with the European flower industry is pivotal in enabling the Ethiopian flower industry keep in touch with the global trend. However, the Ethiopian flower industry should devise a way to reduce its dependency on the European market by making effort to diversify its destination to other regional markets such as Far East, Middle East and North American markets.

With respect to the role of related and supporting industry, the analysis in section 8.1.3 showed that it is at its infancy stage. Although the financial sector has a non-competitive market structure with undeveloped regulatory environment, the Ethiopian flower industry has benefitted from the availability of highly favourable government-funded loans through the state-owned Development Bank of Ethiopia (DBoE). In spite of the generous offers, the bottlenecking bureaucracy along with the inexperience of the bank with flower business has affected the service quality. As far as industry suppliers are concerned, the input supply linkage in the Ethiopian flower industry in its current situation is not in a position to promote the competitiveness of the sector when compared to other competing flower producing countries such as Kenya. Likewise, the transportation and logistics service provision is also not efficiently developed to help the continued development of the sector although significant improvements have been achieved over the past few years. When the capacity improvement projects at the Bole International Airport and the Ethiopian Airlines are completed, the transportation and logistics sector is expected to be capable enough to encourage the emergence of dedicated independent service providers and thereby put the Ethiopian flower industry at least in par with its Kenyan counterpart. However, in its present organization it constitutes one of the prime challenges for Ethiopian flower exporters. The Ethiopian Horticulture Producers and Exporters Association (EHPRA) is found to be an important industry actor lobbying and facilitating the development of the sector.

The industry structure is also found to be not sufficiently organized to help the further development of the sector. Most of the flower farms are located within a radius of 50 kilometres from Addis Ababa. This created the agglomeration of cut flower industry service providers in Addis Ababa. Such agglomeration is found to be challenging for the sector's

expansion to broader parts of the country. Due to this, and the absence of specialized and dedicated service providers, most of the flower growers organized themselves in such a way that they have direct control over different activities in the supply chain including the core business of growing flowers. Such organization has greater implication on productivity within the industry as it makes flower farms not only lose their focus on the core business of managing their farms but also experience unnecessary costs and risk which could have been avoided if there were efficient service providers that can pool the industry's demand for such services. In terms of product variety and market channel, the Ethiopian flower producers not only have narrow product range but also extremely reliant on the Dutch Auction system. Even though the auction system provides them with a range of benefits including transparent and efficient price-setting mechanism, secured transaction processing, and the possibility to sell globally and build up image and reputation, it makes Ethiopian growers highly vulnerable as is the case with the product range.

All in all, the Ethiopian flower industry has a number of short comings although it established itself as a global player in a very short period of time. Out of the four competitiveness determinants, only the factor condition is found to be strong enough to support the growth of the industry. Even in the factor conditions, only the basic factors are the ones that are acting as catalyst. The advanced factors such as skilled labor are far behind when compared to other competing countries. The other instrumental factor in the development of the sector is, as pointed out above, is the government through its investment packages. Even though governmental incentives are imperative to encourage growth, in the long run it cannot create sustainable competitive advantage. Rather, firms that enter a country merely owing to governmental incentives are bound to leave the respective country when they are offered better incentives elsewhere or when the incentives are no longer available. Given this, it can be said that the Ethiopian flower industry is at Porter's (1990) factor-driven stage as the industry bases on the low-cost that comes from cheap labor and low cost natural resources.

It is therefore imperative for the government to devise holistic strategy that goes in line with the industry's stage of development. In order to enable the industry to move to the next stage, strategies aimed at enhancing scale economies and stimulating the development of a vibrant and supportive horticulture cluster should be devised. Effort should also be made not only to provide sufficient capital to invest in new technology but also wide initiative is needed to improve sector knowledge to increase crop yields and quality. Likewise, the range of

activities embedded in the supply chain also needs to be organized in such a way that they support the competitiveness of the industry globally. This is especially a case with the international transport and marketing, which, as pointed out in section 6.2, constitutes the largest part of the overall farm to market cost. Such orientation creates enabling environment that capacitate flower growers to cultivate new and existing land more efficiently, scale up production and adopt new technology. Once a well functioning and supporting cluster is developed, existing producers can expand their business more easily and more new producers will be attracted to invest into the industry. In addition, the effort to upgrade the country's infrastructure should be strengthened and accelerated so that the sector can catch up with the other flower exporting countries. Besides, a renewed effort to expand the market destination and human resource development has to be made as the ongoing efforts have yet to yield that much result. All these require a coordinated effort by both private and public actors. And hence, both the government, industry actors such as the Ethiopian Horticultural Producers and Exporters Association (EHPEA), individual firms should come together and work more closely to create enabling environment for the sector.

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Appendix

1. Flower Farm Interview

Name of respondent.....

Name of firm.....

Year of Incorporation.....

Firms Strategy, Structure and Rivalry

1. Would you please start by telling me about the history of your firm and how and why it entered the Ethiopian floriculture industry?
2. What was the origin of the capital used to establish the firm? What is the equity composition of the firm? Can you give me an idea of the cost breakdown involved with the establishment and running of the farm?
3. What kinds of flower does the company grow mainly and how has this changed over time? Where is the main market?
4. Can you give me an indication of the company's production capacity, actual production and sale and profitability and how this has changed over the firm's time in the industry?
5. How do you describe the competition you encounter from other flower growers in Ethiopia? How would you assess your relationship with other growers in terms of competition, cooperation, knowledge sharing etc.? Does this differ between Ethiopian and foreign growers? How about the competition globally?
6. Have you examined the possibility of performing other functions within floriculture i.e. packaging production, bouquet production, propagation etc? What steps have you taken towards these developments?

Demand condition

1. How do you sell your product? How was the price of flowers when you started business and how did this change over the years? How the demand for flowers (local and foreign) when you started your business and how is the situation in recent years?
2. How do you rate the domestic demand currently and how do you see its potential in the future?

3. How do you sell your product, directly to exporters or through intermediary? How do your relationship with the exporters/intermediaries?

Factor condition

1. Can you tell me about your staffing levels in terms of how many permanent and temporary staff you employ and how these requirements change over time?
2. Have you employed any skilled labor from Ethiopia? How do you describe the skill level available in the country and what training do you conduct with employees on your farm?
3. Since you started producing cut-flowers, have you improved wage and non-wage working conditions (e.g. housing, schooling, and recreational facilities) for workers on your farm? Is there a legally stipulated minimum wages for farm employees? If so, how do you pay your employees relative to that stipulation?
4. How do you rate the financial services and availability of capital (be it through equity or loan) for the sector in Ethiopia?
5. How do you rate the suitability/availability of physical resources such as land, agro-ecology, and proximity to target market in Ethiopia relative to other African countries?
6. How do you rate the available infrastructures such as supply of electricity, communication services, water supply and research and extension capability in Ethiopia relative to other African countries?

Related and Supporting industries

1. Where do you obtain your supplies from? Which of your supply functions are located in Ethiopia and which are negotiated elsewhere?
2. How do you handle the problems with your suppliers if there are issues?
3. How would you assess the handling agents available to growers in Ethiopian floriculture and your relationships with them?
4. How would you assess your relationships with breeders and other suppliers and service providers in the sector in Ethiopia?
5. How would you assess the role of Ethiopian financial institutions in the industry?'
6. How do you assess the role of Ethiopian Horticultural Producers Association?
7. How do you assess the cold storage and transportation services available to the sector within Ethiopia?

Government role

1. How do you feel about your company's relationships with government institutions and actors? How has this changed since the creation of the Horticulture Development Agency? How do you assess the role of the agency and how is your relation with the agency?
2. Are you familiar with the government's investment policy and engagement in the sector? How do you assess the government's engagement and endeavor in the sector relative to other flower producing countries in Africa?

Cross-cutting Issues

1. What are the factors that could foster successful floriculture business in Ethiopia?
2. Do you have any observations on any present or future problems/obstacles faced by flower producers in Ethiopia? What are your views on the future of the Ethiopian flower industry?
3. Do you regularly assess alternative production locations outside of Ethiopia? What would be the key factors in causing you to move your investment out of Ethiopia? What measures do you take to remain internationally competitive?
4. What measures and improvements should the government take in order to make the sector more competitive globally?

2. QUESTIONNAIRE TO FARM MANAGERS/OWNERS

Dear Sir/Madam

I am Behailu Aschalew, MSc student at the Norwegian School of Economics (NHH). Currently, I am working on my thesis titled 'FDI flow and competitiveness in the Ethiopian Flower Industry'. This questionnaire is set up to gather data regarding the perception of flower producers in the Ethiopian flower industry. Full confidentiality for all response is guaranteed. Notes from the questionnaire will be kept confidential and be destroyed after the study is completed. No personal identifiers will be included in reporting the results. You are kindly requested to give your response. Please the reliability and validity of the study is entirely dependent on the quality of your response. At this juncture, the researcher would like to extend his gratitude in advance for your sincere cooperation.

Notice:

- No need of writing name
- Most questions request responses on a scale ranging from 1 to 5. 1 indicates one extreme end of the choices (for example very low or I totally disagree) while 5 indicates the other extreme of the choices (for example very high or I totally agree).
- Be sure to CIRCLE or TICK your answer on the scale or short answer on the space provided

PART ONE: GENERAL INFORMATION

Please enter your details below:

Name of respondent (Optional) _____

Name of firm _____

Year of Incorporation _____

GENERAL QUESTIONS ON THE FIRM

1. For how long has your company been in operation in this industry in Ethiopia?

Less than 1 year	
1-3 years	
4-5 years	
Over 5 years	

2. What is the ownership structure of your company?

Local	
Foreign	
Both local and foreign	

PART B: DETERMINANTS OF SUSTAINED NATIONAL COMPETITIVENESS

DEMAND CONDITIONS (The scale runs from very insignificant (1) to very significant (5))

	1	2	3	4	5
How do you rate the proportion of your local sales to your total sales?					
How would you describe the local demand progress?					
How would you rate the bargaining power of your local demand?					
How would you describe the level of sophistication/complexity of your local demand					

FACTOR CONDITIONS

1. How do you rate the supply of the following natural resources? (the scale runs from very scarce to readily available)

	1	2	3	4	5
Land					
Water					

2. How do you rate the quality of the following natural resources? (the scale runs from bad to excellent)

	1	2	3	4	5
Land					
Water					
Climate					

3. How do you rate the relative cost of the following natural resources (the scale runs from expensive to cheap)

	1	2	3	4	5
Land					
Water					

4. Please indicate the characteristics of your labor force. (The scale runs from very low to very high)

	1	2	3	4	5
Wages and salaries					
Education					
Skills/Training					
Availability					

RELATED AND SUPPORTING INDUSTRIES

1. What would you say about capital in your industry? (The scale runs from very low to very high)

	1	2	3	4	5
Requirement to start business					
Availability					
Cost of capital					
Bargaining power of financiers					

2. To what extent has collaboration with local supporting organizations contributed to your success? (The scale runs from low contribution to high contribution)

	1	2	3	4	5
Ethiopian electric power corporation					
Ethio-Telecom					
The Ethiopian Horticultural Producers and Exporters Association					
Insurance companies					
Financial institutions					
Learning and R&D institutions such as universities					
Land Transportation service providers					
Air Transport service providers					
Logistics service providers					
Seeds/Seedlings suppliers					
Packaging materials suppliers					
Fertilizer and chemical suppliers					

FIRMS STRATEGY, STRUCTURE AND RIVALRY

1. What would you say about the following market structure attributes? (The scale runs from I Disagree to I agree)

	1	2	3	4	5
There are many players in the industry					
There is intense competition locally					
International competition is stiff					
Market access is difficult					
There are many entry barriers to competitors					
There is collaboration among producers					

2. To what extent does your firm engage in strategies that promote the following business aspects? (The scale runs from hardly to mostly)

	1	2	3	4	5
Marketing innovation					
Building firm image					
Explicit PR strategy					
Management of change					
Marketing Research					
Personnel training systems					
Choice of market segments					
Advertising					
People involvement					

GOVERNMENT POLICIES

1. How supportive has the government been to your business through its policies on the following? (The scale runs from very supportive to very unsupportive)

	1	2	3	4	5
Govt policy on human resources					
Govt policy on Science & Technology					
Govt policy on infrastructure					
Govt policy on demand stimulation					
Govt policy on business start-up					
Govt policy on protectionism					
Govt policy on taxes					
Govt policy on industry regulation					
Govt as advertising agent internationally					
Political environment					

2. To what extent can the success of your firm be traced to the following factors (The scale runs from very low to very high).

	1	2	3	4	5
Abundance of cheap labor					
Land					
Good climate					
Friendly culture					
Other (please specify)					

Do you have any observations on any present or future challenges faced by flower producers in Ethiopia?

_____

_____

_____

What are your views on the future of the Ethiopian flower industry?

_____
_____
_____

What measures and improvements should the government take in order to make the sector more competitive globally?

_____
_____
_____
_____