AN ANALYSIS OF THE FACTORS THAT INFLUENCE THE COMPETITIVENESS OF THE KENYAN COFFEE INDUSTRY USING PORTER'S DIAMOND MODEL

BY:

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DECLARATION

I, Prince Lighe, hereby declare that this project is my own work and effort and that it has not been submitted anywhere for any award.

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Date: 09/11/2012 .....

This project has been presented with my approval as the university supervisor

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DEDICATION

To the Almighty God, My Dear Parents, the late Mr. Moses Z. Lighe, and Madam Cecelia Lighe, my Brothers, and Sisters, without their love, encouragement, and support, I wouldn't have made it.

Finally, to my beloved kids, Erica and Lil Mitch, you are my inspiration and motivation.

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May God Almighty bless you all abundantly.

ABSTRACT

Porter's Diamond Model explains the reasons behind the competitiveness of nations in particular industry, that is, why nations are renowned for excelling in particular industries and not others. This study objective was to determine the factors that influence the competitiveness of the Kenyan coffee sector in the global markets using Porter's Diamond Model. This survey study finds the Kenyan coffee industry not competitive in the sense of Porter's Diamond Model. High initial costs are keeping new entrants from the industry possibly killing innovation. The technology used is old, the channels of distribution are not efficient, there is strong control from the government through the Coffee Board and there are no strong support industries. There are other factors that are limiting the competitiveness of the coffee industry and these include: the high cost of capital; the delays caused by government bureaucracy in issuance of licenses; the rigid government rules and regulations on how to operate within the industry; poor road and other infrastructure. Further, the high cost of coffee, low demand for coffee and coffee products locally, the high capital requirement for operating in the industry affects the competition from local rivals, and does not stimulate innovation.

However, the coffee industry in Kenya has factors that can make it more competitive in the global market. The lack of raw material is not a problem in the industry, companies in the industry do not exert influence on who can join the industry, thereby making the market open for any new entrant, and there is no competition from cheaper coffee imports. Further, high taxes is not a problem in the coffee industry, the atmospheric condition are favourable for coffee production, there is high potential of creating a strong local demand, the country's business climate is ideal for investment in coffee and the ties with research institutions have contributed to success in the coffee industry.

TABLE OF CONTENTS

LIST OF ABBREVIATIONS

ICO	International Coffee Organization
BCG	Boston Consulting Group
EAC	East African Community
EPZ	Export Processing Zone
ICO	International Coffee Organization
KCTA	Kenya Coffee Traders Association
MNE	Multinational Enterprise
NAFTA	North American Free Trade Agreement
OEM	Original Equipment Manufacturers
US	United States

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The coffee sector continues to be a potential economic driver for Kenya. The sector's contribution to the economy peaked in 1976/77 when revenues reached $500 million. This is a substantial contrast to current revenue levels of $74 million. With respect to production, total annual production peaked in 1987/88 when the country produced as much as 130,000 tons, compared to the current level of 48,000 tons. Over 99% of the country's production of coffee is Arabica, and while production has declined, Kenya continues to be a market leader in the premium coffee sector (Argwings-Kodhek, 2010).

The near collapse of Kenya's coffee sector can be attributed to a multitude of factors. International market factors range from the collapse of the International Coffee Organization's (ICO) economic clause in 1989, expanded competition with Vietnam's entry into the global market, and market glut. Local factors include poor and incomplete market liberalization process, growing inefficiencies of the cooperative structure, uncompetitive agrochemicals sector, structural inefficiencies in the farm-to-market supply chain, government mismanagement and a range of other issues (Global Development Solutions, 2009).

Currently, nearly 170,000 hectares of land is available for cultivating coffee. The coffee farming sector is dominated by smallholder farmers where nearly 113,333 hectares or two thirds of all cultivation is handled by low yield, comparatively inefficient smallholder farmers with an average yield rate ranging from 0.2 – 0.7 tons/ha. It is compulsory for smallholder farmers to be a member of a cooperative to process and sell coffee. However, recent change in regulations has redefined the categorization for a plantation grower where plantations are defined as "a person having a minimum of two or more hectares of coffee planted and who is

licensed to operate a pulping station.' Kenya's coffee market activities can be broadly divided into four areas: coffee farming; primary/secondary processing (pulping and milling); marketing/auctioning; and trading. While nearly all of the coffee grown in Kenya is exported – the local beverage market is dominated by the tea sector –there is slow but steady growth of a coffee culture within Kenya, where a number of traders have started local roasting for wholesale/retail sales (Argwings-Kodhek, 2010).

1.1.1 The Concept of Competitiveness

Competitiveness can be evaluated at different levels – national, industrial, sector or firm – as well as domestically, regionally, and internationally depending on the focus. As both national and industry comparisons are based on aggregate measures, the clearest analytical way to look at competitiveness is at the firm level. Many factors affect competitiveness. The relevant definition of competitiveness in this study is the firm's ability to maintain and/or expand market position based on its cost structure. Loss of competitiveness thus can be caused by a relative increase in a firm's costs compared with its competitors (Reinaud, 2004).

From an international perspective, competitiveness concerns arise if the additional costs incurred by the affected industries are not shared by all trade partners. This loss in competitiveness could translate into a decline in net exports and the relocation of these industries, with a negative impact on industrial value added and employment, but also on environmental benefits, as domestic reductions could be partly offset by an increase in emissions outside the region – the so-called emission leakage. International industrial competitiveness is generally viewed as an industry's ability to export its goods, with industry being defined as a group of firms that produces similar goods. However, an industry is often very heterogeneous in what it produces, in how it produces it, and to whom it sells. In some industries, such as in the steel sector, the means of production are entirely different depending on the location and the raw materials used (Woodward, 2004).

The cost functions vary greatly among regions, as different regions and countries have, for example, different labour and input costs, different fiscal regimes and associated investment risks. Furthermore, the market can be segregated, as in the case of cement, where the cost of transportation reduces the scope for international trade. The result of such heterogeneity is that the impact of an emissions trading system is likely to vary among firms within the same industry.

Maintaining everything else equal (technology, non-coffee related costs, other taxes), the change in competitiveness can be determined by differences in total costs, the firm's ability to minimize the cost impact from the price of coffee by investing in more efficient options, and changes in trade patterns at a regional or international level (Reinaud, 2004).

At the industry level, competitiveness is the ability of the nation's firms to achieve sustained success versus foreign competitors, without protection or subsidies. Measures of competitiveness at the industry level include the overall profitability of the nation's firms in the industrial sector, the industry's trade balance, the balance of outbound and inbound foreign direct investment, and direct measures of cost and quality at industry level. The analysis of the competitiveness of an industry focuses on factor conditions, demand conditions, strategy and structures, related and supporting industries, governance regulation and chance (George and Manasis, 2010).

In this study the following terms had the following meaning. Factor conditions can be broken down into a) analysis of cultivation procedures and demands b) production and processing infrastructures c) human capital and labour cost d) technological innovation and e) capital.

Demand conditions of national market refer to a) structure and characteristics of domestic demand b) size and trends of domestic demand and c) international demand for Kenyan coffee and its characteristics. These will be analyzed within the assumption that there is no special support by the Kenyan government, within the strategies that the industry, and within the assumption that chance is purely random (George and Manasis, 2010).

1.1.2 The Diamond Model

Porter's diamond is the framework that explains the reasons behind the competitiveness of nations in particular industry, that is, why nations are renowned for excelling in particular industries and not others. According to the model competitiveness is achieved as a result of an interaction between four elements: Factor Conditions, Demand Conditions, Firm Strategy, Structure and Rivalry, and the Related and Supporting Industries. These elements are inter-related so that availability or not of one can influence the availability or not of others. The role of the government is to act as a catalyst and challenger aiming at pushing the companies towards higher performance levels. All this take place within an environment that Porter refers to as chance (Porter, 1990).

1.1.3 Coffee Industry in Kenya

Coffee production is on a severe downward trend. Production peaked at just less than 130,000 tons in the year ending October 1988, and has fallen to 60,000 tons this past year. The July 1989 suspension of coffee export quotas under the International Coffee Agreement began the slide that continued through 1994 as a result of excess supply on the market. Within Kenya, this was exacerbated by increased input costs due to exchange rate appreciation, and problems within the institutions handling farmers' coffee.

Farmers reacted by reducing input use. Coffee Berry Disease, leaf rust, leached soils and inter-cropping reduced production, as did fairly widespread uprooting and neglect of coffee trees particularly % but not only % in the small-holder sector (Argwings-Kodhek, 2010). High operational costs in the organizations serving farmers helped exacerbate the problems caused by low world prices.

In the co-operative sector, poor management and overstaffing of society factories that were pulping well below capacity helped increase the unit costs charged by co-operatives on cherry. The costs of repaying the loans incurred under the World Bank funded factory building, refurbishment and credit; SCIP program also increased co-operative costs and deductions. Problems of excess staff and poor investment decisions also affected the district wide unions. Low capacity utilization, high costs, over-employment and poor investments (e.g. non-performing loans) and also are part of the problem of the major miller KPCU, the Coffee Board and the Coffee Research Foundation. All these relatively inefficient organizations were taking their share of coffee money before it reached the farmer (Karanja and Nyoro, 2002).

The coffee industry needs better information on what it is that various institutions do, what they achieve, what they cost, and whether the same or more important functions can be better or more cheaply performed under different institutional arrangements. Unfortunately government always seems inclined to side with existing organizations that may have served a useful role in the past but have not, or perhaps cannot, change with the times. This problem afflicts the co-operatives factory societies and unions that were to slow to reduce costs in the face of declining throughput (EPZ, 2005).

This can be blamed in part on the provisions of the cooperative act which, until earlier this year, did not allow management committees to buy even a wheelbarrow without the permission of the Commissioner of Co-operatives. This inflexibility made decisions like mothballing factories, laying off staff % or making them casuals % difficult to make. Co-operative committee members also were political beings who pleased their constituencies most easily by giving out jobs. This is true at all the levels of representative democracy in the coffee industry where farmer elected directors, through large sitting, travel, and personal allowances are made beholden unto management, or the faction of political, rent-seeking, beings running the organization ((EPZ, 2005).

An analytical agenda in coffee would begin with the difficult question of how to ensure that farmer representatives do indeed represent farmer's interests. A new and more inclusive, industry task force of informed but impartial analysts may help to better lay out the issues and options facing this important, but shrinking, industry (Condliffe, Kebuchi, Love and, Ruparell, 2008).

1.2 Research Problem

The coffee sector has been an important part of Kenya's economy since the early nineteen hundreds. However, its performance has been on the decline as shown by the drop in coffee exports, coffee quality and yields. In spite of the fact that Kenya controls a very small and declining share of global coffee exports, there is a market opportunity for Kenya to pursue a differentiated coffee strategy, given the country's natural endowments. The situation on the ground is that the economic, political, industrial and financial environments have been changing every now and then (Condliffe, Kebuchi, Love and Ruparell, 2008).

Firm competitiveness is the basic capability of perceiving the changes in both the external and internal environment and the capability of adapting to these changes in a way that the profit flow generated guarantees the long term operation of the firm. This definition - in accordance with the contingency approach and the evolutionary theory of firms – interprets competitiveness as an ongoing struggle for survival. This capability of survival is one of the most complex phenomena in industries. Firm competitiveness is basically a function of two factors: the extent a company can identify those value dimensions that are important for their customers; and the sum of resources and capabilities that make a firm able to create and deliver the identified important value dimensions for the customer (Gelei, 2010).

This research used Porter's Diamond Model, to investigate the factors that influence the competitiveness of the Kenyan coffee industry. The research, therefore, sought to answer the question: what factors influence the Kenyan Coffee Sector competitiveness in the global market using Porter's Diamond Model?

1.3 Research Objective

The objective of this study was to determine the factors that influence the competitiveness of the Kenyan coffee sector in the global markets using Porter's Diamond Model.

1.4 Value of the Study

This study would be useful to investors who might want to invest in the coffee industry or other industries in Kenya that may have features similar to those of current coffee industry in Kenya. The current increasing collaboration within the East African Community (EAC) will lead to increasing internationalization of investment in the coffee industry. This research will provide direction to investors in meeting the challenges expected.

A careful analysis into the coffee industry responds to the market forces in Kenya and the world at large will, possibly, expose some of the weaknesses of the responses. This is good for the coffee industry management who will be able to make changes to their strategies and align them better to the coffee environment in Kenya and the world to reverse the declining profitability back to the experienced profitability of the 1980s.

This research is of scholarly utility. The methodology and findings of this research will be of use in further research. Those who will be carrying out similar research or need to enhance an argument requiring the methods and findings of this research will find it useful.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on competitiveness in the coffee industry. The chapter begins with a discussion on the concept of competitiveness, followed by the theoretical literature review and the empirical literature review.

2.2 Industry Competitiveness

Different approaches have been proposed to generate competitive advantages. One way is analysis of the different market segments. A market segment may appear attractive, yet it may not be profitable. One way to estimate segment profitability is to use the net marketing contribution that is expected with a certain level of segment market penetration. Net marketing contribution is a function of segment demand, segment share, revenue per customer, variable cost per customer, and marketing expense. Knowing segment profitability allows the firm to assess whether it is targeting the most profitable segments (Best, 2000).

Treacy and Wiersema (2004) propose three value disciplines to create value for gaining a competitive advantage: product leadership, customer intimacy and operative excellence. Product leadership can be achieved through strong innovation, brand marketing and operating in dynamic markets. The main focus is on development, innovation, design, time-to-market, high margins and short time-frame. Customer intimacy focuses on excellent customer service and attention i.e. delivery of products on time and being close to the consumer. Operative excellence focuses on superb operations and executions aiming at providing reasonable value at low price.

Kotler (1999) identifies three ways a company can deliver more value: lower prices, help customers in reducing other costs and add benefits that make the offer more attractive. The New Boston Consulting Group (BCG) matrix is a tool for assessing the number of differentiation opportunities for obtaining a competitive advantage. This is a 2 X 2 matrix with size of the competitive advantage that can be achieved (small or large) and the number of ways of achieving competitive advantage (few or many) as the dimensions. The cells of the matrix categorize industries into volume, stalemate, fragmented, and specialized industries.

With volume businesses, market share and profitability increase with each other thus making a strategy of market share leadership and cost reduction meaningful. With stalemate businesses, profitability is not related to the size of the firm. In this type of industry, the difference between the most profitable and least profitable firms will be relatively small. Fragmented businesses are those in which market share and profitability are uncorrelated so firm profitability is independent of size. Specialized businesses are such that small firms that distinguish themselves from their competitors by pursuing a focused strategy are likely to be the most profitable. Depending on the type of industry, firms can then use maneuverability and strategic leverage to improve their positions (Kotler, 1994).

Ansoff's Product/Market Expansion Grid is useful in thinking about intensive growth opportunities. The grid has current and new products on one dimension and current and new markets on the other dimension. The strategies falling out of the grid are market penetration strategy (current market, current product), market development strategy (new markets, current products), product development strategy (current markets, new products), and differentiation strategy (new markets, new products). Management first considers whether it could gain more market share with its current products in their current markets (i.e., market

penetration). Next, it considers whether it can find or develop new markets for its current products (i.e., market development). Then it considers whether it can develop new products of potential interest to its current markets (i.e., product development). Finally, the firm will review opportunities to develop new products for new markets (i.e., diversification), (Ansoff, 1965).

Michael Porter (1980) defines an industry as that group of firms producing products that are close substitutes to each other. In modern business many companies produce more than one product or service making it often difficult to clearly define an industry. In order to assess the current competitiveness of a company or an industry, one must understand the dynamics of the industry in which the company competes. This takes a great deal of careful thought and analysis. In Porter's argument, the essence of competitive strategy is relating a company to its environment. This means that one must thoroughly understand the company and its industry, as well as the outside environmental forces that affect the industry, in order to be successful in this pursuit (Porter, 1980).

Porter argues that a nation's competitiveness depends on the capacity of its industry to innovate and upgrade. Companies gain advantage against the world's best competitors, because of pressure and challenge. They benefit from having strong domestic rivals, aggressive home-based suppliers, and demanding local customers. The argument easily cascades to the industry in that an industry's competitiveness depends on the capacity of the firms making that industry to innovate in response to pressure from the strongest competitors, rivals, suppliers and customers (Cho and Moon, 2002).

For the company, competitiveness is the ability to provide products and services as or more effectively and efficiently than the relevant competitors (this is the comparative advantage approach). In the traded sector, this means sustained success in international markets without protection or subsidies. Although transportation costs might allow firms from a nation to compete successfully in their home market or in adjacent markets, competitiveness usually refers to advantage obtained through superior productivity.

Measures of competitiveness in the traded sector include firm profitability, the firm's export quotient (exports or foreign sales divided by output), and regional or global market share. In the traded sector, performance in the international marketplace provides a direct measure of the firm's competitiveness (Investopedia, 2012).

Competitiveness for the nation does not require the nation to preserve its existing industrial base. Nations progress when their firms improve productivity in industries or segments in which they already compete and when they gradually enter industries or segments that involve higher productivity. In this process, some industries are inevitably left behind. A nation is not "competitive" if it has low labor costs, a "favorable" exchange rate, or borrows its standard of living. Low wages can help a nation's firm to enter international markets. Ultimately, however, the nation's goal should be to achieve productivity that supports high wages.

2.3 Theoretical Literature Review

In this section of the theoretical literature review, some of the various theories surrounding the concepts of competitiveness are discussed. The theories are those by Adam Smith, Ricardo, Heckscher and Ohlin, Leontief, Linder and Cho.

Smith (1776), who is regarded as the father of modern economics, countered mercantilist ideas by developing the concept of absolute advantage. He argued that it was impossible for all nations to become rich simultaneously by following mercantilist prescriptions because the export of one nation is another nation's import. However, all nations would gain simultaneously if they practiced free trade and specialized in accordance with their absolute advantage.

Ricardo (1817) was concerned with the static resource allocation problem when he defined the concept of comparative advantage, which is determined not by absolute values of labor productivity but by labor productivity ratios. Ricardo pointed out that countries should focus on the production of goods and services in which it has a comparative advantage over the other countries.

Heckscher (1919) and Ohlin (1933) laid the groundwork for substantial developments in the theory of international trade by focusing on the relationships between the composition of countries' factor endowments and commodity trade patterns as well as the consequences of free trade for the functional distribution of income within countries. From the outset general equilibrium forms of analysis were utilized in these developments, which gradually came to be sorted out into four 'core propositions' in the pure theory of international trade.

The Heckscher–Ohlin Theorem states that countries export those commodities which require, for their production, relatively intensive use of those productive factors found locally in relative abundance. The twin concepts of relative factor intensity and relative factor abundance are most easily defined in the small dimensional context in which the basic theory is usually developed. Two countries are engaged in free trade with each producing the same pair of commodities in a purely competitive setting, supported by constant returns to scale technology that is shared by both countries.

Each commodity is produced separately with inputs of two factors of production that, in each country, are supplied perfectly inelastic. Following the Ricardian distinction, commodities are freely traded but productive factors are internationally immobile (Ethier, 1974). However, Using 1947 US input–output tables and data on exports and imports, Leontief (1953) found, contrary to expectation, that the capital per worker of US exports was less than the capital per worker of US import substitutes. The response to this empirical 'paradox' was the formulation of theory that might explain why a capital abundant country had labour-intensive exports.

Linder's (1961) country similarity theory is different from other trade theories because it deals with the demand side rather than the supply side. This theory explains international trade among countries that have similar characteristics. The theory assumes that, first, a country exports those manufactured products for which there exists a significant home market. According to Linder, manufacturers introduce new products in order to serve the domestic market because they are familiar with the domestic market. Production for the domestic market must be large enough for firms to achieve economies of scale and thus to reduce costs. Second, the country exports the product to other countries with similar tastes and income levels. Linder believed that countries with similar income levels would have similar tastes. Each country will produce primarily for its home market, but part of the output will be exported to other similar countries.

Cho (I994) argues that Porter's original model is limited in its application to developing countries such as Korea. He emphasizes different groups of human factors and different types of physical factors in explaining a nation's competitiveness. Human factors include workers, politicians/bureaucrats, entrepreneurs, and professionals.

Physical factors include endowed resources, domestic demand, related and supporting industries, and other business environment. An external factor, chance, is added to these eight internal factors to make a new paradigm, the nine factor model. The differences between the nine-factor model and Porter s diamond model are in the division of factors, and in the addition of new factors. The diamond model includes both natural resources and labor in factor conditions, but the nine-factor model places natural resources under endowed resources, while labor is included within the category of workers.

Human factors mobilize the physical factors, and people combine and arrange the physical factors with the aim of obtaining international competitiveness. Another important point is that competitiveness is meaningful only among the nations endowed with similar comparative advantages competing in similar industries. In other words, the relative competitive position among similar countries in a certain stage of economic development, but not among all the countries in the world is an important element for a nation's competitiveness.

2.3.1 The Diamond Model (Porter, 1990)

Porter (1990) advanced a new theory to explain national competitive advantage. The main question he attempts to answer is why some countries are more successful in particular industries than others.

He identifies four classes of country attributes (which he calls the National Diamond) that provide the underlying conditions or platform for the determination the national competitive advantage of a nation. These are factor conditions, demand conditions, related and support industries, and company strategy, structure and rivalry. He also proposes two other factors, namely government policy and chance (exogenous shocks), that support and complement the system of national competitiveness but do not create lasting competitive advantages.

Porter (1990) distinguishes between the following categories: human resources, physical resources, knowledge resources, capital resources and infrastructure. Factor conditions are further subdivided into basic and advanced factors that can be either general or specialized.

Basic factors such as unskilled labour, raw materials, climatic conditions and water resources are inherited and require little or no new investment to be utilized in the production process. Advanced factors are created and upgraded through reinvestment and innovation to specialized factors, which according to Porter form the basis for the sustainable competitive advantage of a country.

Demand conditions in a country are also perceived by Porter (1990) as a source of competitive advantage for a country. Demand as a factor explaining trade is not new. Linder (1961) first introduced it to explain intra-industry trade. According to the Linder hypothesis, countries with similar per capita incomes will have similar spending patterns. In terms of the Linder hypothesis, these comparable demand conditions in countries lead to analogous demand structures, which enhance intra-industry trade. Porter, however, focuses more on demand differences than on similarities to explain the international competitiveness of countries. According to him, 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. This forces home country firms to continually innovate and upgrade their competitive positions to meet the high standards in terms of product quality, features and service demands.

A third determinant of national competitive advantage, according to Porter (1990), is firm strategy, structure and rivalry. The main emphasis is that the strategies and structures of firms depend heavily on the national environment and that there are systematic differences in the business sectors in different countries that determine the way in which firms compete in each

country and ultimately their competitive advantage. Porter identifies rivalry as the most critical driver of competitive advantage of a country's firms.

He believes that domestic rivalry forces firms to be cost competitive, to improve quality and to be innovative. It is firms that ultimately compete internationally, but it is the international competitiveness of a country that shapes the international competitive advantage of firms. It is this assumption that a country's competitiveness ultimately determines a firm's international competitive advantage that led to the belief that countries, like firms, compete internationally and thus that the international trade engagement of countries is a negative sum game, as it is in the case of firms. This is in sharp contrast to the general understanding in trade theory that trade is a positive sum game irrespective of the nature of the sources from which such gains from trade are derived.

Porter came up with the diamond model as a result of historical analysis. The phenomena that were analyzed are classified into six broad factors incorporated into the Porter diamond, which has become a key tool for the analysis of competitiveness: Factor conditions are human resources, physical resources, knowledge resources, capital resources and infrastructure. Demand conditions in the home market can help companies create a competitive advantage, when sophisticated home market buyers pressure firms to innovate faster and to create more advanced products than those of competitors. Related and supporting industries can produce inputs which are important for innovation and internationalization. These industries provide cost-effective inputs, but they also participate in the upgrading process, thus stimulating other companies in the chain to innovate.

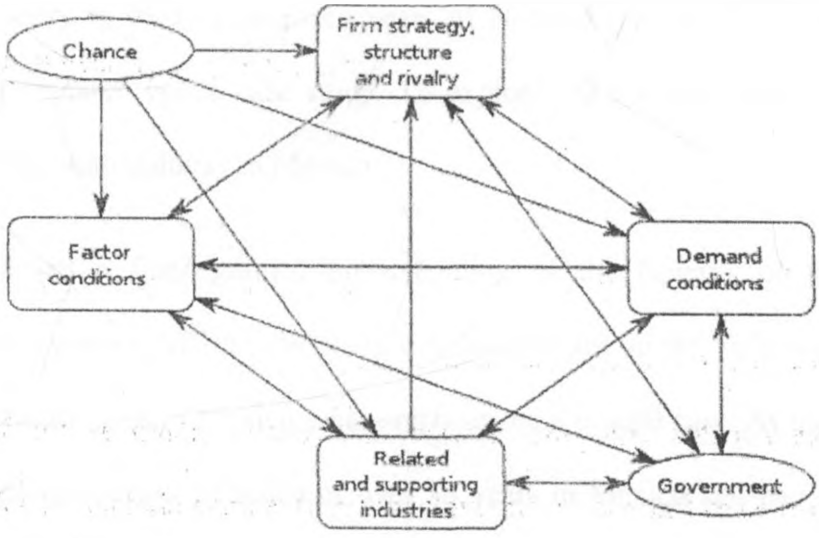
Firm strategy, structure and rivalry constitute the fourth determinant of competitiveness. The way in which companies are created, set goals and are managed is important for success. But the presence of intense rivalry in the home base is also important; it creates pressure to innovate in order to upgrade competitiveness. Government can influence each of the above four determinants of competitiveness. Clearly government can influence the supply conditions of key production factors, demand conditions in the home market, and competition between firms. Government interventions can occur at local, regional, national or supranational level. Chance events are occurrences that are outside of control of a firm. They are important because they create discontinuities in which some gain competitive positions and some lose.

The presence or absence in the nation of supplier industries and other related industries that are internationally competitive make up the fourth determinant of national competitive advantage. The introduction of related and support industry clusters as a separate determinant of national competitive advantage has been viewed as one of the most important contributions of Porter's Diamond Theory. According to Porter (2000), it is the external economies of related and support industry clusters, such as networks of specialized input providers, institutions and the spill-over effects of local rivalry, that become the true source of competitive advantage. The cluster represents an environment in which learning, innovation and operating productivity can flourish. He believes that it is these kinds of localized clusters that are a prominent feature of virtually any advanced economy, but are lacking in developing countries, which limits productivity growth in those economies (Teece, 1996).

Each of these four attributes defines a point on the diamond of national advantage; the effect of one point often depends on the state of others. Another effect of the diamond's systematic nature is that nations are rarely home to just one competitive industry; rather, the diamond creates an environment that promotes clusters of competitive industries.

Competitive industries are not scattered randomly throughout the economy but are usually linked together through vertical (buyer-seller) or horizontal common customers, technology, channels relationships. One competitive industry helps to create another in a mutually reinforcing process.

Fig. 1. Porter's Diamond



Source: Porter, 1990

2.4 Empirical Literature Review

Many studies have been done on many companies and industries in many countries and regions. A study conducted by Gelei (2010) was done with the focal question being how competitive Hungarian firms were and as a consequence of this to what extent they were able to join European or even global supply chains.

The industry of analysis was the automobile industry. In the study the core components of competitiveness studied were Core competences (competences and resources) and Customer value (Direct value dimensions and Indirect value dimensions).

Gelei's research program was qualitative in nature and contained twenty interviews with company managers from all type of member firms along the supply chain of original equipment manufacturers (OEM), first and second tire supplier firms. The study found that firms in Hungary used Capacity based, System based, Adaptivity based, and Innovation based approaches to competitiveness.

Barragan, (2005) used Porter's Diamond Model to analyze the competitiveness of the automobile industry in Mexico after ten years of North American Free Trade Agreement (NAFTA). The research was a case study. To explore the diamond framework, the study analyzed the entire auto industry in Mexico.

Meanwhile, to get a finer grained understanding of the benefits of the presence of Multinational Enterprises (MNEs), the study was focused just on the Volkswagen automobile cluster in the Puebla State of Mexico which represented a crucial case: As one of the earliest entrants, Volkswagen had a presence of over 50 years in Mexico and had higher levels of local purchasing compared with many other car assemblers. The data used was archival supplemented by interviews with managers and representatives of firms within the Volkswagen cluster in Puebla.

Barragan, (2005) found that the automobile industry in Mexico had a special importance for the competitiveness of the country. This industry relied on high technology compared with other successful sectors that primarily relied on natural resources and/or labour intensive work.

The high-tech nature of the auto industry helped to promote the industrialization of the country in terms of its transportation and power grid infrastructures, growth in its semi-skilled and skilled labour force, increasing productivity, and the development of other related industries such as machinery and automation.

Lau (2009) conducted an investigation into the internal and external environments and examined the performance of Hong Kong airfreight industry like the growth rate of air cargo throughput, operational efficiency and market share. The paper applied the Porter's diamond framework to illustrate how Hong Kong airfreight industry utilized their inherent resources and enhanced capabilities to compete with neighboring competitors like Guangzhou Baiyun International Airport and Singapore Changi Airport in dynamic and challengeable environment.

Sally (2005) took an empirical approach in the use of the Diamond Model to study fifty automotive companies in the automotive industry headquartered in eight different nations. In the applied regression model the dependent variable was firm performance captured by Return on Sales while the four factors of the model were the independent variables. The study showed that more demanding consumers in the home market positively impacted a firm's global competitiveness. It also showed that more advanced factor conditions in the home market positively impacted on a firm's global competitiveness.

Akombo (2010) did a cross-sectional survey on the state of operations among players in the Kenyan sugar industry using the porter's diamond model focusing on analyzing related and supporting industries, firm structure and strategy, and the role of government with regards to overall competitiveness of the industry. The study considered the seven sugar manufacturing firms in operations as at January 2009.

The study findings indicated that there was a positive relationship between the Porter's Diamond Model when mapping the players against the determinants outlined by the model. There seems to be evidence from various empirical studies that there are positive and affirmative relationships between national, sector/industry, and firm competitiveness and the Porter's Diamond Model.

These relationships can be analyzed from different perceptive as mentioned in the various studies undertaken. However, the relationships between Porter's Diamond Model and competitiveness was found to be strong. This situation promulgated this study to employ the Porter's diamond model in analyzing the factors that influences the competitiveness of the Kenyan coffee industry in this context.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section discusses the methods that were used in the collection and analysis of data and how presentation of findings was to be done. It also discusses how the objectives of the study were met. It specifically covers issues to do with the research design, definition of the population of study, and how data was collected and analyzed.

3.2 Research Design

The research was a survey study of the companies in Kenyan coffee industry. The variables in the diamond model were analyzed as done by Akombo (2010). The researcher conducted this survey based on the members of the Kenyan Coffee Traders Association (KCTA) as per the 2011 membership list.

3.3 Target Population and Sample

The study was based on the twenty nine registered members of the Kenya Coffee Traders Association (KCTA) as per the 2011 membership listing. The researcher was able to conclude on findings. and recommend thereof based on the data collected from this population.

3.4 Data Collection

The data collected was both primary and secondary. The primary nature data were collected through a questionnaire from the members of KCTA as per the 2011 membership list (See appendix). The data were collected by dropping a questionnaire at the offices of the companies in the list and picking it later. The managers of the companies provide responses. Secondary sources of the data included KCTA bulletins and annual reports were reviewed in order to support any information that was obtained by the questionnaire. The secondary data were collected from the KCTA head secretariat and the KCTA website.

3.5 Data Analysis

Quantitative data is presented in the form of tables, graphs, pie charts. Summary statistics such as the mean, standard deviation, totals, and percentages were used in analyzing the data. The mean was used to measure the average response to a statement. The standard deviation was used to measure the variance in the responses on a question. Percentages were used to measure market share based on trade volume. The data will also be summarized into tables (for instance the distribution of responses to questions), graphs (number of workers) and pie charts (the market share for instance). The analysis of data was done using Ms Excel 07 software and the findings presented in a report.

CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This chapter provides an analysis of the data that was used to assess the competitiveness of the Kenya coffee industry. General statistical description of the data and the analysis of the data according to Porter's diamond model are done. Last is a discussion of the findings.

4.1.1 General Information

Table 1 shows the distribution of the companies in the coffee industry that provided responses through the questionnaires. The total number of those companies that completed the questionnaires was twenty representing a response rate of 69 %. The population of the study was twenty-nine. As Table 1 shows 45 % of the sample had been operating in Kenya for a maximum of fifteen years while the other 55 % had been here for a longer period of time.

Table 4.1 : Age of Operation in Kenya

CATEGORY BY AGE	COMPANIES	PERCENTAGE
Less than 15 years	9	45 %
More than 15 years	11	55 %
Total	**20**	**100 %**

Source: Research data

Many of the respondent companies did not have many workers. As shown in Table 2, nine companies had the size of its labour force being less than ten workers. This number of companies represented (45%) of the sample studied. Five companies (25%) had its labour force between 11 and 20. One company (5%) had a labour force of between 21 and 30 workers. Another five companies, representing 25 %, had a labour force of over 30 workers.

Table 4.1 : Companies According to Labour Force

NUMBER OF WORKERS	COMPANIES	PERCENTAGE
0 to10	9	45 %
11 to 20	5	25%
21 to 30	1	5 %
Above 30	5	25 %
Total	**20**	**100%**

Source: Research data

Table 3 shows the distribution of companies by their core business. It can be noted that the bulk of the respondents (90 %) were coffee dealers. Their business was buying and selling coffee. Only two companies that were mainly coffee millers participated in the study. There was no company, of the twenty, that dealt basically as a marketing agent, a warehouse, coffee equipment dealer or a transporter.

Table 4.2 : Companies by their Core Business

CATEGORIES	COMPANIES	PERCENTAGE
Millers	2	10.00 %
Marketing Agents	0	0.00 %
Warehouse	0	0.00 %
Coffee Equipment Dealers	0	0.00 %
Transporters	0	0.00 %
Dealers	18	90.00 %
Total	**20**	**100.00 %**

Source: Research data

4.1.2 Minimum Market Entry Requirements

The basic market entry requirements for any company to be a player in the coffee industry, according to the companies are, in summary, presented as below. One company felt that a minimum of three hundred thousand Kenya shillings, a coffee liqueur and facilities for coffee tasting and a performance bond are required. (A performance bond is a surety bond issued by an insurance company or a bank to guarantee satisfactory completion of a project by a contractor. It is meant to hedge a contractor against failure).

Another company felt that the basic requirements include financial support, logistical knowledge and the mastering of the legal environment surrounding the coffee industry. Most of the respondents agreed that generally, for on to venture into the coffee industry there was need to know the coffee market properly and being well equipped. These included thoroughly knowing the coffee sampling technology, having enough capital, being informed of the Coffee Act 2001. Other basic requirements were having fast credit sources, having overseas clients and a sound risk management strategy. All companies agreed that having license documents is very important.

4.1.3 Barriers Faced by New Entrants in the Coffee Market

Table 4 below was produced from the selection companies made as the factors they found as the main barriers to new entrants in the coffee market in Kenya. The score represents the number of companies, out of twenty, that found the factors a barrier. The most felt barrier was the high cost of capital. All the twenty companies found this as a barrier to new firms. Rules and regulations by Kenyan coffee board on how to operate, was the second most cited barriers by eleven companies.

The third most cited barriers as pointed out by nine companies were government bureaucracy in getting licenses and the rules and regulations by government on how to operate. The least cited barriers were lack of raw material (1 company), companies in the industry exert influence on who can join (3 companies) and technology gap (5 companies).

Table 4.3 : Barriers to Entry

BARRIER	SCORE
High cost of capital	20
Technology gap	5
Lack of raw material	2
Government bureaucracy in getting licenses	9
Rule and regulations by Kenyan coffee board on how to operate	11
Rules and regulations by government on how to operate	9
Companies in the industry exert influence on who can join	3

Source: Research data

4.1.4 Factors Influencing Performance in the Coffee Market

Table 5 provides an analysis of the factors that affect performance in general, i.e. all the firms considered together. The aggregated mean of the responses was 3.16 which indicate the factors taken together were slightly serious. However, there were factors that were considered serious. The factors considered most serious were poor distribution channels; aging machinery; lack of funds; high cost of coffee; poor road/infrastructure and high cost of labour. These factors scored 4.00, 3.92, 3.85, 3.54, 3.46 and 3.46 respectively. The factors that that were least felt as affecting performance were competition from cheaper imports; lack of research on fast growing coffee crops; poor production technology and competition from local rivals. These factors had scores of 1.38, 2.62, 2.62 and 2.85 respectively.

Table 4.4 : Factors Influencing Performance

FACTORS	MEAN	SD
Poor road/infrastructure	3.46	0.97
Competition from cheaper imports	1.38	0.65
Lack of research on fast growing coffee crops	2.62	1.61
High taxes	2.92	1.66
Aging machinery	3.92	1.32
High cost of coffee	3.54	1.45
High cost of labour	3.46	1.45
Poor distribution channels	4.00	1.29
Government policies/regulations	3.08	1.19
Demand for products	3.38	1.39
Poor production technology	2.62	1.56
FACTORS	**MEAN**	**SD**
Lack of funds	3.85	1.41
Competition from local rivals	2.85	1.07
GRAND MEAN	3.16	1.46

Source: Research data

Table 6 provides an analysis of the factors influencing performance based on the age of the companies in the coffee business. Both the older and the younger firms showed that the factors were not generally serious as they scored 2.99 and 2.89 for those having been in the industry for below 15 years and for above 15 years respectively.

Among the young firms the most felt factors were high cost of coffee, demand for products, lack of funds and high cost of labour which had scores of 4.00, 3.83, 3.67 and 3.50 respectively. The least felt factors were competition from cheaper imports, aging machinery, competition from local rivals, and lack of research on fast growing coffee crops, high taxes and poor distribution channels which scored 1.50, 1.67, 2.67, 2.83, 2.83 and 2.83 respectively.

Among the older companies, the most felt factors were lack of funds, poor road/infrastructure and high cost of labour. These factors score means of 4.00, 3.57 and 3.43 respectively. The least felt factors were competition from cheaper imports, poor distribution channels, poor production technology and lack of research on fast growing coffee crops, which scored 1.29, 2.14, 2.29 and 2.43 respectively

Table 4. 5 : Factors by Age of Company

FACTORS	MEAN	
	Below 15 Years	**Above 15 Years**
Poor road/infrastructure	3.33	3.57
Competition from cheaper imports	1.50	1.29
Lack of research on fast growing coffee crops	2.83	2.43
High taxes	2.83	3.00
Aging machinery	1.67	3.00
High cost of coffee	4.00	3.14
High cost of labour	3.50	3.43
Poor distribution channels	2.83	2.14
Government policies/regulations	3.17	3.00
Demand for products	3.83	3.29
Poor production technology	3.00	2.29
Lack of funds	3.67	4.00
Competition from local rivals	2.67	3.00
GRAND MEAN	**2.99**	**2.89**

4.1.5 Factors Conditions

Table 7 provides an analysis of the factor conditions. The grand mean was 3.47 which indicated that there was slight agreement that factors considered together were a true state of affairs in the coffee industry. However, the most agreed with statements were a lot of capital is required to enter this industry; poor state of roads significantly increases the cost of production; the location of farming is an advantage to crop output and atmospheric condition is a plus for crop output locally. These scored means of 4.38, 4.15, 3.92 and 3.85 respectively. The most disagreed with statements were access to capital for expansion and modernization is easy; finding raw material is tedious and expensive and sources of energy to run production is sufficient and reliable. These scored 1.92, 2.85 and 3.15 respectively.

Table 4.6 : Factor Conditions

FACTOR CONDITIONS	MEAN	SD
A lot of capital required to enter this industry	4.38	0.87
Finding raw material is tedious and expensive	2.85	1.52
Skilled and non-skilled labour is readily available and affordable.	3.62	0.96
Sources of energy to run production is sufficient and reliable	3.15	1.14
Poor state of roads significantly increases the cost of production	4.15	0.90
Technology and chemical inputs in the industry are sufficient and helpful in production	3.38	1.04
The coffee millers factories are operating effectively and efficiently	3.46	1.05
Access to capital for expansion and modernization is easy	1.92	0.86
The location of farming an advantage to crop output	3.92	0.86
Atmospheric condition is a plus for your crop output locally	3.85	0.80
GRAND MEAN	3.47	1.20

Source: Research data

Table 8 analyses the factor conditions according to the period the company had been in the coffee industry. The companies that had been in coffee business for less than 15 years agreed that the statement reflected the status of the coffee industry for they had a grand mean score of 3.68 while those who had been trading for over 15 agreed to a lesser extent with a grand mean of 3.20. The younger companies most agreed that the poor state of roads significantly increases the cost of production; a lot of capital was required to enter this industry, the location of farming was an advantage to crop output and atmospheric condition was a plus for crop output locally.

The means for these were 4.67, 4.50, 4.33 and 4.00 respectively. The statements they least agreed with were that access to capital for expansion and modernization is easy, sources of energy to run production is sufficient and reliable, finding raw material is tedious and expensive and the coffee millers factories are operating effectively and efficiently. The scores were 1.67, 3.17, 3.50 and 3.50 in that order.

Among firms that had been operating for over 15 year, the most agreed with statements were that a lot of capital required to enter this industry, atmospheric condition is a plus for your crop output locally, poor state of roads significantly increases the cost of production and the location of farming an advantage to crop output giving them scores of 4.29, 3.71, 3.71 and 3.57 respectively. The least agreed with statements were that finding raw material is tedious and expensive, access to capital for expansion and modernization is easy, sources of energy to run production is sufficient and reliable. These factors scored 2.29, 2.43 and 2.57 respectively.

Table 4.7 : Factor Conditions According to Age of Company

FACTOR CONDITIONS	MEAN	
	Below 15 Years	**Above 15 Years**
A lot of capital required to enter this industry.	4.50	4.29
Finding raw material is tedious and expensive	3.50	2.29
Skilled and non-skilled labour is readily available and affordable.	3.83	2.86
Sources of energy to run production is sufficient and reliable	3.17	2.57
Poor state of roads significantly increases the cost of production	4.67	3.71
Technology and chemical inputs in the industry are sufficient and helpful in production	3.67	3.14
The coffee millers factories are operating effectively and efficiently	3.50	3.43
Access to capital for expansion and modernization is easy	1.67	2.43
The location of farming an advantage to crop output	4.33	3.57
Atmospheric condition is a plus for your crop output locally	4.00	3.71
GRAND MEAN	**3.68**	**3.20**

4.1.6 Demand Conditions and Chance

Table 9 shows the analysis results for the demand conditions and chance. The grand mean was 2.87 which indicated that there was slight disagreement among companies that the statements were a true reflection of the demand and chance conditions in the Kenyan coffee market. However, the most generally agreed with conditions were that the potential of creating a strong local demand is huge and that consumer behavior for the products locally trends in the global market which were scored at 3.46 and 3.38 respectively. The least agreed with statements were that the demand for coffee products is huge in the region and the demand for coffee products is huge in the country which scored 2.08 and 2.54 respectively.

Table 4.8 : Demand Conditions and Chance

DEMAND CONDITIONS AND CHANCE	MEAN	SD
The demand for coffee products is huge in the country	2.54	0.88
The demand for coffee products is huge in the region	2.08	1.12
The potential of creating a strong local demand is huge	3.46	1.20
Consumer behavior for products locally trend in the global market	3.38	0.87
GRAND MEAN	**2.87**	**1.16**

Source: Research data

Table 10 is a summary of the degree to which the companies agree that the identified factors present the true status in the Kenya coffee industry. The analysis is categorized into firms that are new in the market vis-à-vis those that have been in the market for quite some time. The firms that had been in the market for less than 15 years, generally, disagreed with the statements as true reflections of the situation on the ground. They had a grand mean of 2.46 which was less than 2.79 scored by the firms which had been in the market for over 15 years. However, the firms that have operated for over 15 years agreed that the potential for creating a strong local demand is huge (a mean of 3.67).

On the contrary they disagreed to a great extent that the demand for coffee is huge in the region with a mean of 1.83. The older firms agreed that the consumer behaviour for coffee products locally trend the global market with a mean of 3.43. This was followed by a slight agreement (mean of 3.29) that the potential for creating a strong local demand is huge. However, with a mean of 2.14 they disagreed that the demand for coffee products is huge in the country.

Table 4.9 : Demand Conditions and Chance Analyzed by Age

DEMAND CONDITIONS AND CHANCE	MEAN	
	Below 15 Years	Above 15 Years
The demand for coffee products is huge in the country	2.17	2.14
The demand for coffee products is huge in the region	1.83	2.29
The potential of creating a strong local demand is huge	3.67	3.29
Consumer behavior for products locally trend in the global market	2.17	3.43
GRAND MEAN	**2.46**	**2.79**

Source: Research data

4.1.7 Government

Table 11 shows the summarized analysis of the responses concerning the government as a factor. As can be seen in the table the grand mean was 2.87 which was an indication that slight disagreement with the statements as been true to this situation. There was a general agreement that the countries business climate is ideal for investment in coffee as indicated by a score of 3.38. The least agreed with statement was the position that policies by the government help make marketing the product easier, scoring 2.38.

Table 4.10 : Government

	MEAN	SD
Government interferes very much with our operation	2.69	1.44
Taxes by government add a significant cost to our business	3.00	1.41
Policies by government help marketing the products easier	2.38	0.96
The country's business climate is ideal for investment in coffee	3.38	1.33
GRAND MEAN	**2.87**	**1.31**

Source: Research data

An analysis based on the time a company had been operational in Kenya revealed what is presented in Table 12. The results were a grand mean of 3.04 which was generally neutral for the firms that were less than 15 years old. These young firms agreed to the highest extent that taxes by government add a significant cost to their business and that the country's business climate was ideal for investment in coffee. These two statements had each a score of 3.50. They least agreed with the statement that policies by government help make marketing their products easier. This had a score of 1.83. The grand mean was 2.68 for firms that had been operational for over 15 years showing a higher level of disagreement. The older firms however had the strongest agreement that the countries business climate was ideal for investment in coffee and scored 3.29. The least agreed with statement was that the government interferes with operations. This statement scored 2.14.

Table 4.11 : Analysis of Government Factor Based on Age of the Companies

	MEAN	
	Below 15 Years	**Above 15 Years**
Government interferes very much with our operation	3.33	2.14
Taxes by government add a significant cost to our business	3.50	2.57
Policies by government help make marketing the products easier	1.83	2.71
The country's business climate is ideal for investment in coffee	3.50	3.29
GRAND MEAN	**3.04**	**2.68**

Source: Research data

4.1.7 Firm Strategy, Structure and Rivalry

Table 13 presents the general analysis of the results from the responses to Section D of the questionnaire. The aggregate mean of this section was 3.46, an indication that the statements generally capture the true situation on the ground according to the companies.

The most agreed with statement was that companies that have been in the industry for a long have special advantages that other do not have, which had a mean of 3.69. It was also agreed to a higher extent (mean of 3.54) that the number of players in the industry has influence the style of operation. On the contrary, the least agreed with statement was that the business environment in Kenya shapes the structure, size and hierarchy of firm. This had a mean score of 3.23.

Table 4.12 : Firm Strategy Structure and Rivalry

	MEAN	SD
Companies that have been in the industry for a long have special advantages that others do not have	3.69	1.44
The business environment in Kenya shapes the structure, size and hierarchy of firm	3.23	1.09
The number of players in the industry has influence the style of operation	3.54	1.13
The localization of firms in one region has increase pressure in the industry to innovate.	3.38	0.96
GRAND MEAN	**3.46**	**1.15**

Source: Research data

Table 14 presents the analysis of the firm strategy, structure and rivalry basing on the number of years a company had been operating in Kenya. The firms that had been in Kenya for less than fifteen years agreed to a higher extent, with a grand mean of 3.63 that the statements were a true picture of the situation in the coffee industry concerning firm strategy, structure and rivalry. The factor they agreed most strongly with was that companies that have been in the industry for a long have special advantages that others do not have. This statement scored a mean of 4.00. On the contrary the least agreed with statement had a mean of 3.17 which was that the number of players in the industry has influence the style of operation.

As shown in the same Table 14 the older companies agreed to a lesser extent than the younger ones that the statements were a true reflection of the situation in the industry. The most agreed with factor was that companies that have been in the industry for a long have special advantages that others do not have and this scored a mean of 3.43. They, however least agreed with the statement that the localization of firms in one region has increase pressure in the industry to innovate, scoring a mean of 3.00.

Table 4.13 : Analysis of Firm Strategy, Structure and Rivalry by Company Age

	MEAN	
	Below 15 Years	**Above 15 Years**
Companies that have been in the industry for a long have special advantages that others do not have	4.00	3.43
The business environment in Kenya shape the structure, size and hierarchy of firm	3.50	3.14
The number of players in the industry has influence the style of operation	3.17	3.29
The localization of firms in one region has increase pressure in the industry to innovate	3.83	3.00
GRAND MEAN	**3.63**	**3.21**

Source: Research data

4.1.8 Related and Supporting Industries

This section presents an analysis of the issues involving Related and Supporting Industries. The issues were analyzed generally and then based on the time a company had been operating in Kenya. Table 15 shows the general analysis. There was a slight agreement that the set of statements were a true reflection of the situation in the coffee industry as shown by the grand mean score of 3.42. However, the most agreed with statement was that ties with researcher's institutions have contributed to success in the coffee industry.

The statement scored a mean of 3.77. The least agreed with statement was that the work relation between the government, farmers, millers, regulators and researchers is strong, which had a mean of 2.92.

Table 4.14 : Related and Supporting Industries

	MEAN	SD
The work relation between the government, farmers, millers, regulators and researchers is strong	2.92	1.04
Ties with researchers institutions have contributed to success in the coffee industry	3.77	1.17
The link between both local and international competitors is effective and efficient	3.54	1.13
The product distribution network are vibrant and effective	3.31	1.03
The cluster grouping of farms in common zones has helped improve operations of players in the industry.	3.54	0.97
GRAND MEAN	**3.42**	**1.07**

Source: Research data

According to Table 16 there was a marginal difference between the views of the younger companies and the older companies concerning related and supporting industries. They scored a grand mean of 3.37 and 3.39 respectively.

The younger companies most agreed with the statement that the link between both local and international competitors is effective and efficient with a mean of 3.83. However, the least agreed with the statement among these companies was that the work relation between the government, farmers, millers, regulators and researchers is strong.

The older firms had different feelings about the issues and according to Table 16 there was the highest level of agreement that ties with research institutions have contributed to success in the coffee industry scoring a mean of 4.14. They, however, equally least agreed that the work relation between the government, farmers, millers, regulators and researchers was strong and that the product distribution networks are vibrant and effective. Each of the two scored 3.14.

Table 4.15 : Related and Supporting Industries Analyzed by Age of Companies

	MEAN	MEAN
	Below 15 Years	Below 15 Years
The work relation between the government, farmers, millers, regulators and researchers is strong	2.67	3.14
Ties with researchers institutions have contributed to success in the coffee industry	3.33	4.14
The link between both local and international competitors is effective and efficient	3.83	3.29
	MEAN	**MEAN**
	Below 15 Years	**Below 15 Years**
The product distribution network are vibrant and effective	3.67	3.14
The cluster grouping of farms in common zones has helped improve operations of players in the industry.	3.33	3.71
GRAND MEAN	3.37	3.49

Source: Research data

4.2 Discussion of Findings

Three issues were outstanding concerning the entry of new industries entering the coffee industry. The main difficulties of entry were high cost of capital, rules and regulations by Kenyan coffee board on how to operate, government bureaucracy in getting licenses and rules and regulations by government on how to operate. These four factors seem to set the stage for the companies in the coffee industry. They are the factors that any player in the coffee industry will have to grapple with as part of the general industry environment

According to Porter (1980) there are unique factors that make an industry attractive or not attractive to an investor depending on the meaning of these factors to the firm. Therefore, in the coffee industry a firm will be able to capture a position of competitiveness if it overcomes the high initial cost capital and can maneuver the rules set by the government and the coffee board of Kenya then the firm can become competitive.

The Kenyan coffee industry seems to have issues that should be settled to make the industry as a whole competitive locally and in the world market. There is an agreement that there is no challenge from cheaper coffee products imports. The nature of the research going on is up to the task and the technology used in production is apt. However, distribution channels, aging machinery, lack of enough funding, high cost of coffee, poor road/infrastructure and high cost of labour are killing the attractiveness of the industry. This in fact diverts the attention of the companies from their core business and makes them focus on how to maneuver the issues at the expense of producing high quality coffee products. According to Gelei (2010) the main drivers of value in an industry are price, volume, quality, reliability, flexibility, safeguards, connected services and incremental innovation strategic innovation. A situation that will lead to a compromise in these value drivers is detrimental to the coffee industry. Factors like poor distribution channels, aging machinery, poor funding, high costs are having a negative effect on value creation.

The coffee industry in Kenya benefits from easy access to raw material, because raw coffee is in abundant supply due to location of farming and favorable atmospheric conditions which are an advantage to crop output. However, the competitiveness is riddled with a lot of initial capital needs, poor state of roads that significantly increase the cost of production.

It is difficult to gain access to capital for expansion and modernization. Furthermore, the sources of energy to run production are expensive, insufficient and unreliable. Similar results were found by Khushk, Memon and Saeed (2011) in their study concerning the competitiveness of the Pakistani sugar industry.

The potential of creating a strong local demand for coffee is huge. This indicates that there is a whole market out there for coffee that has not been tapped into. This study has established that the consumer behavior for the products locally trends in the global market. According to International Coffee Organization (2010) coffee consumption is on an upward trend. However, the demand for coffee products is huge in the region and in the in the country is not large. Porter (1990) argues that a sophisticated domestic market is an important element to producing competitiveness.

Firms that face a sophisticated domestic market are likely to sell superior products because the market demands high quality and a close proximity to such consumers enables the firm to better understand the needs and desires of the customers. The local markets seem not strong and sophisticated enough to push up the sophistication of Kenya's coffee production and competitiveness in the world market.

There was a general agreement that the countries business climate is ideal for investment in coffee as indicated, but policies by the government help make marketing the product difficult. According to Porter (1990) to enhance competitiveness the government is not supposed to offer any help to an industry beyond provision of infrastructure that will be available to all other firms.

The role of government in Porter's Diamond Model is acting as a catalyst and challenger; it is to encourage - or even push - companies to raise their aspirations and move to higher levels of competitive performance. They must encourage companies to raise their performance, stimulate early demand for advanced products, focus on specialized factor creation and to stimulate local rivalry by limiting direct cooperation.

The findings show that companies that have been in the industry for a long have special advantages that other do not have. The number of players in the industry has influence the style of operation. This indicates that for a firm to be in the market successfully it must bear into mind the operations of the other players in the industry and forge out its own way of operating in the industry. The local environment does not help shape the manner in which the forms operate meaning that there is no pressure that can lead to creativity and innovativeness. Porter (1990) argues that domestic markets affect the strategy of firms. For instance, countries where capital markets have a long-run outlook will tend to be more competitive in industries where investment is short-term and vice versa.

Ties with researcher's institutions have contributed to success in the coffee industry in Kenya. However, the work relation between the government, farmers, millers, regulators and researchers is weak. Porter (1990) argues that a set of strong related and supporting industries is important to the competitiveness of firms. This includes suppliers and related industries. There seems to be no advantages arising from clustering or agglomeration.

The study finds the Kenyan coffee industry not competitive in the sense of Porters Diamond model. High initial costs are keeping new entrants from the industry possibly killing innovation, the technology used is old, the channels of distribution are not efficient, there is strong control from the government through the Coffee Board and there are no strong support industries. Even with few factors that could enhance competitiveness like the increasing demand for coffee the industry is not competitive.

CHAPTER FIVE: SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Project

This paper was a survey that sought to establish the factors that influence competitiveness of the Kenyan coffee industry in the world market using Porter's diamond model. The research was a survey that was to include all the firms in the Kenyan coffee industry. Primary data was used to conduct the research.

This study was therefore designed to get the up to date situation concerning the coffee industry which has lost the competitiveness it had in the late seventies. Questionnaires were designed and sent out to the companies that deal in the processing and marketing of coffee locally and internationally. All the responses to the questionnaires were analyzed to make the findings presented in this report.

The Kenyan coffee industry has factors that could launch it into international competitiveness if well harnessed. The lack of the harnessing of these factors has held back the competitiveness of the industry. Furthermore, the Kenyan coffee industry is riddled with many issues that are limiting its success. The study found that the Kenyan coffee industry is not competitive in the world market.

5.2 Conclusions

The coffee industry in Kenya has factors that can make it more competitive that it is in the world market. The lack of raw material is not a problem in the industry, companies in the industry do not exert influence on who can join making the market open for any new entrant, and there is no competition from cheaper coffee imports.

Further, high taxes is not a problem in the coffee industry, the atmospheric condition are favourable for coffee production, there is high potential of creating a strong local demand, the consumer pattern for products locally has the same trend as the global trend which is upward facing, the country's business climate is ideal for investment in coffee and the ties with research institutions have contributed to success in the coffee industry.

On the contrary, there are many factors that are limiting the competitiveness of the coffee industry: the cost of capital is high; there is discouraging government bureaucracy in issuance of licenses; rules and regulations by government on how to operate are not encouraging to the industry; the road and other infrastructure state is poor. Further, the machinery used is aging an inefficient, high cost of coffee, labour is expensive, coffee distribution channels are poor, there is low demand for coffee and coffee products, lack of funds, the competition from local rivals does not stimulate innovation.

In addition to the challenges above a lot of capital required to enter this industry, access to capital for expansion and modernization is difficult, the demand for coffee products is not huge in the region, policies by government do not help to make marketing the products easier and the work relation between the government, farmers, millers, regulators and researchers is not strong.

This study, therefore, concludes that the coffee industry in Kenya is not competitive despite having a greater potential of becoming so. According to KCTA market report of October 2011, the number of coffee bags traded has been on the decline whereas the price of coffee has been on the increase. On the contrary, ICO (2010) has shown an increasing trend in both the consumption in the supply of coffee. This can only happen if the Kenyan coffee industry is not competitive in the world market.

5.3 Policy Recommendations

There is need to assess the causes of the low demand for coffee and coffee products in Kenya, in the region and why the demand is not matching the global trends despite there being a high potential for creating a strong local demand for the product.

The country's business climate should be maintained with respect to coffee. However, the cost of capital is high; there is discouraging government bureaucracy and irregularity in issuance of licenses; rules and regulations by government on how to operate are not encouraging to the industry. This study recommends that these bottlenecks are investigated and appropriately dealt with.

The coffee industry should engage in cost cutting endeavors to reduce high cost of coffee and labour. This should be done in harmony with making it easy to acquire funds for expansion and modernization purposes and acquisition new machinery to replace the aging an inefficient ones currently being used. Further, the ties with research institutions should be enhanced for they have a positive contribution to the coffee industry. Competition from local rivals should be stimulated to enhance cost cutting and production innovation.

The Government has to take proactive measures to revamp this industry by improving of the state of roads and other infrastructure especially in coffee production and marketing zones. The government should also look at modalities that can help to make marketing of coffee easier. This can be achieved through improving the work relations between the government, farmers, millers, regulators and researchers.

5.4 Limitations of the Study

This study has several limitations that make the finding not foolproof. First, the weaknesses the Likert scale which is highly qualitative. This in effect meant that the responses provided may be mere opinions of the respondent and not necessarily the situation on the ground.

The Likert scale might be capturing a lot from the attitudes and irrationalities of the respondent instead of capturing the actual situation on the ground. It is possible if the questionnaires were given to other officers in the same companies, the results would be different.

The findings are for a specific instance in time, that is, the time when the questionnaires were filled. Strategic management is itself a highly dynamic activity dictated by the ever changing factors in a business internal and external strategic environment. The situation might have changed to the better or the worse even soon after the collection of questionnaires. That is likely not to be captured by the results of the analysis.

The study did not cover the full population of the firms that participate in the coffee industry in Kenya. The study was only limited to Kenyan Coffee Traders Associations only. A wider study is required to incorporate other players such as transporters, cooperatives, farmers, etc. in other to confirm these findings.

5.5 Suggestions for Further Research

The findings of this study can be improved if more empirical methods can be used to establish for example the age of the machines, volume of coffee traded per firm, the strengths of the forces in the diamond model and such. The study can be repeated some other time later to assess the changes that might have occurred since this study was done.

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APPENDIX I: LETTER OF INTRODUCTION

UNIVERSITY OF NAIROBI

MBA PROGRAMME

TELEPHONE: 4184160/5 EXT 208
TELEGRAMS: "VARSITY", NAIROBI
TELEX: 22095 VARSITY

P.O. BOX 30197
NAIROBI, KENYA

March, 2012

The Manager,

.....

Dear Sir/Madam,

RE: INTRODUCTION-PRINCE M. LIGHE - D61/60887/2011

I am a student of the University of Nairobi, pursuing a Masters of Business Administration degree. In partial fulfillment of the requirements for this degree, I am required to carry out a management research project on a real topic in my area of study. I am conducting a survey to find out the competitiveness of the Kenya coffee industry.

I kindly request you to provide the required information to the best of your knowledge by filling out the attached interview guide. The information is strictly for academic purposes only and will be treated in the strictest confidence. A copy of the research project will be made available to you on request. Your kind assistance will be highly appreciated.

Yours faithfully,

Prince M. Lighe
Sign_____ Date_____
RESEARCHER

Dr. Wahome Gakuru
Sign_____ Date_____
SUPERVISOR

APPENDIX II: QUESTIONNAIRE

Please answer all questions honestly according to the given instructions

PART I

Instruction:

Please fill in the blanks, and tick where appropriate

1. How old is your organization in years? _____
2. What is the number of employees in your organization`? _____
3. In which category does your firm fall? (circle the appropriate option)

    a. Millers

    b. Marketing Agents

    c. Warehousemen

    d. Coffee Equipment suppliers

    e. Transporters.

PART II

1. In your opinion, what is the basic/minimum requirement needed in order to enter and operate in the coffee business?
2. Do your competitors offer the same kind of product you do?
3. What does your firm do so that it performs better than others in the coffee industry?
4. What are the specific barriers that firms face when trying to enter this business today? (Tick as many as are appropriate)
    - High cost of capital
    - Technology gap
    - Lack of raw material
    - Government bureaucracy in getting licenses
    - Rule and regulations by Kenyan coffee board on how to operate
    - Rules and regulations by government on how to operate
    - Companies in the industry exert influence on who can join
5. How do you cooperate with other players in the industry?

PART III

How seriously do the following affect the performance of your firm? Provide your response on a scale of 1 to 5

5-very seriously **4**-fairly serious **3**-not sure **2**-not serious **1**-Not serious at all

	5	4	3	2	1
1. Poor road/infrastructure					
2. Competition from cheaper imports					
3. Lack of research on fast growing coffee crops					
4. High taxes					
5. Aging machinery					
6. High cost of coffee					
7. High cost of labour					
8. Poor distribution channels					
9. Government policies/regulations					
10. Demand for products					
11. Poor production technology					
12. Lack of funds					
13. Competition from local rivals					

Below are statements that describe the state of the coffee industry today. Please rate the extent to which you agree or disagree with each statement on a scale of 1-5

1-strongly disagree 2-disagree 3-not sure 4-agree 5-Strongly agree

A. Factor condition

	1	2	3	4	5
a. A lot of capital required to enter this industry.					
b. Finding raw material is tedious and expensive					
c. Skilled and non-skilled labour is readily available and affordable.					
d. Sources of energy to run production is sufficient and reliable					
e. Poor state of roads significantly increases the cost of production					
f. Technology and chemical inputs in the industry are sufficient and helpful in production					
g. The coffee millers factories are operating effectively and efficiently					
h. Access to capital for expansion and modernization is easy					
i. The location of farming an advantage to crop output					
j. Atmospheric condition is a plus for your crop output locally					

B. Demand condition and chance

	1	2	3	4	5
a. The demand for coffee products is huge in the country					
b. The demand for coffee products is huge in the region					
c. The potential of creating a strong local demand is huge					
d. Consumer behavior for the products locally trend in the global market					

C. Government

	1	2	3	4	5
a. Government interferes very much with our operation					
b. Taxes by government add a significant cost to our business					
c. Policies by government help marketing the products easier					
d. The country's business climate is ideal for investment in coffee					

D. Firm strategy, structure and rivalry

	1	2	3	4	5
a. Companies that have been in the industry for a long have special advantages that other do not have					
b. The business environment in Kenya shape the structure, size and hierarchy of firm					
c. The number of players in the industry has influence the style of operation					
d. The localization of firms in one region has increase pressure in the industry to innovate.					

E. Related and supporting industries

	1	2	3	4	5
a. The work relation between the government, farmers, millers, regulators and researchers is strong					
b. Ties with researchers institutions have contributed to success in the coffee industry					
c. The link between both local and international competitors is effective and efficient					
d. The product distribution network are vibrant and effective					
e. The cluster grouping of farms in common zones has helped improve operations of players in the industry.					

APPENDIX III: MEMBERS OF THE KCTA

1. Africoff Trading Co. Ltd.
2. Alanwood Ltd.
3. Anmer Coffee Co. Ltd.
4. Armajaro Kenya Limited
5. Brazafric Enterprises Ltd.
6. C. Dorman Ltd
7. Café Logistiques Ltd.
8. Central Impex Enterprises Ltd.
9. Coffee Exporters (Kenya) Ltd
10. Coffee Management Services Ltd
11. Diamond Coffee Co. Ltd
12. Gourmet Coffee Ltd
13. Ibero (K) Ltd.
14. Jenem Coffee ltd.
15. Josra Coffee Co. Ltd
16. Jowam Coffee Traders Ltd.
17. Kenruss Ltd.
18. Kisaingu Transporters Limited
19. Kofinaf Co. Ltd. (Ruiru)
20. Louis Dreyfus Commodities (K) Ltd.
21. Nairobi Java House Ltd.
22. Nyambene Coffee Mills Ltd
23. Ransley Coffee company Ltd
24. Sangana Commodities Ltd
25. SDV Transami (K) Ltd
26. Shah Meghji Hirji Ltd.
27. Sustainable Management Services Ltd
28. Taylor Winch (Coffee) Ltd.
29. Tropical Farm Management Kenya

(Source: KCTA)

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA PROGRAMME

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Nairobi, Kenya

DATE May 15, 2012

TO WHOM IT MAY CONCERN

The bearer of this letter Prince M. Kigbe

Registration No. D61/60887/2011

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.

25 MAY 2012

IMMACULATE OMANO
MBA ADMINISTRATOR
MBA OFFICE, AMBANK HOUSE