

**THE ROLE OF KENYAN MAIZE MILLERS IN ENSURING  
FOOD SECURITY IN EAST AFRICA.**

**BY**

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## **DECLARATION**

I confirm that this research project is my original work and has not been presented for any award in any other university.

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## **DEDICATION**

To each and every member of my family, for their love and sacrifice due to my absence in the duration of the course. I also wish to dedicate this work to my friends and colleagues at work, for constant encouragement and advice, which ensured that I did not lose focus throughout the duration of the programme. To my supervisor for giving me the courage to soldier on. May the Almighty God bless you all.

## ABSTRACT

International business helps in improving economic influence and living standards of nations involved. International trade in agriculture has a potentially important role to play in helping countries to meet their national food security objectives. However, trade may also give rise to adverse effects on food security, particularly when it causes prices to be unstable, and can adversely impact rural food security if it reduces real prices received by domestic farmers. According to Cavusgil et al (2008 ) International trade and investment are the most conventional forms of international business transactions. He further states that firms pursue internationalisation strategies to seek opportunities for growth through market diversification, to earn higher margins and profits and to gain new ideas about products, services and business methods while at the same time seeking to develop economies of scale in sourcing, production, marketing, research and development and to invest in a potentially rewarding relationship with a foreign partner. International business helps in improving economic influence and living standards of nations involved .Firms can take advantage of regional economic integration that provides free trade, lower costs and increased efficiency. Thomas states that the linkage between trade related policy reforms and food security is of vital importance to many developing countries .The instruments which most favor agriculture in the short and medium term are the liberalization of the exchange rate and export regimes. One of the objectives of EAC is the enhancement and participation of the private sector. Inadequate food exchanges and trade between member states have dimmed the fight against food insecurity in the region. There is a growing trend especially in developing countries to adopt and benefit from international trade as a coping strategy to overcome food shortages. There has been no study on the role of the private sector in ensuring food security in East Africa Community. This was a descriptive survey which involved all major Kenyan maize millers, the East African Community Secretariat/Ministry, Kenya Agricultural Research Institute (KARI) and the Kenya Ministry of Agriculture. The respondents of this study were the heads of milling and trade departments who responded to interview guides and section heads of agencies who provided key information. Content analysis was employed to analyse the qualitative data in the form of the interviewees' views about the role of private sector in ensuring food security in EAC. The summary of findings were that only very few firms are members of any regional association such as the East Africa Association of Maize Millers and have no plans for a merger or acquisition in any other East African country. The role of the private sector in ensuring food security was when large scale millers and retailers desist from raising their margins when grain is scarce in local informal markets. The role of the private sector in ensuring food security also included seasonal storage which however does not occur due to inadequate incentives to store. The study recommends that policy makers and maize milling firms should encourage more firms to pursue internationalization strategies. The study recommends that a deeper insight into the role of the private sector in ensuring food security in East Africa Community should be undertaken adequately.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

EAC	-	East African Community
FDI	-	Foreign Direct Investment
IGAAD	-	Intergovernmental Authority on Drought and Development
KARI	-	Kenya Agricultural Research Institute
NCPB	-	National Cereals and Produce Board
RTAs	-	Regional Trade Agreements
KFSM	-	The Kenya Food Security Meeting
WTO	-	World Trade Organization
ARRF	-	Africa Research and Resource Forum
GHACOF	-	Greater Horn of Africa Climate Outlook Forum
UN	-	United Nations
M & A	-	Merger and Acquisitions
R & D	-	Research and Development
SADC	-	South Africa Development Community
FAO	-	Food and Agriculture Organization
MNE	-	Multinational Enterprise
GMCs	-	Genetically Modified Crops

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

International business is any activity organized and carried across national borders by business firms in pursuit of their stated aims and objectives. It is the exchange of goods and services among individuals and businesses in multiple countries. It refers to all those business activities which involve cross border transactions of goods, services and resources between two or more nations. Transaction of economic resources include capital, skills and people for international production of physical goods and services such as finance, banking, insurance and construction among others. International trade and investment are the most conventional forms of international business transactions with international trade referring to the exchange of products and services across national borders (Cavusgil et al, 2008). The exchange is done through exporting, importing or global sourcing whereby exporting is an entry strategy involving the sale of products or services to customers located abroad from a base home country or a third country. International investment refers to the transfer of assets to another country or the acquisition of assets in that country. These assets include capital, technology, managerial talent and manufacturing infrastructure (Cavusgil et al, 2008).

Firms pursue internationalization strategies to seek opportunities for growth through market diversification, to earn higher margins and profits and to gain new ideas about products, services and business methods (Cavusgil et al, 2008). Other reasons for internationalization include serving key customers that have relocated abroad, being closer to supply sources and to gain access to lower cost or better value factors of production. In addition, firms pursue internationalization strategies to develop economies of scale in sourcing, production, marketing and research and development (R&D), and to invest in a potentially rewarding relationship with a foreign partner.

International business helps in improving economic influence and living standards of nations involved. It causes the flow of goods, ideas, services, culture, and capital and provides challenging employment opportunities across nations. It also provides more

opportunities for expansion, growth and income than domestic business. It offers consumers new choices by permitting the acquisitions of a wide variety of products both in terms of quantity and quality and at a reduced price through international competition. The major impact of international business has been the impetus on governments to open up their borders to international trade and investment, standardize their systems and procedures, adopt international acceptable values and attitudes, particularly with respect to human rights and encourage the development of democratic institutions.

International trade in agriculture has a potentially important role to play in helping countries to meet their national food security objectives (Thomas, 2006). Consumption smoothing will occur when international markets are used for purchasing or selling food when there are domestic production shortfalls or surpluses. Furthermore, international trade can increase income levels by stimulating productivity improvements and a more efficient allocation of resources. However, trade may also give rise to adverse effects on food security, particularly when it causes prices to be unstable, and can adversely impact rural food security if it reduces real prices received by domestic farmers (Thomas, 2006).

### **1.1.1 Regional Economic Integration**

Regional Economic Integration refers to the growing economic interdependence that results when two or more countries within a geographic region form an alliance aimed at reducing barriers to trade and investment (Cavusgil et al, 2008). The trend is based on the premise that, by cooperating, nations within a common geographic region connected by historical, cultural and linguistic, economic or political factors can gain mutual advantages. The free trade that results from economic integration helps nations attain higher living standards by encouraging specialization, lower prices, greater choices, increased productivity and more efficient use of resources. The countries in an economic bloc become parties to a free trade agreement, a formal arrangement between two or more countries to reduce or eliminate tariffs, quotas and other barriers to trade in products and services (Cavusgil et al, 2008).

There are four types of regional integration namely the free trade area, customs union, common market and economic union. Free Trade Area is where member countries agree to gradually eliminate formal barriers to trade within the bloc. Customs Union is an arrangement where member states harmonize their trade policies towards non member countries. Members adopt a common tariff and non-tariff barriers on imports from non-members. Common market is where trade barriers are removed, common external barriers are established and products and services and factors of capital are allowed to move freely among member countries. Common market also establishes a common trade policy with non member countries. Economic Union is where apart from members enjoying all the advantages of early stages of the above, they also strive to have common fiscal and monetary policies. Examples are fixed exchange rates and free convertibility of currencies among members and free movement of capital (Cavusgil et al, 2008).

Regional Economic Integration has several implications for management. First is internationalization by firms inside the community bloc, that is, to trade in countries within the block freely. Second is rationalization of operations to reduce costs and increase efficiency of operations. Third are mergers and acquisitions (M&A) where one firm buys another, or two or more firms to merge. Fourth are regional products and marketing strategies whereby firms standardize their products and services hence saving costs. Fifth is internationalization by firms from outside the bloc where foreign firms establish physical presence via FDI. Sixth is collaborative ventures characterized by cooperation among firms located inside their own bloc (Cavusgil et al, 2008).

East African Community (EAC) was first formed in 1967 but full EAC cooperation efforts began in 1996 (EAC, 2013). EAC aimed at elimination of double tax, issuing an East African passport, having a common external tariff and elimination of tariffs. EAC also aimed at creation of a customs union, common market and monetary union and had the objective of ultimate political federation of East African states. One of the objectives of EAC is the enhancement and participation of the private sector and civil society (EAC,

2013). EAC has welcomed the role of Intergovernmental authority on Drought and Development (IGAAD) in enhancing development and tackling drought control.

IGAAD was founded in 1986 in answer to recurring and severe droughts hence to enhance development and tackle drought control (EAC, 2013). The mission of IGAAD is food security and environmental protection, economic cooperation and integration and create an enabling environment for foreign, cross-border and domestic trade and investment. IGAAD also aims to harmonize policies with regard to trade, customs, and promote free movement of goods, services and people within the region. It is composed of countries in the horn of Africa. Furthermore, EAC aims to work together with Southern African Development Community (SADC). SADC is composed of southern African countries including Tanzania, Malawi, Zambia, Zimbabwe and Mozambique. The organization has a programme of action covering economic and social sectors.

### **1.1.2. Food Security**

East African member states are under constant pressure to find a lasting solution to frequent famine and drought that affect the region. According to East African Community Secretariat (EAC, 2013), the region will continue to experience food shortages if member states will continue to shun funding initiatives that mitigate climate change. Member states have resorted to importing food without addressing the root causes of food shortages. Over dependence on imported food products not only increases the cost of living but also widens trade imbalance and deficit. The region still faces food shortages despite having huge potential and capacity to produce enough food for the regional consumption and surpluses for export to the world market. Experts say inadequate food exchanges and trade between member states have dimmed the fight against food insecurity in the region. High variability in food production caused by erratic weather patterns is becoming worse (EAC, 2013). Regional and national forecasts suggest poor October-December rainfall in the eastern Horn of Africa. If this occurs, elevated food insecurity is likely in agropastoral areas of Somalia's Hiraan, Bay, and Bakool Regions, southeastern and coastal marginal farming areas of Kenya, and southern

and southeastern pastoral areas of Ethiopia. Close monitoring of the season and contingency planning is recommended.

According to the Africa Research and Resource Forum, since the world conference of 1974, the concept of food security has evolved in the new generally agreed definition adopted in 1996 during the World Food Summit. Food security exists when all people at all times, have physical and economical access to sufficient, safe and nutritious food to meet their dietary needs and preferences for an action and healthy life (FAO 1996). The main outcome of the summit was the adoption of the Rome declaration on World Food Security and the World Food Summit plan of action. The objective of this plan was to reduce the number of hungry and undernourished people in the world from 800 by the year 2015. There are positive steps taken in some countries with regards to the implementation of this plan such as in Asia and Latin America. On the country, in Africa especially in Sub-Sahara Africa, the situation seems to be aggravating. FAO estimates predict that if no progress is made, about 680M people will remain hungry by the year 2010, with more being in the Eastern and Horn of Africa. In addition, since 2005, a number of agricultural commodities prices have shown an increasing trend. The FAO food security price index averaged 23% higher in 2007 compared with 2006 as international commodity prices increased dramatically throughout the past year.

According to the UN, the threat of malnutrition and hunger is growing and millions of the most vulnerable people, particularly in developing countries are at risk due to the fact that they cannot afford to buy sufficient food to meet their nutrient needs. As a consequence, food riots have been observed in many developing countries such as North Africa, West Africa and the East Africa. This situation has put the surge of food prices on top of the agenda of policy makers and policy analyst at the regional level. Increasing concerns about improving food security are arising. The desire to reach a food secure region has seen the East Africa Community (EAC) Partner States develop a draft “Food Security Action Plan”. The comprehensive EAC food security action plan provide a vision for improving agricultural productivity through contributing effectively to food and nutrition security as well as creating wealth for EAC people.

Empirical evidence has shown that by the year 2020, food insecurity will reduce in all developing countries except for Sub-Saharan Africa. Although total cereal production will increase in Sub-Saharan Africa, demand will exceed supply in the future as a result of the predicted increases in population within the region (IFPRI, 2002). Other reasons for this decline could be attributed to the socio-economic, cultural and natural conditions prevailing in the region. In addition, policies that govern food production are not being rightly implemented, evaluated and monitored. All these factors contribute to either insufficient regional food availability or insufficient access to food by people.

Achieving food security in the region thus calls for broader policy research and strategic frameworks that take into consideration all the above factors. Given the prevailing complexities and uncertainties, the region cannot afford to maintain a 'business as-usual' approach to food security issues. New approaches are needed that are broader and futuristic in perspective. Motivated by its mission to find solution to regional development challenges, ARRF will organise a regional policy forum under the theme "Enhancing food security in Eastern and Horn of Africa" held on 16th and 17th November 2011 in Kampala, Uganda. It assembled a number of players in the agriculture and food security sector such as senior agriculture policy makers and planners at national and regional level, scholars, farmers, consumers and traders who discussed and established what was going on around the region by then with regards to food security, the challenges and issues and how they might possibly evolve in the coming years.

The seasonal forecast released by the Greater Horn of Africa Climate Outlook Forum (GHACOF) suggests an increased probability of belowaverage September to December rainfall across much of Somalia, Kenya, northern Tanzania, and eastern Ethiopia (Figure 1). Rains are expected to start late and be erratically distributed over time and space, particularly in October and November. These rains typically account for 40 to 60 percent of annual rainfall in the eastern Horn. They represent the primary cropping season in

southeastern Kenya and the secondary production season in pastoral and agropastoral areas of Kenya, Somalia, and southern and southeastern Ethiopia.

KARI (2013) reveals that from 2008, Kenya faced severe food security problems. This was as a result of maize being a staple food, was in short supply due to the food preferences and because most households had limited choices of other food stuffs. Current food insecurity problems are attributed to factors among others, such as high global food prices and low purchasing power for a large population due to poverty. Due to this, Government responded with policy interventions among them price related such as providing subsidy to maize millers to bring down the consumer retail prices of the maize millers and allowing private sector to import maize tax free (KARI, 2013).

There is a growing trend especially in developing countries to adopt and benefit from international trade as a coping strategy to overcome food shortages. Thomas (2006) states that the linkage between trade related policy reforms and food security is of vital concern to many developing countries. The instruments which most favor agriculture in the short and medium term are the liberalization of the exchange rate and export regimes. These measures tend to raise prices to farmers and open export markets to them, or to agro-industries that purchase their harvests. Thomas (2006) further states that the reduction of import barriers might be expected to have negative effects on agricultural incentives at least in the short run. However, the net effect depends on what happens to industrial protection rates and to tariffs on agricultural inputs as well.

Harris and Morrison (2010) state that many governments in Eastern and Southern Africa remain important players in their staple food markets, both through their direct procurement and sale operations and through their use of trade policy instruments. Marketing boards in these countries still exert a dominant presence in the maize markets, handling between 10 – 50% of marketed volumes. Some aspects of policy change have been implemented, primarily the legalization of private trading while marketing board operations have been downsized primarily due to fiscal constraints. Instead of purchasing the entire marketed surplus, as was the goal before, these boards now attempt to influence



market prices through their purchase and sale operations, ostensibly for food security and or price stabilization processes (Harris and Morrison, 2010).

Many countries in Eastern and Southern Africa have continued food price stabilization with subsidy programmes of various types (Harris and Morrison, 2010). These countries' market performance since the 1990s therefore reflects not the impact of liberalized markets but rather the mixed policy environment of legalized private trade within the context of highly interventionist government operations in food markets. There is a general consensus that this approach has largely failed to stabilize farm prices, provide adequate seasonal finance for small farmers' purchase of cash inputs, or stimulate private investment in the assembly and wholesaling stages of the value chain. The operations of Kenya's maize parastatal, for example, had reduced price instability (Harris and Morrison, 2010).

### **1.1.3 Private Sector**

Investment flows between nations include portfolio investment and foreign direct investment (FDI) which is the foreign entry strategy practiced by the most internationally active firms. A multinational enterprise (MNE) is a large company with substantial resources that performs various business activities through a network of subsidiaries and affiliates located in multiple countries. MNEs tend to carryout research and development (R & D), procurement, manufacturing and marketing activities where it makes economic sense. They own a worldwide network of subsidiaries in addition to a home office or headquarters. Many small and medium-sized enterprises participate in international business as well (Cavusgil et al, 2008).

Johnson and Turner (2003) opine that the essence of international strategy is based on a firm undertaking and dealing with the consequences of international adversity. This is driven by globalization, firms following customers, the desire to overcome limitations of the home market, exploitation of differences between countries and regions based on culture, regulation and specific economic factors. International strategies can also be based on the firm exploiting its strategic capabilities (Johnson and Turner, 2003).

Mainstream neoclassical international economics builds upon the strong assumption that differences in factor endowments across borders will lead to international transactions, whether transfer of capital or goods (Rugman et al, 2011). Hymer (1960) recognizes that a multinational enterprise has firm specific advantages hence is required to offset the liabilities of foreigners when operating abroad.

According to Thomas (2006), international trade in agriculture has a potentially important role to play in helping countries to meet their national food security objectives. Consumption smoothing will occur when international markets are used for purchasing or selling food when there are domestic production shortfalls or surpluses. International trade can also increase income levels by stimulating productivity improvements and a more efficient allocation of resources. However, trade may also give rise to adverse effects on food security, particularly when it causes prices to be unstable and can adversely impact rural food security if it reduces real prices received by domestic farmers (Thomas, 2006).

Kirimi *et al.* (2011) state that in East Africa, large scale mills produce sifted maize flour which is sold through regional wholesaling networks while prices are determined by prevailing regional market prices. Millers buy maize at their gates from large scale farmers and wholesalers or from a government agency such as Kenya's National Cereals and Produce Board (NCPB). However when the grain is scarce, they rely on imports from the rest of the East African region or the world market. Large scale importers including commodity traders and millers receive preference to imported maize while the smaller millers import maize collectively through one of the large traders. However, competition to move maize from warehouses in Mombasa to Nairobi results in high transport costs. With grain being scarce in local informal markets made up of small scale traders and millers, consumers depend on large scale millers and retailers who raise their margins which is economically damaging to the consumer (Kirimi *et al.*, 2011).

Thomas (2006) states that when there is a shortage of maize, maize millers do not bring down the consumer retail prices while the private sector which has been allowed to

import maize tax free do not also force down the price. In Kenya, national production of maize has declined. The per capita trend has been less apparent, reflected in an increasing dependency on food imports and a persistent rise in the ratio of food imports to total merchandise exports, all of which suggest that food security at the national level has become increasingly compromised (Thomas, 2006). Liberalization of the maize market led to development of many small-scale *posho* mills which provided competition for the large scale millers. In response, the large millers reduced the degree of flour refinement in order to cut down their costs hence the prices of maize meal declined (Kirimi *et al.*, 2011).

Major maize milling companies are located primarily in urban, deficit areas and form strategic business alliances leading to consolidation of the industry. However, Kirimi *et al.* (2011) indicate that there is very little seasonal storage occurring despite a great deal of storage space available for rent. This is because of inadequate incentives to store due to very high risks, constraints in borrowing capital and features of the East African grain market in which supplies are coming in the market at various times of the year which can put downward pressure on prices and hence affect the returns to storage. Changes in import tariff rates as well as sudden changes in NCPB's selling price exacerbate the risks of storing grain. The disincentives for traders and millers to store grain tends to depress the prices right after harvest and less is available for consumption later in the season hence raising the prices (Kirimi *et al.*, 2011).

## **1.2 Research Problem**

There is a growing trend especially in developing countries to adopt and benefit from international trade as a coping strategy to overcome food shortages. In Kenya and the East African region, millers buy maize at their gates from large scale farmers and wholesalers or from a government agency such as NCPB. They also rely on imports from the East African region or the world market when the grain is scarce. At this point, the actions of the millers and retailers could determine the extent of food security in the country.

Several studies have been undertaken locally in the area of food security in the East African region. Boru (2012) carried out a research in which he tried to establish the food security policy review in Kenya. He sought to establish this by looking at climate change policies on food security, relationship between socio-economic policies and food security, effect of environmental policies on food security and the weaknesses in the implementation of the policies on food security. He recommended that proactive measures are needed to address at least some obstacles to the participation of the poor in search of food security. Therefore the priority public actions out to raise sustainable growth and reduce poverty constitute the heart of poverty reduction strategy.

Thomas (2006) undertook a study on the trade reforms and food security in Kenya. He found out that when there is a shortage of maize, millers do not bring down the consumer retail prices while the private sector which has been allowed to import maize tax free do not also force down the price. He also observed that national production of maize has declined and the per capita trend has been less apparent. This was reflected in an increasing dependency on food imports and a persistent rise in the ratio of food imports to total merchandise exports, all of which suggest that food security at the national level has become increasingly compromised.

Mboyi and Valcin (2012) carried out a study on regional food security challenge to reveal the factors influencing public perceptions on agricultural biotechnology in East African countries. They found out that different groups of people in East Africa placed varying importance on the underlying factors influencing public perception of agricultural biotechnology. Some highlighted the health and economic benefits of biotechnology while others were influenced by fear, distrust and skepticism about technology. It was therefore important that government institutions mounted public communication messages to continuously educate the population about the nature and potential benefits of agricultural biotechnology in food security and house hold sustenance.

Abdulla (2011) conducted a study on food security in informal settlements in Kenya and noted that food security in urban areas was linked to the urban dwellers' purchasing power. This was attributed to the urban population being highly dependent on the market

for all their needs including food. He found out that households in urban informal settlements were food insecure due to low and irregular incomes, high increases in the prices of basic food items and increase in other necessary non-food expenditures. Ngumbi (2012) also undertook a study on the influence of alternative approaches to sustainable food security in Kyuso, Kitui County in Kenya. He noted that capacity building, increase in grain production, safe storage, development of grains that were tolerant to drought and use of genetically modified crops (GMCs) were some of the alternative approaches. Others were dietary diversification, gender sensitive development and good governance.

Darkoh (2012) studied the relationship between food security and environment in Sub Saharan Africa and found that environmental factors contributing to food insecurity include drought, climate change, floods and desertification. Others factors include population growth, poverty, market risks and poor transportation infrastructure and distributional systems. Kent (2002) carried out a study on food security and globalization in Africa and noted that under globalization, poor countries are forced to bear a disproportionate share of its risks while pricing patterns favour the rich. He advocates for small-scale enterprises and local production for local consumption hence the basis for food security is self-sufficiency. Alusa (2007) in her study on regional integration and food security advocates for integration by the East African States through Regional Trade Agreements (RTAs). RTAs reduce trade barriers, encourage investment and improve transparency in market for goods and services. She also proposes the establishment or improvement of early warning systems on production trends and market situation to enable traders to make informed decisions and react appropriately to any impending shortages.

As can be evidenced from the above studies, there has been no study on the role of the private sector in ensuring food security in East Africa Community. Hence the research wishes to answer the following question:

What is the role of the private sector in ensuring food security in East Africa Community?

### **1.3 Research Objectives**

This study has two objectives. These are:

- i. To determine the nature of maize milling and food security within East Africa Community.
- ii. To establish the role of the private sector in ensuring food security in East Africa Community.

### **1.4 Value of the Study**

Private sector companies will gain a deeper understanding of their operating environment from this study; this will assist in making progress on management of issues and their solutions. It would help to sensitize the management of these companies on the importance of the concept of food security.

Other sectors will gain from the documentation and analysis of food security and this will help them evaluate their current role and plan for the future. Policy makers in other sectors will benefit from the issues and insights raised in the study that are important in ensuring food security.

The study will add to the existing body of knowledge on the role of private sector in ensuring food security. It would form a fundamental base upon which further researches into the field would be based as it would act as both reading and secondary source material in such cases.

The Association of Maize Millers would use the findings to advise its members on the best practices while the Ministry of Agriculture and NCPB would use the study to help formulate policies on maize and other products that would ensure food security in the region This would ensure food security within East Africa Community and also enhance economic growth.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter presents a review of the related literature on the subject under study presented by various researchers, scholars, analysts and authors. The contents under this chapter include the concept of food security, the East African Community and theories of international trade.

### **2.2 Theories of International Trade**

There are two theories of International trade that explain the role of private sector in ensuring food security in East Africa Community. These are the Comparative Advantage Principle and Michael Porter's Diamond Model (Cavusgil et al, 2008).

#### **2.2.1 Comparative Advantage Principle**

British political economist David Ricardo explained why it is beneficial for two countries to trade without barriers even though one of them may have absolute advantage in production of all products. What matters is not the absolute cost of production but rather the ratio between how easily the two countries can produce the products. Countries should specialize in the products they produce best and trade for the rest hence both countries can each produce and consume relatively more of the goods that they desire for a given level of labour cost.

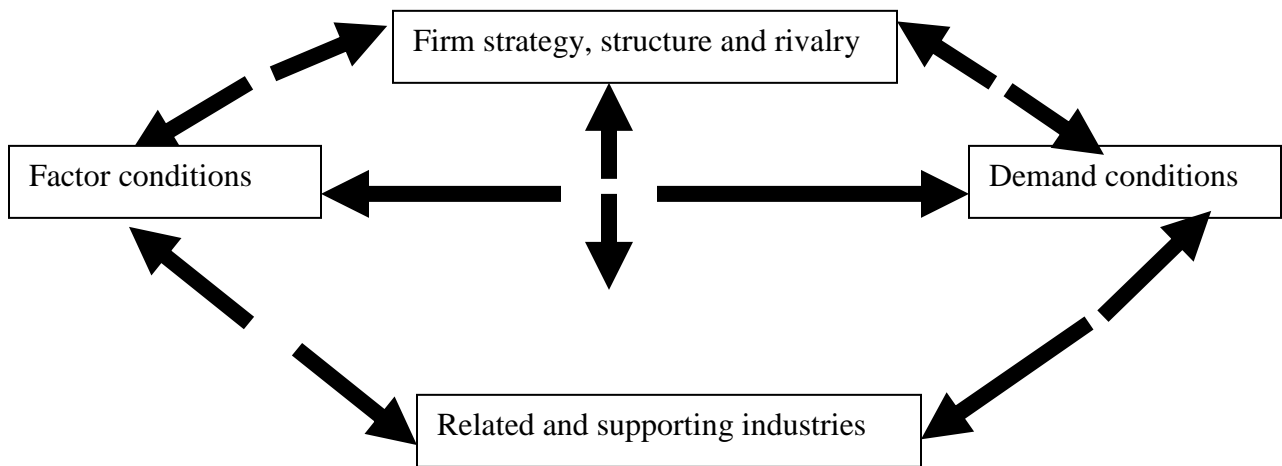
#### **2.2.2 Michael Porter's Diamond Model**

Porter developed the model to explain the competitive advantage of nations. According to the model, competitive advantage at both the company and national levels originates from the presence and quality in the country of the four major elements. The first element is firm strategy, structure and rivalry. It refers to the nature of domestic rivalry and conditions in a nation that determine how firms are created, organized and managed. The presence of strong competitors in a nation helps create and maintain national competitive advantage. The second element is factor conditions. This describes the nation's conditions in factors of production such as labour, natural resources, capital, technology,

entrepreneurship and know-how. Consistent with the factors proportion's theory, every nation has a relative abundance of certain factors endowments.

The third element is demand conditions which refer to the nature of home market demand for specific products and services. The strength and sophistication of buyer demand facilitates the development of competitive advantages in particular industries. The fourth element is related and supporting industries referring to the presence of clusters of suppliers, competitors and complementary firms that excel in particular industries. The resulting business environment is highly supportive for founding of particular types of firms. Operating within a mass of related and supporting industries provides advantages through information and knowledge synergies, economies of scale and scope, and access to appropriate or superior inputs.

**Figure 1: Michael Porter's Diamond Model**



### **2.3 Concept of Food Security**

Food security is when all people at all times have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life (The Kenya Food Security Meeting (KFSM, 2013). According to the World Trade Organization (WTO, 2013), food security is built on three pillars namely, food availability or sufficient quantities of food available on a constant basis, food access or having sufficient resources to obtain appropriate foods for a



nutritious diet, and food use or appropriate use based knowledge of basic nutrition and care.

Trade liberalization may reduce a country's food security by reducing agricultural employment levels (WTO, 2013). Some World Trade Organization (WTO) member states recommended that current negotiations on agricultural agreements allow developing countries to re-evaluate and raise tariffs on key products to protect national food security and employment. By pushing for the liberalization of crucial markets, WTO agreements are threatening the food security of whole communities. Mehrotra (2009) argues that food Self –Sufficiency Ratio is declining while import prices have been rising. FAO states that food self –sufficiency ratio or production /total demand declined but world market prices for maize increased by 40% (Mehrotra, 2009).

Food security is of great urgency in the developing world. Many countries have sought to attract foreign capital to promote development and reduce hunger. FDI in distinct economic sectors have desperate attributes hence produce different welfare consequences for food security. Manufacturing FDI improves food security while primary sector reduces food security. Service – sector FDI has an ambiguous but sometimes negative effect (Mihalache – O'Keef and Quan, 2011).

In Kenya, the only region in the country where over half of the surveyed households were net maize sellers was the high potential zone for maize cultivation which was relatively more affluent (Harris and Morrison, 2010). The key themes that stand out are that the key interventions to induce increased smallholder market participation are aimed at reducing the costs of households' access to local markets, of integrating local and international markets, and of organizing farmers, as well as policies to stimulate increased trade competition.

#### **2.4 General Conclusion of the study**

The most direct implication of market globalization is on the firm's value chain (Cavusgil et al, 2008). Market globalization compels firms to organize their sourcing,

manufacturing, marketing and other value adding activities on a global scale. A value chain is a sequence of value adding activities performed by the firm in the process of developing, producing, marketing and servicing a product. Firms enter international markets through market entry strategies such as transactions that involve the trade of products, those that involve contractual exchange of services and those based on investing equity ownership in foreign based enterprises (Cavusgil et al, 2008).

The main drivers for institutional entrepreneurship are to be found in the increasing autonomy of MNE subsidiaries. Thus MNE agency derives from more decentralized forms of experimentation in international corporate networks. Competence creating modes of new initiatives can co-evolve with local institutions (Cantwell, Dunning and Bundan, 2010).

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter sets out various stages and phases that were followed in completing the study. It involves a blueprint for the collection, measurement and analysis of data. This section therefore, identified the procedures and techniques that were used in the collection, processing and analysis of data. Specifically the following subsections are included; research design, data collection methods and data analysis.

### **3.2 Research Design**

A research design is a general plan of how one goes about answering the research questions (Saunders *et al*, 2007). This was a descriptive survey which will aim at establishing the role of private sector in ensuring food security in East Africa Community. Descriptive studies are undertaken to answer the ‘why’ and ‘how’ about a phenomenon.

### **3.3 Population**

The study involved all major Kenyan maize millers, the East African Community Secretariat/Ministry, Kenya Agricultural Research Institute (KARI) and the Kenya Ministry of Agriculture. There are about 150 major private maize millers in the East Africa region.

### **3.4 Sampling**

The study utilized stratified and purposive sampling whereby major maize millers were stratified according to the daily production capacity. Major maize millers fell under three sectors namely high production, medium production and low production. After stratifying the millers into the three clusters, the researcher used purposive sampling to sample 10 maize millers from those whose management were willing to participate in the study. This gave a sample of 30 out of a total of 150 which represents 20% of the target population. This was deemed satisfactory as recommended by Mugenda and Mugenda

(2003) who argued that a sample of at least 10% or 30 units is appropriate for social sciences.

### **3.5 Data Collection**

The researcher used both primary and secondary data. Primary data was collected using in depth interview guide while secondary data was collected by use of desk search techniques from published reports and other documents. Secondary data sources on the response strategies to external environment included the company's publications, journals, periodicals and information obtained from the internet.

A questionnaire personally administered by the researcher was used as an interview guide during data collection. The interviews involved the interviewer asking questions to one respondent in a face to face situation. The respondents of this study were the heads of milling and trade departments since they are well versed with the role of private sector in ensuring food security in East Africa Community. The interview guides that were used to collect primary data consisted of open-ended questions. The open-ended questions enabled the researcher to collect qualitative data. These were used in order to gain a better understanding and possibly enable a better and more insightful interpretation of the results from the study. The interview guide designed in this study comprised of two sections. The first part included the demographic and operational characteristics designed to determine fundamental issues including the demographic characteristics of the interviewees. The second part was devoted to the role of private sector in ensuring food security in EAC where the main issues of the study were put into focus.

### **3.6 Data Analysis**

Content analysis was employed to analyse qualitative data. Content analysis is defined as a technique of making inferences by systematically and objectively identifying specific characteristics of messages and using the same to relate to trends. It provides the researcher with a qualitative picture of the respondent's concerns, ideas, attitudes and feelings.

The content analysis was used to analyze the interviewees' views about the role of private sector in ensuring food security in EAC. The data was then presented in a continuous prose as a qualitative report on the role of the private sector in ensuring food security in East Africa Community.

## **CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS**

### **4.1 Introduction**

The purpose of this study was to establish the role of the private sector in ensuring food security in East Africa Community. This chapter presents the analysis and findings with regard to objectives and discussions of the same. The findings gathered are a result of data gathered from questionnaires and interview guides.

### **4.2 Response rate**

A total of 30 questionnaires were issued to individuals within the maize milling firms. The completed questionnaires were edited for completeness and consistency. All the 30 questionnaires were returned which represented a response rate of 100%.

### **4.3 Demographic Information**

The study sought to establish the role of the private sector in ensuring food security in East Africa Community. The study targeted top management working in maize milling companies in Kenya. The designations of the interviewees were drawn from Trading Manager, Supply Manager, Milling Manager and General Manager. Majority of the interviewees have been working for the milling firms for a period of between 5-10 years while a few of them have been working for less than 5 years and others for more than 10 years, for example 11 and 12 years. Majority of the interviewees were between the ages of 31 – 40 years followed by a few between 41 – 50 years and between 21 – 30 years. A majority of the milling firms have been in existence for durations of between 11 – 15 years followed closely by those which have been operating for 16 – 20 years. A few of these firms have however been in existence for durations of between 6 – 10 years and for over 20 years.

### **4.4 Nature of Maize Milling in East Africa Community**

This study sought to establish the role of the private sector in ensuring food security in East Africa Community. All the interviewees unanimously agreed that majority of the milling firms are located primarily in urban, deficit areas and operated between 1 and 2

factories mainly in Nairobi followed by Mombasa. A very small number of the firms operate milling factories in Tanzania, Uganda and Rwanda but relied to a great extent on their existing distribution channels outside Kenya to reach customers. The interviewees unanimously agreed that a few of the milling firms obtained their raw materials from other East African countries. Most of the interviewees however indicated that majority of the milling firms obtained their raw materials locally and whose prices were determined by prevailing regional market prices. It is only in a few instances when there are domestic production shortfalls that international markets are used for purchasing foods.

On the effect of liberalization of the maize market, all interviewees unanimously agreed that this led to millers reducing the degree of flour refinement in order to cut down their costs to rival those of the many small-scale mills. A few of the interviewees indicated that their companies had expanded into other countries in East Africa. This is attributed to the existing distribution channels outside Kenya that these companies use to reach customers. On the factors that influence firms to pursue internationalization strategies, the interviewees indicated that these included opportunities for growth through market diversification, opportunities to earn higher margins and profits, being closer to supply sources and to gain access to lower cost or better value factors of production.

On whether the milling firms are members to a regional association, the interviewees indicated that only very few firms are members of any regional association. These few firms belong to the East African Association of Maize Millers. Most of the interviewees indicated that their organisations did not have any plans for a merger or acquisition in any other East African country. Further, the interviewees were requested to indicate relevance of the EAC on enhancement and participation of the private sector. They responded that EAC has not eliminated double tax and tariffs.

#### **4.6 Role of the private sector in ensuring food security in East Africa Community**

The study sought to establish the role of the private sector in ensuring food security in East Africa Community. The interviewees were required to indicate the role of the private sector in ensuring food security. The interviewees indicated that international trade

enables purchasing or selling food when there are domestic production shortfalls or surpluses. They noted that there is inadequate food exchanges and trade within EAC. Trade may give rise to adverse effects on food security when it causes prices to be unstable and impact adversely on rural food security if it reduces real prices received by domestic farmers. Over dependence on imported food products not only increases the cost of living but also widens trade imbalance and deficit.

The interviewees indicated that the role of the private sector in ensuring food security was when large scale millers and retailers desist from raising their margins when grain is scarce in local informal markets. However, what happens is that when there is a shortage of maize, maize millers do not bring down the consumer retail prices while the private sector which has been allowed to import maize tax free do not also force down the price. This is economically damaging to the consumer.

The interviewees also indicated that the role of the private sector in ensuring food security was to increase seasonal storage. However, very little seasonal storage occurs despite a great deal of storage space available for rent. This is due to inadequate incentives to store due to very high risks, constraints in borrowing capital and features of the East African grain market in which supplies are coming in the market at various times of the year which can put downward pressure on prices and hence affect the returns to storage. Changes in import tariff rates as well as sudden changes in national boards (such as NCPB) selling price exacerbate the risks of storing grain. The disincentives for traders and millers to store grain tends to depress the prices right after harvest and less is available for consumption later in the season hence raising the prices.

#### **4.7 Discussion of Findings**

International trade in agriculture has a potentially important role to play in helping countries to meet their national food security objectives. There is a growing trend especially in developing countries to adopt and benefit from international trade as a coping strategy to overcome food shortages. From the study, majority of the milling firms are located primarily in urban, deficit areas and operated between 1 and 2 factories



mainly in Nairobi followed by Mombasa. A very small number of the firms operate milling factories in Tanzania, Uganda and Rwanda but relied to a great extent on their existing distribution channels outside Kenya to reach customers.

The study further established that the factors that influence firms to pursue internationalization strategies included opportunities for growth through market diversification, opportunities to earn higher margins and profits, being closer to supply sources and to gain access to lower cost or better value factors of production. Only very few firms are members of any regional association such as the East Africa Association of Maize Millers. Most of the organisations do not have any plans for a merger or acquisition in any other East African country.

It was noted that there is inadequate food exchanges and trade within EAC. The role of the private sector in ensuring food security was when large scale millers and retailers desist from raising their margins when grain is scarce in local informal markets. The role of the private sector in ensuring food security also included seasonal storage which however does not occur due to inadequate incentives to store. Kiriimi *et al.* (2011) states that the disincentives for traders and millers to store grain tends to depress the prices right after harvest and less is available for consumption later in the season hence raising the prices.

## **CHAPTER FOUR: SUMMARY, CONCLUSIONS AND RECOMMENDATION**

### **5.1 Introduction**

This chapter provides the summary of findings and also it gives the conclusions and recommendations to the study based on objectives of the study. The objectives of the study were to determine the nature of maize milling and food security within East Africa Community and to establish the role of the private sector in ensuring food security in East Africa Community.

### **5.2 Summary of Findings**

The study found that majority of the milling firms are located primarily in urban, deficit areas and operated between 1 and 2 factories mainly in Nairobi followed by Mombasa. A very small number of the firms operate milling factories in Tanzania, Uganda and Rwanda but relied to a great extent on their existing distribution channels outside Kenya to reach customers.

The study further established that the factors that influence firms to pursue internationalization strategies included opportunities for growth through market diversification, opportunities to earn higher margins and profits, being closer to supply sources and to gain access to lower cost or better value factors of production. Only very few firms are members of any regional association such as the East Africa Association of Maize Millers. Most of the organisations do not have any plans for a merger or acquisition in any other East African country.

It was noted that there is inadequate food exchanges and trade within EAC. The role of the private sector in ensuring food security was when large scale millers and retailers desist from raising their margins when grain is scarce in local informal markets. The role of the private sector in ensuring food security also included seasonal storage which however does not occur due to inadequate incentives to store. Kiriimi *et al.* (2011) states that the disincentives for traders and millers to store grain tends to depress the prices right

after harvest and less is available for consumption later in the season hence raising the prices.

### **5.3 Conclusions**

The study concludes that few maize milling firms in EAC operate milling factories outside their home countries hence only very few firms are members of any regional association such as the East Africa Association of Maize Millers. They also do not have plans for mergers or acquisitions in any other East African country. The study deduces that there is inadequate food exchanges and trade within EAC.

Food security efforts are also boosted when large scale millers and retailers desist from raising their margins when grain is scarce in local informal markets. Further, food security efforts are also boosted when traders and millers make efforts to store grain from all seasons.

### **5.4 Recommendations**

This study makes a few recommendations that have policy implications for decision makers. The study found out that a very small number of maize milling firms operate factories in EAC outside their home countries. The study recommends that policy makers and maize milling firms should encourage more firms to pursue internationalization strategies in order to earn higher margins and profits and to gain access to lower cost or better value factors of production. This can be through mergers or acquisitions. More firms should join regional associations such as the East Africa Association of Maize Millers.

The study established that most of the firms do not have any plans for mergers or acquisitions in any other East African country. There is also inadequate food exchanges and trade within EAC. Policy makers should strengthen the EAC and IGAAD to ensure elimination of double tax and tariffs (or stabilize import tariff rates) and enhance participation of the private sector. Marketing boards should exert a presence in the maize markets but also legalize private trading to ensure food security and price stabilization.

The study also established that firms are not keen on seasonal storage due to inadequate incentives. Governments should encourage seasonal storage of grain by offering adequate incentives against the very high risks, constraints in borrowing capital and features of the East African grain market.

### **5.5 Recommendations for Further Studies**

The study recommends that a deeper insight into the role of the private sector in ensuring food security in East Africa Community should be undertaken adequately. Specific areas of research should revolve around the challenges experienced by both government/non-government agencies and the private sector in ensuring food security in East Africa Community. Particular attention needs to be focused on the ability of the firms to endure these challenges and make a difference in their activities.

The study confined itself to the nature of maize milling and food security within East Africa Community and to the role of the private sector in ensuring food security in East Africa Community. This research should therefore be replicated in other maize milling firms operating in the whole region and the results compared so as to establish whether there is any consistency among the maize millers.

### **5.6 Limitations of the Study**

This study was based on a sample limited to millers in Nairobi. It did not cover other maize millers operating in the region and therefore the findings of the study may not be representative of the role of the private sector in ensuring food security in East Africa Community. The main limitation of the study was its inability to include more maize milling firms in the region. The study could have covered more firms so as to provide a more broad based analysis.

The respondents approach were likely to be reluctant to give information fearing that information sought would be used to portray a negative image on the organization. The researcher presented an introduction letter from University of Nairobi and assured the respondents that the information they would give was to be used purely for academic purposes.

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## APPENDICES

### APPENDIX I: LETTER OF INTRODUCTION

Dear Sir/Madam.....

Ref: Permission to Conduct Research

I am a Post graduate student at the School of Business, University of Nairobi involved in a research project. The research seeks to establish the role of Kenyan Maize Millers in ensuring Food Security in East Africa. The research also aims to determine the nature of maize milling and food security within East Africa Community. This information will be used only for academic purposes.

Thanking you in anticipation of working together as a team. If you have any further questions about the project, please feel free to e-mail or phone using the contacts given above.

Yours sincerely

Amina Rashid Masoud

Signature: .....



## APPENDIX II: QUESTIONNAIRE FOR MAIZE MILLERS

### Interview guide on private sector role in ensuring food security.

#### Part A. General Information

- i) Name of Maize Miller.....
- ii) Indicate your gender.....
- iii) What is your age? .....
- iv) What is your designation?.....
- v) Length of continuous service with the organization.....
- vi) For how long has your organization been in existence?.....

#### Part B. The Role of Private Sector in Ensuring Food Security in EAC

- 1. How many milling factories do you operate?.....
- 2. Are your milling factories spread nationally? (Please identify the locations).....
- 3. Do you operate/own milling factories in neighbouring countries? If yes, state the countries.....
- 4. Do you have distribution channels outside Kenya?.....
- 5. What distribution channels do you use to reach your customers?.....
- 6. Does your company get raw materials from other East African Countries?.....
- 7. Has your company expanded into other countries in East Africa?.....
- 8. Has your company joined any membership to a Regional Association?.....
- 9. Has your company recently been involved in a merger or acquisition in any other East African Country?
- 10. Does your company use standardized marketing for your products in all its markets across the region?.....
- 11. What factors influence your company to pursue internationalization strategies?.....

- 12. What is your company's role in ensuring food security when grain is scarce in the local informal markets?.....
- 13. To what extent does your company engage in seasonal storage of grain?.....
- 14. What incentives does your company require to ensure seasonal storage?.....

**APPENDIX III: QUESTIONNAIRE FOR STAKEHOLDERS  
(EAC Secretariat/Ministry, KARI and Ministry of Agriculture)**

**Interview guide on private sector role in ensuring food security.**

**GENERAL INFORMATION**

- i) Name of the agency.....
- ii) Indicate the number of years you have worked in the agency.....
- iii) Indicate your position and department at the agency.....

**Please comment on the following**

- 1. How many milling factories are there in Kenya/EAC?.....
- 2. Are the milling factories spread nationally?.....

**For the milling factories mentioned above, please indicate;**

- 3. Whether they operate/own milling factories in neighbouring countries and state the countries.....
- 4. Whether they have distribution channels outside Kenya?.....
- 5. What distribution channels do they use to reach their customers?
- 6. Do the companies get raw materials from other East African Countries?
- 7. Do the companies have any plans to expand into other countries in East Africa?
- 8. Do the companies have plans to have membership to a Regional Association?
- 9. Do the companies have any plans for a merger or acquisition in any other East African Country?
- 10. Do the companies use standardized marketing for their products in all the markets across the region?
- 11. What factors influence firms to pursue internationalization strategies?.....
- 12. What is your agency's role in ensuring food security when grain is scarce in the local informal markets?.....
- 13. To what extent does your agency engage/encourage seasonal storage of grain?.....

14. What incentives does your agency offer to the private sector to ensure seasonal storage?.....