

**KENYA'S MANUFACTURED EXPORT PERFORMANCE AND
COMPETITIVENESS: AN EMPIRICAL INVESTIGATION**

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DECLARATION

This Research Paper is my original work and has not been presented for a degree in any other university.

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DEDICATION

I dedicate this paper to my mum Mrs Sarah K. Makau for her efforts to make me what I am today. God richly bless you mum.

ABSTRACT

Kenya has had several trade policies and reforms through export promotion initiatives to promote trade. This paper sought to identify factors that affect export performance and competitiveness in Kenya for the period between 1980-2011 using time series annual data. The study used Export values as dependent variable and Terms of Trade, Trade openness, Real Effective Exchange Rate, World Gross Domestic Product, Gross Domestic Product and Foreign Direct Investment net inflows as explanatory variables. The results indicate that Trade openness, Gross Domestic Product, Real Effective Exchange Rate, Terms of Trade and World Gross Domestic Product are significant determinants of export performance and competitiveness. It is important to note that Kenya's export values increased during the periods of regional integration so there is need for Kenya to strengthen regional ties especially the EAC and COMESA in order to increase export volumes which translate into increased trade through competition leading export growth and performance.

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ACRONYMS AND ABBREVIATIONS

Competitiveness	The potential to achieve and maintain a high standard of living based on resource and labour productivity
Manufactured exports	Goods produced in large scale for export
CAST	Council for Agricultural Science and Technology
CBS	Central Bureau of Statistics
COMESA	Common Market for Eastern and Southern Africa.
EAC	East African Community
ECM	Error Correction Model
ELGH	Export- Led Growth Hypothesis
EPC	Export Promotion Council
EPZs	Export Processing Zones
ERS	Economic Recovery Strategy
FDI	Foreign Direct Investment
GATT	General Agreement on Trade and Tariffs
GDP	Gross Domestic Product
KNBS	Kenya National Bureau of Statistics
MTP	Medium Term Plan
MUBs	Manufacturing Under Bonds
NESC	National Economic Social Council
OECD	Organization for Economic Co operation and Development
OLS	Ordinary Least Squares
RE	Random Effects
REER	Real Effective Exchange Rate
R&D	Research and Development
SAPs	Structural Adjustment Programmes
TOT	Terms of Trade
UNCTAD	United Nations Conference on Trade and Development
USA	United States of America
WEF	World Economic Forum
WTO	World Trade Organization

CHAPTER ONE

INTRODUCTION

1.1 Background

Export performance across countries has varied substantially in the last two decades despite the world wide reduction in trade barriers. There has also been trade negotiations and reforms as well as competition among nations that has lead to international market access in the last 20 years. The major concern for most developing countries has been the need to push for supply conditions which determine export potential of an economy (Fugazza, 2004). Countries with better supply conditions export more therefore get more export earnings which are able to purchase imports thereby reducing balance of payment deficit which is a problem to most developing countries. Increased export earnings also increase employment and productivity of an economy.

Sustained increase in export growth of an economy is important for economic strength and stability of that economy, which has been the greatest challenge for the Kenyan economy. The role of exports in economic development has been widely acknowledged. Any export related activity stimulates growth in many ways including increased production and consumer demand, economies of scale due to larger international markets, increased efficiency through specialization, adoption of advanced technologies embodied in foreign-produced capital goods, learning effects and improvement of human resources (Basu et al., 2000; Fosu, 1990; Santos-Paulino, 2000; and Giles and Williams, 2000) as well as creation of employment.

Though in practice evidence tends to support Export-Led Growth Hypothesis (ELGH) this may not be universal; rapid export growth has been the cause of East Asia's

remarkable record of high and sustained growth. Growth in the four Asian tigers (Hong Kong, South Korea, Singapore and Taiwan) and the Newly Industrialised Countries (such as Malaysia, Indonesia and Thailand) has been used to support the argument that carefully managed openness to trade through export growth is a mechanism for achieving rapid growth (Giles and Williams, 2000). The evidence of growth in these economies has provided impetus to the neoclassical economists' view that ELG strategy can lead to growth.

The subject of export growth can also be approached from the wider debate on openness and growth. In recent years and from cross-country growth differences, most of the countries pursuing growth successfully are also the ones that have taken most advantage of international trade (Martin, 2001; Masson, 2001). These countries have experienced high rates of economic growth in the context of rapidly expanding exports and imports. Global trend towards trade liberalization appears to have influenced Kenya to adopt an export-led growth strategy. Trade liberalization is crucial for developing countries in order to increase the volume of exports which facilitates investment in sectors in which a country has the greatest comparative advantage. Accessibility of foreign markets leads to a gain from economies of scale through enlargement of domestic markets due to the existence of international component. International competition mounts pressure on exporters to keep costs low, increase technical efficiency through learning-by-exporting effects.

For any economy to improve its economic performance, priority should be given to industrial performance (Pack; 1988, Singh; 2004). This view was widely supported early development economists who argued that import substitution policies and large

investments in industrial sectors would enable developing economies to benefit from technical progress and economies of scale (Meire and Seers, 1984).

In this era of economic integration and trade liberalization, exports have globally become an important subject of discussion. Many developed countries have recognized the opportunities arising from globalization and accordingly revamped their policies including improved competitiveness in order to promote manufacturing and industrial sectors. However, developing countries including Kenya need to become competitive in order to carve a niche in the world market and realise its long-term goal of becoming an industrialised nation in the year 2030 as stipulated in the Kenya Vision 2030. Kenya in the 1980s introduced Export Processing Zones (EPZs) and Manufacturing Under Bond (MUB) in order to promote labour intensive manufactured exports. There is therefore the need to increase production capacity and move away from processing of coffee and tea exports and at the same time encourage the production of non-traditional exports. Developing countries also need to undertake Structural adjustment programmes and export diversification to improve price competitiveness as a long term growth strategy (Kotan and Sayan, 2002). Increased trade diversification emanating from manufacturing exports can stabilize the economy because the earnings from manufactured exports can offer support for stable growth than primary products (Helleiner, 1995).

This study has attempted to examine factors that are likely to influence trends in Kenya's export performance and competitiveness from a macroeconomic perspective. In recent

years, Kenya's exports to the region have been mainly low technology manufactured products like food and beverages, cement, iron sheets, tobacco among others

1.2 Overview of Kenya's manufactured exports performance.

Since independence in 1963, Kenya has shown considerable progress in trade reforms advancing from import substitution strategy to export orientation (Ramesh and Boaz, 2007). Kenya was greatly motivated by export led growth policies of the Asian Tigers' economies. The manufacturing sector grew rapidly in 1980s to become the second source of employment after civil service. In 2008 the sector grew by 3.8% amidst challenges like the post election violence contributing to an average of 10% to the country's GDP (KNBS, 2009). The sector contributes to about 13% of Gross Domestic Product (GDP) of the country's total exports having fallen from 16% in 1975. The sector is rather slow in technological change, unable to attain economies of scale and also constrained by foreign exchange shortages.

In 1980s the Kenyan government established export compensation schemes and export promotion programmes which included Manufacturing Under Bond (MUB) and Export Processing Zones (EPZs) in order to promote mainly labour intensive manufactured exports. The MUB and the EPZs were aimed at using the abundant semi-skilled labour to produce labour intensive products like garments and footwear for overseas markets.

Kenya's manufactured exports have occupied a supreme position in the global market over the years, serving both local and international markets. The sector contributed to approximately 13% of GDP in 2004. The sector grew from 4.5% in 2004 to 5% in 2005 with the value of output in this sector rising by 12.8%. This good performance is partly

attributed to stable macroeconomic environment during the year, tax exemption on some imports for intermediate use. In 2008, the sector's growth rose by 3.8% being the lowest in the last years compared to growth of 6.5% in 2007 (KNBS, 2009). The sector grew at an annual average of 3.2% during the first Medium Term Plan period (2007-2011). In the same period, the sector's contribution to GDP averaged at 9.8 %.

The sector still accounts for 14% of GDP which represents a 1% increase since 2004. Contribution to the country's total exports has improved with its value standing at 37% of the total Kenya's exports and locally manufactured goods comprising 25% of Kenya's exports. Kenya over the years has relied heavily on export of agricultural primary products mainly coffee and tea which exposes the economy to high volatility and decline of commodity prices.

The sector employs about 254,000 people representing 13% of the economy's total employment (NESC, 2007). The sector has recorded an employment growth of 0.5% in 2009 however direct formal employment by EPZs declined marginally in the same year by 0.03%. Formal employment in the sector over the first Medium Term Period(MTP) grew by 5% from 264,800 in 2008 to 277,900 in 2012 while informal employment grew by 17% from 1.57 million in 2007 to 1.83 million in 2011. The informal sector created more additional jobs than formal sector with the private sector contributing the largest share of employment in manufacturing.

The sector has been faced by challenges such as low levels of productivity and high cost of production aggravated by high inflationary pressures, depreciation of the Kenya

shilling, post election crisis and stiff competition from cheap imports coming from Western countries.

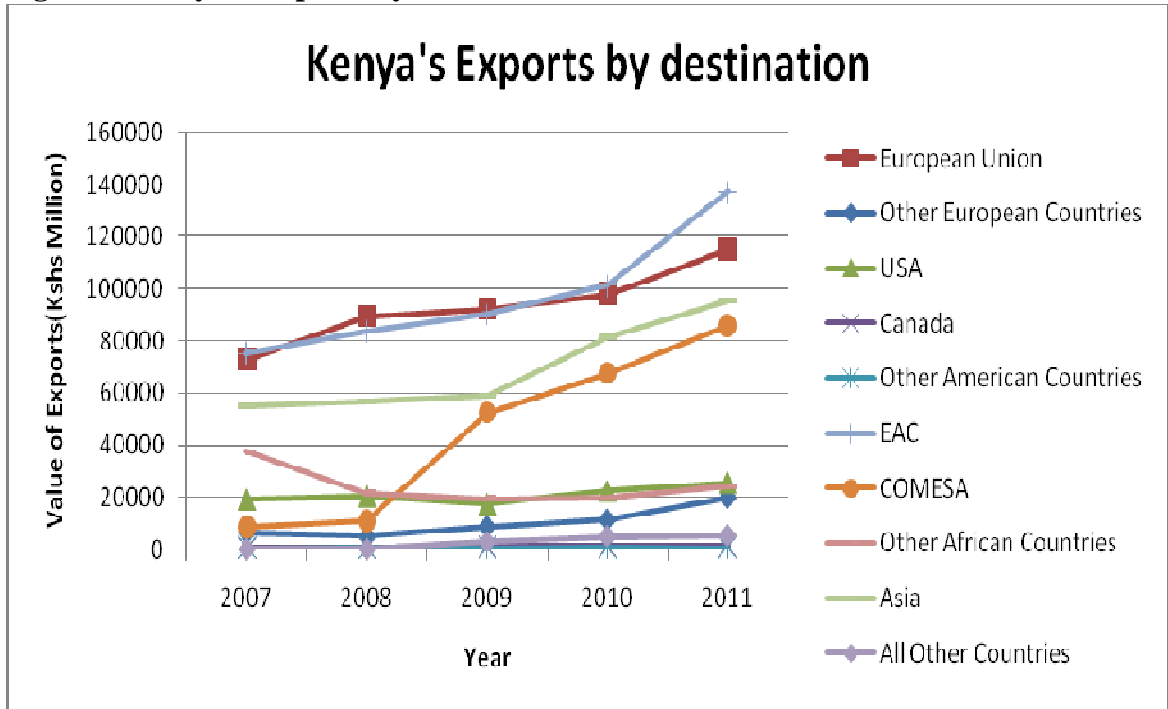
The expansion of the sector since 1980s has been hampered by shortages in hydroelectric power, poor transport infrastructure, high energy costs and dumping of cheap products in the country.

The export manufactured items suffer from poor product quality which makes them internationally uncompetitive except in regional markets (World Bank, 1993).

In Africa the EAC and COMESA remain the largest destinations for Kenya's manufactured exports. Kenya's value for exports to COMESA increased from Ksh. 112,971 million in 2009 to Ksh 135, 962 million in 2010 representing 20.35% increase. During the same period, the total value of exports to EAC increased by 12% accounting for 53.6% of the total exports to Africa. This can be attributed to Kenya's implementation of COMESA integration programmes and also the ratification of the East African Common Market Protocol in 2010. These exports to include beverages and tobacco, cement, iron sheets, petroleum products, sacks and bags, medication, tea and food products among others. In 2011, 88.4 % of Kenya's exports to European Union were agricultural products including tea, coffee, cut flowers, peas and beans.

Exports in Kenya decreased to Kshs 40,811 million in August 2013 from Kshs 41, 526.51 million in July 2013. Kenya's exports have averaged Kshs 23,510.35 million from 1998 to 2013, reaching an high of Kshs 48, 544 million in 2012 and a low of Kshs 9007 million in January 1999.

Figure 1: Kenya's Exports by destination



Source: Kenya National Bureau of Statistics, 2012

Figure 1 above shows that from mid 2009, Kenya's exports are increasingly going to EAC partner states away from European Union and COMESA meaning that EAC trade is increasing overtime. The value of Kenya's exports to EAC increased by 35.3% from Ksh 101,312 million to Ksh 137,156 million between 2010 and 2011, whereas the value increased by 17.3%, 27.1% and 16.9% to European Union, COMESA and Asia respectively during the same period. Kenya still has a greater potential for export growth and this calls for diversification of her exports and markets in order to compete in the exports market

1.2 Export growth and competitiveness of a nation

Competitiveness of a nation according to Classical was determined by labour units which was the only factor of production. Adam Smith's (1776) theory of absolute advantage explains why countries engage freely in international trade. Efficiency through specialization in production of goods and services in which a country has absolute cost advantage over other countries influences the competitiveness of a nation leading to export growth. Ricardo (1817) associated competitiveness with efficiency and adds that a country will have competitive advantage if it produces at a lower cost than the other country. Therefore a country will export goods it has greatest comparative advantage and import those with least comparative advantage.

Through competition a nation's product has the ability to command world market under the prevailing conditions leading to export growth (Adams, Cangnes and Sachmurove (2004). A country will gain competitiveness if it is able to export goods and services at a relatively lower price and therefore grab a larger export market share.

A country will be competitive by reducing its cost of production and prices of goods and services due to increase in productivity of an economy relative to other economies (Porter (1990).

Stanovnik (2000) looks at nation's competitiveness as the ability to achieve long term economic growth driven by export growth and economic structure that readily adapts to changes in world markets. Long-term economic competitiveness depends on human and natural resources, infrastructure, management, capital, government intervention and technological capacity of firms.

CAST (1995) sees domestic policies, trade openness, trade agreements, processed and differentiated products and technology as the contemporary issues that will influence manufactured products performance and competitiveness.

Competitiveness of a nation seems to imply the potential to achieve and maintain a high standard of living based on resource and labour productivity (Enright, Frances, Saavedra, 1996).

Export performance or competitiveness can be defined as the extent to which a country under free and open market conditions will produce goods and services that meet the test of foreign competition and at the same time maintain domestic real income of its people over the long-term (OECD 1992).

World Economic Forum (WEF) argues that export growth of a country leads to sustained high rates of growth in GDP per capita, while National Competitiveness Council (in USA) looks competitiveness as the ability to achieve success in markets leading to better standards of living for all.

Therefore a country may be termed as competitive if it is able to sell its products at a lower (or same) price and earn the same (or higher) return as its competitors. Variables like favourable Terms of Trade, exchange rate and productivity through the use of better technical skills and human resource development as also economies of scale are having greater influence in deciding the extent of competitiveness of export products in the globalised setting.

Export growth through increased competition can contribute to an understanding of the distribution of wealth, both nationally and internationally. When applied at national level

it relates to both national income and international trade performance particularly in relation to specific industrial sectors that are important in terms of employment or productivity and growth potential (UNCTAD, 2004a).

Kenya lacks export competitiveness and growth against main competitors especially in the region and this is mainly due to higher costs of doing business like energy costs, higher costs of trade logistics and lack of competitive supply chains. (EPC 2012)

1.4 Statement of the problem

With the current international economic integration; where there is free trade between members, common external tariffs, free movement of factors of production, common currency and common government, the world export patterns are changing fast as a result of reduction in trade barriers and technological advancements. Such increase in the international trade is leading the countries to get productive gains through the competitiveness of their products over other countries. Developing countries including Kenya have opened up their borders for trade and are enjoying notable increase in the volume of exports. Kenya's exports to EAC increased by 60% from Kshs 83.9 billion in 2008 to Kshs 134 billion in 2012 whereas exports to COMESA increased by 58% from Kshs 111.2 billion in 2008 to Kshs 175.73 billion in 2012, but little has been done to empirically establish their performance and competitiveness and if this translates to any meaningful growth. Growth of exports contributes positively to GDP, reduces balance of payment deficit and also earn foreign exchange needed to purchase imports. Manufactured goods exported from Kenya have responded differently in the world market and their levels of competitiveness have altered significantly. The need to establish the countries' export performance and competitiveness is imperative towards

guiding the country's in making their strategic investment plans towards sustainable growth.

1.5 Objectives of the study

The overall objective of the study is to investigate the factors that determine the export performance of Kenya's manufactured exports with the rest of the world. The specific objectives of the study are:

- 1) To determine factors that influence Kenya's exports performance and competitiveness at national level. Competitiveness and export performance will be measured by the value of exports because competitiveness of nation is often identified with the performance of its exports.
- 2) To offer possible policy recommendations based on the results of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical Literature

Proponents of free trade argue that it leads to economic gain and prosperity. Removal of trade barriers creates competitive pressures and opportunities for technological transfer leading to productivity gains and restructuring of the economy (Amita Batra and Zeba Khan, 2005). Trade benefits however come with increased specialization where a country produces according to its comparative advantage. Some literature argue that the growth of an economy may be reduced permanently by wrong specialization where a country does not produce according to its comparative advantage (Imre Ferto and Karoly Attila Soos, 2006)

International trade theory provides a useful framework in analyzing the concept of competitiveness of a nation; an important concept for explaining export performance hence pattern of trade. The potential to trade according to Heckscher- Ohlin (H-O) theory occurs when relative prices differ between countries. According to this theory, the pattern of specialization and trade depends on relative costs; therefore cost of production is an important determinant of export growth. Countries produce at lower costs will sell cheaper than economies where cost of production is high. Similarly, economies that produce at higher costs will sell at a high cost. Thus according to the model a country will export a product that uses low production cost where factors of production are abundant. Dornbusch, et al (1977) argues that multiple goods through export diversification increases trade. Goods or products differ across countries which determine

competitiveness. These traditional models focus on comparative costs or market participation of countries', subsidies distort costs and market shares.

The preceding new trade theories suggest that product differentiation, economies of scale, and domestic policies influences competitiveness hence export growth of an economy. The models assume that differences in countries are exogenously given which misses the dynamic developments from trade. Theories of international trade should include technical progress and dynamic gains that are endogenous to trade, because these gains are much more significant than any static gains Steedman (1991). Echevarria (2008) argues that in the long-run comparative advantage is mostly driven by total factor productivity which measures the output of an economy relative to the size of its primary factor inputs and this explains why most less developed countries are likely to export primary products because of lack of factor inputs in production process.

Krugman(1979) looks at geographical location, monopolistic competition, capital and labour migration, transport costs and differentiated products with increasing returns to scale as important determinants of trade. Location implication of increasing returns keeps an industry in a specific location, where it is difficult to be competed by industries of another country. Johnson and Robison (2005) have pioneered research showing export expansion in certain industries can redistribute economic and political power and strengthen institutional quality, yielding associated developmental gains. The model has become a workhorse of economic geography and international trade. Due to low transport costs, firms relocate to larger markets where cheap intermediaries are readily available leading to regional economies organized in an industrial core.

Technical progress is core to dynamic comparative advantage in reducing production costs thereby determining an economy's competitiveness. The distribution of technical progress is crucial in determining the pattern of international trade (Fisch and Speyer, 1997).

Vernon (1966) product life cycle theory suggests that trade liberalization leads to the geographical relocation of production where the product can even be imported by the original country of invention which is mostly a developed country. The model applies labour-saving and capital-using products that cater to high income groups. As production becomes standardized, production moves to developing countries at a lower cost and poor countries constitute the only markets for the product. This theory demonstrates that a country that has the comparative advantage in the production of a product changes from developed country to the developing countries.

Porter (1990) argues that in order to understand national competitiveness, it is important to know why some specific industries which are highly successful are located in the same region or even country. According to Porter high living standard is the main goal of nation and to achieve this goal a nation needs to productively employ its resources. Therefore Porter analysis of competitiveness focuses on productivity and aims at understanding why one country is able to capacity build to achieve high levels of national productivity overtime compared to other countries. The author focuses on national competitiveness at international level in trying to look at how countries compete with each other through their exports and location of activities abroad.

A major determinant of export performance of a country is related to the external market access conditions for its exports (Fugazza, 2004; UNCTAD, 2005). From literature, foreign market access and supply capacity conditions are equally important for the development of a country's external sector (Redding and Venables, 2003; Fugazza, 2004). Foreign market access leads to interventions by trading partners, and also the implementing country is able to provide its exportables with a price advantage (McCarthy, 2008). Trading partners influence the export performance of a country through their trade policies (tariff and non-tariff measures). In the world economy since 1950 there has been a massive liberalization of world trade, first through the General Agreement on Tariffs and Trade (GATT) and now under the World Trade Organization (WTO) (Thirlwall, 2000). Due to these and other trade negotiations, access to international markets has improved (Thirlwall, 2000; Fugazza, 2004; Clarke, 2005; Biggs, 2007). However, it is likely that there is still much to gain from further improvements in market access conditions (Fugazza, 2004).

Recently Redding and Venables (2004a) investigated the relative contribution of international linkages towards export performance. They find that of the evolution of external components can lead to differences in export performance of various countries and regions over the last three decades. Nevertheless, They also find that internal components related to supply capacity such as internal geography and institutional quality also have played a significant role in explaining the observed differential in export performance.

Domestic infrastructure is a major determinant of export performance in many developing countries especially in the initial stages of export sector development

(UNCTAD, 2005). Poor transport infrastructure characterizing most developing countries is a major obstacle to trade and competitiveness (Mbekeani, 2007; Bacchetta, 2007). Poor transport infrastructure leads to high transport costs leading to uncompetitive and expensive exports (Grater and Krugell, 2007) and this reduces foreign exchange from exports. Infrastructure development in developing countries can lead to improved export performance.

FDI is another factor affecting export supply capacity of a country. There is consensus among development economists that FDI plays an important role in explaining growth of recipient countries (Buckley et al 2002; Akinlo, 2004; Seetanah and Khadaroo, 2007). FDI increases capital stock which leads to efficient use of existing resources, create employment and increase productivity (Seetanah and Khadaroo, 2007). FDI in export promotion depends on the motive of such investment (WorldBank, 1993). If the motive is to capture domestic market then this may not contribute to export growth but if the motive is to tap export markets by taking advantage of a country's comparative advantage then FDI may contribute to export growth. Therefore whether FDI contributes to export growth or not, this depends on policy regime (Sharma, 2000).

Real Effective Exchange Rate (REER) also affects export supply hence determining export performance, diversification and international competitiveness of goods produced in an economy (UNCTAD, 2005). This factor requires close government supervision in order to expand and diversify exports (Biggs, 2007). This is because good management of REER can influence export performance over a large number of different products.

Therefore, trade liberalization, adoption of technology, institutional structures, resource endowment, national income influenced by resource endowment and organization of

production and the linkages between these features are important determinants of competitiveness.

2.2 Empirical Literature

Most empirical studies reveal that factors inhibiting exports diversification, performance and growth are similar to those explaining Africa's export uncompetitiveness in international trade and also slow growth. Movement in level of exports is explained policy related variables that include export and import taxes, trade taxes, and quantitative restrictions on trade and this varies from country to country.

Edwards and Alves (2006) conduct a comparative analysis of determinants of South Africa's export supply using 28 manufacturing sub-sectors over the period 1970-2002. They used pooled estimation model with export volume as the dependent variable and exchange rate, infrastructure costs, tariff rates and variable cost as the explanatory variables. The generalized method of moment results indicate that all explanatory variables used are important determinants of export performance.

Munoz (2006) on the study on the impact of parallel market and governance factors on Zimbabwe's export performance used data from 1984 Q1 – 2004 Q4. The study used merchandize export data figures to Zimbabwe's 10 most trading partners. Imperfect Substitutes Model proposed by Goldstein & Khan (1985) was used to analyze the data. The model used real exports of Zimbabwe to country i as an explanatory variable while it employs real & parallel exchange rates, Industrial production index of country i , as a proxy for foreign income and other qualitative variables to account for corruption,

bureaucracy quality, democratic accountability, economic risk, internal conflict, ethnic tensions, law and order, and investment profile. The results showed that elasticity with respect to parallel exchange rates was found to be -0.26, implying that a 1% increase in parallel exchange led to 0.26% decrease in real exports. Both elasticity coefficients were significant. Foreign income was found to be insignificant in affecting export demand. Among the qualitative variables incorporated ethnic tension was found to affect export performance significantly.

Morrison (1976) studies the effects of protectionism in manufactured exports of developing countries. The regression model has manufactured exports of between 1968-70 as the dependent variable and population, GDP tariff and literacy levels as the explanatory variables. The Ordinary Least Squares (OLS) indicate that protectionism reduce manufactured exports.

Mody and Yilmaz (2002) studies the relationship between export competitiveness and investment in machinery of 14 developed countries and 25 developing countries between 1967- 1990. They estimate a translog export price function; export oriented developing countries and import- substituting developing economies in panel data. World income, capital stock, wage rate and exchange rate are used as explanatory variables. The results indicate that competitiveness of exports is influenced by capital stock.

Mathee and Naude (2007) in their study to identify the determinants of regional manufactured exports from developing countries investigated the location of exporters of manufactured goods within a country. The study based insights from new trade theory,

the new economic geography (NEG) and gravity equation modeling. In their study, an empirical model is specified with agglomeration and increasing returns (home market effect) and transport costs (proxied by distance) as major determinants of location of exporters. Data from 354 magisterial districts (districts governed by local authorities) in South Africa are used with a variety of estimators (OLS, Tobit, RE-Tobit) and allowances for data shortcomings, to identify determinants of regional manufactured exports.

Findings of the study indicate that house market effect (measured by size of local gross domestic product) and distance (measured as the distance in kilometers to the nearest port) are significant determinants of regional manufactured exports.

Lundberg (1988) with special focus on the role of research and development attempts to explain changes in the industrial pattern of relative international competitiveness and specialization in the Swedish manufacturing industry during the period 1969- 1984. The OLS model is used to measure competitiveness with net export ratio as the dependent variable and human and physical capital intensity, and research and development variables as the explanatory variables. The results indicate that research and development and human and physical capital intensities influence competitiveness thus, evidence in support of Heckscher- Ohlin and technology gap models is obtained. Physical and human capital tends to be complementary to each other. However, research has shown that investments in human capital tend to yield high social rates of return, much higher than on ordinary commercial ventures, or on investments in physical capital.

Sharma (2001) investigated the impact of export prices on the demand for exports. The study's findings indicated that the demand for a country's exports increases when its export prices fall in relation to the world prices. The depreciation of its currency compared to other currencies particularly the dollar, makes its exports cheaper on the international market. The results found that the demand for Indian exports increased when its export prices fell. The author further stated that the appreciation of the Indian rupee at one time adversely affected Indian exports.

Helleiner G. K (1986) studies export competitiveness and industry characteristics from developing countries to developed countries (USA, Canada and other OECD member countries). Value of imports is used as the dependent variable while variables measuring factor intensities and tariffs are used as the explanatory variables. Evidence indicates that factor intensities, technical progress, labour cost and product differentiation influence competitiveness.

Dohlman, Schnepf, and Bolling (2003) examine export cost competitiveness of US, Brazilian, and Argentine soy bean producers using data from 1998/99 marketing years. They used variables like production costs, and shipping costs to common export destination. The study revealed that Brazil and Argentina maintained lower total production costs than US mainly due to higher imputed US land values.

Miano (2009) in a study investigated factors that determine tea export supply in Kenya by using time series data from 1970-2007: the author employed Simple linear model using Ordinary Least Squares (OLS). The variables under consideration were real exchange

rate, input prices, and prices of tea substitutes, weather patterns, wage rate and structural adjustment programmes. The findings of the study indicated that price of tea, real exchange rate, price of tea substitutes, input prices and weather patterns have a significant impact on tea export supply. Structural adjustment programmes and wage rate (input price variables) have little significance in explaining export supply of tea.

Srinivasan (1988) analysed India's exports over the period 1963-1994 using manufactured exports as the dependent variable and real exchange rate, global GDP as log-transformed explanatory variables. Global GDP was found to have a positive association with increasing exports of India.

Mulualem (200_) on his study of determinants of manufacturing performance in Ethiopia used Ordinary Least Squares (OLS) estimation method using annual data from 1970 – 2004. The results from the model reveal that Ethiopian manufacturing exports are positively & significantly influenced by investment to GDP ratio, total factor productivity and foreign income while real effective exchange rate was found to have insignificant influence on exports.

Fugazza (2004) seeking to find the major determinants of export performance, used quantile regression techniques to study the contribution of the external sector linkages of international markets relative to internal supply-side conditions. The author found that, while trade barriers continue to be of concern, poor supply-side conditions have often been the more important constraint on export performance in various regions, in particular in Africa and the Middle East, despite a generalized deepening of international

trade integration. Besides strong linkages to international markets, good transport infrastructures, macroeconomic soundness and good quality institutions appear to be major determinants in the development process of the external sector.

Taye (2006) employed gravity model with panel data using 30 Ethiopia's trading partners for the period between 1995-2007 to study the determinants of Ethiopia's export performance. The model was estimated with the Generalized Two Stages Least Squares (G2SLS) method. The findings of the study suggest that supply side conditions are a major factor for Ethiopia's export performance. The results also showed that good institutional quality and internal transport infrastructure appear to be major determinants, whereas the real exchange rate and FDI have no statistically significant effect on Ethiopia's export performance. In addition, the growth of domestic national income affects Ethiopian exports positively and foreign market access conditions also play a significant role. The results indicated that import barriers imposed by Ethiopia's trading partners do play an important role in determining the volume of Ethiopian exports.

Were et al (2002) used time series data for the periods between 1972- 1999 to study Kenya's export performance. They looked at factors that were likely to influence trends in Kenya's export from a macroeconomic point of view. They looked at three sub-sectors namely coffee, tea and other exports of goods and services and how they were likely to respond to macroeconomic policies. The study used real exchange rate, real foreign income of trading partners and total investment as a proportion of GDP as explanatory variables. The results showed that coffee exports were positively and

significantly affected by real exchange rate and investment positively influenced coffee export volumes. All the coefficients used in the tea model were found insignificant.

Musinguzi and Obwona (2000) studied the effect of exchange rate, terms of trade and lagged export growth on export growth. The study found that terms of trade had a marginal but statistically significant impact on export growth. Parimal (2006) also associated deteriorating terms of trade with contraction of export earnings. Parimal cited an example of Burundi which is dependent on coffee and tea like Kenya to an extent of 87%. When Burundi's coffee and tea prices fell by 37% and 20% respectively, its annual exports fell from \$154 million to 90 million

2.3 Overview of literature

From theoretical literature, export performance and competitiveness is influenced by different factor endowments and labour costs while from new trade theory, geographical location and innovation influence competitiveness Vernon (1966) and Krugman (1979).

Porter (1990) argues that role of government greatly determines competitiveness of nations. Therefore there is no consensus in theory on determinants of competitiveness.

Empirical literature exhibits various determinants of export performance and competitiveness that lead to conflicting results. Dohlman et al (2001) and Mody and Yilmaz (2002) include factor endowments and policy variables in their studies which support the static comparative advantage. Lundberg (1988) includes Research and Development and Human and Physical capital intensities which support Vernon (1966) product life –cycle model of dynamic comparative advantage.

Recent studies have included the effects road transport infrastructure, weather patterns and total factor productivity on export performance.

This study therefore examines the effects of FDI net inflows ,Trade openness and World GDP among others which are important measures of export performance and competitiveness of a developing country like Kenya especially in this era of international economic integration.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter will outline methodological approach that will be used in analyzing the factors that will determine the competitiveness or performance of Kenya's manufactured exports. This chapter will also describe data properties and sources, theoretical model and other statistical tests required.

3.1 Theoretical Framework

This section is primarily concerned with the theoretical presentation of the model, which can be used as a framework to test the important determinants of competitiveness of Kenya's manufactured exports. The Heckscher- Ohlin (H-O) framework a well known theory on comparative advantage. According to the H-O theory, a country should export those products using more factors with which the country is better endowed, in that it has comparative advantages in both production and exports. New trade theories additionally consider imperfect competition, economies of scale, and trade costs which have become important factors affecting export performance hence competitiveness.

Markusen and Vernables (1998) incorporated FDI into their general trade models due to the rapid globalization. Further more endogenous growth theories have emphasized the role of innovation, and as a result, technological characteristics of an industry are considered as a key factor to export performance. Products become more competitive in markets due to higher quality, thus improve export performance of the firm or industry.

Porter (1990) discussed the importance of FDI on developing nation's competitiveness and argues that this contributes to prosperity of a nation as well as providing employment opportunities and stimulating basic infrastructure development. As nations develop their own infrastructure and most importantly Research and Development capabilities, the internationally competitive sector ultimately create and improve the nation's competitive advantage across the globe.

Export performance and competitiveness are often regarded as synonymous since the competitiveness of a country is often identified with the performance of its exports, and given that no single theory could by itself account for export performance and competitiveness in developing countries (Liu and Shu, 2003), we construct an empirical model taking into account a number of factors.

This study will use an estimated export model first proposed by of Lakshmanan et al (2007), Arize et al (2000), and de Vita and Abbott (2004).specifically;

$$X = f(Y, P, V)$$

Where;

X = Export Value

Y = World GDP

P = Relative price as a measure of competitiveness

V = Measure of exchange rate volatility

Almarwani (2003) modifies the model by introducing exchange rates and revealed comparative advantage but ignores R&D and Human capital. This study modifies Almarwani (2003) model to incorporate world GDP, trade openness, FDI net inflows and

Terms of Trade which are important measures of export performance and competitiveness for a developing country.

$$X = f(\text{GDP, REER, TOT, OP, WGDP, FDI})$$

Where;

X = Export Value

GDP = Gross Domestic Product

REER = Real Effective Exchange Rate

TOT = Terms of Trade

WGDP = World GDP

OP = Trade Openness

FDI = FDI net inflows

Relative prices depicted by real effective exchange rate, are important determinants of export supply. This is because increase in relative export prices decrease demand for Kenya's exports while decrease results to increase demand. Though the impact of trade openness on export performance is mixed on the empirical evidence, theoretically trade openness is expected to have a positive impact on export performance. This because more openness results in less distorted prices & less protectionism which reduces anti-export bias and results in a strong supply response of the export sector.

Terms of trade was included to check whether Kenya exports move to reap the benefits of improved terms of trade for its products or export less when terms of trade increase just to achieve the target revenue. Foreign direct investment is expected to affect exports positively through various ways such as increased access to foreign capital, technological

transfer, better marketing knowledge & others. GDP affects exports positively through increased productivity brought about by specialization and other factors.

3.2 Empirical Model

The model is an additive model in order for the estimates of individual terms to explain how the dependent variables changes with changes with the corresponding independent variables.

Estimated export equations provide insights on the reliability of different competitive measures. We focus on manufacturing exports to illustrate the potential for improvements in competitiveness to provide a positive contribution to growth. This paper investigates determinants of Kenya's export performance and competitiveness and borrowing from Almarwani (2003) we augment the export model by including FDI netinflows, Terms of Trade and trade openness in the model.

$$X = \alpha + \beta_1 \text{GDP} + \beta_2 \text{REER} + \beta_3 \text{OP} + \beta_4 \text{WGDP} + \beta_5 \text{TOT} + \beta_6 \text{FDI netinflows} + e$$

3.2.1 Definition of Variables

Trade Openness

Openness of an economy can be related to its permissiveness towards cross border movement of goods, services and other factors of production. An increased openness implies higher trade flows and availability of wider range of goods and services to choose from, often at more competitive prices.

Trade openness is measured as the ratio of sum of exports and imports to GDP.

World GDP

This can be defined as the value of total final output of all goods and services produced in a single year in the world.

Terms of Trade

This refers to the relative price of exports in terms of imports and it can be defined as the ratio of export prices to import price.

Real Effective Exchange Rate

This is the weighted average of a country's currency relative to an index or basket of other major currencies adjusted for the effects of inflation.

FDI Net Inflows

These are the value of inward direct investment made by non-resident investors in the reporting economy.

GDP

According to World Bank, Gross Domestic Product is defined as the measure of total output of goods and services for final use occurring within the world.

3.2.2 Expected Signs

On the basis of conventional trade theory, world income will have a positive impact on export demand and supply and the appreciation of Real Effective Exchange Rate (REER) reduces export demand giving a negative sign (Srinivasan, 1998). Exports of normal goods are positively related to the GDP of importing countries as found by ERS (2003), Klitgaard and Orr (1998), so a positive sign is expected.

The role of FDI in most developing countries including Kenya is motivated by comparative advantage and this contributes to export growth. A positive sign is therefore expected.

An increased openness implies higher trade flows and availability of wider range of goods and services to choose from hence influences competitiveness and trade. The Trade openness coefficient is expected to have a positive sign.

A rise in the prices of exported goods in international market would increase the volume and hence growth of exports. If Terms of Trade are favourable then a positive sign is expected and vice versa.

3.3. Data Sources and Types

The study will adopt the annual time series data for the period 1980 – 2012 using secondary data. The study will estimate a time series model with exports as the dependent variable explained by factors such as Real Effective Exchange Rate, Trade openness and World GDP

among others. The data sources include the various issues of World Development Indicators, Trade Reports, various issues of KNBS and CBS.

3.3 Statistical properties of the Data.

3.3.1 Normality test

Normality test of variables is one of the major tests done because non-normality is a problem implying non-normality of residuals. The Jarque-Bera test is used to test for normality properties of variables which compares the skewness and kurtosis of the coefficient of variables. For normality the JB statistics should equal zero, the skewness should equal zero while kurtosis should equal zero. The results of the study found out that the skewness of FDI net inflows was zero and the skewness of other variables was close to zero meaning that data was normal. The results also revealed that the data was normal with kurtosis test revealing values of zero for all co-efficients of variables.

3.3.2 Stationary test

If the explanatory and dependent variables are stationary at level then one can proceed with the regression since the variables would have long-run relationship. However many empirical studies have found out that time series data for a number of variables are mostly non-stationary such as studies done by Stock and Watson (1988). Most of regression techniques based on time series data would lead to spurious regression (Granger and Newton, 1974). As proposed by Dickey and Fuller (1981), the Augmented Dickey Fuller (ADF) test is thus used for stationarity.

The hypothesis used to test the series would be:

Null hypothesis (H_0): series is non-stationary

Alternative hypothesis (H_A): series is stationary

If the ADF test statistic is greater than the Mckinnon's critical values then the series are stationary at the level, then reject the null hypothesis and the data is considered stationary (Gujarati, 2004). For non-stationarity the variable is transformed by differencing. Phillip-Perron test was used to test for stationarity of variables and was found out that all the variables except FDI net inflows had unit root but became stationary after first differencing.

3.3.3 Co integration test

Co integration refers to the long run relationship between variables. This relationship is lost after establishing stationarity thus co integration test is conducted by first using Ordinary Least Squares (OLS) to obtain residuals then non- stationarity test for residuals using hypothesis.

(H_0): Residuals have unit root

(H_A): Residuals are stationary

If the residuals are stationary implying a long run relationship between variables, then the null hypothesis is rejected. Non-Stationarity of residuals can lead to spurious results which was evident in the residuals and therefore cointegration method was done by estimating a long-run equation using OLS.

3.3.4 Post Estimation Diagnostics

To ascertain the fitness of the model and examine the structure of residuals in order to check for validity of inferences obtained, the following tests are conducted:

Ramsey Regression Error Specification Test (RESET) is done for model stability, residual normality test, the residual heteroscedasticity test and parameter stability tests are done.

RESET test was conducted and the results found out that the model had no omitted variables while Breusch-Pagan test for heteroskedasticity revealed that variables had constant variance.

CHAPTER FOUR

4.0 DATA ANALYSIS, ESTIMATIONS AND DISCUSSION OF RESULTS

4.1 Descriptive Statistics

STATA 10 software was used to carry out statistical analysis. Descriptive statistics of the variables used in the study are presented in Table 1. From Table 1, mean and median are very close and this implies that data does not suffer outlier problem.

Table 1 Descriptive Statistics

	Exports	TOT	GDP	FDInetinflows	WorldGDP	REER	Tradeopenness
Mean	3.74122	1.79435	9.35120	8.214432	3.11765	82.7552	60.28856
Median	3.63345	1.35678	9.02422	4.422307	3.00887	80.8295	54.118
Maximum	7.15342	2.56456	1.543245	7.296708	7.04113	109.9	120.281
Minimum	1.88672	7.10076	5.48345	394430.6	1.10513	60.311	37.137
Std.Dev.	1.52609	2.60410	2.80511	1.35408	1.692213	14.4768	20.94889
Skewness	0.126	0.748	0.166	0.000	0.059	0.750	0.008
Kurtosis	0.605	0.052	0.591	0.000	0.920	0.063	0.161
Probability	0.2417	0.1306	0.3030	0.000	0.1469	0.1467	0.204
Observations	31	31	31	31	31	31	31

From Table 1, the measure of skewness for most of the variables is close zero and this indicates that the distribution of the data set is normal. It is also clear that the standard deviation values are close to the mean, which implies that data values of the variables are also clustered around the mean hence the data set is normal.

4.2 Autocorrelation Test

The “Durbin- Watson test for autocorrelation” is a test statistic that usually indicates the likelihood that the regression error values have first- order autoregression component.

Regression models usually assume that error deviations are uncorrelated. If the deviations are autocorrelated then estimated regression coefficients of computed results may no longer have the property of minimum variance; the computed standard error of the estimated parameter values are likely to underestimate the true standard error; the Mean Square Error is likely to underestimate the variance of error terms. If values of Durbin- Watson statistic are less than 0.80 then there is likelihood of autocorrelation. In this case the Durbin- Watson statistic is 2.206963 indicating that no possible correlation between residual of the estimated equations and the dependent variable.

```
. estat durbinalt

Durbin's alternative test for autocorrelation
-----+-----
lags(p) |          chi2          df          Prob > chi2
-----+-----
      1 |          1.161           1          0.2812
-----+-----
                                H0: no serial correlation

. estat dwatson

Durbin-Watson d-statistic (9, 30) = 2.206963
```

4.3 Correlation Analysis

Correlation Matrix indicates the linear relationship between explanatory variables. The correlation coefficients lie between -1 and 1 and somewhat tell the percentage of relation between two variables.

Table 2: Correlation Matrix

	tot	gdp	fdinet~s	worldgdp	reer	tradeo~s	cons
tot	1.0000						
gdp	0.0002	1.0000					
fdinetinfl~s	-0.1047	0.1344	1.0000				
worldgdp	0.0016	-0.9777	-0.2150	1.0000			
reer	-0.5620	-0.1129	0.1260	-0.0207	1.0000		
tradeopenn~s	-0.1872	0.1043	-0.0029	-0.1415	0.0642	1.0000	
cons	0.4919	-0.7453	-0.1623	0.7877	-0.5295	-0.2867	1.000

From Table 2, it is clear that GDP is highly correlated with World GDP with a correlation coefficient of -0.9777 which is above 0.7 ignoring the direction. This problem of high correlation usually brings the issue of multicollinearity which can lead to unreliable estimates of regression coefficients, and to solve this, variables were differenced at level except GDP which was significant at 10% after first differencing. Table 3 shows the differenced variables aimed at solving the issue of multicollinearity.

Table 3: Correlation matrix after differencing

	Dltot	Dlgrp	Dlworl~p	Dltreer	Dltrads	fdinet~s	cons
Dltot	1.0000						
D2gdp	-0.4793	1.0000					
Dlworl~p	0.3014	-0.0386	1.0000				
Dltreer	-0.2753	0.4407	0.3853	1.0000			
Dltrads	0.0550	-0.2979	-0.0763	-0.5491	1.0000		
cons	0.0841	-0.2281	-0.5509	-0.5089	0.2052	0.0158	1.0000

From Table 3, after differencing all the problem of correlation between variables was solved with all correlation coefficients taking values of below 0.7 in any direction hence the problem of multicollinearity was solved.

4.4 Stationarity Analysis

Time series properties of the variables in the model were tested using Phillips-Perron test and one lag was chosen since annual data was used.

Table 4: Unit Root test results

Variable	Test statistic	1% critical value	5% critical value	10% critical value	Stationarity
Exports	1.222	-3.709	-2.983	-2.623	Non stationary
TOT	-1.704	-3.709	-2.983	-2.623	Non stationary
GDP	2.790	-3.709	-2.983	-2.623	Non Stationary
FDI netinflows	-4.578	-3.709	-2.983	-2.623	Stationary
World GDP	2.931	-3.709	-2.983	-2.623	Non Stationary
REER	-1.285	-3.709	-2.983	-2.623	Non stationary
Tradeopenness	-2.439	-3.709	-2.983	-2.623	Non stationary

Table 5: Unit Root test results after differencing

Variable	Test statistic	1% Critical Value	5% critical value	10% critical value	Stationarity
Exports	-5.928	-3.716	-2.986	-2.624	Stationary
TOT	-6.415	-3.716	-2.986	-2.624	Stationary
GDP	-6.497	-3.723	-2.989	-2.625	Stationary
World GDP	-3.471	-3.716	-2.986	-2.624	Stationary
REER	-4.450	-3.716	-2.986	-2.624	Stationary
Tradeopenness	-5.847	-3.716	-2.986	-2.624	Stationary

After taking first differences, all variables became stationary meaning that there was no unit root and therefore a meaningful or valid inference could be made. GDP was stationary at 5% after second differencing.

4.5 Error Correction models

Persistence of non- stationarity of time series data may result to a spurious regression where the R-Squared is usually very high. There is therefore need to apply cointegration method to avoid such spurious results where explanatory variables used may not really explain changes in the dependent variable hence the results may lack validity. This was done by estimating a long-run equation using OLS.

Table 6: OLS Regression for 1(1) variables

Source	SS	df	MS			
Model	2.363218	6	3.938717	Number of obs	= 30	
Residual	1.096608	23	4.767716	F(6, 23)	= 8.26	
Total	3.459826	29	1.193179	Prob > F	= 0.0001	
				R-squared	= 0.6831	
				Adj R-squared	= 0.6004	
				Root MSE	= 2.21708	

Dlexports	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
Dltot	-.0071091	.0027546	-2.58	0.017	-.0128073	-.0014108
D2gdp	.0038014	.0020812	1.83	0.081	-.0005038	.0081066
Dlworldgdp	.0001075	.0000262	4.11	0.000	.0000533	.0001616
Dltreer	1.48707	1.07657	1.38	0.180	-7360496	3.705607
Dltradeope~s	8.09049	2932137	2.76	0.011	2024461	1.420786
fdinetinfl~s	-.3762082	.3670106	-1.03	0.316	-1.135428	.3830111
cons	2.674507	6.20543	-0.43	0.671	-1.55908	1.025408

We look at the long-run cointegrating relationship to observe the short-run dynamics by using the residual from the long-run equation. The ECM is based on stationary data (differenced form) and this includes the lagged residuals of the long-run equation. In the ECM, the one period lagged residual for annual data acts as the error correction term. The results of the error correction model in this case are presented in Table 7

Table 7: Error Correction Models

```
reg D1exports D1tot D2gdp D1worldgdp D1reer D1tradeopenness fdinetinflows L1
> D1exports L1resid
```

Source	SS	df	MS			
Model	2.834018	8	3.542517	Number of obsm = 30		
Residual	6.258217	21	2.980116	F(8, 21) = 11.89		
Total	3.459818	29	1.193017	Prob > F = 0.0000		
D1exports				R-squared = 0.8191		
D1tot				Adj R-squared = 0.7502		
D1gdp				Root MSE = 1.7068		
D1worldgdp						
D1reer						
D1tradeope~s						
fdinetinfl~s						
L1D1exports						
L1resid						
cons						

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
D1tot	-.0082261	.0025633	-3.21	0.004	-.0135567	-.0028955
D1gdp	.0034614	.001826	1.90	0.072	-.000336	.0072587
D1worldgdp	.0001315	.0000222	5.93	0.000	.0000854	.0001777
D1reer	2.115467	8874126	2.37	0.027	2607937	3.95e+07
D1tradeope~s	8.125167	2324575	3.50	0.002	3290949	1.30e+07
fdinetinfl~s	-.4466636	.2919906	-1.53	0.141	-1.053891	.1605641
L1D1exports	.142458	.1360745	1.05	0.307	-.1405244	.4254405
L1resid	-.8357184	.2214973	-3.77	0.001	-1.296347	-.3750895
cons	9.512347	5.40407	-1.76	0.093	-2.076708	1.728076

Table 7 presents better estimates that can be used to explain changes in the dependent variable resulting from changes in explanatory variables.

4.6 Estimation Results

Estimation results based on Error Correction Model are summarized in Table 8

Table 8: Estimation Results

Variable	Error Correction Model
Constant	9.512347(-1.76)***
D1tot	-0.0082261(-3.21)*
D1gdp	0.0034614(1.90)**
D1Worldgdp	0.0001315(5.93)*
D1reer	2.115467(2.37)*
D1tradeopenness	8.125167(3.50)*
Fdinetinflows	-0.4466636(-1.53)
L1res	-0.8357184(-3.77)*
R ²	0.8191
Adjusted R Squared	0.7502
F	11.89
N	30

significant at 1%, **significant at 5% and *significant at 10%; Figures in brackets represent the t-statistics at different levels of significance.*

From Table 10 all the variables employed in the model are statistically significant determinants of export performance and competitiveness in Kenya except FDI net inflows.

4.6.1 General Model

The preferred model after estimation is given by

$$D1X = \alpha + \beta_1 D1TOT + \beta_2 D1GDP + \beta_3 D1WorldGDP + \beta_4 D1REER + \beta_5 D1TOT + \beta_6 D1FDInetinflows - \beta_7 L1res$$

Where $L1res$ is the error- correction term derived from the long-run cointegrating relationship and $D1$ represents first differences of the variables. The estimated coefficient (β_7) measures the long-run equilibrium relationship between explanatory and dependent variables while β_1 to β_6 measures the short-run casual relationship. The model is therefore represented as;

$$D1X = 9.512347 - 0.0082261D1TOT + 0.0034614D1GDP + 0.0001315WorldGDP + 2.11REER - 0.4466636FDInetInflows + 8.125167Tradeopenness + \beta_7L1res$$

4.7 Discussion of results

The regression results show that all variables except TOT, $FDInetInflows$ and REER have expected signs. From Table 8, 75.02% of the changes in the value of Kenya's exports are explained by Terms of Trade, Kenya's Gross Domestic Product, World Gross Domestic Product, Tradeopenness, Real Effective Exchange Rate and FDI net inflows, while factors not included in the model account for 24.98%. This means other variables affecting export performance not captured in the model have been captured by the error-correction term. The probability of the F-statistic is significant and this implies that the model was well specified.

TOT is a significant determinant of Kenya's exports. The negative relationship between TOT and Kenya's exports was unexpected. The results indicate that holding other things constant, a unit increase in TOT leads to 0.0082261 units decrease in the value of Kenya's exports. This can be explained by the fact that even when Kenya's export prices are low, the volume may be increasing but does not translate to export growth. This has been the case of Kenya's exports to the East African Community where the volume has

been increasing but no meaningful growth has been recorded. Deteriorating terms of trade can be associated with contraction of export earnings.

Kenya's GDP is a significant determinant of Kenya's exports, and the findings show that holding other things constant, a one shilling increase in GDP leads to 0.0034614 shillings in the value of Kenya's exports. This low contribution of GDP to exports can be explained by the fact that a greater share of Kenya's revenue goes mostly to security and defence sectors and less is channeled to export promotion activities.

The study shows that World GDP is a statistically significant determinant of Kenya's exports. From the results, holding other factors constant, a one shilling increase in World GDP leads to 0.0034614 shillings increase in Kenya's exports. This could mean that even with increases in World GDP, Kenya could be exporting less or similar products to the destination countries like the European Union, COMESA and also the EAC reaping less earnings, which do not translate to growth of exports. This could also mean that Kenya's exports are not competitive in the world market.

The results shows that Real Effective Exchange Rate is a statistically significant determinant of Kenya's export performance although the sign was unexpected. From the results, holding other factors constant, appreciation of the Kenya shilling leads to an increase in the value of the exports.

FDI net inflows is a statistically insignificant determinant of Kenya's export performance and the sign was unexpected. From the results a one shilling increase in FDI net inflows

leads to 0.4466636 shillings decrease in the value of Kenya's exports. This means that FDI net inflows to Kenya are mostly directed to infrastructure development and other projects which have no effect on exports and less or nothing is directed towards promotion of exports. World Bank (1993) notes that the role of FDI in export promotion depends crucially on the motive for such investment .Political instability and unpredictable macroeconomic environment could be the cause of lack of FDI inflow from other countries.

The study showed that Trade openness is a statistically significant determinant of Kenya's exports. This means that a one unit increase in trade openness leads to 8.125167 units in Kenya's exports. Increased openness implies higher trade flows and availability of wider range of goods and services to choose from, often at more competitive prices. Trade openness is a crucial determinant of Kenya's exports meaning that permissiveness towards cross border movement of goods, services and other factors of production boosts trade hence export growth and competitiveness. The signing of the EAC common market protocol has been a big boost to Kenya's exports where there is free movement of capital ,labour, goods and services.

CHAPTER FIVE

CONCLUSION AND POLICY RECOMMENDATIONS

5.1 Conclusion

This paper examined major determinants of export performance of Kenya's manufactured exports using time series annual data from 1980-2011. The study used Exports value as the dependent variable and Terms of Trade, FDI net inflows, Real Effective Exchange Rate, Trade openness, GDP, and World GDP as dependent variables. Through Error Correction Model, GDP, World GDP, REER, Terms of Trade and Trade openness were found to be statistically significant determinants of Kenya's exports. An empirical analysis suggested that examined variables presented a unit root and this led to a cointegration test analysis leading to a long-run equilibrium analysis between variables.

Export performance of successful economies has been driven mostly by supply capacity although this has limited effect on developing countries including Kenya. Political instability, weak and poor institutional and macroeconomic environment and poor infrastructure have led to poor export performance because mostly investors shy away from investing in Kenya.

5.2 Policy Recommendations

The goal of Kenya's Vision 2030 is to transform Kenya into a newly industrialized middle income economy by 2030, providing quality life to all its citizens. If this is to be realized there is need for the government to encourage and boost production of manufactured exports by protection and nurturing of infant industries that dying due to import of cheap imports. The government also needs to establish special economic zones

in partnership with private investors to support increased manufacturing, competition and export diversification.

There is need for the government to ensure political stability, ensure national security by dealing with the current terror threats and ensure stable and conducive macroeconomic stability in order to attract FDI inflows. In early stages of development for any country, macroeconomic stability is crucial for export performance and growth.

The Kenyan government needs to import intermediate input goods other than finished capital goods as this creates employment and also helps reduce balance of payment deficit. Employment creation creates market for locally produced goods and increased production and this eventually leads to export performance and growth.

Kenya should move away from concentration in production of primary products like coffee and tea whose prices are ever fluctuating in the world market. These primary products are always subject to external shocks because their prices are determined by economic situation of developed countries which are the main importers of Kenya's primary exports. This has frequently led to unfavourable terms of trade that lead to poor export performance as the findings suggest. There is need for the government to develop and implement policies that lead to export diversification and also widen export base. There is also need for a supply boost in the manufacturing sector through incentives also subsidizing cost of production of manufactures.

There is need for increased trade openness which implies higher trade flows and availability of wide range of products for consumers to choose from. This is evident from the positive influence of trade openness on export performance. The signing up of the EAC common market protocol which allows for free movement of capital and labour, goods and services is a positive move towards increased trade where Kenya is one of the biggest beneficiaries. Kenya should look into removal of existing restrictions with regard to free movement of factors and also carry out special sensitization programmes in order to give the citizens a picture of what they expect.

Lastly, Policy makers should create an enabling environment to maintain and sustain a stable exchange rate system that is not subject to external shocks. This can only be achieved through independence of the Central Bank especially the monetary policy committee. Appreciation of the exchange rate leads to reduction in export performance as goods cannot compete well in the world market.

There are other factors that determine export performance in Kenya which have not been captured in this study mostly due to data limitations; the study therefore recommends further in-depth study on determinants of export performance and competitiveness. Also a closer look and detailed investigation into each sectors is very important if export promotion and diversification schemes are to be successful.

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Appendix 1; Data used

year	TOT(Kshs)	GDP(Kshs)	FDI, net inflows(Kshs)	Exports (Kshs)	World GDP (USD)	REER(%)	Trade openness(Ratio)
1980	3995050822	5.48112E+11	78973745.62	1965981315	1.10279E+13	63.527	52.962
1981	7463437027	5.68795E+11	14147557.18	1883663101	1.13179E+13	69.218	47.422
1982	33401358230	5.77364E+11	13000894.96	1943569146	1.12069E+13	75.531	41.735
1983	39942851325	5.84922E+11	23738842.68	1899165589	1.14497E+13	76.605	39.221
1984	35847405239	5.95188E+11	10753527.42	1915775399	1.1884E+13	79.872	41.791
1985	48692480324	6.20785E+11	28845949.04	2044468201	1.24803E+13	82.854	40.281
1986	45676234814	6.65342E+11	32725776.79	2244250986	1.47674E+13	73.324	39.888
1987	40965868460	7.04844E+11	39381344.2	2250075493	1.67739E+13	67.761	37.137
1988	38313430419	7.48567E+11	394430.6394	2353742849	1.87618E+13	65.333	38.152
1989	47881408131	7.83677E+11	62189917.27	2575184826	1.96881E+13	66.762	41.619
1990	70992131292	8.16529E+11	57081096.18	3155642293	2.20007E+13	60.524	44.706
1991	56599668784	8.28274E+11	18830976.84	3116443143	2.30831E+13	61.394	43.547
1992	53159564697	8.21652E+11	6363133.145	3092148529	2.46801E+13	60.311	42.043
1993	38180804112	8.24554E+11	145655517.1	4066812135	2.50191E+13	78.731	120.281
1994	14245959464	8.46262E+11	7432412.602	4019817448	2.6868E+13	79.931	108.929
1995	17595478320	8.83551E+11	42289248.46	3711849439	2.98103E+13	75.22	80.742
1996	35838544458	9.2019E+11	108672931.6	3881070175	3.04141E+13	76.586	77.882
1997	7543951983	9.2456E+11	62096809.78	3467907708	3.03326E+13	81.728	86.618
1998	5795751031	9.5498E+11	26548245.97	3298523006	3.02187E+13	86.82	91.182
1999	1417019386	9.76996E+11	51953455.95	3604633268	3.13369E+13	85.763	51.874
2000	20297397107	9.82855E+11	110904550.4	3645545259	3.23467E+13	89.321	54.377
2001	15080822901	1.02001E+12	5302622.939	3777054079	3.2158E+13	93.893	53.859
2002	11170090733	1.02558E+12	27618447.06	4045791682	3.34083E+13	101.31	52.797
2003	12735410732	1.05566E+12	81738242.64	4337576876	3.75892E+13	94.083	59.473
2004	12332890359	1.10954E+12	46063931.45	4883892023	4.23018E+13	90.997	64.469
2005	4729913353	1.17508E+12	21211685.4	5341992261	4.57407E+13	93.132	62.73
2006	5971353950	1.24947E+12	50674725.18	5505690549	4.95631E+13	98.00	62.863
2007	17837495803	1.33685E+12	729044146	5871701065	5.59066E+13	100.0	68.433
2008	10020669590	1.35726E+12	95585680.23	6294391212	6.1378E+13	104.89	61.068
2009	25588657138	1.39439E+12	116257609	5708388582	5.81321E+13	109.9	69.961
2010	18303837091	1.4753E+12	178064606.8	6702689195	6.35084E+13	106.1	77.087
2011	14806347060	1.53991E+12	335249880.3	7146548236	7.04416E+13	98.746	74.105